

Chapter 1

Review of the Eighth Plan

1. Background

The process of planned economic development has commenced in Nepal since 1956 with the inception of the First Five-year Plan (1956-1961). Eight periodic plans have been implemented so far. Some progress has been made towards laying socio-economic infrastructure, which has supplemented national development over a little more than four decades; however, achievements of these plans do not measure up to the expectation. No substantial progress has registered in the agriculture sector, upon which the majority of people mainly rely for subsistence. Only a limited number of industries have been established. Internal savings have remained low. External assistance has not been utilised gainfully. Foreign trade has recorded increasing deficit. Unemployment and economic inequality have not been able to reduce. As a consequence, the problem of poverty still remains unresolved.

Poverty still persists as a formidable challenge as population growth has not been able to bring down and the increase in the income of the people has remained minimal. Against the backdrop of 42 percent of the population living below the absolute poverty line, it is highly essential to promote investment and employment and render sustainable and dynamic economic development in order to increase the income of the poor within a certain time span.

2. Review of the Eighth Plan

The Eighth Plan, which was implemented following the restoration of multi-party system, set the objectives of attaining sustainable economic growth, alleviating poverty and reducing regional disparity. For the attainment of those objectives, it was underlined in the Plan to allocate the limited economic, human and institutional resources in a priority order given below:

- Agricultural intensification and diversification
- Energy development
- Rural infrastructure development
- Employment generation and human resource development
- Control in population growth
- Industrial development and tourism promotion
- Export promotion and diversification
- Macro-economic stabilisation

- Reforms in development administration
- Monitoring and evaluation

The development approaches to the Eighth Plan were as follows:

- To lead development through the market-oriented, open and liberalised economy,
- To effectively implement the decentralisation policy through the devolution of power to the local bodies,
- To create a condition whereby all the people could enjoy the fruit of development through enhancing regional development with rural development,
- To confine the role of the public sector mainly to the creation of physical infrastructure and rendering basic social services in the rural areas,
- In order to mobilise the private sector and the NGOs in the development activities to the greatest extent possible:
 - administrative procedure would be simplified and made clear,
 - administrative decision would be made prompt,
 - Government policies would be made more liberal, simplified and clearer,
 - defined policies would be effectively implemented, and
- On the basis of their experiences and comparative advantage, the INGOs would be encouraged to operate in regions where they could function more effectively.

Attempts were made during the Eighth Plan period to encourage private sector participation and investment and to confine the role of the government more to developing socio-economic infrastructure. Thus attempts were made to make the role of the government limited but effective by gradually replacing the command economy by open market system. During the Plan period, efforts were made to create an environment conducive to liberal and market-oriented economic system. Preparations were made to introduce value-added tax (VAT). Privatisation of public enterprises was initiated. Protections, which the public enterprises were enjoying in various areas, were removed to encourage private sector participation. Subsidy was controlled. Exchange rate was left to determine by market forces; and commercial banks and financial institutions were encouraged to establish.

The Eighth Plan envisaged transforming the village into a centre of development and attempted to channel a big chunk of public investment towards its upliftment. In this context, power was devolved to the local bodies and various policies and programmes

were executed to transfer resources to the local bodies. All these were carried out to implement the decentralisation policy effectively. Thus, a policy of inter-weaving the concept of regional development with that of village development and decentralisation policy was being adopted. Likewise, new programmes directed towards alleviating poverty and reducing regional disparity were initiated. An Agriculture Perspective Plan (APP) was prepared, which gave a clear direction to national development programmes. A basis was worked out in regards to land reform to put an end to dual land-ownership. Potential areas were identified for the development of irrigation and energy. Likewise, new programmes were initiated to uplift the deprived and the down trodden class and special programmes were started for the homeless, *kamaiya* (bonded labour), the old and the helpless.

Status of Economic Progress:

Gross Domestic Product

The Eighth Plan had set a target of attaining an average economic growth of 5.1 percent per annum. To attain this growth rate, the value added had to grow by 4.8 percent per annum on an average. Similarly, agricultural growth rate had to be 3.7 percent and non-agricultural growth rate had to be 6.1 percent. Based upon the estimated population growth by 2.1 percent during the Plan period, the per capita income was estimated to grow annually by 3 percent on an average.

As per the plan target, gross domestic product (at producer's prices) increased by 5.1 percentage point and the same (at factor cost) was estimated to have increased by 4.9 percentage point. Average agricultural growth rate stood at 3 percent while non - agricultural growth rate remained 6.3 percent during the plan period. (Table 3).

The progress made in the agriculture, irrigation and forest; industry, geology and mines; power, public works, trade, hotel and restaurants sectors fell below the set growth target. However, the progress in transport and communication, finance and real estate and social services exceeded growth targets (Table 3). In the fiscal year 1992/93 and 1994/95 - the first and third year of the Plan, inclement weather and resultant flood and landslides caused great destruction in men and materials, which had adverse impact upon the agriculture sector. In addition, the internal situation that transpired within the country has caused a set back in the growth of industrial production. Beside this, as Arun Third Project failed to take off, the power sector did not record expectant progress, which rendered its contribution to GDP quite low. Likewise, no improvement could be made on the existing international air service. The garbage problem within the Kathmandu Valley defied solution. As a result, the trade, hotel and restaurant sector recorded low growth rate.

In the financial sector, progress exceeded the target due to the establishment of numerous new commercial banks, financial institutions and insurance companies following the adoption and execution of open market and liberal economic policies. Likewise, the transport and communication and the social services sector registered

high progress in comparison to the target owing to expanded investment during the Eighth Plan.

Despite growing private investment in the industrial sector, the average annual growth rate remained a low of 6.8 percent due to load shedding and political instability during the Plan period. Although some foreign investment was attracted to the industrial sector during the period, more effort was felt as needed for the same. Following the policy of reducing public investment in the industrial sector, some public enterprises were privatised. While some industries had record high production after privatisation, the government losses scaled down.

Changes were seen in the economic structure due to various growth rates recorded in different sectors. Contribution of the agriculture sector to GDP which stood at 44.89 percent in the fiscal year 1991/92 came down to 41.02 percent in the final year of the Plan. The transport and communication sector recorded a high increase in its contribution to GDP, which rose from 6.89 percent in 1991/92 to 8.03 percent in 1996/97 (Table 4).

Savings and Investment

Based upon the incremental capital output ratio (ICOR), it was estimated that an investment of Rs 170,332 million (at constant price of 1991/92) was needed to achieve the growth target set in the Eighth Plan. Of this, 35.9 percent (Rs 61,139 million) was to be invested by the government and 64.1 percent (Rs 109,193 million) was to come from the private sector. For the capital investment from the government side, an outlay of Rs 113,479 million was estimated as the development allocation.

During the period, gross fixed capital formation reached Rs 188,892 million at 1991/92 prices. Investment in the first year was Rs 35,918 million, which reached Rs 48,359 million in the final year. In the gross capital formation, the share of the private sector stood at Rs 128,624 million and public investment constituted Rs 60,267 million. (Table 6).

In the year 1991/92, the base year of the Plan, total investment constituted 21.2 percent of the gross domestic product, which reached 25.1 percent in the final year of the Plan. Likewise national savings rose from 13 percent to 14.8 percent of the gross domestic product. In 1991/92, total national savings formed 61.4 percent of the total investment. The same increased to 68.3 percent in 1991/92 and decreased to 59.1 percent in 1996/97 (Table 7).

Thus, as against the estimation of 15 percent, national savings remained 14.8 percent of total gross domestic product.

Status of Public Finance:

Financial Resource Mobilisation

Internal resource mobilisation plays a significant role in bearing public expenditure, increasing investment rate and maximising the utilisation of foreign assistance.

Keeping this in mind, the Eighth Plan had set a target of raising revenue up to 13.4 percent of the GDP. For this purpose, the Plan adopted a series of policies which aimed at bringing required changes in tax system: making a tax guided by a single objective rather than multiple; introducing value added tax; evolving a tax system for the agriculture sector; bringing uniformity in custom duties; gradually removing excise duty; making income tax simple and comprehensive; enhancing land revenue as a local resource; making property tax systematic; and rendering the revenue administration more capable and efficient. As regards to foreign assistance, the Plan laid emphasis on its maximum utilisation and stated that external loan would be taken only for directly productive programmes and that for the rest grant would be sought.

As against the target of making the revenue administration capable and efficient as a first step, formation of the revenue group was completed during the Plan period. To bring about a desired change in the tax structure, attempts were made to bring about uniformity in country-wise import duties and reduce number of import rates to a mere five, including a special rate. Sale taxes were fixed at only 10 and 20 percent and excise duty was limited only on production of alcohol, cigarettes, and tobacco. To introduce value added tax, the number of commodities, which had to pay sales tax at two levels, was increased. Besides this, Acts were enacted, preliminary administrative arrangements were made and various activities, including raising public awareness about the tax, were carried out.

As per the policy of developing land revenue as a local resource, a system of allocating 55 percent to District Development committee (DDC), 40 percent to Village Development Committee (VDC) and depositing 5 percent in the government of the total revenue collected was introduced. The budget for the fiscal year 1995/96 provided 75 percent of the total land revenue and land tax to be allocated to municipality and VDC and 25 percent to DDC. Steps were taken to make income tax simple and comprehensive. Attempt was made to increase the number of income tax payers. A system of self-assessment of income and pre-tax collection was put in place. Despite formulation of policies to systematic property tax, various practical obstacles came in its enforcement. As such, this tax was revoked and a policy of effectively executing house and land tax in its place was adopted.

Regarding evolving and introducing tax system in the agriculture sector, various rates of land revenue were fixed for lands which had not been surveyed and tea estates and urban land area were imposed. Yet substantial amount of revenue could not be mobilised. During the Plan period, prioritisation and classification of projects into the core and non-core projects were carried out, and execution of three-year rolling plan was initiated.

Public Finance

It was estimated that during the Eighth Plan period the regular and development expenditure at the constant prices of 1991/92 would be Rs 53,759 million and Rs 113,479 million, respectively.

Regular Expenditure

During the Plan period, the regular expenditure at constant prices of 1991/92 stood at Rs 68,339.6 million, which exceeded the target. In the first year of the Plan the expenditure reached Rs 10,553.3 million which decreased by 0.85 percent in the second year and came to Rs 10,463.1 million. But in the third year the expenditure rose by 44.21 percent and reached Rs 15,088.6 million. The main reason for this expected rise in the regular expenditure had been the transfer, from the development head to regular head, of Rs 352 million (at the current prices) and Rs 2,718 million (at the constant prices), which were of regular nature. In the final year of the Plan, the regular expenditure stood at Rs 16,614.6 million (Table 8).

Development Expenditure

It was estimated that during the Plan period, the development expenditure (at constant prices) would reach Rs 113,479 million, which turned out to be Rs 111,824.4 million (at current prices) and Rs 87,080.3 million (at constant prices) which was 76.74 percent of the target (Table 9).

Development expenditure (at constant prices) rose by 8.04 percent and reached Rs 17,840.1 million in the first year; increased by 0.14 percent and reached Rs 17,865.3 million in the second year; and decreased by 13.22 percent and came down to Rs 15,403.5 million in the third year. The main reason for a decrease in the development expenditure in the third year of the Plan had been the transfer of Rs 2,718 million (at constant prices) from development head to regular head; and holding of election and consequent political instability, etc. In the fourth year of the Plan, the development expenditure grew by 16.73 percent, which came down by 1.78 percent and remained Rs 17,774.9 million in the fifth year.

As against the target of development expenditure of 29.6 percent in economic services sector, 31.6 percent in social services sector and 39.6 percent in physical infrastructure sector in the Eighth Plan, the actual expenditures were found to be 30.94 percent, 33.29 percent, 34.37 percent, respectively. In this way, it was found that the expenditure was less against target in physical infrastructure while it was high in economic services and the social services sectors. (Table 10)

Sources of Development Expenditure:

The total development expenditure of the plan period was envisaged to be Rs 113,479 million at 1991/92 prices and was expected to be borne from the following four sources: (a) revenue surplus (b) internal loan (c) foreign grant, and (d) foreign loan.

Revenue

Against the target of mobilising revenue by 13.4 percent of GDP during the plan period, it stood at 8.97 percent in 1992/93, and reached 9.83 percent in the second year, 11.09 percent in the third year, 11.00 percent in the fourth year and 10.94 percent in the final year.

Revenue collection in the first year of the plan was Rs 15,148.4 million (at current prices) which reached Rs 19,580.8 million, Rs 24,605.1 million, Rs 27,893.1 million and Rs 31,214.1 million respectively in the second, third, fourth and final year respectively. At 1991/92 prices, revenue collection figures from first to final year of the plan were Rs 13,920.6 million, Rs 16,509.9 million, 19,270.9 million, Rs 20,206.5 million and 20978.6 million in the first, second, third, fourth and final years of plan, respectively.

As against the target of increasing revenue mobilisation by an annual average of 9.7 percent at 1991/92 prices, the annual growth rate reached 9.20 percent. In the first year of the Plan, revenue growth rate unexpectedly went down to 3.02 percent. It increased to 18.60 percent in the second year, 16.72 percent in the third year, 4.86 percent in the fourth year and decreased to 3.82 percent in the final year. Revenue growth rate was decreased in the first year due to low import tariff rates imposed on various commodities. Although the revenue growth rate was good enough in the second and third years, it was very low in the fourth and final years of the Plan.

During the Plan period, highest revenue was collected from import duty, sales tax and income tax while lowest revenue was collected from land revenue and export duty. However, from the view point of annual average growth rates, the income tax, import duty and sales tax had high growth rates. The trend of revenue mobilisation from land tax was decreasing while revenue from excise duty had decreased in the initial years though increased in the final year. Property tax could not be raised as expected. Due to administrative and other difficulties, this tax system was removed in 1995/96 and policy was adopted to mobilise house and land taxes.

Non-tax revenue had increased by 3.12 percent on an annual average reaching the amount to Rs 4240.4 million from Rs 3637.1 million at 1991/92 prices. In non-tax revenue high growth rates have been observed on miscellaneous, principal and interest and government properties, and sales of services and commodities. (Table 14)

It was observed that during the plan period the contribution of tax and non-tax revenue in total revenue collection was 78.68 percent and 21.32 percent respectively. In accordance with the objective of imposing value added tax (VAT) during the plan period and removing excise duty, number of commodities levying excise duty had been gradually decreased. Consequently, it was observed that the contribution of exercise duty on revenue had been decreased while the contribution of sales tax had been increased. The contribution of income tax, which had an important role in direct tax, had been increasing every year. Its contribution in total revenue was 6.33 percent in 1991/92 while it reached to 12.69 percent in the final year of the plan.

The proportion of direct tax in total revenue was 11.8 percent in 1991/92, while it increased to 15.7 percent in the third year and reached to 16.1 percent in the final year of the plan. Likewise, the proportion of indirect tax in total revenue was 61.3 percent in 1991/92, while it increased to 64.3 percent in the third year and remained at 63.69 percent in the final year of the plan. The contribution on non-tax revenue in total revenue was 26.92 percent in 1991/92, it was decreased to 20.1 percent in the third

year and reached to 20.21 percent in the final year. Thus, the increasing contribution of direct tax in total revenue showed a positive change in tax structure (Table 15).

Budget Deficit and Deficit Financing:

Budget deficit was Rs 11,261.5 million in the base year of the Eighth Plan. However, it remained at Rs 10,987.3 million in the first year, Rs 9,800.2 million in the second year, Rs 8,315.7 million in the third year, Rs 10,014.7 million in the fourth year and Rs 10,003.3 million in the final year of the Plan. Thus, it was observed that there was a gradual decrease in budget deficit in the first three years of the plan. Though there was some increase in the final two years, it was lowered down in comparison to the base year.

The figure of deficit financing was Rs 4,444.8 million in the base year of the Plan. However, it remained Rs 4,627.0 million (at constant prices) in the first year, Rs 2,073.7 million in the second year, Rs 2,533.8 million in the third year, Rs 3,158.7 million in the fourth year and Rs 2,961.0 million in the final year of the plan. Against the target of keeping deficit financing to 0.9 percent of GDP, it remained at 2.94 percent in the first year, 1.23 percent in the second year, 1.48 percent in the third year, 1.77 percent in the fourth year and 1.58 percent in the final year of the Plan. Thus, it could be observed that though the proportion of deficit financing in GDP was gradually decreasing, the set target of the plan was not achieved.

The proportion of deficit financing in internal resources was 55.20 percent in 1991/92. However, it remained at 57.88 percent in the first year, 25.53 percent in the second year, 38.17 percent in the third year, 40.78 percent in the fourth year and 40.42 percent in the final year of the plan. (Table 18).

Foreign Assistance:

Though it was estimated that the total amount of foreign assistance during the Eighth Plan period would reach to Rs 74355 million at 1991/92 prices, it reached to Rs 49203 million, which is only 66.2 percent of the target. It was estimated that the amount of foreign grants and foreign loans (at constant prices) would be Rs 19761 million and Rs 54594 million respectively. It reached to Rs 15491 million and Rs 33712 million respectively (Table 17).

The total development expenditure of the plan period (at 1991/92 prices) was Rs 87080.3 million, of which Rs 37823 million (43.4 %) was borne through internal sources and Rs 49203 million (56.5%) was borne through external sources. Amongst the internal sources, Rs 22998 million (26.4%) and Rs 15354 million (17.6%) were borne through revenue surplus and other internal sources, respectively. As against the target of limiting internal loan (including cash reserves) to 7 percent of development expenditure, it reached to 17.6 percent (Table 17).

The proportion of foreign assistance in total development expenditure during the plan period was estimated to be 65.5 percent, which remained at 55.19 percent in the first year, 54.55 percent in the second, 56.83 percent in the third, 57.20 in the fourth and 58.79 percent in the final year. Likewise, the proportion of foreign loan in total foreign assistance remained at 64.60 percent in the first, 79.29 percent in the second, 65.00 percent in the third, 66.23 percent in the fourth and 67.39 percent in the final year of the plan (Table 20).

During the plan period, foreign assistance could not be mobilised as per the target and the proportion of foreign loan in total foreign assistance decreased in comparison to the base year although it increased to some extent from that of the beginning year of the Plan. Thus, as against the target of mobilising 65.5 percent foreign assistance, it remained at 56.5 percent. Consequently, the mobilisation of internal loan and cash in reserve was increased.

Monetary and Credit Situation:

Monetary and Credit Policy

The main objectives of banking and credit policy in the Eighth Plan were to mobilise internal resources, to maintain internal and external balance through ensuring monetization ratio as per the demand of economy, to create healthy and competitive monetary environment, and to disburse credit in prioritised sectors such as agriculture, cottage and small industries.

During the plan period, policy was adopted to regularise the monetary and banking sector through indirect measures without interfering directly in accordance with the concept of liberal and market oriented economic system. Likewise, policy was adopted to encourage the commercial banks and financial institutions to run on a competitive basis and let them determine interest rate and other conditions on their own. Policy to limit the credit from the banking sector was adopted by the government with the objective of reducing the budget deficit and channeling more credit to the private sector.

Policy was adopted that commercial banks would compulsorily invest 12 percent of their total credit to the priority sectors as direct intervention. Otherwise, they had to deposit their un-invested amount in the Nepal Rastra Bank as interest free investment. Financial feasibility was considered to be the main basis for expanding the branches. It was also mentioned in the Eighth Plan that rural banks would be gradually established in order to smooth disbursement of credit in rural areas and to minimise government interference in credit disbursement.

In the beginning of the Eighth Plan, there was a compulsory provision of maintaining 12 percent of the total deposit as cash in reserve and investing 24 percent of total deposit in treasury bills of the government or Nepal Rastra Bank. The compulsion of investing 24 percent of total deposit in treasury bills of government or Nepal Rastra Bank was decreased to 22 percent in 1992/93. This provision was removed in

1993/94. This system enhanced the credit disbursement capacity of the commercial banks and had a positive effect on credit disbursement to the private sector. Status quo was maintained in the provision of keeping 12 percent of total deposit as cash in reserve. In the absence of such compulsory provisions, financial programmes of the government and buying and selling of treasury bills of Nepal Rastra Bank became main indirect instrument to control the liquidity. For instance, in 1992/93, in order to absorb liquidity the government reduced the budget deficit through controlling expenditure and mobilising revenue, and Nepal Rastra Bank issued treasury bills of additional Rs 1.71 billion.

With the view of mobilising internal resources and providing more competitive services in the financial sector, establishment of financial institutions was encouraged. As a result, 11 commercial banks including Himalayan Bank, Nepal S.B.I. Bank, Nepal Bangladesh Bank, Everest Bank, Bank of Kathmandu and Nepal Bank of Ceylon were established and involved in banking transactions during the plan period. As regards the financial companies, more than 40 such companies were involved in transactions. Moreover, some cooperatives and non-governmental organisations also started limited banking transactions.

With the increased number of financial institutions and the authority delegated to determine interest rates, there was some decrease in interest rates on deposit but substantial decrease was not realised in interest rates on credit. As a result, the spread rate between savings and credit could not be narrowed down. The main reason for such a situation was observed as the lack of expected improvement in professional efficiency and financial status of government-owned commercial banks. Other joint venture banks also did not make efforts to minimise this gap. In the process of improving financial position of the commercial banks, second phase of commercial banking policy and strategic study (CBPASS) was started in 1992/93.

Some branches of Nepal Bank and Rastriya Banijya Bank were closed according to the policy of opening up and closing down of branches of these commercial banks on the basis of financial viability. Most of the branches situated in urban areas were also closed. With the objective of smooth credit disbursement in rural areas, rural development banks were established in two development regions, Eastern and Far Western, in 1992/93. Additional two Rural Development Banks were operationalised in Western and Mid Western Development Regions in 1994/95 and after that one rural development bank was established in Central Development Region as well.

Monetary Situation

There would be an adverse impact on balance of payments and price situations if there was excessive liquidity in the economy while development would be hindered with the lack of required liquidity. Realising this contradictory situation, it was targeted to keep the growth of money supply at annual rate of 12.1 percent during the plan period. Through this, it was expected that inflation would be maintained at 9 percent annually. But, it was observed that the average growth rate of money supply was 14.6

percent during the plan period. Money supply was increased by 22.5 percent in the first, 19.6 percent in the second, 15.7 percent in the third, 10.6 percent the fourth and 5.4 percent in the final year of the plan. (Table 21). The main factor for the growth of money supply in the initial years was the credit to the private sector. In the context of the credit to the government was the main factor for the expansion of money supply, the credit to the private sector indicated that the use of indirect instruments for controlling money supply had not been effective and increasing role of the private sector.

In comparison to the mid-July 1992, money supply (M_1) increased by Rs4375.3 million in the corresponding period of 1993, Rs 4,677.4 million in 1994 as compared to the same period of the previous year, Rs 4475.0 million as of mid-July 1995, Rs 3512.6 million as of mid-July 1996 and Rs 1962.3 million in the corresponding period of the previous year (Table 22).

Domestic Credit

The annual growth rate of domestic credit, the main expansionary factor of money supply, remained at 18.74 percent in the first, 17.05 percent in the second, 24.83 percent in the third, 22.75 percent in the fourth and 13.02 percent in final year. Minimal role had been played by the credit to the government and public enterprises in the growth of domestic credit. In the first year, credit to government and public enterprises had increased by 16.85 percent while it increased only by 0.10 percent in the second year. It increased by 7.09 percent in the third year, 12.99 percent in the fourth year and only by 5.65 percent in the final year. The growth in domestic credit was resulted mainly due to credit to the private sector. It was observed that the credit to the private sector had increased by 20.81 percent in the first, 35.11 percent in the second, 38.83 percent in the third, 28.69 percent in the fourth and 16.97 percent in the final year of the plan.

Thus, it was observed that the growth rate of credit to the government and public enterprises had decreased, while credit to the private sector had increased in the initial years, and slightly decreased from the fourth year. In the initial years, increased credit disbursement indicated that the private sector had growing confidence on the policies adopted in the process of strengthening it in accordance with the concept of liberalised economic system. However, it was observed that the growth in economic activities of private sector had decreased in the final years of the plan.

Net Foreign Assets

The growth rate of net foreign assets, another expansionary factor of money supply, was 40.07 percent in the first and 24.35 percent in the second year. It was limited to 1.74 percent in the third, 1.67 percent in the fourth and 6.60 percent in the final year of the plan. Decrease in export had been observed as the main factor for lowering down the growth rate of net foreign assets.

Time Deposit

One of the contractionary factors of money supply was the growth rate of time deposits (fixed and savings). It remained at 31.57 percent in the first, 19.65 percent in the second, 16.31 percent in the third, 17.00 percent in the fourth and 16.21 percent in the final year of the plan. Though the growth rate of time deposits was high in the first year of the plan, it decreased in the remaining years, for which growing attraction towards monetary markets and low interest rates had been observed as the main reasons.

Net Unclassified Liabilities

Net unclassified liabilities, another contractionary factor of money supply, had increased by 20.4 percent on an average in the first two years, by 16.55 percent in the third, by 18.98 percent in the fourth and by 8.79 percent in the final year of the plan.

Deposit and Credit Situation

The sources of funds and their use by commercial banks had increased by 27.40 percent in the first, 24.63 percent in the second, 14.19 percent in the third, 19.95 percent in the fourth and 16.73 percent in the final year of the plan. In the first year of the plan, the growth rate of total resources had been observed high because of average high growth rate in fixed deposit and other deposits as well as high growth rate in resources of commercial banks. In the initial years, growth rate of resources of the commercial banks had been observed low due to decreased growth rate in fixed deposits.

The main source of the commercial banks, total deposit, had increased by 19.60 percent during the plan period. Although the total deposit had increased by 30.65 percent in the first year, there was a gradual decrease from the second year. Total deposit had increased by 19.85 percent in the second, 16.97 percent in the third, 16.65 percent in the fourth and 14.51 percent in the final year of the plan. There was some decrease in the growth rate of fixed deposits in the second and third years of the Plan. This was due to decreased interest rates offered by the banks, establishment of finance companies and attraction of fixed depositors towards such companies since they offered more interest rates on deposits of long-term nature (not possible to draw immediately) and growing tendency to invest in share markets. However, there was some increase in fixed deposits of commercial banks from the fourth year of the Plan although there was slackness in share markets.

As regards the use of resources by the commercial banks, cash in hand and cash in reserve had increased by average 23.43 percent during the plan period. Amongst the subtitles under cash in hand and cash in reserve, it was observed that in all other subtitles, except in foreign exchange, growth rate was high. Particularly, the average growth rate of balance with Nepal Rastra Bank (including the investment on treasury bills of Nepal Rastra Bank) was 23.30 percent. This growth rate was highly increased by 139.02 percent in the first year, and decreased by 22.52 percent and 15.51 percent in the third and fourth years respectively. Likewise, the growth rate of balance held abroad and cash in hand grew by an average of 26.31 percent and 19.86 percent

respectively. As regards the annual average growth rate of foreign exchange, it remained at 8.64 percent only.

The average growth rate of total credit and investment during the plan period remained at 19.58 percent. There was some decrease in credit disbursed to the His Majesty's Government and the public enterprises. Credit disbursed to the government and public enterprises during the plan period had decreased by average 3.39 percent and 1.74 percent respectively. But credit disbursed to the private sector had increased by average 27.91 percent. As regards the foreign bills purchase, it increased by an average of 10.58 percent only. Thus, it was observed that the sectoral composition of the credit disbursement of the commercial banks had moved to the positive direction. Credit disbursed to His Majesty' Government and the public enterprises had been decreasing, while credit disbursed to the private sector had been increasing. (Table 23).

When analysing credit by objective, highest percent of credit 39.32 percent was disbursed in trade, 29.86 percent in industry, 25.38 percent in consumption, 2.95 percent in services and 2.48 percent in agriculture from the existing credit disbursed by commercial banks as of mid-July 1992. Of the total credit disbursed by commercial banks as of the end of the Eighth Plan (mid-July 1997), 42.32 percent was disbursed in industry, 37.07 percent in trade, 14.33 percent in consumption, 4.00 percent in services and 1.82 percent in agriculture. (Table 24).

Many branches were opened as per the policy of providing services of one bank to 30 thousand population during the plan period; therefore, run-in loss banks had to bear additional financial liability. In the above context, policy was adopted to open the branches on the basis of financial viability and merging the branches located very near to each other with the objective of improving financial status of the banks and make them competitive.

Price Situation:

Price Policy

Price has an important role to play in an open, liberal and market oriented economy. If the rate of price rise is high, currency is devalued and purchasing power decreases, and if the price remains constant or falls, investors will be unenthusiastic. So, price rise at some percentage point is desirable in the process of economic development. From this viewpoint, it was targeted to limit the rate of price rise at 9 percent on annual average during the plan period.

Various steps, such as artificial control of price, control in internal flow of goods and services, separate price fixation on goods imported from different countries through custom rates, providing subsidies to enterprises, and monopoly affecting the competition were not appropriate in the context of open and market-oriented economy. Such steps would create unnecessary fluctuation in price and lead towards inappropriate allocation of resources. Keeping these facts into consideration, the

Eighth Plan had adopted the policy of decontrolling the internal flow of goods and services. Likewise, policy was adopted for allowing the private sector to import goods on competitive basis, which used to be imported by public enterprises only.

Efforts were made to bring uniformity in custom rates, on one hand, and custom rates were reduced in order to promote competitions by removing protectionism, on the other. Efforts were also initiated to remove subsidies. In the context of competitive environment created through avoiding monopoly of public enterprises, financial institutions and airline services established in the private sector contributed to the increase in the economic activities. Even in essential commodities like foodstuff, Nepal Food Corporation had adopted the policy of stabilising the price by controlling supply through its stocks, but not by controlling the price. Thus, according to the policy of affecting the price level through supply and market instead of directly controlling it, private sector's role in various economic activities had been increasing.

Price Situation

During the Eighth Plan period National Urban Consumer's Price Index increased by 8.8 percent in 1992/93, by 9.0 percent in 1993/94, by 7.6 percent in 1994/95, by 8.1 percent in 1995/96 and by 7.8 percent in 1996/97. Thus, the average annual growth rate of price was maintained at 8.3 percent, which was less by 0.7 percent than the target set by the plan.

After the adoption of open economic system by the country, signs of positive improvements appeared in the economy and accordingly, positive impacts were observed in price situation also. The main reasons for decreased price level could be attributed to control in government expenditure, stability in exchange rate and improvement in supply situation, and so forth.

As regards to the classification of consumption goods, less price increase was observed in food items. During the plan period, the rates of price increase on food and non-food items were 7.9 percent and 8.9 percent respectively. In the first year of the plan, the increase on many non-food items was observed in double digit while it was limited in single digit in the remaining years. But, it was observed that the price of many food items had increased in the remaining years in comparison to the first year of the plan. Price was increased particularly on pulses, sugar, fish and meat, milk and milk products, beverages, restaurant meals, vegetables and fruits etc.

Foreign Trade and Balance of Payments Situation:

Foreign Trade

In accordance with the policy to consider foreign trade as an inseparable medium of economic development but not as a medium of supplying necessary goods only, the Eighth Plan stressed on the overall adjustment of policies and programmes for development of commercial sector along with productive sectors of the economy.

Accordingly, emphasis was put on the adjustment of commercial sector with the tax policy, customs policy, policy regarding professional organisations in the public sector and privatisation policy in order to make foreign trade open, transparent and simplified.

For the promotion of export and for providing facilities to the exporters, Nepalese currency was made full convertible in current account during the Plan period. In order to increase the export of Nepalese industrial products in Indian markets, simple provision of export on preferential treatment on the basis of certificate of origin of product was made after the amendment in Nepal-India Trade Treaty. For importing necessary raw materials and machinery equipment at a cheaper price from India for Nepalese industries, provision was made for allowing import of such commodities in convertible foreign currencies.

In an effort to run the activities for the promotion of foreign trade and increasing the exports effectively, various activities, such as production of woollen carpets, quality enhancement and import management of raw wool and increasing the export of Nepali woollen carpets, had been undertaken. In order to promote the increased export of high quality carpets from the Kingdom of Nepal, policies of enhancing the quality in the production of woollen carpets, allowing to import quality raw wool necessary for producing woollen carpets, prohibiting import to low quality wool, were adopted. In order to systematise the export of readymade garments, which occupied the second main position in Nepal's exports, and to increase its export, transparency was maintained in quota fixation and distribution system for readymade garments by strengthening Readymade Garments Exports Promotion Committee. For simplifying export system of gold and silver jewelry for increasing the export of jewelry and handicrafts made of gold and silver, provision was made to supply gold and silver to exporters at a cheaper price by importing gold and silver from international markets through the Nepal Rastra Bank.

Foreign Trade Situation

The Eighth Plan had set a target to increase export by 19.1 percent and import by 11.7 percent on an annual average. On the basis of the anticipated growth rates in exports and imports, trade deficit was expected to be 13.5 percent of the GDP by the final year of the Plan. The average growth rate of trade deficit was expected to be 4.1 percent. In order to achieve the targeted annual growth rate of export, annual targets of some principal commodities to be exported were estimated during the Eighth Plan. Accordingly, export of woollen carpets was estimated to increase by 23.0 percent, readymade garments by 5.4 percent, pulses by 1.0 percent, hides and skins by 13.7 percent and handicrafts (including gold and silver jewelry) by 19.5 percent.

At 1991/92 constant prices, total export increased by 15.77 percent in the first and by 2.52 percent in the second, declined by 15.08 percent in the third, and increased by only 4.25 percent and 4.91 percent respectively, in the fourth and final years of the Plan. This decrease in export was caused, mainly due to the decline in the export to the third countries. In comparison to 1993/94, export of principal exportable

commodities, such as woollen carpets, readymade garments and pulses had decreased in 1994/95, while export of hides and skins and handicrafts had increased.

Although the total export and the export to the third countries decreased, export to India increased by 20.47 percent in 1994/95 in comparison to 1993/94. But export to India in the first year of the Plan increased by 2.78 percent only. The main reasons for increased export to India in the third year of the Plan were the improvement in export process after the renewal of trade and transit treaty between the two countries, and the decline in the proportion of raw materials and labour used for producing exportable commodities. Even with the revaluation of Nepalese currency by 1.79 percent in July 1992 and by 3.03 percent in March 1993, export to India increased in these years. It indicated the possibilities of exporting Nepalese commodities with value added to India on a competitive basis in the absence of non-tariff barriers.

As far as the matter of exportable commodities to India was concerned, there was no uniformity in their export intensity. Fluctuation in annual export of various exportable commodities could be observed clearly. This fluctuation showed that none of the commodities had got stability in the export to India. Regarding the export to the third countries, since fluctuation in the export of some principal commodities affected the quantity of total exports, it pointed to the fact that Nepal's export trade was dependent only on some commodities.

It was observed that the export target by commodities set in the Eighth Plan had not been achieved clearly due to annual fluctuations in exports. The export of woollen carpets was found increased by 4.73 percent on an annual average, while export of readymade garments was increased by 12.81 percent on an annual average. Although there was some increase in the export of pulses to India, it was decreased in total by 14.32 percent on annual average. As regards to the hides and skins, its exports had increased by 8.01 percent on annual average. It was observed that the export of handicrafts had decreased by 6.08 percent on annual average during the Eighth Plan period. Thus, export to other countries could rise only by 6.80 percent on average (Table 29).

As regards the import, total import at 1991/92 constant prices increased by 15.10 percent on annual average. In the first year of the Plan, total import had increased by 12.80 percent, while the growth rate of import remained at 20.69 percent in the second year, 14.70 percent in the third year, 8.15 percent in the fourth year and 19.63 percent in the final year. Import growth rate from India stood at 2.49 percent in the first year of the Plan, while it increased by 24.63 percent in the second year. Likewise, it had increased by 6.96 percent and 15.05 percent in third and fourth years respectively, while it had declined by 1.73 percent in the final year. Import from third countries had increased by 18.40 percent in the first, by 18.84 percent in the second, by 18.52 percent in the third, by 5.07 percent in the fourth and by 30.04 percent in the final year of the Plan.

Thus, that the growth rate of import was not decreasing and the growth rate of export was declining caused the increased growth rate of trade deficit. During the Plan period, trade deficit at 1991/92 constant prices increased by 22.07 percent on annual average. Trade deficit had increased by 10.57 percent in the first, by 34.99 percent in the second, by 32.50 percent in the third, by 9.64 percent in the fourth and by 24.99 percent in the final year of the Plan. Thus, trade deficit at current prices reached to Rs 73,525 million in the final year of the Plan, which was 26.43 percent of the GDP. This figure of trade deficit was very high as compared to the earlier estimation that it would be 13.5 percent of GDP by the end of the Plan. At current prices, export was increased by 10.40 percent only while import was increased by 24.62 percent on annual average during the Plan period (Table 26).

Balance of Payments Situation

In the first year of the Plan, balance of payments situation of the country was remarkably favourable. In 1992/93, balance of payments surplus at current prices was Rs 7,742 million and stood at Rs 6,283.3 million in the second year, while balance of payments deficit reached to Rs 313.9 million in the third year of the Plan. In the fourth year, the deficit further increased to 1,050.1 million, while there was a balance of payments surplus of Rs 3,214.3 million in the final year of the Plan. In comparison to 1992/93, trade deficit increased by 47.05 percent in 1993/94 and by 42.54 percent in 1994/95. Likewise, this deficit stood at 18.67 percent in 1995/96 and 34.67 percent in 1996/97. During the Plan period, service income (net) and transfer income (net) had increased by 58.84 percent and 28.64 percent respectively, which contributed to minimise the growth of current account deficit, to some extent. It was observed that the current account deficit had increased by 13.67 percent during the Plan period. Current account deficit was declined by 1.01 percent in the first and by 19.50 percent in the second year while it increased by 46.83 percent in the third and by 82.78 percent in the fourth year of the Plan. But it declined by 11.26 percent reaching the amount of current account deficit to Rs 19,116.1 million in the final year of the Plan. The main reason for current account deficit was the trade deficit caused by rapid increase in import in comparison to exports. (Table 30)

The growth in foreign loan flow and the flow of other capital and unclassified amount (net) played prime role to minimise the current account deficit. But the growth rate of other capitals and unclassified amount (net) was negative in the second, third and final years of the Plan.

Foreign Currency Reserves

Soon after the country had adopted the open and liberal economic policy, some changes were introduced also in foreign exchange system. In this context, foreign exchange was made fully convertible in 1992 and single exchange system was introduced removing the dual exchange system in foreign exchange. Nepalese nationals were also provided the facility to open bank accounts on foreign exchange.

In comparison to July 1992, foreign cash reserves increased by 38.18 percent amounting to Rs 33,510.4 million in July 1993. In the total cash reserves, the amount of convertible foreign exchange reached to Rs 30,767.2 million from Rs 23,145.8 in that year. In comparison to 1993, total foreign cash reserves increased by 25.38 percent totaling Rs 42,015.7 million in July 1994, of which the proportion of convertible foreign currency was Rs 38,137 million. Total foreign cash reserve increased merely by 2.54 percent in July 1995 amounting to Rs 43,084.9 million. In this year, convertible foreign currency reserves declined by 5.25 percent reaching Rs 36,136.7 million. But inconvertible foreign exchange increased by 79.14 percent reaching Rs 6,948.2 million. Total foreign cash reserves increased by 3.14 percent totaling Rs 44,438.3 million in July 1996, while it reached to Rs 48,541.4 million increasing by 9.23 percent during the same period of 1997. The total foreign cash reserve in July 1992 had sustained the imports of 9.1 months while the sustaining capacity of foreign cash reserve in July 1993 was for 6 months of imports (Table 31).

In the beginning year of the Eighth Plan, the exchange rate of one US dollar was Rs 42.80 while it reached Rs 57.30 by the final year of the Plan due to the devaluation of Nepalese currency by 33.88 percent.

It was observed that the implementation of financial reform programmes during the Eighth Plan was helpful for maintaining macroeconomic stability as well as for creating positive impacts in non-agricultural sectors. But, dependency on monsoon for agricultural production had not improved yet. Although there was a positive progress in price, revenue, etc., in the Plan period, development expenditure targets could not be achieved due to the low mobilisation of foreign aid. There were some negative impacts on the economy due to the increasing deficit financing and widening trade deficit. No substantial changes in the living standard of rural people were observed due to the low growth in agriculture. In addition, mainly due to political instability, financial management aspects remained weak towards the end of the Plan.

The economic policies without proper strategies based on clear priority and resource allocation have been unable to increase national productivity and maintain high economic growth rates as well as improve the living standard of poor community. Therefore, the formulation of concrete policies and their implementation for achieving higher economic growth and alleviating poverty have become today's main necessity and challenge. Also, to ensure effectiveness in the policy measures introduced in development policies and the infrastructure developed during the Eighth Plan, priority should be given to the related implementation strategies in the above line as well as to legal and institutional infrastructures by putting special emphasis on integrated development of agriculture.

3. Status of Physical Progress

Agriculture, Irrigation and Forestry:

[Agriculture](#)

During the Plan period, only 3.0 percent of growth in agricultural production was achieved as against the set target of the Eighth Plan to increase agricultural production by 3.7 percent. The target to increase food crops production by 400,000 MT on annual average was not achieved. Crop-wise production of millet, barley and cereal crops was more than the set targets. On the cash crop side, tea (including the private sector) and sugarcane productions met the target. Although there was some progress in production of other crops except tobacco, the overall target was not achieved. The productions of minor crops such as coffee and mushroom were much lower than that of the set targets. On the horticulture sector, production of vegetable met the target whereas potato production was somewhat lower. Reassessing the statistics of horticulture products, it was observed that the production was not so discouraging while evaluating the growth rate in relation to the decreased base year data. Fish and meat production had achieved the target, whereas milk, eggs and wool productions were somewhat lower.

The productivity of all crops in the last year of the Plan was lower than the target. The productivity of rice, the main contributor of food crops, was targeted to increase by 2.85 MT per hectare. But it increased only by 2.46 MT per hectare. The supply of chemical fertilizer was not satisfactory. The supplies of improved seeds, plants and high breeds were not effective from quantitative as well as qualitative point of view.

Irrigation

During the Eighth Plan period, it was targeted to provide irrigation facility to additional 293,895 hectares of land through new irrigation projects and the projects under construction. It was targeted to provide irrigation facilities to 161,132 hectares of land, 144,042 hectares from surface and 17,090 hectares from ground water projects implemented by the Department of Irrigation. Likewise, out of 119,700 hectares of land, 49,000 hectares from surface and 70,700 hectares from ground water irrigation were targeted to provide irrigation facilities from the projects run by the Agriculture Development Bank. In addition, 13,063 hectares of land was targeted to provide irrigation facilities through the construction of projects under the non-government sector.

The progress of the programmes implemented under the Department of Irrigation during the Eighth Plan was 85.5 percent. Of this, the percentage progress of surface irrigation was 90.6 percent whereas ground water irrigation had very low progress of 45.4 percent. The programmes implemented under the Agriculture Development Bank had made 63.6 percentage progress. Of which, 32 percent and 74.2 percent were achieved from surface and ground water respectively. To compare with the total target, 72.9 percent progress was made. A total of 22,727 hectares of land was irrigated through lift pump programme run by the Agriculture Development Bank.

Land Reform and Management

As the provision was made for sharing an equal ownership between landlord and tenant through the latest amendment of Land Reform Act 1964, programme was launched to abolish the dual ownership of land.

The Land Reform Act allowed one to keep 25 *bighas* of land in *Terai* and inner *Terai* and 50 ropanies of land in Kathmandu Valley as maximum limit. One could keep additional 3 bighas, 16 ropanies and eight ropanies of land in *Terai*, Mountain and Kathmandu Valley respectively for household purposes. But there was some exemption in limit on the land used for industrial enterprises, agro-industries, educational and health institutions and cooperative purposes. Cadastral survey, which was initiated as a part of land reform a long ago, had not been completed yet in all 75 districts.

Forestry

Overall progress towards forestry sector development could be termed satisfactory though some of the target had not been achieved. In the community forestry sector, 5,316 users' groups were formed whereas the target was to form 5,004 such groups during the Plan period. Likewise, it was targeted to transfer 251,750 hectares of forestry to 5,000 users' groups. In fact, 300,000 hectares of land was transferred to users' groups by preparing 7,072 Forestry Action Plans. The Plan had set a target of afforestation in 67,119 hectares of land, but it was possible in 26,456 hectares only.

It was envisaged to produce 111 million plants, but only 80 million plants were produced and distributed. The Plan had envisaged distributing leasehold forestry to 25 thousand families, but such forestry was distributed to only 8,000 families. On national forestry management side, forestry management action plan was prepared in 19 districts, which had the target to manage 628,301 hectares of forest area. Under the soil and water conservation programme, soil conservation services were targeted to extend in 60 districts, but such services were extended only in 50 districts during the Plan period. Two thousand five hundred types of plants were kept in-situ conservation in Royal Botanical Garden Godavari, under botany development programme.

Industry, Tourism and Electricity:

Industry

During the Eighth Plan, industrial production at constant prices increased by an annual average of 5.23 percent against the estimated growth of 12.4 percent. Likewise, it was expected that the contribution of industry sector to GDP at the end of the Plan would reach at 8.5 percent on the assumption that it would grow by 4.8 percent annually. Similarly, annual value added rate of manufacturing industries was expected to increase by 10.8 percent assuming that total value of manufacturing industries would reach Rs 12,170 million at the end of the Plan. The average growth rate of value added during the Plan period reached 6.8 percent and the contribution of industry and mining sector in GDP reached 9.2 percent.

It was expected that the number of total employment would reach 395,000 with the creation of additional 128,000 employment opportunities during the Plan period. Of 1,345 medium and large industries registered at the Department of Industry, it was expected that 1,15,000 employment opportunities were created from the implementation of 70 percent of them. Likewise, assuming that 30 percent of the 34,439 small and cottage industries registered in the Department of Cottage and Small Industries would be implemented, it was expected that 120,000 employment opportunities were generated, thus, reaching a total of 235,000 additional employment opportunities during the Plan period.

The Office of the Company Registrar registered 5,202 private and 612 public limited companies during the Eighth Plan period. During the Plan period, 240 investment projects were promoted to reach the figure of foreign investment to Rs 9732 million while this figure was expected to be at Rs 2430 million with the promotion of 200 foreign investment proposals.

Cottage and Small Scale Industries

The Eighth plan had set the target of registering 25,000 cottage and 1,000 small-scale industries. During the Plan period, 43,250 cottage and small-scale industries were registered. It was expected that alternative employment would be available to about 400,000 persons through the registered industries. Skill development training had been provided to 25,219 persons from the Department of Cottage and Small-scale Industry during the Plan period.

Mining and Quarrying

During the Eighth Plan period, it was targeted to undertake research on metallic and non-metallic minerals in 6000 sq. km. But research had been done in 5,902 sq. km. The target of detailed survey and research of gas resource of Kathmandu Valley for commercial use was achieved. As the target of conducting geo-scientific research in 17,450 sq. in different parts of the kingdom, such research had been conducted in 19,500-sq. km. of land. The target of establishing 12 additional seismological centres achieved and all the centres began operating. Although the mining sector had been given a big importance in the Eighth Plan, no satisfactory progress was made due to the lack of investment in this sector.

Tourism and Civil Aviation

During the Eighth Plan, the total number of tourist arrival was projected to be 1,907,745. During this period, the number of tourist arrival was 1,764,739, which was 92% of the target. Likewise, it was expected to earn US \$ 375.4 million during the first four years of the Plan. During this period, US \$ 374.6 million was earned, making nearly 100 percent progress of the target. During the Plan period, a number of concrete programmes such as Sarangkot road improvement in Pokhara, improvement of Pokhara conservation area, Ghalegaon Sikles eco-tourism development, construction of runway and terminal building in Pokhara airport were completed.

Likewise, construction of buildings of Tourism Information Centre and Hotel Management and Training Centre, and conservation and improvement of Gorakha Durbar area were completed. Construction work of International Expedition Museum building at Pokhara started. In pursuance of the objective of making civil aviation service an important means to bring tourists in the country, the number of airports in the kingdom reached 44. In consonance with making the airports more capable, secured, comfortable and standardised, airports were under construction in remote areas such as Mugu, Kalikot, Achham, Khotang and Dolpa. Various improvement measures to enhance the standard, services and capacity of Tribhuvan International Airport were undertaken according to its master plan.

Labour

A total of 22,973 persons were trained through various vocational and skill training programmes run by 13 skill development training centres and two vocational training centres. Skill training with residential facilities were provided to 125 women of various districts engaged in undignified profession, because illiteracy and poverty, and were provided each with a set of sewing machine.

To assist the abolition of yearlong bonded labour system in Dang, Bardia, Kailali and Kanchanpur districts, sewing machine was distributed to each woman after providing skill development training since FY 1995/96. Employment information centres were established in ten labour offices.

Water Resources and Energy

In comparison to the target of generating 347mw electricity by the end of the Eighth Plan, the total generation capacity reached 300 mw, of which 253 mw was generated from hydro-electricity and 47mw thermal energy. Likewise, 1,322.9 million units of electricity energy were generated while the target was to generate 1,522.0 million units. The total length of transmission lines from single and double circuits reached 2,902 kilometers and capacity of substation reached 602 MVA. Total number of customers reached 525,000. Thus, it was expected that 14 percent people of the country had an access to electricity services. Of the total electricity, 26 percent was used by household sector, 30 percent by industry sector, five percent by commercial sector and 13 percent by export and other sectors. Out of the total electricity generation, 74 percent was properly utilised while a loss of 26 percent was found due to technical and non-technical problems.

As internal source was insufficient to fulfill the demand for electricity, the power was supplied by purchasing from private sector and even importing from India. Medium sized hydro-electricity projects such as Khimti and Bhotekoshi were under construction whereas process was underway for the construction of Seti hydroelectricity project.

Negotiations between the officials of Nepal and India were underway for the implementation of big multipurpose hydroelectricity projects such as Karnali (Chisapani) and Pancheswor (Mahakali).

Transport and Communication:

Transport

The Eighth Plan had set a target of constructing 1,778 km roads with the construction of 763 km highway, 915 km feeder road, 100 km urban road, 187 km black-topped road of different standards, 370 km graveled and 1,212 km earthen road. During the Plan period, 471 km highway (61.7%), 487 km feeder road (53.2%), 134 km urban road (134 %), 119 km. black topped road (63.6 %), 231 km graveled road (60.9%) and 742 km earthen road (61.2%) were constructed. The total length of road construction reached to 1092 km, which was 61.4 percent of the set target. In addition, a total of 1,771km road, 372 km black topped, 537 km graveled and 862 km earthen road were constructed which was not mentioned in the Eighth Plan. Thus, the total progress of road construction during the Eighth Plan reached a total of 2,863 km (161.0%) with 491 km black topped (226.6%), 768 km graveled (202.6%) and 1,604 km earthen (132.3%).

During the plan period, 50 motorable bridges (200.0%) were constructed as against the target of constructing 25 bridges. As against the target of constructing 100 bridges on highways and 400 suspension bridges on local roads, 114 suspension bridges (114.0%) from the Suspension Bridge Division and 24 (6.0%) from the Ministry of Local Development were constructed.

Regarding other transports, a part of 13 km of Kathmandu-Hetaunda rope-way was repaired and maintained. Damaged part of Jayanagar-Janakpur-Bijalpura railway was repaired and maintained, 4 diesel locomotive engines and 18 bogy coaches were made available. Ten additional new trolley buses were operationalised in Kathmandu-Bhaktapur trolley bus route.

Communication:

Postal Services

By the end of the Eighth Plan, 3660 post offices were established throughout the kingdom providing services of one post office per 5917 population. Postal lines were expanded as necessary. Internal express mail services in 33 places of the kingdom and international express mail services (EMS) with 20 countries were operated. Money order service in 85 post offices and postal savings bank services in 10 post offices were started.

Tele-communication Services

Before the implementation of the Eighth Plan, 27 districts of the kingdom lacked access to telecommunication services. During the Eighth Plan, telecommunication services were expanded all over the kingdom through the provision of telephone link

from the headquarters to all districts. In this connection, telephone services were provided to 1200 VDCs as against the target of providing telephone services in various areas (Ilaka) by establishing 600 terminals.

During the Eighth Plan, total telephone capacity reached to 2,00,000 lines reaching the density of telephone service 100 persons per line. As against the target to enhance the capacity through additional 161,000 telephone lines, equipment was installed of about 130,000 telephone lines, thus, achieving 80 percent progress of the target. During this period, action was initiated to establish rural telephone exchange with the capacity of 150 to 200 lines in 31 urbanising places. Telephone service was made available in 29 places through the establishment of telephone exchanges.

Besides establishing calibration and maintenance centre of Nepal Television, other programmes were implemented according to the Plan. Under the network expansion programme, relay stations were established in Dhankuta, Nawalparasi, Palpa and Pokhara. Rastriya Samachar Samiti (RSS) buildings were constructed in Kakadbhitta and Birgunj. Under the equipment installation programme, computer system was installed at the centre. A computer network was established to improve news collection, procession and distribution system of Rastriya Samachar Samiti. In pursuance with the privatisation policy of His Majesty's Government of Nepal, Film Development Company was established through selling 51 percent share of Nepal Film Corporation to the private sector in 1993/94.

[Housing and Physical Planning](#)

During the Eighth Plan, various activities such as, development of comfortable housing plots, supply of residential buildings, maintenance and improvement of existing buildings, research regarding building construction, increasing investment in development and housing sectors, etc., were carried out. Skill-oriented training was provided for the development of locally available construction materials and local technology. Likewise, steps were taken for development and expansion of construction materials, and a central-level research centre was established.

Despite the effort to distribute housing plots to landless farmers nationwide through Squatter's Problem Resolution Commission, the target group was not very much benefited due to the inability to provide other necessary services and housing facilities. No remarkable progress was observed in the development of housing credit, which was very essential for housing development, and other financial management. Although Housing Finance Development Company, established with the objective of providing housing loan to medium and low income groups, had taken policy to channel housing loan through newly opened financial companies, low income families were not benefited from this programme.

On the housing development side, revision and updating of physical development planning of almost all municipalities were completed and integrated action plans of 12 municipalities prepared. Construction works of some ministry buildings and Birendra International Convention Centre were completed and a master plan for the

construction of residence of parliament members was prepared. Constructions of 7,697 two-room school buildings in earthquake affected 29 districts of Eastern and Central Development regions were completed and 35 school buildings were constructed. For selection, implementation and evaluation of development plans and programmes of municipalities, Rs 134.6 million and Rs 96 million were released as loan and grant respectively through Urban Development Fund.

Social Services:

Education

On primary education, it was targeted to achieve the net enrollment of 6-10 age group children to 90 percent, to further increase 2,025 primary schools and 8,000 primary school teachers. In 1996, the number of schools reached to 22,218, number of teachers to 89,378, and number of students to 3.45 million. Net enrollment percentage of children reached to 69.4. During the Plan period, 3,524 schools and 14,883 teachers were added up. For making the primary education compulsory, programme was launched in one VDC of each 40 districts from 1996/97 where primary education project was implemented on the basis of experiences gained from programme executed on a trial basis in Banepa Municipality of Kabhrepalanchok and Ratna Nagar VDC of Chitawan.

During the Plan period, target was set to enhance the access of lower secondary and secondary level education for 45 percent of 11-15 age group children, to establish 900 schools and to make provision of additional 5,404 teachers. According to the educational statistics of 1996, the number of schools reached 5,506, number of teachers 19,704, number students 791,502, and student enrollment 50.3 percent at lower secondary level. Likewise, at secondary level, the number of schools, teachers and students have reached 2,903, 16,423 and 3,29,833 respectively. Student enrollment at this level reached to 34.7 percent.

Regarding the higher education, 213 higher secondary schools were established by 1996/97 against the target to establish 125 higher secondary schools. In pursuance with the target of achieving literacy percentage to 67 by 2000 AD, programme had been launched as a national campaign to achieve 60 percent literacy rate during the Plan period. It was expected that literacy percentage of 6 years and above aged population reached 48 percent with the increment of 1.36 million literates from the literacy programmes run by government and non-government sectors.

During the Eighth Plan, basic and primary education project was implemented in 40 districts of the Kingdom. Fifteen district education buildings were constructed. As per the policy of giving priority to female teachers, 4,150 female teachers were appointed with the objective of appointing at least one female teacher in each primary school. Primary teachers training centres were established according to the target of establishing such centres in nine different places of the kingdom, and 17,265 teachers were trained.

Regarding technical education and vocational training, technical schools were established in Doti, Banke, Dang and Mustang districts as per the target of establishing such four schools in different parts of the kingdom. As per the target of providing regular training to 2,595 persons and short-term training to 2,034 persons, a total of 2,274 and 6,709 persons received regular and short-term training respectively.

During the Eighth Plan, Kathmandu University and Eastern University were established and operationalised. Likewise, Pokhara University was announced to establish. Thus, the number of universities, including Tribhuvan University and Mahendra Sanskrit University reached five, and 196 campuses, 61 under T.U. and 135 in private sector, were conducted.

Health

With the objectives of realising "Health for all by 2000" by improving health condition of people, proving healthy manpower necessary for development, controlling population through effective maternal child health and family services, and making available of specialist-health services within the country, various programmes had been implemented. As against the target of providing basic training to 26,337 persons and refresher training to 137,412 persons under the programme, basic and refresher training was received by 17,150 persons and 95,314 persons respectively.

National Health Policy 1991 spelt out the target of establishing sub-health posts in every VDC and primary health centre in every constituency of the country. In pursuance of this policy, 3,187 sub-health posts were established as against the target of establishing 3,199 sub-health posts, and 100 primary health centres. According to Nepal living Standard Measurement Survey 1996, the percentage of rural households having access to near-by health institution with a walking distance of half an hour reached 41.41 percent.

Total fertility rate remained at 4.6 as against the target to reduce at 4.5. The target could not be achieved since total fertility rate was influenced by marriageable age, time of breast feeding, amonoria, infertility, abortion and social values and norms in addition to the family planning services.

Targets such as spraying medicines for malaria control in the area inhabited by 600,000 to 800,000 people twice a year in 64 districts of the kingdom, 350,750 sample blood collection and test, cure of the affected persons and conducting research programmes were achieved. Nepal, for the first time, launched polio drops services to 3.3 million children of 0-5 age group in 1996/97 by organising immunisation day in order to support the campaign of eradicating malaria from the world by 2000. Tuberculosis control programme was expanded in all district of the kingdom. During the Plan period, the population affected by tuberculosis was estimated to be 5 per thousand and curative services for them were made effective through DOTS curative services in 10 districts.

As against the target of reducing the rate of leprosy calamities to less than one per thousand by the end of the Eighth Plan, it reduced to 0.59 person per thousand, thus, the progress was observed more than the target. Leprosy control programme was expanded nationwide while the target was to expand in 71 districts from 56 districts. As regards to the target of reducing child mortality due to diarrhea by 32 percent, real situation was not known since no survey was conducted regarding the death caused by diarrhea.

Regarding the target of establishing district level ayurvedic dispensaries, ayurvedic health centres were established in 25 districts. Likewise, 20 dispensaries were established, and new buildings and compound walls of 30 dispensaries were constructed. Refresher courses for technical staff throughout the kingdom were conducted. Production of medicine was started from three regional rural pharmacies. 50 beds were added in Ayurvedic Hospital, Naradevi, as against the target of adding 100 beds. In accordance with the policy of commercialise Singh Durbar Baidyakhana by making it autonomous, its managerial efficiency and medicines production capacity was enhanced and physical condition was improved by constituting Singh Durbar Baidyakhana Development Committee.

Drinking Water and Sewerage

For providing drinking water facilities to all people within 10 years, delivering minimum knowledge and facilities to most of the people regarding sanitation including environmental sanitation and conservation, the Eighth Plan had set the objective of providing drinking water facilities to 72 percent and sanitation facilities to 13 percent people. It was targeted to make access of drinking water facilities to additional 7.2 million people, 6.8 million from rural and 4.4 million from urban sector, during the Plan period. Likewise, sanitation facilities were targeted to deliver to additional 1.6 million people, 1.2 million from rural and 0.4 million from urban areas during the Plan period.

It was estimated that drinking water facility would reach to additional 5.4 million people, 5.2 million from rural and 0.2 from urban sector during the Plan period. Since the progress in rural and urban sector was estimated to be 77 percent and 56 percent respectively, the total progress in proportion of total targets was estimated to be 76 percent only. Access to drinking water facility was reached 61 percent of total population of the country as of the end of 1996/97. Although progress regarding sanitation facilities could not be confirmed due to the lack of adequate and reliable information, a sample survey showed that an estimated 20 percent of the people were availed of this facility.

Local Development

Women development programmes were conducted in 620 VDCs of 67 districts of the kingdom up to the Eighth Plan period. A total of approximately Rs 410 million loan was disbursed from various banks through 12,634 income generating groups formed

during the Eighth Plan. About 40,906 families were benefited from this programme. A total of 75,000 people were benefited through drinking water projects run in 701 places under community development programme. Under the same programme, approximately 17,738 women received population education and family welfare training and 14,702 women received skill-oriented training.

After the establishment of Local Development Training Academy, a total of 22,644 persons including elected people's representatives from local bodies, civil servants and women activists involved in women development affairs, were equipped with knowledge and skills through various training and seminars. To expand socio-economic services in remote areas of the kingdom, 139 drinking water projects, irrigation projects in 746 hectares of land, 46 suspension bridges, construction and maintenance of 185 km trails and tree plantation in 95 hectares of land, were completed during this period under the Remote Area Development Programme. Under the same programme, construction works of 81 monasteries, temples, schools and pilgrim houses were completed.

A fixed amount of financial resource was sent to each VDC of the kingdom directly for their development purposes. Under this programme, which intended to help the VDCs for conducting small developmental works by themselves, 1,610 km rural roads were constructed and maintained during the Plan period. Likewise, 772 km. foot trails were constructed. A total of 3,549 taps was installed through 81 ponds/tube-wells installation and 171 km pipe work has been concluded. Irrigation facility has been provided in 6,600 hectares of land and 808 bridges/culverts and 514 VDC buildings were constructed.

During the same period, 443 km rural roads and foot trails were constructed through local people's participation. Likewise, under the local road suspension bridge programme, 15 suspension bridges were constructed, and 29 were under construction, 126 were in fabrication stage and 77 were in the stage of survey designing and cost estimation. Rural Infrastructure Development Programme was underway in 20 districts. Under this programme, construction and maintenance by 361 km rural roads, 488 km horse trails, 97 km irrigation, 23 km river control, etc., were completed. Likewise, construction of 48 fish ponds, cardamom plantation in 1.5 hectares, agro-forestry in 65 hectares and school ground construction in 0.5 hectare were completed. A total of 66,228 families were benefited from the above activities. Rural Infrastructure Development Programme was started in 1996/97.

Under the intensive labour - oriented road programme, construction of 40 km roads was completed. Likewise 139 km. rural roads, 160 bridges and culverts were constructed and irrigation facilities were provided in 19,648 hectares of land under the Flood-affected Reconstruction and Rehabilitation Project. Various works, such as irrigation in 7,292 hectares of land and construction of 256 km rural roads, 8,361 km horse/foot trails and 134 public buildings were completed in Dhading, Gorakha,

Lamjung, Gulmi, Arghakhanchi, Kalikot, Humla, Mugu, Dolpa, Ilam, Panchthar and Taplejung districts under Rural Development Programme.

Others:

Administrative Reform

In the process of executing policy directives initiated by the Eighth Plan, efforts were made for the phase-wise implementation of the recommendations made by Administration Reforms Commission 1991. Civil Service Act and By-laws were formulated in the new context. While defining job, duty and authority of civil servants, job descriptions of almost all positions were prepared. Job performing ability was considered main element for the promotion of civil servants, and stress was given for the objective performance evaluation. Opportunities to enter in higher posts were increased for competent and intelligent civil servants through open competitions.

A Central Monitoring and Evaluation Division was established in National Planning Commission Secretariat as a central body for the monitoring and evaluation of development projects.

Planning and Statistics

During the Plan period, formulation of Agriculture Perspective Plan was completed. Final results of National Population Census 1991 and National Agriculture Census 1991 were published. Under Nepal Multi-purpose Indicator Survey, reports on Health and primary education were made public. Likewise, final results on drinking water and sanitation were prepared. Preparation of indicators on industry and construction was underway in Central Bureau of Statistics and results of some other Surveys were published.

4. Challenges of Development

Despite the planned development efforts of more than four decades, high economic growth rate has not been achieved on one hand, and plans have been unable to make an expected impact on the living standard of general people, on the other. Today's main challenge before the country, therefore, is to bring the country forward along with the developed nations in the 21st century through reviewing the concept and process of development. In this context, it is necessary to review the past experiences as follows:

- According to the concept of perspective planning, periodic planning should have been executed in an integrated manner. However, due to the lack of such long-term vision, the objectives of each periodic plan vary and consequently lack the continuity in strategies.
- Lack of clear-cut vision on human resource development.
- Inability to divert foreign aids towards development priorities and to use the aid in a coordinated way.

- There is no clear-cut vision on decentralisation, and nature and scope of autonomy of local bodies have not been prepared. In such a situation, there is lack of an effective institutional system for local development and development of backward areas and ethnic groups.
- Inability to formulate annual programmes according to the objectives and targets set by the plan.
- Lack of system to distribute resources on the basis of cost-benefit analysis.
- Lack of legal and institutional infrastructures necessary for competitive market economy.
- Lack of effectiveness in different plan-related activities, such as studies, researches, monitoring and evaluation, and premature institutional development for these activities.
- Weakness in different aspects of good governance, such as the rule of law, public accountability, transparency, people's participation, etc.
- No necessary infrastructures have been built for the commercialisation of agriculture.
- Lack of self-mobilisation and strong tendency to be dependent on government because of the prevalence of development programmes under state direction and control.
- Prevalence of the state-directed and controlled development process.
- Inability to properly identify the sectors having comparative advantage and competitive capability due to the lack of strong institutional development related to planning and studies.
- Lack of various recognised standards and qualities for directing various sectors involved in economic activities.

It is necessary to modify and strengthen the development and planning process in the context of the lessons learned from the plan implementation.

Chapter 2

Concept, Strategies and Targets of Long-term Development

1. The Concept of Long -term Development

Although some sectoral long-term plans were formulated and implemented in the past, a clear vision could not be formed for the socio-economic development of the country because of the lack of formulation of an overall framework for long-term development. The absence of clearly defined concept of the long-term development and lack of clear guidelines to that end led to the inconsistency between the sectoral policies and programmes, adversely affecting the economic growth rate of the country. Because of this situation, efforts are needed to formulate and implement strategies for the immediate and long-term development of the country.

2. Objectives and Strategies

The major long-term development objective is to create a society that is cultured, modern development-oriented and endowed with skills through alleviating the prevailing wide spread poverty in the country.

For achieving the above-mentioned objective, it is essential to broaden the sources of high growth in order to achieve a high and sustainable growth rate and trickle down its effects on the majority of the population by fully utilising and investing available resources in infrastructure and social sectors. In this context, it is equally essential to expand investment in the extensive utilisation of water resources and tourism sectors in active collaboration with the private sector as well. It is required that optimal utilisation of human resources should be ensured by making the most of the possibilities derived from such ecological variation as agriculture, forestry, herbs, etc. The foundation for industrialisation has to be laid by exploring the possibilities of trade with neighbouring countries, and also by considering both the regional trade and the aftermath of the membership of the World Trade Organisation. The lowering of the rate of population growth has become crucial for human resource development for achieving higher and sustainable growth as well as for poverty alleviation.

In a developing country like Nepal, the concept of long-term development should give emphasis to higher economic growth rate, pro-poor development process and equitable distribution of income. Although Nepal has adopted liberal, open and market-oriented economic policies in line with the changes in the world economy, the objective of alleviating poverty cannot be achieved unless the government, market and private sectors complement each other and work together.

In this context, and also in keeping with the past experiences, it is essential that effective machinery should be mobilised to attain the rapid and sustainable development, and plans, policies, and programmes should be geared towards poverty alleviation, employment promotion, and regional balance. At the same time, these programmes should be oriented to the groups and areas that are left out of the

mainstream of development. To guarantee the equitable distribution of the fruits of development to the people and to expedite the pace of development by moving the socio-economic development process in tune with the pace of regional and international development will be the long-term development framework of Nepal.

For achieving the above-mentioned objectives, various policies will be adopted with giving a clear direction to the overall economic and social development process, making the long-term development process dynamic, and ensuring commitment and continuity to the process.

The liberal, open and market oriented economic policies pursued by the country will be further strengthened and their implementation will be made more effective, which will enhance competitiveness and make these policies sustainable by exploiting the opportunities created by the open policies. The capability to cope with the changes in the world economy will be increased and reforms in the existing policies and improvement in the economic management will attract foreign investment.

The Government sector has its own role to play in creating a strong and competent economy, changing economic structure, and eradicating poverty and unemployment. Appropriate steps have to be taken to achieve a higher economic growth rate, and effective implementation of equitable distribution and poverty alleviation programmes is equally essential. The creation of infrastructure and human resources along with the welfare of the disadvantaged groups and direct interventions in the alleviation of poverty are the responsibilities of the government. Government's involvement and its role, which is essential for the achievement of the objective of alleviating poverty, will be made effective.

In view of the inadequacy of investment required for implementing development projects on the part of Government, the crucial role of the private sector in the economic and social development of the country is obvious. It is essential that the State should initiate policy changes especially with regard to strengthening the role of the private sector in the development of infrastructures as well as other sectors. The creation of a congenial environment for attracting private sector investment is very important in this respect. The role of the government sector will not be limited to that of a motivator and facilitator only; it needs to share the risk to some extent as well.

3. The Goals of Long-term Development

Poverty Alleviation:

It is estimated that 42 percent of the total population have remained below the poverty line at the end of the Eighth Plan. With the achievement of high economic growth rate and the implementation of sectoral and other special programmes for poverty alleviation, it is targeted to reduce the population living below poverty line to 10 percent within next 20 years.

In order to increase the per capita income of the people living below the poverty line, it is necessary to increase the economic growth rate, on the one hand and the population growth rate has to be reduced, on the other. In view of this, it has been targeted to bring down the population growth rate at the level of 1.5 per cent within

next twenty years. For reducing the level of poverty to 10 percent, striking a proper balance between growth and equity will be the main basis of development. For this, programmes such as employment generation, production and productivity enhancement, good governance, human resource development and the empowerment of people will be initiated.

The Agricultural Perspective Plan (APP) has been taken up as the main basis for increasing production, providing food security, increasing employment and income and ultimately contributing to poverty alleviation. The APP has given main emphasis to the supply of fertilizer, irrigation, rural agricultural road construction and rural electrification and the use of agro-ecologically appropriate technology. Likewise, land management system will be pursued for providing security to land ownership in order to improve the living standard of farmers and increasing agro-products and productivity to give impetus to the economy as a whole. Thus, it is necessary to launch all programmes of agricultural development by making the APP and land reform programme complementary to each other. This will accelerate the growth rate of the agriculture sector and will enhance the performance of the non-agriculture sector, contributing towards achieving the macro-economic growth rate of 7.2 percent within next 20 years.

4. Macro-economic Targets

The target of long-term high economic growth rate is based on the APP. The growth rate of the agriculture sector in the Ninth Plan is less than the target set in the long-term plan. However, it is expected that, due to the higher growth rate to be achieved in the periodic plans following the Ninth Plan, the target of the APP will be achieved. The economic growth rate of the non-agriculture sector has been set by considering the changed structure of relative contribution of the agriculture and non-agriculture sector to GDP due to differential growth rates of agriculture sector and overall GDP.

It is estimated that the GDP at producer's prices will grow by 6 percent per annum in the Ninth Plan and by 8.3 percent in the Twelfth Plan, thus making the average growth rate of 7.2 percent during the 20 year period. This long-term economic growth rate seems quite realistic in view of the creation of legal and institutional framework in tune with the open, market-oriented economic policies based on clear, long-term concepts, active private sector and its increased share in investment. The estimated growth rate seems quite plausible because of expected improvements in the agriculture sector under the APP and enhancement in productivity due to infrastructure development and commercialisation. Similarly, the economic growth rate of non-agriculture sector seems achievable because of developments in industry, services, tourism and water resources sectors and their export performance. The agriculture sector will be a stimulating factor for the development of non-agriculture sector in that the expected growth in the agriculture sector will widen the domestic market.

In this way, the contribution of the agriculture and non-agriculture sectors to GDP will be 25 percent and 75 percent respectively because of different growth rates of these sectors.

To achieve the targeted economic growth rate, the investment has to be 25 percent of GDP. In this context, it has to be raised to 34 percent of GDP by the end of the Twelfth Plan.

Mobilisation of national savings is the first prerequisite for sustaining the increased investment. It has been targeted that the growth rate of national savings will be raised to 12 percent of GDP in the coming periodic plans and ultimately to 30 percent by the end of the Twelfth Plan.

Keeping in view of constantly reducing the role of government in a liberal market economy, domestic credit will be controlled and deficit financing will be brought within desirable limits so that more financial resources required for investment are available to the private sector.

5. Sectoral Concepts and Policies

Agriculture: As agriculture is the main basis for increasing income and employment in the context of Nepal, the APP has given emphasis to raising agricultural productivity through resource utilisation, providing irrigation facilities to most of the agricultural land by using low cost technology, raising the productivity of agricultural land by increasing the per hectare use of fertilizer, enhancing the utilisation of available agricultural technology, keeping up the comparative advantage of location-specific technology, raising livestock productivity by upgrading animal health, constructing more agricultural roads and increasing the supply of electricity for facilitating private entrepreneurs and enhancing their competitiveness. Economic growth in the *terai* will be achieved by utilising food productive capability based on geographic specialisation. Rising incomes in the *Terai* will generate the required income to purchase high value agriculture products of the hills and raise the economic viability of these products contributing to achieving overall economic growth and maintaining stability. Therefore, emphasis will be given to raising productivity by availing sufficient investment, institutional support at the grass roots level. Alleviating poverty through the achievement of a high growth rate, enhancing the investment capability in the sectors with high multiplier effects, strengthening industrial development with the transformation of agriculture from subsistence to commercial production, and giving emphasis to the poverty alleviation through employment promotion are major objectives in this regard. Priority will be given to agricultural research and extension so as to encourage food production, livestock and horticulture production in hills and mountains. The agricultural production will be geared up towards specialisation based on comparative advantage by developing infrastructure in order to accelerate economic growth by raising overall productivity of resources that increase income and employment and alleviate poverty and raise living standard. With all these, the opportunities for macro-economic reform will be widened. Targets, through agricultural development, are set to provide food security by developing agriculture sector, to reduce regional imbalance and to alleviate poverty.

Industry: The present share of the contribution of manufacturing industry to GDP will be doubled within the next 20 years. The role of the private sector will be vigorously enhanced through increased competitiveness in the areas having

comparative advantages and the rate of economic growth will be accelerated through sustainable industrial development. The long-term objectives of the industrial sector for the next 20 years are to make the industrial sector competitive, self-sustaining and market-oriented; to increase its share in value added through its linkage with local manpower and raw materials; to transform local skills and entrepreneurship to small-scale industry so as to make local resources appropriate to local demand; and to launch special programmes to involve more disadvantaged groups and women in the industry and commerce sector. Employment opportunities will be created through the promotion and extension of cottage and small-scale industries. Cottage and small-scale industries will be developed with a view to contributing to poverty alleviation. There will be an emphasis on making contribution to industrial development through the rural entrepreneurship development programme and mobilisation of the rural labour force in productive activities.

Commerce: The commerce sector will be made fully competitive and market-oriented and it will be integrated with the globalisation process. The ratio of export will be raised to 20 percent of GDP, and through the specialisation in goods with comparative advantage. With a view to benefiting from the open global market, programmes related to the export of low-weight-high-value products to international markets will be launched with high priority. In addition, exports will be strengthened by identifying and developing exportable goods. Export initiatives will be carried out by expanding the range of exportable products and by targeting potential markets. It is targeted that the trade deficit will be reduced and the terms of trade will be brought to Nepal's favour in the long-term period. Increasing the level of exports will be accorded high priority. Following the values and concepts of competitive international trade, due attention will be given to developing infrastructure. A Perspective Export Plan will be formulated and a programme will be launched accordingly to expand export trade, giving priority to goods based on domestic raw materials and agro-based industries. After the implementation of SAARC Free Trade Agreement, emphasis will be given to export the products in which Nepal can compete and which are based on domestic raw materials as well as development of agro-based industries.

Supplies: It has been the long-term view that there must be regular and adequate supply of essential goods in specific areas considering Nepal's geographic constraints and low purchasing power. An institutional mechanism will be established to enhance consumers' welfare, and to monitor the supply and pricing situation. In addition, there must be adequate buffer stocks to provide food security at the regional level. Emphasis will be given on ensuring the supply from private sectors, and supply mechanism from private sector will be made more effective. The concept of SAARC Food Storage System will be implemented so as to ensure sustainable supplies in the region.

Labour and Employment: The long-term objective in this regard will be to increase the national income by providing more employment opportunities within the country and in the foreign countries, utilising unskilled, semi-skilled, skilled and technically skilled manpower and at the same time ensuring the labourers' rights, welfare and social security. The rate of unemployment will be reduced to 3 percent from the

present level of 4.9, percent maintaining a balance between demand and supply of labour. The rate of under-employment will be reduced to 10 percent from the present level of 47 percent. Skilled manpower will be prepared through skill-oriented training and self-employment and employment opportunities will be generated in a way to contribute to poverty alleviation.

Tourism: The long-term objective of tourism development has been set after taking into account huge potentiality of the tourism industry in Nepal. Nepal will be developed as one of the major tourist destinations and the national identity will be conserved through tourism development. Tourism will be developed as one of the key sectors enhancing employment and as a key sector for economic development. The expansion of tourism to villages will contribute more to the economic development.

Table 1
Long-term Projection of Major Macroeconomic Indicators
(in percentage)

S.N.	Planning Period	FY 1996/97	Ninth Plan	Tenth Plan	Ele- venth Plan	Twe- lfth Plan
1.	Gross Domestic Product (at factor cost)		6.0	7.0	7.5	8.3
	1.1 Agriculture Sector Growth Rate		4.0	5.0	5.0	5.0
	1.2 Non- Agriculture Sector Growth Rate		7.3	8.2	8.8	9.7
2.	Contribution to Gross Domestic Product					
	Agriculture Sector		38.0	34.0	30.0	25.0
	Non-agriculture Sector		62.0	66.0	70.0	75.0
3.	Investment (As a percentage of GDP)		25.0	27.0	31.0	34.0
4.	National Saving (As a percentage of GDP)		17.0	20.0	25.0	30.0
	Growth Rate (per year)		8.8	10.0	12.0	12.0
5.	Poverty and Unemployment					
	A. People Living Below Poverty Line (%)	42	32	23	15	10
	B. Unemployed Population (%)	4.9	4.0	3.6	3.3	3.0
	C. Underemployed Population (%)	47	32	23	15	10

Physical Infrastructure:

Electricity Development: Although hydro-electricity has been regarded as the main source of overall development in Nepal, factors such as cost, technology, environment and market have posed serious challenges to its development. The long-term hydropower development has been conceived considering these issues. Both

reservoir and non-reservoir based hydropower projects will be developed to ensure reliable supply of electricity. Projects designed to meet domestic demand will be identified and implemented. Public and domestic private investors will be given priority for designing and implementing projects that meet domestic demand. The participation of the private sector will be increased in hydropower production, distribution, management and operation.

Export oriented mega-projects will be implemented to increase the growth of the national income, as multi-purpose big projects are the key to Nepal's hydropower development. The idea of regional co-operation will be initiated for such big projects as the benefits of these projects occur to the countries lying over lower riverbanks. Domestic and foreign investors will be given priority in the development and operation of large multi-purpose projects. In the implementation of these projects, the involvement of domestic technical management and manpower will be increased. The load factor capacity of electricity generation centres will be increased through the gradual increase in the share of industrial and commercial consumption of domestic electricity supply. Necessary policy reforms will be initiated with a view to attracting the foreign and domestic private sectors to increase investment in hydropower development.

About 50 percent of the population of the Kingdom of Nepal will receive electricity within 20 years in accordance with the long-term electricity development vision. Within this period total installed capacity of electricity will be 20,000 mw. Out of total 224 billion cubic meter water flowing in Nepal, 80 percent flows during the four months of rainy seasons. Therefore, attempt will be made to control the flow of water by building reservoirs so that the damages caused by flooding are minimised and benefits of water resources are maximised.

Other Energy: Since Nepal's economy is mainly based on rural agriculture and the use of commercial energy is minimal, desired change in the use of energy will be brought about through encouraging changes in the consumption pattern by implementing appropriate energy programmes. Modern energy produced using natural resources will gradually replace traditional sources for developing rural energy system. Small-scale hydropower, solar energy and alternative energy programmes will be widely expanded to fulfill the rural energy demand through the supply of electricity and other alternative energies. Policies that focus on information flow, training, availability of appropriate financial services, technology development and extension and its specialisation will be adopted in order to lessen the present external dependency on the supply of energy.

Irrigation: The irrigation facilities will be expanded on a massive scale in order to raise agricultural productivity, achieve self-reliance in food deficit areas by increasing food production, and contribute to poverty alleviation through employment generation. As it has been realised that irrigation is essential for raising crop productivity, the operation of irrigation projects will be fully managed by farmers themselves so as to increase the cultivation of high yielding crops to minimise their risks and bring about green revolution. Group-based programmes utilising ground water resource in *terai* will be implemented in order to make irrigation facility

available throughout the year, and will be integrated with rural roads and electrification programmes. Land with year round irrigation facility will be expanded in the potential area. Un-irrigated land area will be gradually reduced through year-round irrigation facility available in order to develop irrigated land in *terai* and hills. High returns from irrigation will be obtained by increasing the cropped area. Priority will be given to constitute water users groups, encouraging women in agricultural development. Moreover, appropriate programmes will be conducted, providing training to women in the areas of irrigation system, its organisation and management.

Transport Sector: Roads that link districts will be accorded high priority while constructing roads in the next 20 years since 18 districts have still no links with roads. People's participation will be mobilised for building agricultural roads on a massive scale as the roads assist in the marketing of agricultural products. Transportation costs in the country will be minimised by reconstructing, improving and upgrading the existing roads, considering the present state of transportation and vehicle situation. In the coming 20 years, a total of 12,000 km of various types of road will be constructed at the rate of 600 km each year. This comprises roads connecting districts with no road links, north-south highways, east-west roads in the mid-hills, Kathmandu-Hetaunda tunnel ways; inner, outer and super outer ring roads and radial roads in Kathmandu valley; other district and urban roads. All of them together sum up to a total of 6000 km; and a total of 6000 km of agricultural roads. The total road length including existing road will be 24,000 km in the coming 20 years. Moreover, 3200 km local level rural roads, 1600 km *ghodeto* (horse trail) 200 motorable bridges and 2000 suspension bridges will be constructed. Ropeway and cable cars will be installed in remote areas and tourist spots. The construction of electric railway line along Mechi-Mahakali will be given priority. Electric railway will be constructed along the outskirts of Kathmandu valley. The use of circular electric railway will be started and use of trolley buses and electric battery operated vehicles will be expanded in order to lessen the pollution in Kathmandu valley.

Communication and Information Technology: For the development of communication and information technology, the coming two decades will bring new dimension in the sense that there will be a sea change in this regard in terms of government policies, organisational improvement, adaptation and use of new services. This period will herald the beginning of an information-oriented society. Technological services that are necessary for providing basic facilities to the people of urban as well as rural areas will be expanded by establishing communication network system. An Information Network Infrastructure Plan will be formulated for next 20 years, outlining the types of customers and various locations that will be provided with services, and the time frame within which such services will be provided. Emphasis will be given to increase the involvement of private sectors to provide new services, and necessary laws will be enacted for this purpose. Mobile and other telephone services will be introduced in Kathmandu valley and other urban areas within the coming 20 years and telephone services will be expanded in a phase-wise basis. Telephone exchanges will be established at all district headquarters and telephone services (PCO) will be provided to all village development committees. Internet and email services will be expanded in urban areas. In the long run, the

multi-media services will be widely expanded to raise the telephone density to 15 percent, of which rural density will be 5 percent and urban density will be 55 percent. In addition, advanced communication technology, which will be regarded as essential means for development, will be widely utilised and expanded. Information technology will be developed with the active participation of private sector as a medium of export trade.

Table 2
Long-term Projection of Major Physical Infrastructure Indicators

S.N.	Sector	FY	Planning Period			
		1996/97	Ninth	Tenth	Eleventh	Twelfth
1.	Total Road (km)	11,714	13,564	15,114	16,614	18,114
	A. Black Topped	3,655	3,955	4,355	4,705	5,055
	B. Graveled	3,011	3,611	4,061	4,511	4,961
	C. Earthen Road	5,048	5,998	6,698	7,398	8,098
	D. Agriculture Road		2,238	5,146	6,200	6,200
	E. Number of Districts with Road Links	56	66	70	73	75
2.	Irrigation					
	A. Area Covered by Irrigation (In thousand ha)	1,056	1,198	1,390	1,555	1,686
	B. Irrigable Agricultural Land (%)	60	68	79	88	95
	C. Total Agricultural Land (%)	40	45	53	59	64
3.	Communication Number of Telephone Service (Per Thousand)	10	25	60	110	150
4.	Electricity					
	A. Installed Electricity Capacity in M.W.	300	606			22,000
	B. Population Covered by Electricity (in Percentage)	14	20			50

Social Development and Environment:

With the growth of GDP and improvement in the condition of the people living below the poverty line, the welfare of majority of the people will be raised. It is imperative that other indicators, which contribute to the improvement in the living standard of low-income groups, should also be improved rapidly. The average life expectancy, which is both an outcome and indicator of overall development of the country, is targeted to rise from the present level of 56.1 years to 59.7 years by the end of the Ninth Plan, and to 68.7 years in 20 years. Likewise, the present infant mortality rate

of 74.7 per thousand will be reduced to 34.4 per thousand. Total fertility rate will be reduced from 4.58 to 3.05. Similarly, the maternal mortality rate will be reduced from 475 to 250 per 100,000 live births. The number of children to be enrolled in primary education will be raised to a hundred percent from 70 percent of FY 1996/97. In the same manner, the number of children enrolled in secondary education will be raised to hundred percent from the present level of 45 percent. The literacy rate for the population of 15 years age and over will be increased to 70 percent by the end of the Ninth Plan, and to a hundred percent within the coming 20 years. For the purpose of increasing women's participation in the overall development of the country the long-term vision with regard to women will comprise women's empowerment for development, gender equality, and mainstreaming women in national development. All the population will have access to piped drinking water facility by the end of the Ninth Plan and its quality will be continuously improved thereafter in the long run.

Education: The education sector is the main instrument of human resource development. The past attempts made in the education sector have been beneficial. The long-term objectives of the Ninth Plan are to provide equal opportunity to all sections of society, to develop education as the mainstream of national development, to improve its quality, aware the people for democracy, dedicated, competent, productive, disciplined and socially responsible citizens. In view of the above objectives, literacy, school education, technical education and higher education will be upgraded. The existing literacy rate of the country will be raised to hundred percent in 20 years through compulsory primary education with the active participation of the private sector. To achieve this target within the stipulated period, literacy programmes will be launched, focusing on deprived, backward groups and women, and implemented as a campaign using formal and informal mediums.

Health: Improving public health and related indicators and providing qualitative health services are the long-term objectives of the health sector. To this end, basic health services will be made widely available at the local level. Health services will be provided in an integrated manner through district hospitals, primary health care centres, health posts, and sub-health post. Basic health care and curative hospital services will be expanded and made more effective by establishing a procedure for referral system. Policies will be adopted to make family planning effective; programmes aimed at reducing maternal mortality rate and infant mortality rate at the local level, targeting the poorer, backward and deprived communities living in remote and rural areas. Family planning services will be implemented according to the aspirations of the people based on the concept of small family.

Drinking Water and Sanitation: During the Ninth Plan, drinking water facilities will be provided to all the people and pure drinking water facilities will be expanded within the next 20 years. Sewerage treatment systems will be constructed in all urban areas within the next 20 years. Appropriate solid waste management and disposal system will be provided in all the urban areas. The level of sanitation in the rural areas will be improved by encouraging people to construct appropriate and affordable latrines that fit to the local condition. Because of availability of pure drinking water and improved sanitation, people will be healthier and their time wasted in fetching water will be saved.

Table 3
Long-term Projection of Major Social Indicators

S.N.	Sector	FY	Planning Period			
		1996/97	Ninth	Tenth	Eleventh	Twelfth
1	Infant Mortality Rate (per thousand)	74.7	61.5	50.7	41.7	34.4
2	Maternal Mortality Rate (per one hundred thousand live births)	475	400	350	300	250
3	Child Mortality Rate (per thousand)	118	102.3	86.8	73.7	62.5
4	Total Fertility Rate (per thousand)	4.58	4.2	3.81	3.43	3.05
5	Average Life Expectancy (years)	56.1	59.7	63.0	66.0	68.7
6	Users of Contraceptives (%)	30.1	36.6	43.9	51.1	58.2
7	Maternal Services by Trained Health Workers	31.5	50	65	80	95
8	Crude Death Rate (per thousand)	11.5	9.6	8.1	6.9	6.0
9	Crude Birth Rate (per thousand)	35.4	33.1	30.4	27.5	26.6
10.	Availability of Essential Health Services(% population)	-	70	80	85	90
11.	Drinking Water A. Population Served by Drinking Water Facility (%)	61	100	100	100	100
	B. Population Served by Pure Drinking Water Facility (%)	15	25	40	60	85
12.	Primary Education (6-10 years old children in %)	70	90			100
13.	Secondary Education (14-15 years old children in %)	45	60			100
14.	Literacy Rate (15 years and above in %)	40	70			100

Other Developmental Targets:

Population: Taking into account the adverse effect of high population growth on economic and social development, people will be encouraged to adopt the concept of small family. Fertility-related programmes will be implemented effectively through the easier availability of quality family planning services. Consistent with this, the

long-term objective of reducing the total fertility rate of the Kingdom to the replacement level within the 20 years has been adopted. The availability of contraceptives will be expanded in a way to meet people's growing demand. The policy of distributing good quality contraceptives will be followed with the cooperation of private and non-governmental agencies in order to encourage each family to have two children only, which in turn will help create a desirable economic and social situation.

Human Resources: The long-term concept with regard to human resources development is to develop and mobilise human resources that are skilled, creative, adaptive and endowed with enhanced capacities to meet the developmental need of the country. The population will be developed as human capital. Existing manpower will be effectively utilised and additional manpower will be developed according to the demand for and supply of labour. Contributions to the alleviation of poverty will be made through the increased availability of self-employment and other employment opportunities, and to the development of skilled manpower through skills oriented training. Emphasis will be given to make the manpower capable of competing at the international level. Priority will be accorded to creating skilled manpower that can adapt to changing technology.

Environment: The conservation of Nepal's natural environment and creation of programmes for sustainable development are challenging tasks. The long-term view foresees the integration of environment with development and the inclusion of environmental concepts in sectoral development programmes. For carrying out this task, emphasis will be given to encourage joint and collaborative efforts of government agencies, local bodies, non-governmental agencies, consumers' groups and private sectors. The idea that, "environmental conservation is everybody's concern and responsibility" and building up a voluntary and participatory approach to environmental protection, conservation and management will be emphasised as well.

Forestry Development: Forestry being a major natural resource is vital for Nepal's development. The long-term concept of this sector is mainly based on the principles, guidelines and policies that have been formulated under its Master Plan. The forestry sector will be developed as a foundation for the sustainable development. Herbs and medicinal plants programmes supported by modern technological skill will be expanded on a massive scale to the potential areas of high and middle hills in a systematic way. Forestry, herbs and medicinal development programmes will be implemented as a basis for rural development so as to contribute to poverty alleviation and employment promotion. Studies on alternative measures to develop forestry will be carried out and an integrated and action-oriented approach will be adapted to this effect. Community forestry programmes will be continued by using the concept of community ownership and by setting up units at the village and consumers' level based on the participatory approach.

Good Governance and Development Management: As there is a strong need for a people-oriented administration, long-term administrative policy will be formulated and implemented in this respect. A clean, transparent, responsible people-oriented administrative system will be established. The scope of government sector will be

reviewed to assign a small, clean and efficient role for the government. The participation of non-governmental and private agencies will also be enhanced. Together with committed administrative leadership, an administrative system as competent as the private sector and non-governmental sector will be developed. The concept of qualitative management will be fostered in the administration. Necessary arrangements will be made to make the system fully functional in tune with the spirit of decentralisation. Any inconsistency between objectives set forth in the plan document and policies, implementation strategies, programmes and budgets will be identified in time. The monitoring and evaluation system will be geared towards ascertaining the attainment of long-term targets so that there is no gap between targets and performance.

Chapter 3

Objective, Policy and Development Thrust of the Ninth Plan

3.1 Objective, Policy and Priorities

1. Background

Nepal embarked on periodic planning as early as 1956; however, up to the Fifth Plan, emphasis was laid mainly on building physical infrastructure and erecting the foundation of development in the country. It was only after the Fifth Plan that efforts were made to launch with priority the productive sectors such as agriculture and forestry and human resource development.

When compared to previous plans, the Eighth Plan featured some fundamental differences. While all the earlier plans followed controlled economic policies, the Eighth Plan made a distinct departure with placing emphasis on liberal, market-oriented economy. The role of the government as well as the private sector was demarcated clearly at the policy level. Government was assigned the role of facilitating economic activities, promoting private sector, and building physical infrastructure to enhance economic activities and sustaining social service sector by opening this sector for the private sector as well.

2. Objective

It is true that achievements, to some extent, have been made in the development of physical and social infrastructure through the implementation of preceding plans, and particularly, the growth rate of non-agriculture sector has increased as a result of policies adopted in the Eighth Plan. However, it is also true that desirable progress has not so far been achieved in alleviating the problem of rampant poverty and unemployment in the country. Therefore, with the aim of accelerating the process of national development, the Ninth Plan has adopted poverty alleviation as its main objective so as to lessen poverty confronting the whole nation. In doing so, a consistency will be maintained with the development concept of the 20-year perspective planning.

In the Ninth Plan, a clear and concrete implementation strategy will be formulated for meeting the target of poverty alleviation, and thereby improvement will be brought about in the living standard of the poor community. For reducing poverty effectively in the long run, poverty-focused sectoral and targeted programmes will be launched in a coordinated, integrated and effective way.

3. Strategy

Following strategies will be adopted for achieving the objective of poverty alleviation:

- Integrated development of agriculture and forestry sectors and high, sustainable and poverty alleviation-oriented economic growth with a focus on those sectors.
- Acceleration of industrial development process through the advancement of such sectors as agriculture, water resources, industry, tourism, and transportation on the basis of comparative advantage and competitive capability.
- Reduction of economic and social inequality existing among various sectors and communities especially through the means of agriculture and social sector programmes.
- Lessening the dependence on external aid through extensive mobilisation and optimal utilisation of natural, human, and economic resources available in the country.
- Recognising cooperatives as a powerful instrument for the development and expansion of economic sectors such as agriculture, industry, trade, etc.
- Streamlining the development and expansion of modern sectors through liberal, market-oriented economic policies while stressing the active role of the government in developing and building rural sector. Recognising the fact that a single set of policies cannot resolve basic problems of the organised modern sector as well as the unorganised, backward rural sector in the dual-structure Nepalese economy.
- Enabling the local institutions to take leadership in rural development through decentralisation.
- Placing special priority on the development of backward regions so that the people in those regions will enjoy the benefits of economic programmes.
- Developing human resources for sustainable and high economic growth through the extensive expansion of social sectors, especially education and health, and bringing the backward sections of society into the mainstream of development.
- Expanding education and family planning programmes through gradual reduction in the population growth rate and promotion of social awareness.

4. Policy and Implementation Strategy

- Making economic growth rate high and broad-based with further consolidating the economic reform process.
- Developing agriculture sector through implementing the Agriculture Perspective Plan (APP), considering the fact that majority of the people rely on agriculture for livelihood.
- Increasing agricultural productivity with guaranteeing the safety of land-ownership, accessing landless farmers to the land, extending land-ownership, and alleviating poverty through the promotion of economic growth and employment by establishing, developing and expanding agro-based industries.
- Empowering economically and socially the backward and downtrodden castes

and communities through decentralisation, local development and human resource development. People's participation will be made instrumental in this process.

- Enabling the growing human resources to become entrepreneurial, self-employed and employable getting employed through human resource development and extensive expansion of entrepreneurial and skill-oriented training programmes. Such programmes will be made a main instrument for poverty alleviation. In this process, services including technical assistance, consultancy and the credit-flow will be extensively made available in villages.
- Expanding income-oriented employment opportunities through outreaching the fruits of programmes effected in agriculture, cottage and small industries and tourism sectors.
- Reducing inequality of income and poverty by investing more in sectors that will give greater return within shorter period, that are employment-oriented, and that will contribute to equitable distribution of development benefits from such sectors as agriculture, small and cottage industries, tourism, and transportation.
- Implementing in an integrated way the employment promotion programmes run by the government, private, banking and non-government sectors as well as local institutions.
- Expanding export trade through diversifying foreign trade on the basis of comparative advantage and competitive capability. Necessary legal and institutional infrastructure will be developed in order to set a competitive climate.
- Developing and expanding economic and social infrastructure for increasing production and the productivity of economy.

5. Priority

In keeping with the limited economic, human, and institutional resources of the country, all activities cannot be carried forward simultaneously. Therefore, the long-term objective of development and the geographical priorities set accordingly will be as follows:

Agriculture and Forestry

As agriculture has remained the backbone of economic development and majority of the people depend on it to earn their livelihood, as investment will be flowed into the non-agriculture sector at the initiative of agriculture sector, thus contributing to poverty alleviation. As there is immense potential of the development of agriculture sector in the country, this sector will be developed in line with the APP. It is expected that the successful implementation of the APP will lead the existing agricultural production to be increased by additional two percentage points. Forestry sector will be optimally utilised and enhanced in order to integrate it into the country's development programme. Herbal and livestock development programmes will be extensively expanded in the high mountain region with a view to developing that region and making such programmes integral to the poverty alleviation programmes.

Water Resources

Energy holds great significance for boosting economic activities and improving the life standard of the people. Developing huge water resource potentials of the country will not only meet the country's energy demand but also greatly help to develop agriculture and industry sectors, facilitate socio-economic development, and contribute to poverty alleviation. It is in this context that the Ninth Plan, by ensuring the participation of the private sector as well, intends to tap and utilise water resources for gaining social benefits. Besides, special emphasis has been laid by the APP on the development of water energy with a view to meeting the need of supplying electricity for lift irrigation and agro-production processing schemes. Shortage in electricity supply, experienced for the last several years, will come to a total end during the Ninth Plan period.

Human Resource and Social Development

In the Ninth Plan, major portion of investment will be channeled into such programmes as education, health, drinking water, local development, literacy, and women's development; holding the notion that human resources development is an inseparable component of poverty alleviation. In addition, with a view to empowering the people economically and socially and to increasing opportunities for the skill-oriented training for self-employment and full employment, various sectoral as well as targeted programmes related to human resources and social development will be launched.

Industrialisation, Tourism Development and International Trade

Development of industrial sector is of immense importance for rapid economic progress of the country. Likewise, as tourism has remained as an enterprise of comparative advantage and with enormous development potential, the tourism and industry sectors will be promoted as vital constituents of the all-round economic development of the nation. In particular, keeping in mind the possibility of regional and bilateral trade relations including those with the neighbours, industrial development will be encouraged as the basis of export-oriented trade. In this context, the government will lessen the restrictions of rules and regulations and stress infrastructure development along with inspiring the private sector to increase its investment in the advancement of both the sectors.

Physical Infrastructure

Physical infrastructure such as roads, bridges, and air transport and communication facilities are essential preconditions for achieving success in reducing poverty, accelerating the growth rate and uplifting rural communities. Therefore, the Ninth Plan will put special focus on developing such infrastructure, and in this context, the role of the private sector will be highlighted. Programmes such as building roads that interlink district headquarters as well as the farm roads and communication facilities accessible to the bulk of populace will be advanced with priority.

3.2 Major Sectors of Development Thrust

Development is a multi-dimensional concept and its main objective is to uplift the living standard of the people. As the country's socio-economic conditions and interactions among them have a great influence on strengthening the status and accelerating the speed of development, it is necessary to ascertain the types of foundations needed for positively contributing to the socio-economic sector of development.

While formulating the foundation and concepts of development, it is necessary to seriously keep in mind such factors as historical background, geographical situation, economic, social and political conditions and institutional arrangement for implementation. However, even more important while devising the development strategy are such issues as formulating policies that are capable of confronting challenges existing in the country, chalking out programmes that ensure the implementation of those policies, and strengthening effective institutional structure in order to successfully carry out those programmes. In this process, various internal and external factors may necessitate some essential adjustment in the development policies and strategies. However, it is safe to conclude that sustainable and speedy development always demands clarity, stability and effective implementation of policies and strategies adopted in this regard.

The first-half period of the Ninth Plan will concentrate on preparing a blueprint for the foundations to be built and the sectors and policies to be emphasised, keeping in view poverty, slow pace of development, state of regional disparity and other socio-economic challenges prevailing in the nation. The Plan believes that such a blueprint made and followed sincerely will contribute substantively to development efforts. It is with this intention that the Plan has defined the major sectors of development thrust, and efforts will be made to advance them as follows:

3.2.1 Macro-economic Stability

Maintaining a situation of macro-economic stability is highly essential to achieve objectives set forth in the Ninth Plan making market-oriented economy effective. For this, policies have to be adopted aiming at reducing budget deficit, keeping the size of domestic borrowing well within desirable limits, keeping price inflation and money supply under control, and increasing savings and investment. Accordingly, for bringing about external equilibrium, policies need to be targeted to making exchange rates balanced and realistic, and smoothening the balance of payment situation both by raising the foreign currency earnings from export and tourism sectors and by reducing the current account deficit.

For the realisation of the goal of poverty alleviation and meeting the target of 6 percent annual growth rate, it is necessary to put special emphasis on domestic resources mobilisation and promote investment both domestic and foreign for reducing the gap between investment and savings. Therefore, with a view to excessively mobilising domestic resources, the Ninth Plan has set a target of

increasing the revenue growth rate by 10.2 percent at constant prices. To meet the target, programmes such as strengthening tax administration, expanding tax net and reforming tax system through consolidating as well as successfully implementing the taxes like VAT will be carried out. Unproductive and wasteful expenses will be controlled and government resources will be channeled into the priority sector in order to make the government expenditure management competent and strong. Government involvement will be reduced in those sectors where the private sector has shown interest for making investment, and emphasis will be laid on mobilising resources towards other needed sectors. Regular expenses will be kept within a desirable limit.

During the Eighth Plan period, a trend was seen as to the downturn in domestic borrowing and budget deficit compared to GDP. This trend will be continued during the Ninth Plan as well with putting particular emphasis on economic discipline.

Programmes that will increase national savings, encourage savers to save through banks and financial institutions by making interest rate even more competitive, and promote foreign investment and private sector remittances will be brought into operation.

The monetary policy of the country will be carried out with the objective of economic development through maintaining price stability. During the Ninth Plan, consumer price index will not be allowed to soar by more than 6.5 percent. For this, the growth rate of money supply will be kept within a limit of 13 percent. Accordingly, in order to maintain external balance, the Ninth Plan will adopt a policy that will keep the growth rate of imports within a limit of 8.5 percent, and increase the exports by 11 percent, thereby bringing down the growth rate of current account deficit to 1.7 percent. The Plan will also embrace a policy of fixing foreign exchange rate in such a way that it will be guided by the market and, at the same time, will facilitate the export trade of the country.

3.2.2. Poverty Alleviation

Poverty has stood as a serious challenge to the country. According to Nepal Living Standard Survey 1996, 42 percent of the total population have remained below the absolute poverty line. Among them, about 17.1 percent are counted as ultra poor or the poorest.

The Ninth Plan has set poverty alleviation as its main objective with a determination of bringing down the number of those below poverty line from 42 percent to 32 percent. The Plan also aims at improving the living standard of the people below poverty line, placing special emphasis on uplifting the living standard of those lacking productive assets and income-generating resources and those counted as the poorest, empowering socially and economically the backward, downtrodden and weaker sections of society, and lowering the high incidence poverty by developing physical, social and economic infrastructure in the underdeveloped, remote regions of the country.

In order to meet the objective of poverty alleviation, a strategy directing the whole efforts towards meeting that objective has been chosen. In this context, emphasis will

be given to achieving high economic growth rate in various sectors and also to generating extensive employment opportunities. Together with the implementation of the APP, agriculture sector will be given a lead role to play in poverty alleviation. Along with making efforts to gain high growth rate and create extensive employment opportunities, stress will be put upon uplifting the socio-economic status of those from backward, remote regions and the neglected and weaker sections of society by accessing to them primary health, education and drinking water. Likewise, programmes such as skill development, credit flow, social mobilisation, population control, women's empowerment, rural electrification, environment protection, and legal provisions against various exploitation of weaker sections will be emphasised upon for the purpose of poverty alleviation.

3.2.3 Population Planning and Family Welfare

According to a mid-term population study held in 1997, the estimated average growth rate of population in Nepal during 1990-1996 has reached 2.38 percent per annum. In the context of high population growth, it is obviously difficult to provide people with a sense of achievement from the successful implementation of poverty alleviation and employment programmes. The Ninth Plan has set a target of bringing down the population growth rate around 1.5 percent during the period of next 20 years, and various programmes will be implemented to achieve this target. In this process, keeping in view the concept of long-term development programmes encompassing such areas as income generation and employment promotion besides other sectors such as health, education and family planning will be brought into operation.

3.2.4 Human Resource Development

It is the knowledge, skill and expertise as well as the natural resources inherent in the country and its citizens that really build up the asset of that country. Human resources bring dynamism into other resources and make it possible to efficiently utilise such resources, and this is how the country can be led to the path of development by properly mobilising human resources. Of all the resources of production, human resource is the only sector, which can result in relatively higher gains. That is why, special emphasis is being given to the development of this sector. The process of human resource development encompasses not only the organised sector but also the knowledge, skill and expertise of the whole population. Human development means building up competent, skilled and healthy human resources by making available the social services such as proper education, training, health services, sanitation, housing, drinking water, etc. In other words, improving the living conditions of the whole populace of the country by expanding the social services is called human development. While measuring the aggregate level of human development, components such as knowledge, life expectancy, and living standards are taken into consideration. As these components are determined by factors such as literacy, daily average level of food calorie, life expectancy, shelter, security, participation, and environment, attention should be paid to these factors as well. In order to develop human resources during the Ninth Plan, various sectoral and targeted programmes will be expanded and strengthened.

With a view to bringing down the population below poverty line from the current 42

percent to 10 percent within the year 2017, and promoting positive human values such as competence, creativity, multi-dimensional skills, and receptiveness through human resource development and mobilisation, following policies and implementation strategies will be adopted:

- In order to increase gradually the average literacy and female literacy through extensive expansion of education programmes, necessary measures will be devised and implemented. Emphasis will be laid on science, mathematics and computer education right from the lower secondary level and vocational education and training programmes will be implemented with the participation of private sector as well. Private sector will be encouraged to maintain quality standard in education and to found schools that will provide quality education.
- Health sector programmes will be expanded to village level. Emphasis will be given to the basic health and family planning programmes. Encouragement will be given to private sector for developing health-related high and medium level human resources.
- Formal and informal training programmes will be made widespread in order to increase the supply of basic and medium level human resources.
- Women's and vocational education will be effectively carried out. In particular, appropriate skill-oriented training will be provided to rural women for their upliftment and encouragement will be given to them to become self-reliant and capable through the provision of employment and self-employment.
- Need has been felt for developing multi-skilled human resources in order to minimise both the adjustment cost and the effects of the potential changes in global environment and technology. For this, programmes such as training and refresher training will be conducted on a regular basis, and through this process, trainees will be made familiar with the changing technology and know-how.
- Training quality will be improved by generating competitive environment between government and non-government training institutions. Voucher system will be gradually initiated in the government training programmes targeted to special groups, and through this, opportunity will be offered to select training institution by oneself.
- Training loan will be provided to those who are willing to receive training on self-finance basis but unable to do so due to poor economic condition. Encouragement will be given to those private training institutes which conduct "earn and pay back" programmes offering an opportunity to start paying back the training loan after getting into employment.
- In order to meet the objective of poverty alleviation, skill-oriented training programmes will be carried out on a campaign footing, targeting those groups identified as being below the poverty line.
- As the tourism industry has expanded as one of the latest employment generating sectors, government and non-government organisations as well as private training

institutes will be given support to produce human resources as per the need of this sector.

- In keeping with the trends of changing technology and demands and with a view to improving the subjects, techniques, and modality of training, emphasis will be given to curriculum improvement and research.
- Skill-oriented training institutes will be equipped with adequate resources in order to enhance their capacity. Likewise, an arrangement will be made to carry out the accreditation of training by one single institute so as to ensure the quality standard of training.
- Measures will be taken to ensure that there will be no shortage of competent human resources by bringing timely reforms in the training conducted within the country and in foreign scholarships relating to study and training.
- Necessary steps will be initiated to found an autonomous institution in order to promote foreign employment as well as to maintain credibility in this sector. Nepal's diplomatic missions or other government institutions operating in those countries with maximum foreign employment potential will be mobilised with a view to expanding the market for foreign employment, enhancing its credibility, and protecting and defending the rights and interests of Nepali workers abroad.
- For the elimination of child exploitation and child labour, programmes targeting the welfare and rehabilitation of children will be implemented through government and non-government organisations.
- Occupational health and safety standard will be set up and public awareness to this effect will be increased.
- Opportunities will be created for underprivileged and disabled sections of society.
- Participation of non-governmental organisations and local communities in development activities will be stressed.
- While implementing human resource development programme, arrangement will be made to execute specific programmes aimed at uplifting the status of backward ethnic communities and rural women.
- A human resource inventory system will be developed in order to collect data on human resource available in the country and integrate it into a systematic pool of information. Concerned agencies will be made responsible for the task of coordination, monitoring and evaluation of activities of government, non-government and private sector organisations involved in human resources development.

Poverty alleviation programmes require to be oriented toward human resource development rather than merely being oriented toward economic resource mobilisation. Human resource development programme will, in addition to enhancing the capability of those below poverty line and other targeted groups, create a condition for enabling them to work. For this reason, the policy of advancing poverty

alleviation objective through human resource development has received prominence in other similar programmes. Those living under the shadow of poverty never have an access to the means of production. Consequently, the poor class has not been able to take benefits from the distribution of the outputs of production. It is believed, therefore, that the human resource development programme which has been designed, targeting the poor and those lacking access to the means of production will increase such access and, as a result, share of the poor class in the outputs of production will be gradually enhanced. If the progress goes well as per the set goal, Nepal's human development level will reach the average level of developing countries.

3.2.5 Domestic Savings Mobilisation

Savings possess great significance in a country's development. While high savings result in high economic growth rate, rapid development leads in turn to high savings. Nepal's savings rate is lower compared to other developing countries; however, even to achieve 5 to 6 percent economic growth rate, more than 25 percent annual investment of GDP is considered necessary. As the country's current domestic savings is about 14 percent, the economic resources are by nearly 11 percent short in proportion of the GDP. The situation is such that huge portion of investment has still to be made with external resources.

The savings growth rate depends, among others, on the level of country's per capita income and its growth rate, population growth rate, interest rate on savings on bank accounts, banking and financial facilities, net factor income, etc.

During the Ninth Plan and other subsequent plans, economic growth rate will be accelerated through implementing various policies and programmes that will enhance investment portfolio in agriculture and non-agriculture sectors. Likewise, as it is estimated that the population will go down by implementing various strategies, annual per capita income will expectedly rise by 3.6 percent during the Ninth Plan there-by leaving positive impact on savings. During the Ninth Plan, the real interest rates of commercial banks and financial corporations will be made positive and competitive. In this context, commercial banks, development banks and finance companies will be transferred to the private sector in a way to help maintain financial development and stability, and the banking sector will be made more competitive by adopting open-door policy.

Accordingly, by expanding financial institutions and developing savings instrument, national savings mobilisation will be strengthened. Emphasis will be laid on developing various such instruments of financial savings as insurance, mutual fund, provident fund, etc. To discourage a tendency of keeping family savings in the form of immobile capital (gold, silver, ornaments, etc.), monetisation based on market economy will be stressed.

In order to increase external capital especially the factor income as a supplement to the gross domestic savings, foreign employment will be expanded and promoted; and to increase remittance coming therefrom, various policies and programmes will be implemented.

Owing to the huge increase in government expenditure and to the absorption of

substantive portion of revenue savings by regular expenses such as salary and allowances, government savings have not succeeded to rise. To reform this scenario, policies such as keeping regular expenditure within desirable limit, reducing wasteful expenditure, strengthening public corporations and increasing revenue will be effectuated

Drawing on the experiences of various countries, keeping in mind Nepal's national development potential, and considering the successful implementation of policies and implementation strategies of the Ninth Plan, it is likely that in the next 20 years, country's national savings could reach up to 30 percent.

3.2.6 Development of Private Sector and Enhancement of Competitive Ability

Keeping in mind the experiences of developed countries, it will be appropriate that in the course of accelerating the speed of development, market-oriented economy rather than the active intervention of the government should be made a major driving force. Not only has a desirable social change been noticed in the psyche of the people of the nation through such market-oriented economic development programmes, but it has been revealed that these programmes have left a very positive impact on other economic activities as well. Market-oriented economic development basically means to keep on encouraging private sector with gradually lessening the intervention of the government sector in development endeavours.

Developing countries moving on the path of rapid economic development have launched market-oriented economic reform programmes in keeping with the needs and constraints of those countries. Since the private sector, which plays a major role in implementing market-oriented economy is not perfect in itself. It is influenced both by government policies on such areas as macro-economic, sectoral and foreign investment and by the ability of small scale entrepreneurs as well as legal instruments, it is necessary that the government put emphasis on developing these complementary policies and instruments. Likewise, experiences of various countries show that strategies such as reducing the government intervention in the industry and commerce sector, deregulating and liberalising government instruments, reducing the size of government budget, and transferring the public enterprises under state ownership and control to the private sector can be undertaken to promote the private sector development and the competitive climate in the economy.

Reforms in entrepreneurship and development of private sector are two basic measures for strengthening the market-oriented economy. These measures encourage the private sector to make independent decision on such issues as production, consumption, savings, and investment. As the advancement and efficacy of the private sector largely depend on the official policy environment as well as the country's existing physical infrastructure, following arrangements will be made to enhance the private sector and its competitive ability:

- Private sector will be made actively involved in the area of formulating plans, policies, and rules.

- As reforms in trade and industrialisation policies are necessary to promote the role of private sector, policies that encourage rather than unnecessarily protect export-oriented industries and trade will be followed.
- Following Nepal's entry into South Asian Preferential Trading Arrangement (SAPTA), South Asian Free Trading Arrangement (SAFTA) and World Trade Organisation (WTO), attempts will be made for enabling Nepalese industrialists and businesspersons to handle threats and opportunities that will arise from Nepal's becoming member to those organisations.
- In order to inject even more competition into private sector, measures will be sought and implemented for making bank interest rate competitive, putting limits to the extension of bank loans, and doing away with unproductive burden of bank loans.
- As it is not appropriate to entirely depend on foreign aid for development, policies advancing foreign direct investment (FDI) will be adopted so as to further non-loan capital influx into the country. Emphasis will be given to creating a favourable economic climate, developing infrastructure, producing competent manpower, and building appropriate legal arrangements.

As the adoption of suitable policies relating to the development of small and medium industries will help promote industrial employment and capital formation and resolve the problem of disguised unemployment. Since the private sector plays a major role in this process, development of small and medium industries will be specially emphasised.

As the increase in expertise and productivity of the private sector is not possible without human resource development or investment especially in education, health and training, special programmes will be launched in cooperation with private sector with a view to enhancing competitive productivity and entrepreneurship capacity of the labourers. Likewise, with the formulation and implementation of appropriate strategies and programmes for transportation and communication, legal structural arrangements, agriculture and services, and also with the increase in competitive capacity of the private sector, programmes will be carried out in a coordinated manner in order to facilitate economic development.

3.2.7. Science and Technology

In Nepal, science and technology have recently been in great use for increasing production and delivering services especially in such areas as agriculture, industry, forestry and other economic sectors. However, with a view to improving the living standard of the low-income people, it has become necessary to face a challenge to increasing productivity through the proper utilisation of natural and human resources scarcely available in the country. In this context, it is essential to launch programmes such as experiment and development of indigenous and advanced technology, reforms in education, etc. Choosing and using technologies from among those available in the market in keeping with the country's geographical, socio-economic and cultural context will immensely help increase productivity.

Human Resource Development: During the Ninth Plan period, an environment conducive to the provision of quality education in areas of science and technology will be created at all three levels of education, i.e. at school, college and university. With an objective of integrating science into daily lives of the people, technical education will be incorporated into and its share will be gradually increased in three levels of education. For upgrading the level of such education to that of regional and international standard, appropriate arrangements will be made for providing necessary material resources, research environment, educational exchange, training, etc. Students will be attracted more towards technical education than merely imparting them with the plain theoretical knowledge. In order to utilise the skilled human resources thus produced, industrialisation and service-oriented technological sector will be expanded.

Development of Indigenous Technology: In order to offer employment to the majority of the people by applying raw materials scattered throughout the country and also by utilising local skills, technological sector will be optimally utilised and updated as per the need of the country. Appropriate programmes will be initiated to protect and promote such indigenous technologies.

Development of Adaptive Technology: Technologies appropriate to national requirements will be imported from the international market. After conducting necessary study and research and also keeping in view the experiments carried out by other Asian and European nations, a kind of adaptive technology will be developed and then publicised, popularised and transferred so as to make the technology accessible to the larger sections of the population.

Development of Advanced Technology: Technological innovations of advanced level through collaboration among native, regional and international scientists and technologists will enhance the capability of native scientists as well as increase the country's access to such innovations. While developing these technologies, emphasis will first be given to adaptive technologies, and then attempts will be made to enter gradually into the field of advanced technology.

Selection of Technology: Making a selection of appropriate technology is highly desirable for accelerating the pace of physical development of the nation. While making such selection, emphasis will particularly be laid on the removal of partial unemployment and on the implementation of projects in a frugal manner. In this process, scientific and technical communities as well as the consumers of such technology will be made active participants. While accomplishing the process of choosing appropriate technology in such sectors as industry, communication, electricity, etc. along with ascertaining their priority order, it will be ensured that this process will have a positive impact on economic, social, cultural and environmental aspects of the country.

Utilisation of Natural Resources: Research will be initiated for the proper utilisation of all precious natural resources available in various parts of the country (especially minerals and herbs). Nation will receive economic benefit in great quantity through the manufacturing of processed and semi-processed products made up of those natural resources. Therefore, necessary arrangements will be made towards properly

protecting and developing natural resource endowments.

Research and Development, Coordination and Promotion: Research activities being carried out within the country will be integrated with the development works in various other sectors. Necessary steps will be taken toward establishing research and development as mutually inseparable organs particularly for manufacturing quality products in the industrial sector. Besides, necessary study and research will be conducted and their outcome will be utilised with regard to the development of alternative energies such as bio-energy, solar and wind energies. In this context, an interaction will be arranged among research institutions, industries and stakeholders. Likewise, coordination will be maintained among various agencies operating in the field of science and technology while monitoring their activities. Necessary incentives will be provided to scientific and technical communities in order to attract them to research activities.

3.2.8. Information Technology

Industrialisation, expansion in the world market and modernisation in agriculture, communication, education, health, and every other sector at a rapid pace have become a recent global phenomenon. In this context, unprecedented advancement in the field of information and communication technology has helped people to embrace a modern, dynamic lifestyle through establishing an intimate relationship among the people, technology and development, and all this has contributed to extend the fruits of technological programme down to the common masses. Communication links have become easier and less expensive due to the application of communication equipment such as audio-visual and various micro appliances used in telecommunication sector. Similarly, upgrading the computer capacity, using digital network, establishing links between telecommunication, computer and broadcasting etc. have all contributed to making information and statistics accessible and affordable. In the context of growing interdependence in the telecommunication and broadcasting sector due to the development of modern automatic equipment such as fibre optic, satellite, radio spectrum, compression technology, ADSL, HDSL, ATM, etc., it has become possible to extend such communication services as multi-media even to the remote rural region.

Development of information technology in Nepal remains in its elementary state as compared to developed countries. Use of computers in the government sector is rather low in spite of the fact that about 20,000 computers are now in use throughout the Kingdom. For the last few years, government as well as non-government agencies have been using computers for creating a data bank that keeps relevant details and facts, for analysing those data, for carrying out daily tasks smoothly and also for enhancing the capability of employees. Yet, success has not been achieved so far in collecting and integrating those data into a national institutional network and utilising them as a common asset for common benefit.

The increase in the use of computer, the development of qualitative telecommunication network, the initiation of internet and e-mail services by the private sector and the growing attraction towards software business have indicated that Nepal will also be oriented towards creating a society that produces and

possesses economically viable information. The expansion of national information network will contribute to multi-dimensional development of agriculture, health, education, etc. on the one hand, and the establishment of information technology (IT) Park and the production and the export of software at lower cost will make information technology a self-sustainable industry, on the other. In view of this prospect, policies will be adopted during the Ninth Plan as to ensuring a wide outreach of computer education in schools, making provision of higher education and training, establishing quality education schools and IT Park, and providing special encouragement to computer business.

Information technology will be developed in a way to play a highly contributory role in the all-round development of the nation. Emphasis will be laid during the Ninth Plan on the utilisation of computers as regards the formulation and management of plans and policies in the government offices. Institutional efforts will be made to bring out coordination for the development of computers and information technology through involving concerned institutions and individuals in sectors such as education, health, agriculture, finance, intellectual services, etc. with a view to developing information technology as a development infrastructure.

Through the initiation of nationwide database in cooperation and collaboration with the government as well as private sector, programmes will be launched to benefit common people with integrated information services. Educational and training opportunities will be expanded in order to build up skilled human resources for the development of information technology. Concessions will be provided to develop information technology as a service industry, and intellectual property rights will be ensured for the development of software industry.

In the education sector, modern education and long distance education will be expanded through Internet, while radio education will be made widely effective in rural areas. In the health sector, attempt will be made to provide medical check-up and counseling through computer system as well as counseling by expert doctors through the means of multi media. In the agriculture sector, technology will be brought in use as to reaching decisions on the adoption of agro-climatically feasible agricultural systems and also the land use techniques through geographical information system (GIS). Banking transactions will be simplified by further expanding the application of computers, and new communication instruments such as credit cards and ATM services and facilities will be increasingly brought into practice to facilitate paying bills, purchasing goods, etc. Furthermore, application of new information technology will be further emphasised as regards the essential preventive and protective measures to be adopted at the time of natural disasters such as earthquake and flood, and also regarding the protection and promotion of environment and ecology.

In order to carry out economic development activities of the nation in an effective, reliable and result-oriented manner, following policies will mainly be adopted, keeping in mind the objective of long-term development of information technology and information systems:

1. As information sector remains tremendously dynamic sector, a cell will be

formed within the National Planning Commission with a view to formulating a contemporary information technology system being familiar with advancement in this field at the global level. This cell will formulate and implement policies and programmes in coordination with the government agencies using the information technology and systems such as education, health, agriculture, finance, communication, commerce, etc.

2. In order to provide information to the common people in a smooth and easily accessible manner, liberalisation policy will be adopted in the information and communication sector. In this process, national communication infrastructure will be developed and expanded through the use of modern communication technologies such as optical fiber, satellite, ATM, etc.
3. Information systems will be initiated and developed for enhancing working capability and competence of various related institutions. In order to ensure the availability of information to the common people, a networking system will be built to which agencies involved in study, research and development activities will also be integrated.
4. With a view to developing competent human resources required for an Information Age, education policy will soon be updated and then effected.
5. As there will be a wider use of computers while developing information systems, facilities will be provided to manufacture computers and software within the country and, through this measure, private sector will be encouraged to build such infrastructure as Virtual Park, IT Park, etc. For the purpose of supplying skilled human resources for software production and development, a software institute will be immediately operated in the private sector involving the government sector as well.
6. Legal recognition will be rendered to the business activities conducted through such instruments as Intellectual Property Right and Electronic Media which are considered necessary for the sufficient production, development and export of software.

3.2.9 Development of Agriculture Sector

Geographical diversity is one of the major characteristics of Nepal, which has offered a diverse and immense potential in the agricultural sector. Presently in the agricultural sector, all-season irrigation facility is available only to less than 20 percent of arable land. Utilisation of production inputs is less than one-fourth of what is required whereas the productivity of the agriculture sector is less than one-third of what could otherwise be achieved using scientific means. Against this background, it is only through the increase in the availability of production inputs such as irrigation facilities and also through the suitable climatic conditions in the country that agricultural development can push forward for poverty alleviation and employment promotion. There is tremendous possibility of increasing agricultural production three to four-fold by developing animal husbandry of various types, horticulture, and vegetable and food-crop farming. Nepal's topography possesses all necessary infrastructures of agricultural development such as abundant availability of under-

ground and surface water in the form of ground water as well as rivers and rivulets, fertile composition of soil, and suitable land. Likewise, there has been significant progress in the past with regard to developing human resources and institutional infrastructure appropriate for agricultural development. The only need of the hour, therefore, is to leap forward with consolidating and utilising the gains achieved so far in this field. As Nepal's two immediate neighbours are the two greatest countries in the world, market should not be a problem. Our current challenge is thus to increase production and productivity and develop the quality of production by making the most of geo-ecological diversities so richly existent in the country. As the majority of the population rely on agriculture for livelihood and as there is immense development potential in the agricultural sector, even the presently considered short-term alternative for the country's long-term goal of all-round economic development and poverty alleviation is obviously agriculture itself.

Achievements made in agricultural development in the past have not been much satisfactory. Analysis suggests that inadequate investment, diffusion of investment within the agricultural sector in the absence of proper prioritisation, and insufficient availability of production materials in the market due to weak sectoral policies related to agriculture have mainly been responsible for the failure to significantly increase agricultural production and productivity. Since the growth rate of agriculture sector has slackened and moved forward only in par with the growth rate of population and the agriculture's share in the GDP has been enormous, it is but natural that country's economic growth rate has also been significantly low in the past several years.

Internalising the afore-mentioned problems and prospects in the agricultural sector, a 20-year Agriculture Perspective Plan (APP) has been formulated and effected right with the start of the Ninth Plan. During the Plan period, policies incorporated into the APP will be pursued continually as the Plan has made the APP the fundamental basis for agricultural development. The Plan upholds the APP's premise that one percent growth in agriculture sector will result in 1.5 percent growth in non-agricultural sector.

.In order to support agriculture as a productive sector, the APP has placed emphasis on small irrigation schemes, chemical fertilizer, rural roads and electrification, agricultural technology as production input and high value horticultural products, intensive crop farming, increased livestock productivity with improved animal feed and animal health, the development of agro-business and the provision of community and lease-hold forest. Keeping in mind the local specialty of various geographical regions, the APP has stressed on farming such fruit varieties as mango and apple, animal husbandry, sericulture, off-seasonal vegetables and apiculture. Raising cattle for increased production of meat and milk has been emphasised both in hills and in the *terai* region. Likewise, emphasis has also been laid on intensive food-crop development through the provision of shallow tubewell in the *terai* region. These priorities have also been incorporated in the Ninth Plan and the programme has been formulated accordingly. Furthermore, the Plan also has aimed to enhance the accessibility of agricultural loan to the rural poor as envisaged in the APP.

The strategies worked out in the APP have been targeted to meet the objectives of

securing high economic growth by transferring subsistence agricultural system into commercial agricultural system, strengthening the base of industrial development, and focusing poverty alleviation through employment promotion. In this process, some specific targets have been set in the APP such as continuously increasing the growth in the agriculture sector from the existing annual rate of about 3 percent to 5 percent; raising per capita agricultural income from the existing rate of about 0.5 percent to 3 percent; raising per capita availability of food-grain from the current quantity of 270 kg to 420 kg thereby ensuring food security; reducing regional imbalance; and curbing the pace of poverty through agricultural development, and thereby bringing down the number of people below poverty line to 14 percent in 20 years. These efforts will not only contribute to poverty alleviation, employment promotion and economic growth, but also significantly enhance the status of women through creating employment opportunities for them from horticulture, livestock and sericulture development, in which they are found mostly involved.

There is a policy of bringing about additional economic growth and developmental balance in the hills by following a strategy that will focus on increasing economic growth in the *terai* region through the optimum utilisation of food-grain production potential of the region. The family income generating therefrom will then raise demand for high-value agricultural commodities produced in the hills resulting, in turn, in the increased economic potential of such commodities. It is expected that the effective implementation of this strategy will bring about a balance in the development of both the hills and the *terai* and will have a positive impact on curbing the present tendency of rapid migration from the hills to the *terai*.

3.2.10. Electricity Development

As there is adequate water volume and head required for generating electricity in the country, her total hydroelectricity potential are believed to be 83,000 mw, of which about 42,000 mw is economically viable. The country has so far generated 253 mw hydropower which is just 0.3 percent of the total potential, and the volume of hydro-energy generated so far has been supplying only 1 percent of the total energy consumption. By the end of the Eighth Plan, just 14 percent of the country's total population have benefited from electricity although there are immense possibilities and opportunities for hydropower development. Keeping in view the fact that electricity plays crucial role in the balanced development of agriculture, industry, irrigation, trade and other sectors, it is necessary to generate and distribute it at a reasonable price and also to utilise it in an effective manner. If hydropower is generated adequately by utilising immense water resources available in the country and subsequently exported it abroad at a competitive price, this will ultimately result in uplifting the nation's economic status.

It is an irony that majority of the country's population reside in rural areas, whereas lion's share in the electricity supplied in the country is grabbed by urban consumers. Therefore, keeping in mind the fact that country's all-round equitable development is possible only if electricity supply is made available to the development of agro-industries, irrigation and cottage industries in rural areas, it is imperative to put a special emphasis on rural electrification at a large scale.

Sub-regional Cooperation in Water Resource Development: In India, there is enough landmass but shortage of water during the dry season. In Bangladesh, there is sufficient possibility for navigation but that has not been duly utilised due to the scarcity of water; and in Nepal, landmass is less enough but water resources are abundant. This means that development of water resources in Nepal will result in development of adequate irrigation facilities in India and navigational facilities in Bangladesh. Not only that, sufficient generation of hydroelectricity in Nepal will contribute to meeting the growing demands for electricity prompted by a surge of industrialisation in Northern India. It is for these reasons that sub-regional cooperation is crucial in the development of water resources. Realising this fact, agreements have been concluded in the past in the area of water resource development at bilateral rather than regional level, such as Indo-Nepal agreements on Integrated Development of Mahakali River and on trade of electricity, and Indo-Bangladesh agreement on sharing of the water of the Ganga River. On the other hand, because of the imminent reforms in the structure and financial status of the state electricity boards in India and also of other legal reforms, chances have increased for the electricity export to India, thereby attracting private investors towards tapping this opportunity. During the Ninth Plan period, the government will lay emphasis on developing such multi-purpose micro projects as Pancheswor, Karnali, and West Seti through the utilisation of opportunities arisen from the above-mentioned treaties and agreements and also from the growing market potential in the Northern Indian region.

Private Sector Participation in Hydropower Development: It is not possible to generate, supply and export electricity only from the public sector keeping in view both the growing demand for electricity supplies within the country and the export market potential abroad. Therefore, participation in this sector both from domestic and foreign private investors has become extremely necessary. During the Ninth Plan, special emphasis will thus be given toward generating electricity in sufficient proportion in collaboration with the private sector, meeting its domestic demands at an affordable price while exporting it abroad at a competitive price. To strengthen private sector participation in electricity development, necessary steps will be taken as to reforming existing laws and regulations, concluding bilateral agreements with developed countries in order to remove double taxation system and ensure safe investment, making one-window system even more effective in order to expedite the facilities and permissions to be rendered to the private sector, reducing the risks relating to commercial, legal and political factors as well as natural disasters that appear in the course of implementing hydropower projects, and ascertaining as to who will bear which risk, etc. With a view to building confidence of the private sector in implementing hydropower projects and diagnosing administrative and other problems appearing therein, efforts will be made toward encouraging public-private joint investment in the hydropower development sector.

Expansion of Electricity Sector: Keeping in view the prevalent status of electrification in the country, it has become necessary to pay attention to the expansion of electricity supply besides electricity generation. In spite of the availability of electricity supply to urban areas, rural areas have mostly been deprived of electricity where the majority of the people live in. Rural electrification has thus

become urgent. While accomplishing this task, a number of factors will be taken into account such as the need for tubewell irrigation for agricultural development, feasibility of initiating cottage industries, need for drinking water, and prospects of other commercial activities. Upon considering all these factors, it will be ascertained as to how much electricity will be required for what purpose in which areas. Such rural electrification projects are believed to be economically viable if they take into account the above-mentioned considerations.

Institutional Reform for the Electricity Sector: Bringing about institutional reforms in the power sector has been felt necessary to make private sector participation further energetic. It has become essential to make the one-window system effective in order to provide promptly the facilities and permissions in favour of the private sector. Necessary steps will therefore be initiated toward adopting a planning model as regards the formulation and selection of projects to be run by public as well as private sectors; toward supervising and monitoring electricity projects; and also toward strengthening Electricity Development Centre. Commensurate with the policy of involving the private sector in the generation and distribution of electricity, reforms will be made in the institutional structure of Nepal Electricity Authority (NEA). Provision will be made for a transmission charge in lieu of using national grid system both by public and private sectors. In order to keep on reducing the proportion of leakage, necessary steps will be taken toward assigning the task of operation and maintenance of the existing power supply centres to the private sector.

Future Strategy: In order to meet the needs for irrigation, cottage industries and drinking water in keeping with the APP and also taking into account the electricity demand required for meeting various business purposes, emphasis will be laid on the expansion of electricity service in the rural sector. In this process, peoples' participation will be given encouragement. With the aim of reducing the cost of generating and expanding electricity, arrangement will be made to ensure private sector participation through competitive process and emphasise domestic power supply through the mobilisation of local capital. On the basis of sub-regional cooperation as well, foreign investors will be encouraged to participate in the hydropower development projects and the electricity generated therefrom will be exported at a competitive price by taking necessary steps. To make the management of the NEA branches more responsible by assigning them more authority and also with the objective of controlling leakage and reducing the operation and maintenance cost through enforcing reward and punishment system, the NEA along with its all branches will be developed as a responsible centre. For reducing peak load in the current power supply system in order to provide electricity at a concessional rate to those consumers who consume more electricity of high voltage during off-peak times, different tariff rates will be introduced through the installment of time-of-day-meter system.

While generating electricity in collaboration with the private sector, projects which involve both public and private sectors will be encouraged to overcome expeditiously project implementation hurdles and also to restore the confidence of private investment by settling the risks arising in the course of development and expansion of

electricity. In order to generate electricity at relatively lower price and also to reduce the burden of foreign exchange replacement, it has become essential to increase the involvement of domestic private investors for meeting the domestic demands for power supply. Such private investors can be encouraged to invest in hydropower project with a capacity one to ten mw, and the electricity generated therefrom will possibly be cheaper. Therefore, it is imperative that necessary capital for investment in these projects should be made available by expanding domestic capital market. In this context, measures such as issuance of bonds and security papers and the establishment of Electricity Development Fund will be emphasised. While introducing institutional reforms in the electricity sector, measures such as making one-window system effective, making public enterprises even more competent from the commercial point of view, and controlling electricity leakage will be implemented. Likewise, while initiating legal reforms, royalty system will be appropriately enforced, export tax and low riparian benefit arrangements will be clearly ascertained, double taxation system will be abolished, and thus, public and private sectors will be made further active in the generation and expansion of electricity service.

In line with the above-mentioned strategy and through ensuring participation of both public and private sectors, construction works of 306 mw medium scale hydropower projects and 3775 kw small-scale projects will be completed and 1718 mw medium and big-scale hydropower projects will be initiated during the Ninth Plan period. In order to expand the electricity service, electricity transmission system will be strengthened by constructing 1024 km long additional high-voltage transmission lines, and through the construction of 6067 km long transmission lines, electricity service will be supplied in rural areas, thereby benefiting nearly 1.1 million people additionally.

3.2.11 Tourism Development

Tourism in Nepal holds great potential to establish itself as a means of significant economic activity because of the country's inherent characteristics such as geographical diversity, unparalleled natural beauty, enormous biological resources, distinct cultural heritage, live culture, religious tolerance, and splendid hospitality, etc. However, despite its immense economic potential and market prospects for industry and trade sectors, tourism's share in the country's GDP is confined to 4.4 percent only as estimated on the basis of plans and programmes implemented to date. As the tourism sector has had no integration with other socio-economic sectors of the country, tourism activities have not received wide coverage; as a result, its economic returns have also been confined to a few geographical regions and communities. On the other hand, problems such as unplanned urbanisation, ecological degradation, shortage of basic infrastructure, low public awareness towards tourism, incompetent human resources, fragile institutional arrangement, lack of managerial capability, and inadequacy of quality products and services have stood as big challenges to tourism development.

Keeping in view the comparative and competitive advantage as realised by Nepal in the tourism sector, the Ninth Plan has been formulated with a conceptual guidance of

identifying and implementing the practical policy measures and programmes to overcome the above challenges. In the Plan, policies and programmes related to tourism development will be implemented in the following manner :

- Since tourism remains relatively new economic sector as compared to other sectors, it is considered that a long-term vision for its development should be formed and pushed forward.
- Since tourism is a multi-faceted sector, it can never be developed in isolation and it rather needs to be integrated with other related sectors. So, the programmes in this sector will be implemented in an integrated manner.
- As tourism is an important ingredient of economic development, its programmes will be moved forward with the objective of expanding the tourism-related incomes and employment benefits to rural areas by developing forward and backward linkages.
- As competition has grown in the world tourism market, Nepal needs to be established as a special tourist destination distinct from other destinations. In this context, resources and expertise available in the government as well as private sectors will be mobilised and promoted.
- As the limited number of tourist arrivals will not prove economically viable for making tourism industry sustainable, a vision of expanding the range of tourist destinations by attracting domestic tourists as well as those from neighbouring countries.
- As the long-distance tourism in Nepal will be based on direct, reliable, qualitative, and comfortable international air service, the national flag carrier and other private airlines at the domestic front and other international airlines at the external front will both be encouraged to operate their services.
- With the objective of expanding Kathmandu-based tourism outside the valley so that tourism activities, to some extent, originate there not relying directly on the resources and opportunities available in the capital city, some domestic airports will be upgraded to those of the regional level.
- As it is not feasible to make road transportation available to all places in the country, a nationwide network of air transportation will be established by making provision for central as well as small airports and then helipads.
- In order to increase the extent of tourist arrivals, special initiative will be taken to maintain understanding as regards the regular transportation in the surface route connected with the neighbouring country.
- For achieving sustainable and result-oriented development of tourism, efforts will be made to mobilise the private sector in the expansion of tourist services and facilities. For this purpose, the role of central organisations will be emphasised in creating basic infrastructure and launching international publicity and the role of local institutions and communities will be stressed in the preservation, conservation and management of local tourist attractions.

- In order to develop rural tourism as an expanded activity of urban tourism so as to make both complementary to each other, investment will be made on creating tourism infrastructure on the conceptual basis of hub and satellite destinations.
- While it becomes necessary to stress almost all types of tourism activities in urban tourism, rural tourism requires selective approach. Hence, adventure tourism, eco-tourism, indigenous activities and the interesting aspects representing local values and customs will be emphasised while promoting rural tourism through local people's participation in order that these activities will benefit the local people themselves.
- To monitor the effects of tourism-related activities in environment, an environmental code of conduct will be adopted, and in this process, government agencies, local communities and private tourism entrepreneurs will be involved, thereby bringing about coordination in the task of environmental protection.

3.2.12 Utilisation of Ecological Variations and Bio-diversities

It has become clear that geo-ecological diversities and development feasibility resulting therefrom could form a basis for Nepal's development process. Nepal's topography which ranges from 100 ft. to 29000 ft. high locations is a combination of plain *terai* region, valleys and mountains, and this has greatly contributed to climatic and biological diversities as well as diverse possibilities in agriculture. For example, agricultural production can be highly increased by developing livestock farming, horticulture, vegetable and food-grain production, etc. Likewise, in the forest sector, there are adequate prospects for developing forest-based industries and industrial raw materials due to the availability of fodder, timber, fuel-wood, herbs and fruits. Therefore, during the Ninth Plan period, emphasis will be laid on the utilisation of existing bio-diversity for the expansion and development of agro-forest products as well as the expansion of processing industries.

The ecology and the beauty of the hills and mountains have both expanded the prospects for tourism industry. There are sufficient prospects for developing electricity on a commercial basis through the utilisation of river-flown water resources. These rivers and their tributaries can help to irrigate agricultural lands in hills as well as the *terai* region. In view of these facts, emphasis will be given on the optimal utilisation of these resources. Similarly, keeping in view the fact that underground water reserves existing in the *Chure* and *Bhabar* region can irrigate over 70 percent of the Terai lands provided that such reserves are best utilised as a fountainhead, efforts will be undertaken toward tapping this resource as well. During the Ninth Plan, emphasis will thus be given to increase agricultural production and enhance its quality by utilising the geo-ecological diversity prevailing in the country.

In order to move forward the development process on a sustainable basis and also to establish appropriate relationship between the natural resource utilisation and the population, a particular long-term policy will be adopted right from the inception of the Ninth Plan. In keeping with the factors such as topographical diversity, natural resources, and market feasibility, sectors such as agriculture, forestry and irrigation will be brought forward in a balanced way through the implementation of the APP.

Moreover, the task of preserving bio-diversity in the regions already declared as protected areas covering 17 percent of the country's landmass will be further supported. In the course of development of tourism and water resources as well, programmes contributing to the promotion and utilisation of bio-diversity will be carried out. It is expected that these steps will result in the increase in rural income, poverty alleviation, rapid economic development, employment promotion, and balanced and sustainable development.

3.2.13 Regional Balance

Problems of regional imbalance still loom large despite the fact that significant physical achievements in socio-economic aspects have been made and development infrastructure has been built at the regional level during the Eighth Plan period. As regards almost all aspects of economic and physical development as well as human resources development, most of the mountainous and high altitude regions including mid-western and far-western development regions are relatively lagging behind. Considering the basis of social, economic and physical infrastructure built in the country, the development status of most of the mountainous and hilly districts among all 75 districts is very low. The proportion of the pressure of population living under poverty line is also relatively higher in those backward districts.

While population pressure has been on rise in the *terai* region owing to the high population growth rate and migration, large rural settlements as well as small cities are getting increasingly unplanned and unorganised. Because of the lack of planned physical development, socio-economic facilities, and access to markets and other economic infrastructures, urban areas have not been able to become catalyst for development.

No concrete achievements have been made toward gradually reducing regional disparity and toward bringing about growth in production and income both at regional and national level through the identification and utilisation of resources scattered in various sectors and sub-sectors, thereby contributing to balance national development. In order basically to address these problems, objectives have been set for reducing regional imbalance, alleviating poverty, emphasising employment and income enhancement, bringing about national coordination by establishing regional inter-linkages in socio-economic sectors, and putting stress on production system by mobilising local resources in keeping with the local specialties. Keeping in view these issues, a concept of balanced regional development has been put into focus, which will be realised by erecting social, economic, and physical infrastructure for regional development through the reduction of regional imbalance existing between different development and geographical regions.

During the Ninth Plan, efforts will be made to make the process of proportional regional balance effective by removing differences noticed in the region-specific development status, such as those existing between regions, within the region and at the district level. Accordingly, regional development will be advanced through the means of peoples' empowerment and decentralised and participatory development process by diverting more investment to those areas which are considered backward through the criteria to of human development index (HDI) or those with higher

incidence of poverty. In this context, together with emphasising accelerated development efforts, investment pattern will be channeled in to those regions, which are deprived of means and resources. For the development of regions and sub-regions, a policy of mobilising local resources by judiciously allocating such resources will be followed. Also, investment pattern will be oriented toward increasing production, generating employment, and ultimately, alleviating poverty. Role of private sector will be emphasised to increase production at the regional level through enhancing investment in production and service-oriented sectors. In order to determine priorities at the regional and sub-regional levels on the basis of needs and rationality, and also with a view to developing functional interrelations between various regions and sub-regions and also between rural and urban sectors, region-specific programmes will be conducted. To meet this purpose, arrangement will be made for national urban system at different levels.

Appropriate programmes will be conducted to support market-oriented urban system in the course of regional development, and in keeping with the requirements of settlement system, urban settlements will be physically improved in a planned way. By identifying backward areas in various regions, sub-regions and districts, poverty alleviation programmes will be implemented in particular areas and existing poverty alleviation-oriented programmes will be made widespread. Likewise, special welfare-oriented poverty alleviation programmes will be launched for target groups in the least developed areas, and such programmes will be expanded to ensure participation of all sections of society in socio-economic development of the backward areas.

Emphasis will be given to extend human resource development to the lowest level of institutions in the most backward regions and communities by providing them with primary education, primary healthcare and clean drinking water facilities. In order to carry out the task of formulation, implementation and evaluation of local programmes on the basis of decentralisation, local institutions will be made responsible, and the role of regional offices will be made effective for bringing out coordination between local institutions. For carrying out such an institutional coordination and monitoring of programmes, the National Planning Commission Secretariat will also be made responsible.

Population management, infrastructure building, and socio-economic development programmes will be oriented toward balanced regional development.

3.2.14 Development of Backward Regions

A large section of the country's topography remains geographically inaccessible and, therefore, deprived of basic development infrastructure, thereby leaving these areas far behind in the race of socio-economic development. In spite of the efforts made in the past to ensure people's participation of these regions in the process of development, neither have these regions been developed nor are the people from these regions able to adequately contribute to national development. This is basically due to the failure to identify real problems and design policies and programmes to address these problems. Hence, the Ninth Plan has adopted an objective of launching Special Area Development Programme, covering some 25 districts in the backward region.

With a view to proportionately developing these districts at par with other districts, additional efforts will be made to give emphasis to the removal of economic and social inequality. Locally available resources and means will be identified and optimally utilised to develop these regions. Besides, for availing to the people of these regions, the services such as education, health, drinking water and rural electricity, thereby facilitating the development of infrastructure and the increase in production in the region, necessary programmes will be formulated and implemented. Efforts will thus be made to uplift as rapidly as possible the living standard of the people from these backward regions. Accordingly, in order to expand traditional trade relations existing between the most of the districts of those backward regions and Tibet, the autonomous region of China, construction of essential roads will be completed and programmes connecting those districts with road transport will be implemented with priority. In those districts, herbal production and collection programmes will be given wide coverage so as to alleviate poverty by enhancing employment and income. Likewise, production increment programmes will be made widespread by conducting study and research on food-crops and fruit-crops that can be produced in the upper hill areas. Besides, emphasis will be laid on the livestock development programme in those districts. Employment opportunities will be increased through conducting skill-oriented training programmes in the agriculture and non-agriculture sector as well. Similarly, in line with the spirit of decentralisation, local residents at the very grassroots level will be involved and made responsible in the development process so as to empower the backward and downtrodden sectors of society. Thus, by channeling the efforts of development in an expeditious manner, emphasis will be placed on the upliftment of the people residing in the districts referred to in above paragraphs in a phase-wise manner.

3.2.15 Productivity Enhancement and Quality Management

In a country like Nepal where resources and means are limited, enhancing productivity by optimally utilising the available resources has remained the only alternative to national development. In the absence of productivity enhancement, it is not possible to achieve the objectives of poverty alleviation and sustainable economic growth through uplifting the living standard of the common mass by making increasing the national income. In Nepal, there are no adequate data which clearly explain the current state of productivity and which can be categorised sector-wise and subject-wise; nevertheless, it is estimated that during the Eighth Plan period, annual labour productivity at the national level increased by 5.6 percent on average. However, viewed in the context of economic sectors, a decrease in labour-productivity of all other sectors except agriculture has been noticed, according to the preliminary estimates.

As regards productivity enhancement, a number of crucial problems are confronted at the national level. These problems include the inadequacy of public awareness in the concerned sectors, the absence of substantive priorities in policies and programmes, the delay in initiation of development efforts at the institutional level, the lack of an information system to keep and update the data relating to productivity at national, regional and institutional levels, the lack of study, research and training services and the insufficiency of coordinated efforts toward the formulation and implementation of

productivity enhancement programmes among all concerned sectors and agencies.

It will be the objective of productivity enhancement and quality management to orient the productivity enhancement activities at all sectors of national economy towards meeting the goals of alleviating poverty and achieving highest economic growth rate. To ensure consistency between sector-wise productivity policy and planning; to increase the productivity and quality of socio-economic sector; to emphasise the development of productivity culture for creating conducive professional environment in various sectors of the economy; and to strengthen institutions and other necessary infrastructures for productivity enhancement and quality management, it is necessary to formulate long-term productivity policy and action plan. In this context, following policies and implementation strategies will be adopted during the Ninth Plan:

- To increase public awareness toward productivity enhancement, and developing necessary infrastructure to meet this purpose.
- To introduce reforms in basic factors of productivity.
- To bring an accord between agricultural and non-agricultural sectors by setting sectoral productivity policies, and making these sectors complimentary to each other.
- To strengthen institutional arrangements for extending the efforts for productivity enhancement and productivity culture development at the industrial unit levels.
- To identify sectors for enhancing productivity and implementing in particular the productivity enhancement programme in these sectors.
- To utilise effectively the media such as seminars, training workshops, model demonstration, publicity and publication, etc. for increasing public awareness toward productivity enhancement.
- To emphasise the inclusion of the subject of productivity in educational programmes and curriculum and availing necessary resource materials for this purpose.
- To determine various sectoral needs of productivity, and developing standard guidelines, basic data and information systems relating to productivity.
- To promote the competitive capability of economy by encouraging the study, development and experiment of appropriate productivity improvement methods.
- To make qualitative human resources development a basic medium of promoting productivity; and to carry out the programmes that facilitate the smoothening of labour-management relations.
- To motivate the government, private and non-government institutions to adopt quality management system in order to improve their organisational quality and managerial capability.
- To advance gradually the concept of green productivity in order to reduce the waste by productively utilising means and resources, and to reduce the negative

effects on environment.

- To implement the productivity policy of National Productivity Council through the programmes of concerned sectoral agencies. By emphasising the institutional development of National Productivity and Economic Development Centre which functions as secretariat to the Council, efforts will be launched to establish the Centre as a competent and fully operational National Productivity Organisation (NPO). An institutional relationship between the Centre and other productivity-related concerned organisations working at international, regional and national levels will be developed.

3.2.16 Development of Agro-Industries

In Nepal, the position of agro-industries and forest-based industries remains atop in the total contribution of the industrial sector. In an economy of agricultural predominance it is but natural that industries are agro-and-forest-based at the initial stage. The analysis of the background of industries established to date reveals that almost all of them fall in import-substituting categories. The quantity of agro-based products is high whereas the same of pure industrial products is very low in the list of exportable Nepalese goods. Most of the agro-and-forest-based industries are small, and scattered in various parts of the country. Included among agro-industries are cold storage and agricultural tools besides the processing of goods produced by agricultural sector. Modern technology and new innovations have diversified the nature of agro-and-forest-based-industries.

In the geographical and economic context of Nepal, agro-and-forest-based industries have their own characteristics. Such industries in particular include: the industries with less capital and simpler technology being promoted by Nepali entrepreneurs; that contribute to national income by increasing the value in the production of agro-forest goods; that generate employment at the local level; that facilitate the launching of various enterprises; that are able to attract local savings toward production; that develop interrelationship between industrial and other occupations; that gradually substitute foreign goods to make the nation self-reliant; that facilitate the distribution of economic benefits at the local level; and that develop heavy investment potential based on the experiences and the capital earned eventually through the above achievements.

The fundamental objective of the agro-and-forest-based industrial promotion policy of the Ninth Plan is to help poverty alleviation through enhancing opportunities for income and employment. It is rather necessary to explore and develop the possible sectors of economy if the country is to be made prosperous through the means of industrialisation by strengthening its base. Agriculture is by far the most potential economic sector against the backdrop of natural resources and means, therefore, without developing agriculture, non-agriculture sector also will have no concrete basis for its development. For this reason, agro-industrial business promotion will be treated as a focal point; its forward linkages will be facilitated; its backward linkages (a system of producing raw materials required for the agro-industrial business sector) will be accorded topmost priority; and an integrated industrial business network will be established. It will be the viewpoint of the Plan that on the basis of this very

network, industrialisation will be advanced in the country.

With a view to achieving maximum benefits from agro-and-forest-based industries in national economy, emphasis will be given to developing this sector. As envisaged in the APP, industrial enterprises based on such high value agricultural commodities as fruits, off-season vegetables and vegetable seeds, milk, meat, silk, honey, herbs, tea, coffee, scented oil, bouquet, etc. will be developed in the form of import-substituting as well as export-promoting and employment-oriented small and medium-scale industries.

Arrangement will be made for availing necessary lands for commercial agriculture, and in this process, pocket areas will be selected to make raw materials available for industrial purpose in sufficient quantity and at an affordable rate. In such selected pockets, government-owned forest and unoccupied lands will be made available on lease as per necessity, and solid steps will be taken to carry out programmes in these pockets for the purpose of physical infrastructure, research, publicity, and other services.

With the objective of making Nepalese goods competitive in the global market, thereby maintaining their identity and promoting exports, currently encountered policy problems will be resolved and necessary reforms will be made in the present economic, industrial, commercial policies so as to boost up some import-substituting industries.

In order to develop infrastructure facilities for industrial development such as roads, electricity, agriculture market, etc., investment in private sector in building infrastructure will be attracted from the private sector. The capital necessary for industrial development will be made available at a concessional rate through financial institutions. Climate will be set up to specially involve women in the initiation and operation of small, cottage, and agro-and-forest-based industries.

3.2.17 Decentralisation and Strengthening Local Self Governance

In Nepal, special emphasis is being given for the last few years to the participative development efforts based on the concept of decentralisation for all-round national development. Development programmes based on enabling self-government and people's empowerment at the local level have been pushed forward. To accomplish this mission, resources and means have been made available to the village level through the government sector as well as non-governmental institutions, and besides, emphasis has been given to mobilising local resources on the basis of people's participation through consumer groups. In order to make local development programmes sustainable and effective, local institutions have been made fully accountable for the management of resources and means, thereby moving forward the process of their spontaneous mobilisation and management. In this way, in order to encourage and promote local development in line with decentralisation process, His Majesty's Government will frame the Acts and regulation relating to local institutions.

The Ninth Plan has put stress on enlarging people's involvement in the planning process as much as possible. For ensuring people's participation in the decision-making process regarding development activities and their management carried out at

their own areas in a direct and decisive manner, and also for making people feel a sense of ownership with regard to local plans, it is necessary to institutionalise the participative development process.

Decentralisation policy will be focused toward enabling local bodies to perform the role of total development management and also toward forming such a local self-government that is capable to fight against the challenges of the 21st century, and is strong, empowered and responsible to the needs of the people. To help achieve this objective, emphasis will be given to the delegation of authority and the allocation of necessary budget, human resources and technical capacity development, and the flow of necessary information. Local institutions will be made competent, autonomous and fully accountable to the local people in order to mobilise local resources and technologies effectively for socio-economic development of the rural sector, to conduct development process in a spontaneous manner, and also to provide services for the local people.

3.2.18 Mobilisation of NGOs for Local Development

The role of NGOs has become increasingly important in making various activities of local development people-oriented and also in extending services and facilities to the grassroots level. In a liberal administrative environment created after the restoration of democracy, NGOs have become involved in large numbers in various sectors. While many NGOs are involved in local development activities as well, it has not been possible to mobilise most of these NGOs to the village level and remote areas. Therefore, it has become necessary to orient NGOs to local development work thereby motivating them to implement programmes aimed especially at uplifting the living standard of the backward class in backward regions. Although the number of international non-governmental organisations (INGOs) as well as local NGOs working around the country either with various particular objectives or aiming at specifically targeted groups is much larger, there are few NGOs in operation that are well-organised, have abundant resources and are effective. Even the services and scope of activities of those NGOs which are actively in operation are limited and small in terms of coverage. For mobilising such organisations effectively, the lack of coordination among different activities of these NGOs, the lack of integration of such activities with local self-governance system, the failure to implement programmes by the NGOs in conformity with social, economic, and cultural characteristics and lifestyles of the particular communities, and the lack of proper record-keeping system to monitor and record the activities and achievements of these NGOs are some of the main problems.

In this context, NGOs will be mobilised in a way to make their works complementary to the development activities carried out by the government. The important contribution made by NGOs in the socio-economic development will be objectively identified, and the nature, scope, resources and capabilities of such NGOs will be categorised and made coordinated with the local self-governance system. NGOs will be encouraged to work in backward communities and especially in underdeveloped, remote regions and also to expand their activities toward those regions and communities. They will also be motivated to work as a facilitator vis-à-vis local

institutions including District Development Committees (DDCs) and Village Development Committees (VDCs), educational institutions, and various community organisations and consumers.

A facilitating environment will thus be created to mobilise NGOs for local development. Appropriate criteria will be developed for positively evaluating, monitoring and supporting the works, scope and role of NGOs through such agencies as Ministry of Women and Social Welfare, Social Welfare Council and District Development Committees.

3.2.19 Women's Development and Empowerment

Although women, who comprise half of the population of the country, have always been involved in national development, they are still marginalised from the opportunities such economic resources as property, income and employment as well as other resources due to illiteracy, unhealthiness, poverty and conservative social taboos. Until and unless women are not made fully participant in the advancement of the nation along with their male counterparts, no improvement can ever be brought in the socio-economic situation of the country. In order to fulfil the commitment made by HMG to the resolutions passed by the World Women's Conference held in Beijing in 1995, and to ensure women's equal involvement in the development process in parallel with their male counterparts, women's empowerment has been emphasised in the Ninth Plan.

The Ninth Plan aims at integrating women into the development mainstream through gender equality and women's empowerment; increasing women's participation in every sector; giving a concrete shape to gender concept in the process of formulation, implementation and evaluation of sectoral policies and programmes, accelerating the process of multi-faceted development of women's empowerment by uplifting their social, economic, political and legal status; protecting and promoting the rights and interests of women; and gradually eliminating violence, exploitation, injustice and atrocities being committed against women.

During the Ninth Plan period, emphasis will be accorded to women's empowerment in the following manner:

- In order to integrate women into the mainstream of development and also to bring effectiveness in women's development activities, emphasis will be given to the institutional development and coordination among various sectors. Likewise, indicators will be developed and adopted as a basis for measuring the women's participation in national development. The task of monitoring and evaluation of women's development programmes will be made effective.
- Through the adoption of positive measures for gender equality such as special privileges and reservation, a policy will be followed to narrow down socio-economic discriminations existing between women and men. Besides, necessary institutional arrangements will be made to make effective the legal system related to the prevention and control of violence against women.
- With a view to promoting women's empowerment by bringing about

improvement in their health and education level, their access will be increased to reproductive and other preventive and curative health services as well as formal and non-formal education. Moreover, in order to make women competent for employment, policy of extending technical knowledge, entrepreneurship and management training will be undertaken. In addition, for making women self-reliant in income generation, their access will be increased to income-oriented resources, properties, and institutional credit.

- With a view to raising women's access to the administration and the policy formulation domain of the country, arrangement will be made to reserve certain percent seats for women in competitive examinations to be held under the Public Service Commission.
- For strengthening women's role in the agricultural sector, all sectoral programmes relating to the extension of agricultural credit, production inputs, agro-technical training, agri-market facilities, etc. run by the government as well as other sectors will be made gender-sensitive.
- Programmes for providing production credit to women will be expanded through such mechanism as Micro Credit for Women (MCW), Production Credit for Rural Women (PCRW), Small Farmer Development Programme (SFDP), Grameen Bank, Agriculture Development Bank and other banks.
- Provision will be made to expend at least 10 percent of the grant allocated to each VDC in the education sector for women's education.
- In order to increase public awareness toward women's reproductive health through the efforts of government, non-government and private sectors, publicity and promotional activities will be made expeditious.
- Mass awareness campaign will be extensively launched from the local to the central level through mobilising government and non-government sectors regarding domestic violence against women and through various measures to prevent and control it.
- In employment-oriented training programmes, at least 25 percent participants will be chosen from among women, as long as the women candidates are available, and as regards employment opportunities, 20 percent women candidates will be given priority depending on their availability.
- In order to help women engage in self-employment and also conduct various entrepreneurial activities on their own, institutional loan facilities will be expanded and the process of providing such loan will be made simple and accessible.

3.2.20 Administrative Reforms

Administrative machinery should become competent for uplifting the living standard of the people and for accomplishing all-around development of the country. Necessity of administrative reforms has been greatly felt in order to promote a feel of safety and security in society by guaranteeing law and order throughout the country and to orient

the whole development process to a definite direction.

Administration has fundamentally two aspects. The first signify the delivery of public goods whereas the second refers to the expansion of direct and indirect programmes to create conducive climate for making market mechanism self-operative, to generate income-oriented and employment opportunities for the most backward communities, and to deliver necessary goods and services to the people.

During the Ninth Plan period, actions will be carried out through administrative reforms to make public management clean, lean, transparent, economical, competitive, work-oriented, competent, productive, service-oriented and responsible; to make public resources management expedient and effective, and to encourage the concept of rule of law and civil society.

With an objective of delivering a clean and corruption-free administration during the Ninth Plan, all the procedures related to contract, leasing, purchase and sale will be made transparent. In addition, a monitoring system will be enforced so as to set a quality standard in the execution of the above actions.

During the Ninth Plan period, implementation process will be made effective through the introduction of institutional coordination mechanism in activities of development and works carried out by various ministries, and by ensuring its regular supervision, monitoring and evaluation process, emphasis will be given to achieving progress as per the targets. In order to remove the delays encountered in project implementation, a system of special screening of the project will be enforced. Together, necessary arrangement will be made in order to complete in time the procedures such as signing contracts, appointing consultants, delivering materials, etc. and monitoring system will be made more systematic. Local leadership will be made accountable in development works by strengthening local self-governance system. Civil service will be made capable and competent enough to confront the growing challenges of the 21st century by devising a perspective vision of the civil service as well as its personnel policy. For ensuring good administrative and development management keeping in view the concept of people-oriented administration, administration will be made transparent, credible, and responsible. On the whole, administration will be strengthened for good governance and efficient development management.

Chapter 4

Economic Growth Rate, Total Investment and Sectoral Allocations

1. Background

Attaining high economic growth rate is imperative with respect to achieving the goal of poverty alleviation enshrined in the Ninth Plan, and it has to be ensured that the economy can sustain the growth target. In keeping with this fact, the target of an average 6 percent annual growth of gross domestic product at factor cost has been set in the Ninth Plan. With the attainment of this target, poverty will be reduced, physical infrastructure will be developed, and it will be possible to channel more resources to social services sector due to the broadening of the revenue base.

[The Basis for High Economic Growth Rate, Investment Sources and Sectoral Allocations](#)

- To contribute to the achievement of high economic growth rate by allocating resources to high priority areas.
- To invest with the purpose of broadening the base for sustainable high economic growth rate and widen the scope for its distribution.
- To increase investment in agriculture sector, which accounts for more than 40 percent of the GDP, and to make it a leading sector by initiating structural reforms.
- To strengthen the process of open, liberal, and market-oriented economic reforms in order to create a conducive environment for the flow of investment in productive sectors and to contribute to the efficient and optimum utilisation of resources.
- To curtail wasteful and unproductive government expenditure and increase the proportion of domestic and national savings through monetary and capital markets.
- To accelerate water resources and tourism development and the process of industrialisation in a way to contribute to the promotion of employment by developing infrastructures.
- To ensure the sustainability of high economic growth rate by according priority to social sector development.
- To encourage foreign investment in a way to be favourable to the national economy.
- To accelerate and optimise the utilisation of local resources, materials and skills by providing autonomy to local bodies through decentralisation.

- To ensure sustainable development and alleviation of poverty by according priority to the development of backward areas.
- To implement programmes with regard to human resources, employment and poverty alleviation targeting backward areas and community, disadvantaged and ignored groups, and to increase income generation and employment opportunities for these groups so that a base for sustainable development is firmly established.
- To control the leakage of financial resources, increase transparency for eliminating corruption, increase the effectiveness of development programmes implemented by both government and non-government sectors through increased public accountability, and to institutionalise the efficient use of resources.

2. Overall and Sectoral Growth of Gross Domestic Product

The Ninth Plan has set the target to achieve 6 percent annual economic growth rate. It is estimated that to achieve this target the agriculture and the non-agriculture sectors have to grow annually by 4 percent and 7.3 percent respectively. The growth rate of GDP at factor cost in the Ninth Plan is more than 1.1 percentage point greater than the growth rate of 4.9 percent achieved in the Eighth Plan. The targeted economic growth rate for the Ninth Plan is higher as compared to the growth rates achieved during the past plans. However, this growth rate is plausible in view of the factors such as strengthening of the competitive environment favourable to the private sector in the supply of fertilizer, implementation of integrated agricultural programmes, industrial and tourism development, emphasis on foreign investment, and effective resource mobilisation and investment due to decentralisation. With the achievement of 6 percent economic growth rate targeted in the Ninth Plan, the per capita income will grow by 3.6 percent during the Plan period.

The annual growth rates for sectoral value added in GDP are estimated at 4 percent for agriculture, irrigation and forestry, 9.1 percent for industry and mining, 10.4 percent for electricity, water and gas, 5.9 percent for construction, 7.4 percent for trade, hotel and restaurant, 8.7 percent for transport and communication, 5.8 percent for finance and real estate and 7 percent for social services. The targeted agriculture growth rate in the Ninth Plan is one percentage point higher than the rate achieved in the Eighth Plan. This target is set in keeping with the increase in investment in the agriculture sector in the Ninth Plan in accordance with the target of the Agricultural Perspective Plan and in view of the reforms to be made in the areas having backward and forward linkages with the agriculture. The targeted growth rate of 9.1 percent in industry and mining sector is higher than the growth rate attained in the Eighth Plan. However, this target can be achieved as a result of the policies adopted for industrial development, the increased investment in industrial sector during the Eighth Plan, the new trade agreement with India, and the potentiality of trade with Tibet autonomous region of China. Similarly, the growth rate of value added with respect to electricity is determined at 10.4 percent considering the investment in this sector in the Eighth Plan and also considering the expected high increase in the rate of investment in the Ninth Plan.

The growth rate for the construction sector is estimated at 5.9 percent in the Ninth

Plan, considering the fact that high growth rate of agriculture, industry and electricity will help in expanding this sector as well. Although the growth of construction in the Eighth Plan was 3.9 percent, it is expected that there will be improvement in this sector in the Ninth Plan. The average growth rate of trade, hotel and restaurant in the Ninth Plan is 7.4 percent as compared with the 7.1 percent achieved in the Eighth Plan. In the light of the priority to be accorded to export and tourism business and increasing investment in this sector, the growth rate in this sector is estimated to be higher in the Ninth Plan in comparison with the achievement of the Eighth Plan. The value added in transport and communication sector is estimated to grow by 8.7 percent in the Ninth Plan as compared with the 8.4 percent growth in the Eighth Plan. The growth rate in this sector is estimated to be little higher than what was achieved in the Eighth Plan because of policies such as encouragement to the private sector in the transport sector, open air policy and enhancement of private sector's participation in the telecommunication sector.

The value added in finance and real estate is expected to rise by 5.8 percent. This increase will be due to the development of financial institutions and expansion of their services. In the social sector the value added is estimated to rise by 7 percent. Although the value added in social services increased by 6.3 percent in the Eighth Plan, with the rise in investment in social services sector and its resulting expansion, the sector is expected to grow according to the set target in the Ninth Plan.

The share of agriculture sector in GDP, which was 41.7 percent in the Eighth plan, is estimated to decrease to 37.9 per cent in the Ninth Plan and, likewise, the share of the non-agriculture sector, which was 58.3 percent, is estimated to increase to 62.1 percent.

In total, the value-added targets for all sectors of the economy in the Ninth Plan are higher in the Eighth Plan. These increments are possible due to the expected increase in investment in the Ninth Plan, flexible economic policy of the government with regard to the private sector and their positive impacts on increasing foreign investment. Thus, in the Ninth Plan, the estimated value added growth in the agricultural and the non-agricultural sectors will be 4.0 and 7.3 percent respectively in comparison to 3.0 percent and 6.3 percent respectively in the agriculture sector and non-agriculture sector in the Eighth Plan. (Table 1)

Table 1
Gross Domestic Product and Sectoral Value Added in the Ninth Plan
 (At 1996/97 Constant Prices)

(Rs in million)

Sectors	1996/97		Estimate for 2001/2002		Yearly
	Value Added	Percent	Value Added	Percent	Growth Rate (%)
Agriculture, Irrigation and Forestry	1,111,63	41.7	1,352,47	37.9	4.0
Non-agriculture	1,556,61	58.3	2,218,88	62.1	7.3
Industry*	258,70	9.7	399,87	11.2	9.1
Electricity, Gas and Water	39,68	1.5	65,07	1.8	10.4
Construction	265,86	10.0	354,11	9.9	5.9
Trade, Hotel, and Restaurant	299,85	11.2	428,47	12.0	7.4
Transport and Communication	180,19	6.8	273,45	7.7	8.7
Finance and Real Estate	268,67	10.1	356,16	10.0	5.8
Social Services	243,66	9.1	341,75	9.6	7.0
Gross Domestic Product (at factor cost)	2,668,24	100.0	3,571,35	100.0	6.0

*Including quarrying and mining

3. Total Investment, Development Outlay and Sectoral Allocation

As poverty alleviation is the main objective of the Ninth Plan, the Plan has given priority to channeling resources to the rural areas where poverty is concentrated, to the agriculture sector, and to the mitigation of ignorance and diseases. Therefore, the shares of the agriculture, irrigation, forestry and social sector in the total investment have been increased in the Ninth Plan in comparison to the Eighth Plan. The shares of investments in industries and mining, finance and real estate and transport and communication sectors are slightly reduced. The main reason for the reduction in the

share of investment in these sectors is the possible improvement in the incremental capital-output ratios in these areas during the Ninth Plan period. It is anticipated that there will be improvement in the incremental capital output ratio through systematic selection of projects, reforms in development administration, control of leakage in resources, improvement in management and development of labour intensive industries and enterprises.

The growth rates of investment in some sectors have changed in the Ninth Plan on the basis that the total incremental capital-output ratio in the Ninth Plan will remain 4.1:1, which is an improvement over the projected ratio of 4.3:1 in the Eighth Plan, and that incremental capital-output ratios in different sectors may vary. In sectors like industries, transport and communication, the growth rates of investments are determined on the basis that more production can be achieved with less amount of investment in these areas. In the social sector, the share of the investment is reduced as compared to the Eighth Plan due to the expected reduction in the incremental capital-output ratio in this sector.

The gross fixed capital investment during the Ninth Plan is estimated to be Rs 372,711 million (at 1996/97 constant prices) on the basis of the economic growth rate of 6 percent and the incremental capital output ratio of 4.1:1 in the Ninth Plan. Out of the total investment, the share of agriculture, irrigation and forest sector will be 16.80 percent and the share of the electricity sector will be 19.09 percent. Similarly, the share of finance and real estate will be 16.43 percent, social services 17.11 percent, transport and communication 13.01 percent, industries and mining 9.47 percent, commerce, hotel and restaurant 6.21 percent and the construction sector 1.89 per cent. (Table 2)

Table 2
Total and Sectoral Fixed Capital Investment in the Ninth Plan
(At 1996/97 Constant Prices)

Sectors	Amount (in million Rupees)	Percent	Incremental Capital Output Ratio
Agriculture, Irrigation and Forest	626,18	16.80	2.6
Industry*	352,93	9.47	2.5
Electricity, Gas and Water	710,92	19.07	28.0
Construction	70,60	1.89	0.8
Trade, Hotel, and Restaurant	231,52	6.21	1.8
Transport and Communication	484,95	13.01	5.2
Finance and Real Estate	612,42	16.43	7.0
Social Services	637,58	17.11	6.5
Total Fixed Capital Investment	3,727,11	100.00	4.1

*Including Quarrying and Mining

Out of the total fixed capital investment of Rs 372,711 million (at 1996/97 constant prices), the estimated investment of the government and the private sector will be Rs 125,161 million (33.6 per cent) and Rs 247,550 (66.4 percent) respectively. In the Ninth Plan, the share of the government investment remains slightly more than one third of the total investment due to the high investment requirement to implement the Agricultural Perspective Plan, human resources, social development and poverty alleviation programmes. To fulfill the investment requirement of the Ninth Plan, investment needs to be increased by 6.1 per cent annually in relation to the total fixed capital investment made in the final year of the Eighth Plan. (Table 3)

Table 3
Private and Government Gross Fixed Investment in the Ninth Plan
(At 1996/97 Constant Prices)

(In million Rupees)

Sectors	Private Sector**		Government Sector		Total	
	Amount	Percent	Amount	Percent	Amount	Percent
Agriculture, Irrigation and Forestry	381,97	15.43	244,21	19.51	626,18	16.80
Industry*	342,34	13.83	10,59	0.85	352,93	9.47
Electricity, Gas and Water	405,22	16.37	305,70	24.42	710,92	19.07
Construction	70,60	2.85		0.00	70,60	1.89
Trade, Hotel, and Restaurant	217,63	8.79	13,89	1.11	231,52	6.21
Transport and Communication	218,23	8.82	266,72	21.31	484,95	13.01
Finance and Real Estate	609,98	24.64	2,45	0.20	612,43	16.43
Social Services	229,53	9.27	408,05	32.60	637,58	17.11
Total	2,475,50	100.00	1,251,61	100.00	3,727,11	100.0

* Including Quarrying and Mining

** This includes investment in public enterprises

In the Ninth Plan, to make up a total fixed capital investment of Rs 125,161 million (at 1996/97 constant prices) by the government sector, the total development outlay of Rs 189,580 million will have to be made. This is on an average 46.32 per cent more than the total development expenditure of the Eighth Plan. Out of the total development outlay, social service receives the largest share i.e. 33.3 per cent, followed by agriculture, irrigation and forestry 27.05 percent, energy 18.70 percent and transport and communication 17.59 percent. Similarly, the share of trade and tourism is 1.54 percent, industries and mining 0.84 percent and others 0.85 percent. As there is sectoral variation in the ratio of development outlay and fixed capital investment, the sectoral allocation of development outlay and the sectoral shares of the investment to be made by the government sector are different (Table 4).

The details of the total development expenditure allocation to different sectors are given in Table 5.

Table 4
Sectoral Allocation of Development Outlay
(at 1996/97 constant prices)

(Rs in million)

Sectors	Eighth Plan		Ninth Plan	
	Amount	Percentage	Amount	Percentage
Agriculture, Irrigation and Forestry	33,977.5	26.22	51,284	27.05
Non -Agriculture	95,587.0	73.78	138,296	72.95
Industry*	3,237.1	2.50	1,588	0.84
Electricity, Gas and Water	16,293.3	12.58	35,461	18.70
Trade, Hotel, Restaurant	1,329.0	1.03	2,917	1.54
Transport and Communication	28,234.1	21.79	33,340	17.59
Finance and Real Estate	-	-	250	0.13
Social Services	43,126.7	33.28	63,138	33.30
Miscellaneous **	3,366.8	2.60	1,602	0.85
Total	129,564.5	100.00	189,580	100.00

*Including Quarrying and Mining

** Including Administrative Reform, Planning, Statistics, Supplies and Contingencies

Table 5
Total Development Expenditure and Detailed Sectoral Allocation
(at 1996/97 constant prices)

(Rs in million)

S.N.	Particulars	Amount	Share in Percentage
1.	Constitutional Bodies	12.0	0.01
2.	General Administration	440.0	0.23
A	General Administration	70.0	0.04
B	Revenue and Financial Administration	120.0	0.06
C	Planning and Statistics	250.0	0.13
3.	Social Services	63,138.0	33.30
A	Education	14,405.0	7.60
B	Health	13,800.0	7.28
C	Drinking Water	11,902.0	6.28
D	Local Development	18,891.0	9.96
E	Other Social Services	4,140.0	2.18
i	Population and Environment	140.0	0.07
ii	Women and Social Welfare	120.0	0.06
iii	Youth, Sports and Culture	2,010.0	1.06
iv	Housing	1,750.0	0.92
v	Others*	120.0	0.06
4.	Economic Services	125,990.0	66.46
A	Agriculture	21,517.4	11.35
B	Irrigation	25,404.5	13.40
C	Land Reform and Survey	1,897.6	1.00
i	Land Reform	600.0	0.32
ii	Survey	1,297.6	0.68
D	Forest and Soil Conservation	2,464.5	1.30
E	Industry	1,588.0	0.84
F	Transport and Communication	33,340.0	17.59
i	Transport	25,160.0	13.27
ii	Civil Aviation	4,280.0	2.26
iii	Communication	3,900.0	2.06
G	Electricity and Other Energy	35,060.0	18.49
H	Other Economic Services	4,718.0	2.49
i	Tourism	1,707.0	0.90
ii	Science and Technology (including meteorology)	401.0	0.21
iii	Supplies	1,150.0	0.61
iv	Commerce	900.0	0.47
v	Labour	310.0	0.16
vi	Others**	250.0	0.13
	Total Development Expenditure	189,580.0	100.00

* Including Narcotics Drugs Control Project under Ministry of Home

** Including Investment in Financial Sector by Ministry of Finance

4 SOURCES OF INVESTMENT AND DEVELOPMENT OUTLAY

Out of the total fixed capital investment of Rs 372,711 million in the Ninth Plan, Rs 261,165 million (70.1 per cent) will be financed through national savings, and the remaining Rs 111,546 million (29.9 percent) will be financed through foreign assistance. Of the total foreign assistance, Rs 32,595 million will be financed by foreign grants and the Rs 78,951 million will be financed by foreign loans (Table 6). The ratio of foreign loan has been growing since the previous plans, as the share of foreign assistance in the total development expenditure is very high with the increasing proportion of loan in foreign assistance. A large portion of the budget has to be set aside to amortise the loan. In view of this, a policy of reducing the share of foreign loan in the total gross fixed capital investment will be followed in the Ninth Plan. Therefore, the Ninth Plan targets the share of foreign assistance in the total developmental outlay to be 53.1 per cent as compared to the target of 65 per cent in the Eighth Plan.

Table 6

Gross Fixed Capital Investment and Sources of Development
Outlay in the Ninth Plan
(at 1996/97 constant prices)

(Rs in million)

	Amount	Percentage
Formation of Total Fixed Capital	372,711	100
Private Sector	247,550	
Government Sector	125,161	
Total Resources	372,711	
(a) National Savings	261,165	70.07
Private Sector Savings	262,454	70.42
Government Sector Savings	-1,289	-0.35
(b) Foreign Aid	111,546	29.93
Regular Expenditure	147,710	
Development Expenditure	189,580	100.0
Revenue	210,840	
Revenue Savings	63,130	33.3
Foreign Assistance	111,546	58.8
Grant	32,595	17.2
Loan	78,951	41.6
Internal Borrowing	14,904	7.9
Banking Sector`	5,962	3.1
Non-Banking Sector	8,942	4.7

Note: Total Fixed Capital Formation of the Government Sector is estimated to be 66 percent of total development expenditure.

Of the total gross fixed capital investment, Rs 262,454 million (70.4 percent) will be financed through the savings of the private sector, and the government sector will make a negative saving of Rs 1,289 million (0.35 per cent). The basis for estimated reduction in the negative saving of the government sector in the Ninth Plan, as compared to the Eighth Plan, is the control in the rise of consumption expenditure of Government sector and the expected increase in revenue due to high economic growth rate. The gap between government investment and the negative saving will be fulfilled through foreign assistance and internal borrowings. The mobilisation of internal borrowing will be Rs 14,904 million during the Plan period. As high as 60 percent of the internal borrowing will be mobilised through savings of the private sector and the remaining 40 percent will be financed through the banking sector. The government will be able to finance a large portion of the deficit through the mobilisation of resources in the non-banking sector in that the high economic growth rate will increase the savings of the private sector.

In the Ninth Plan, Rs 63,130 million (33.3 percent) out of the total development outlay of Rs 189,580 million will be financed through revenue savings. Of the remaining, Rs 111,548 million (58.8 percent) will be financed through foreign assistance and Rs 14,904 million (7.9 percent) will be financed through domestic borrowing. Of the total foreign assistance, Rs 32,595 million (29.22 percent) will be in the form of grants and Rs 78,951 million (70.78 per cent) will be in the form of loans. Thus, in the Ninth Plan dependency on foreign assistance and internal borrowings is estimated to be lower than that in the Eighth Plan due to the increased contribution of revenue savings in the development outlay (Table 6).

5. Total Investment and Development Outlay and their Impact on the Overall Economy

The priority given to the mobilisation of revenue, the utilisation of a larger portion of resources in efficient and productive sector, the choice of appropriate projects giving quick return, and the efficient sectoral allocation of investment will contribute to high economic growth rate. Moreover, the income-oriented and employment opportunities, savings, and tax-paying capacity of the people will be increased; and thereby gross domestic savings will rise.

In the final year of the Ninth Plan, the shares of gross domestic savings and the national savings will reach 14.1 percent and 16.08 percent of the GDP respectively in comparison to 12.35 percent and 14.39 percent respectively in the fiscal year 1996/97.

The share of imports of goods and services as a percentage of GDP was 38.77 in FY 1996/97 which is estimated to rise to 42.65 percent of GDP by the FY 2001/2002. Likewise, the share of exports of goods and services as a percentage of GDP is estimated to rise to 32.48 percent from the level of 26.4 percent in the FY 1996/97. The current account deficit (excluding transfer and grant) will decrease to 8.5 per cent of the GDP in the FY 2001/02 from 10.7 percent in the FY 1996/97. (Table 7)

Table 7
Major Macroeconomic Indicators
(at 1996/97 constant prices)

(Rs in million)

	1996/97	2001/2002	Annual Growth Rate (in %)
Total Gross Domestic Product (at producer's prices)	279,135	382,045	6.5
Total Gross Domestic Product (at factor cost)	266,824	357,135	6.0
Total Consumption	244,650	328,195	6.1
Domestic Savings*	34,485	53,850	9.3
National Savings	40,155	61,352	8.8
Total Investments	69,014	92,656	6.1
Fixed Capital Formation	65,623	88,054	6.1
Change in Stock	3,391	4,602	6.3
Import of Goods and Services	108,226	162,954	8.5
Export of Goods and Services	73,697	124,097	11.0
Net Factor Income	4,661	6,402	6.6
Current Account Balance (excluding transfer and grants)	-29,868	-32,455	1.7
Money Supply (M ₁)	38,460	70,861	13.0
Consumer Price Index	100.0	137.0	6.5

*Savings and investment in national accounts statistics have certain weaknesses which will be substantially revised in the Ninth Plan. The figures in this table are preliminary estimates and these may differ to some extent with revised estimates.

As the government will not mobilise any excessive amount of loans from the banking sector, this will help to control money supply and maintain price stability and attain surplus in balance of payments. Because of the government fiscal balance, the rate of growth of the money supply (M₁) can be maintained at 13.0 per cent during the Ninth Plan. This will enable the private sector to move forward with their economic activities with enough loans, and also to keep the annual inflation rate at 6.5 percent. The control over inflation will assist the private sector in increasing savings and the low price rise will make the exchange rate realistic, which will help to increase the export of goods and services as envisaged by the Plan.

Similarly, high economic growth rate complemented by low inflation rate will create an environment to promote investment. The low inflation rate will also help to achieve the objective of poverty alleviation in the Plan by checking further disparity in income distribution.

, it was estimated that the population of Nepal would be 21.1 million by the end of the Eighth Plan. Among them, 11.6 million people of 15-64 age group were economically active, and according to the Nepal Living Standard Survey, 4.9 percent of them or 6 hundred thousand people were unemployed.

Although the percentage of unemployed is low, the number of underemployed has remained more than 47 percent, and the urban unemployment rate is 12.2 percent. Considering the underemployment situation in rural and urban areas, special programmes for creating more employment opportunities will be launched in the Ninth Plan.

On the basis of economic growth rate of 6 percent in the Ninth Plan, employment opportunities will be generated at a rate of 2.9 percent per year. The high growth rate to be achieved in the Ninth Plan will create additional employment for 1.7 million labour force and special programmes will create employment opportunities for additional 4 hundred thousand labour force. Thus it is estimated that the unemployment and the underemployment rate, by the end of the Ninth Plan, will be reduced to 4 percent and 35 percent respectively.

The problem of underemployment and unemployment in rural areas will be mitigated through various measures, especially through the implementation of the Agricultural Perspective Plan. There will be an increase in the employment opportunities in the rural areas; there will be increased availability of micro credit and expansion of small-scale cottage industries; skills-oriented training programmes will be implemented; and government sector programmes in the rural areas will be made labour intensive. The unemployment problem in urban areas will be reduced through the expansion of non-agriculture sector activities and the implementation of skills development programmes. These programmes will lead to increased labour productivity and increase in income, ultimately contributing to poverty alleviation.

According to the Nepal Living Standard Survey, the number of people living below the poverty line is estimated at 42 percent of total population in 1996/97. By the end of the Ninth Plan, it will be reduced to 32 percent through economic growth and the implementation of special and sectoral programmes aimed at economic growth and poverty alleviation.

Chapter - 5

Macro Economic Policy

5.1 Mobilisation of Financial Resources

1. Background

Special emphasis has to be given to the mobilisation of the available financial resources for poverty alleviation, the main objective of the Ninth Plan. To achieve higher rates of economic growth, investments need to be directed to the priority sectors viz. agriculture, water resources, electricity, human resources, and social, industrial, tourism and physical infrastructure development. An appropriate policy has to be framed to limit the extent of dependency on foreign loan by mobilising internal resources on a sustainable basis and making optimum use of available resources to increase domestic savings rate as well as the investment of the private sector in the national economy. The changes witnessed in the economy through liberalisation, globalisation and regionalisation have created opportunities as well as problems. An appropriate mechanism for sustained balance is required to develop the market economy, providing direct support to targeted groups, reducing government subsidies. Policies for the establishment of interrelationship between various actors of the dual economy in order to identify the best opportunities are also indispensable.

Instead of aiming at ambitious economic growth rate, Nepal as a developing country has to invest 22/23 percent of the GDP annually to achieve the higher and sustainable rate of economic growth. A review of the sources of investment reveals that the internal savings alone can not meet the investment requirements. As a result, the burden of external debt has been gradually increasing.

2. Review of the Eighth Plan

Domestic Savings

The Eighth Plan envisaged that the ratio of domestic and national savings to the total GDP would be 12.5 percent and 15 percent respectively. It was estimated that the corresponding ratios were 12.6 percent and 14.8 percent in FY 1996/97. The gross domestic savings of Nepal are quite low in comparison to India and other South Asian Countries. The total investment in FY 1996/97 has increased from 21.2 percent to 25.1 percent of GDP during the Eighth Plan period. The ratio of savings of the private sector banking to the total GDP in FY 1996/97 has been only 3.3 percent, whereas it was 3.2 percent in FY 1991/92. The main reason for this is the initiation of economic liberalisation policy in FY 1992/93, establishment of insurance and financial institutions under the new Industrial Act and Foreign Investment and Technology Transfer Act as well as the availability of additional opportunities and savings and the convertibility of current account. As a result, the increment in the bank deposit has not been found significant.

There were eleven commercial banks, two development banks and five rural development banks, forty-one finance companies, nineteen co-operative institutions and twenty-six non-governmental organisations in operation in the country as of July 1997. Among the various tools of financial savings, bank deposit (current, savings

and fixed deposits), deposit for life insurance, savings on Citizens' Investment Fund and Provident Fund deposits are important. More than 70 percent of the money currently in circulation is in the private sector, i.e., being circulated without interests. If this currency in circulation is brought within institutional framework, loan investment of the banking sector can be made more effective.

Other Savings Tools

Of the other saving tools, although the increase in the annual premium on life insurance is found to be satisfactory, the increase in its collection has not been satisfactory. With regard to the provident fund, the percentage of provident fund as against the total GDP has been declining since FY 1991/92 as the number of employees, the salary scales, etc, affects it.

The deposit on Citizen Investment Fund, which was mandatory until 1990/91, was made voluntary later and it has been developed into the Citizen Investment Scheme 1985 in the form of a mutual fund open for civil employees as well as for all citizens. By mid-April 1996, the total deposit of this fund amounted to Rs 56.2 million. Since the scheme is still in its primary stage, it is expected that the deposit will be increased gradually as its scope goes on widening in future.

Revenue Mobilisation

Mobilisation of internal resources helps significantly to cover increasing government expenditure, to increase investment rate as well as to maximise the use of external assistance. In this context, various policies were adopted in the Eighth Plan to make necessary changes in the tax structure. The VAT was implemented. Custom tariffs were lowered down for bringing uniformity. Excise duties were gradually phased out. The scope of income tax was broadened and simplified and revenue administration was made more capable and efficient. Regarding the external assistance, the Plan aimed to maximise the use of foreign assistance specially by obtaining loan for productive sector and grant for other development programmes.

During the Plan period, revenue group was formed with the objective of making necessary change in the tax structure and making revenue administration more capable and efficient. Import tariffs were classified into five categories for uniformity in import tariff rate tax. Regarding the implementation of VAT, various public interaction and publicity programmes as well as seminars were organised as a part of preparatory work and the Parliament approved the bill concerning the VAT.

Likewise, provisions were made to include as many as tax payers in the tax net making income tax procedures more simple and comprehensive, and arrangements were also made for voluntary tax assessment and the deduction of income tax in advance. The eighth revision was made in the Income Tax Act, lowering down the income tax rate on the upper limit and deduction of income tax at the source. Various types of deductions were cancelled or were in the lower ceiling, while computing the net income. Efforts were made by the government to improve the structure on corporate income tax during the period.

Progress in revenue mobilisation was less than the target despite various improvements made on revenue management during the Eighth Plan. The proportion of revenue mobilisation remained 10.9 percent as against the target of 13.4 percent of GDP in FY 1996/97. The share of tax revenue was 8.8 percent and that of non-tax revenue 2.1 percent of GDP in FY 1996/97. Out of the total revenue of 10.2 percent (tax revenue 7.7 percent and non-tax revenue 2.5 percent) of the GDP, the ratio of revenue in total has increased and non-tax revenue decreased in FY 1991/92. The average increase rate of the total revenue was 17.8 percent in the Eighth Plan due to the decreasing rate of revenue in later years. As compared to other South Asian and developing countries, the level of revenue mobilisation of the economy is still very low.

Recurrent Expenditure

The ratio of recurrent expenditure was 48.3 percent in FY 1996/97 compared to 37.4 percent of FY 1991/92. Likewise, recurrent expenditure was 8.8 percent of GDP whereas this ratio was 6.6% in FY 1991/92. During the Eighth Plan period, nearly 44 percent of the total resources was spent on recurrent expenditure. The portion of expenditure increased by 21 percent of GDP between FY 1991/92 to 1996/97. Recurrent expenditure increased by 55% due to the salary allowances and other expenses of the teachers included in development budget previously but in the recurrent budget since FY 1994/95. There was an average increase of 12.6 percent in the recurrent expenditure if such expenditure was segregated and compared excluding the expenses of the teachers of FY 1994/95.

Status of Revenue Savings

The ratio of revenue savings to development expenditure, which was 21.8 percent of the development expenditure at the first year of the Eighth Plan, was estimated to have remained almost the same at the end of the Eighth Plan. Government could not achieve the target of contributing additional revenue to development expenditure, only 25 percent of the development expenditure were met from surplus revenue instead of 27.5 percent as expected during the Plan period.

Deficit Financing

The ratio of deficit financing went down to 1.8 percent of the GDP in FY 1996/97 whereas this was about 3 percent of GDP in FY 1991/92 including overdraft. In FY 1991/92, 0.6 percent of GDP was borrowed from internal sources, as this situation in FY 1996/97 went further down to 0.53 percent of GDP. This shows that the government dependency on banking sector has not come down, and as private sector has to compete for resources, the status of the private sector has remained unchanged. The situation has not reached yet at the satisfactory level towards the dependency on deficit financing as the Plan targets to lower down the ratio of deficit financing to 0.90 percent of GDP in 1996/97 in the Plan period. The ratio of internal borrowings has remained more than 18 percent including overdraft in comparison to the estimate of seven percent of the development expenditure. The deficit finance did not come under the annual budget since 48 percent of the deficit finance was from overdraft. It will be very difficult to keep the finance mobilisation within the reasonable limit if

necessary stages are not taken to control over recurrent expenditure and on mobilising additional sources of revenue.

Foreign Aid

In spite of an estimate of meeting 6.5 percent of the total development expenditure through foreign aid (grant 7.4 percent and loan 48.1 percent) during the Eighth Plan period, only 55.7 percent (grant 17 percent and 38.7 percent) of foreign aid could be utilised to meet the total development expenditure. During FY 1991/92, 51.1 percent of the total development expenditure was made by foreign aid whereas the ratio increased up to 58.8 percent during FY 1996/97. In comparison to the GDP, the foreign aid ratio remained stable at around 5.6 percent during FY 1991/92 and 5.5 percent during FY 1996/97. During the Eighth Plan period, the ratio of the utilisation of foreign aid reached around 13.5 percent per annum on an average at the current price level.

Status of Foreign Debt

The portion of foreign debt was 80.5 percent of the total foreign assistance received in FY 1991/92 whereas this came down to 67 percent in FY 1996/97. During the Eighth Plan period, 69.5 percent of the total development expenditure was covered by foreign assistance. Likewise, foreign debt in FY 1991/92 was 4.5 percent of the total GDP whereas in FY 1996/97 this proportion went down to 3.7 percent. The actual ratio of foreign debt during the Eighth Plan period remained only 38.7 percent of the total development expenditure, which was estimated to be 48 percent. The decreasing phenomenon on the availability of foreign assistance and its mobilisation was basically related with non-execution of Arun III hydroelectricity project, Melamchi Drinking water project and other such mega projects.

3. Existing Challenges:

The objectives set out by the Eighth Plan have not been achieved despite the emphasis given on the policy of mobilisation of financial resources. Following circumstances and problems were observed in domestic and national savings, revenue mobilisation, mobilisation of foreign assistance and deficit finance, etc.:

- Decrease in public trust in tax compliance and taxation system, and also low tax base and low tax elasticity.
- Low level of transparency in Act, regulation and procedures, misuse of discretionary power and corruption.
- Increase in tax evasion practice and trade irregularities.
- Revenue was based on very few imported goods such as gold and other such goods and low level of direct tax.
- Valuation of custom duties was not realistic, resulting in low valuation.
- Lack of essential, computerised, multipurpose and efficient data system for the efficient administration of tax, custom and VAT.

- Non-satisfactory condition of training, efficiency development, skill and professionalism despite the formation of the Revenue Administration Group.
- Lack of clarity on policy regarding foreign assistance, need identification, project selection; various aspects of project formulation and implementation on an ad hoc basis; no optimum use of scarce resources; improper allocation of resources caused by the lack of prioritisation; and also a big gap between approval and utilisation of foreign assistance.
- Long-term liabilities further created by unnecessary expansion of organisations, uncontrolled size of both personnel and operating cost in recurrent expenditure. Most of the internal resources consumed up by recurrent expenditure.
- High dependency on foreign debt resulted in increasing expenditure on recurrent expenses and decreased revenue savings for the payment of outstanding debt (payments of principal and interest) due to increasing gap between investment and total domestic savings since FY 1991/92.

3. Long-term Concept

With a view to mobilising government finance, various structural improvement targets have been fixed since FY 1997/98 for the next 20 years. Following policies will be implemented to increase the share of tax on internal revenue, especially direct tax and tax on internal consumption, by reducing the dependency on revenue from import and foreign assistance, especially debt:

- Income tax, property tax and tax on internal consumption Value Added Tax (VAT) will be made transparent, effective and capable and will be integrated with overall national economy. Import duties will be reduced to make national economy more competitive, and will be based on market economy. In addition to making administrative machinery fully professional, efforts will also be made to honour taxpayers.
- Foreign investment will be gradually encouraged in the private sector. To give emphasis on institutional development, revenue policies will be adopted in a way to limit the role of government. Privatisation of government enterprises will be accelerated and the revenue received from privatisation will be utilised for debt relief.
- The share of national savings will be increased up to 30 percent of GDP.
- The level of recurrent expenditure will be brought down to 6 percent of GDP and the net internal borrowing will be limited to 0.5 percent. A policy will be undertaken to make government expenditure reach the targeted aspects of social and economic sector. Market economy will be encouraged through the medium of public expenditure.
- By devising long-term strategies and concept, foreign assistance will be channelised in the sectors that are indispensable and give high rate of return based on cost-benefit analysis. Emphasis will be given to increase the capacity of utilising foreign assistance by mobilising it in necessary areas in conformity with

the concept of long-term development plan and the various aspects of national economy.

- Revenue will be increased annually by 0.5 percent of the GDP with the identification of new sources of additional revenue mobilisation.

Ninth Plan:

4. Objective

Following are the objectives of the financial resource policy in the Ninth Plan:

- To invest the available resources in productive sectors by increasing gross national saving and investment.
- To fulfill the investment requirements through the mobilisation of internal resources on sustainable basis and by reducing the burden of foreign debt.
- To increase the capacity of utilisation and mobilisation of foreign assistance as aimed by the Plan in keeping with sectoral development programmes and investment requirements.
- To make optimum use of available resources with the prioritisation of government expenditures.
- To assist private sector and market economy in increasing employment opportunities for poverty alleviation.

5. Policy and Implementation Strategy

Mobilisation of Internal Resources

- Emphasis will be given to increasing the national savings by discouraging unproductive and wasteful expenditures. Efforts will be made to change all sectors of the country's economy into monetisation and market economy. NGOs will also be mobilised to convert household savings into financial assets for the development of financial institutions especially in the rural areas. In addition to mobilising savings, efforts will be made to have efficiency and simplicity in the activities of the financial institutions, and the access of general public to such institutions will be assured. An action plan will be implemented to increase investment of the institutional and micro-credit finance. National savings will be increased through the expansion of services and quality improvement in education, health, transportation and insurance so that the tendency of capital outflow is discouraged.
- Special attention will be given to developing the capital market. Nepal will be developed as an Offshore Finance Centre. Investment opportunities will be created through promoting the availability of capital through financial market development.
- As regards the revenue policies, emphasis will be laid on direct taxes, especially income tax and other related taxes. Overall improvement will be made in acts, regulations and processes relating to taxes so that the system of direct tax will be

made transparent, effective, comprehensive, simple and efficient and also to win the confidence of tax payers. Feasibility study will be carried out to improve the present tax system by identifying different sources of taxes and bringing them within the tax framework. A system will be introduced to discourage the tendency of tax evasion by developing a data system that will help to identify the tax payers as well as other areas like agriculture, export, purchase or handing over of assets, capital gain, gift, donation and other such activities. Minimum alternative concept of tax based on total assets will be brought into practice. Arrangement will be made to finalise the cases of tax disputes through special judicial system. Opportunities for career development of civil servants as well as for penalty system will be based on specific job performance records. Training and skill development progress related to accountancy will be carried out so that the tax administration will become efficient, professional and fair.

- By accelerating people's awareness on the Value Added Tax, the VAT will be expanded to the entire area of internal consumption and develop as a main basis for internal revenue. Data on taxpayers will be specially monitored. Tax refund system will be made more effective. Special programmes will be launched to make tax administration more efficient, professional and capable. Efforts will be made to increase tax yield by developing and integrating special computerised data system with internal import and overseas export, internal production data, and the data used for income tax purpose, etc. Excise duty will be developed as a reliable source of revenue and will be applied to the limited sectors of internal production.
- Customs tariffs will be gradually simplified and adjusted by providing appropriate opportunities for domestic industries in line with the practices of international trade as well as the forums such as the World Trade Organisation (WTO) and South Asian Free Trade Area (SAFTA). Effective measures will be taken to control illegal import and export business. Customs valuation rates will be made more realistic on the basis of actual transactions as well as customs valuation will be raised, if necessary, by improving its legal procedures accordingly. Arrangement will be made to process the data on foreign trade for multipurpose use in short period of time and all customs related information will be fully computerised. Special programmes will be launched to make customs administration simple, transparent, fair, skilled and professional. Overall improvement will be made on patrolling system to control leakage on revenue and an attempt will be initiated to make the administration well-equipped with resources as well as to develop it as a cadre based administration.
- An appropriate pricing mechanism will be established while selling the government goods and services on the basis of current market price so as to increase the revenue on non-tax items. An effective monitoring system will be adopted to increase the income on dividend, principal amount, interest, etc., by implementing the time-bound recovery system.
- Privatisation policy will be implemented by restructuring the government enterprises as required, selecting large-scale enterprises for privatisation,

speeding up the momentum of privatisation and identifying the potential area that can attract the private sector investment. Policy of privatisation will be made more transparent and competitive. Revenue received from the privatisation of government enterprises will be utilised to pay back the government debt and will be invested on prioritised programmes of social and economic sectors.

- The government subsidy policy will be gradually phased out except in those sectors, which are considered most essential viz. remote areas, disadvantaged group and sectors prone to high natural calamities.
- Unproductive government expenses will be controlled to reduce the budget deficit. A policy will be adopted to control unnecessary expenses in recurrent budget pertaining to position creation, organisation expansion and office operation as well as check the expenses that need not be spent by the government sector. Further effort will be made to hand over the activities to private sector if the private sector itself is capable of dealing with them perfectly and the same principle will be applied to the NGO sector. Hence, this will help to limit the role of government only as a regulator and facilitator. Efforts will also be made to economise government expenditure by improving various aspects of civil service.
- Net internal debt will be tried to be kept at an appropriate level of GDP and government borrowing from the banking sector will be limited to as minimum as possible so as to ensure availability of resources to the private sector.
- Capable and efficient tax administration is necessary to increase the contribution of government public sector in gross domestic savings by widening tax base as well as by preventing revenue leakage for increasing the amount of collection. In other words, it is not imperative only to make gradual increment in the ratio of revenue to GDP but also to control and discourage unproductive and low quality investment in order to maintain the financial discipline. To improve the management of government finance and maintain stability, it is necessary to adopt monitoring system in the periodic target-setting and the implementation of government finance such as revenue collection, regular expenses and revenue saving as against GDP. In this context, a system will be developed to adjust in another variable if any one variable does not achieve the target as planned.
- Price fixation on service sectors of non-tax revenues such as drinking water, telecommunication, electricity, etc., will be based on the cost of production. Revenue as dividend from the sale of such services will be gradually increased.
- Structure and management of public enterprises will be improved in a way to get returns based on investment.
- A policy will be adopted to maintain the inflation rate at the lowest level through monetary policy in order to increase the mobilisation of savings. The interest rate index will be fixed by the central bank in a way to maintain saving and deposit rates higher than the bank rate.
- If the interest rate of commercial banks and other financial institutions is higher, there is a chance of having negative impact on the production increment

programme and investment activities of the private sector. An environment will be created to increase the performance efficiency of commercial banks and other financial institutions to reduce the spread between the rates of deposits and borrowings.

- To encourage the increase in the domestic savings from the deposit collected by commercial banks and other financial companies and institutions and to attract such deposits for productive investment, finance companies and other institutions will be encouraged to reinvest the savings earned from such investment. Private sector will be oriented towards the establishment of sister concerns for the production of durable consumer goods that are not produced in the country instead of providing loan to purchase such goods on the installment basis. As an alternative to this, however, emphasis will be given to developing these sister concerns in the productive sector through diversifying exportable goods and identifying new exportable goods in keeping with the principle of comparative advantage and also weighing the prospects of profit from the import of such goods.
- To increase the deposit in provident fund, an appropriate mechanism will be developed by making compulsory deposit of some percentage of salary increase in Provident Fund or Citizen Investment Fund or other life insurance schemes, and the government will provide matching amount in such accounts. In this context, measures will be taken to deposit such savings of private sector institutions in the accounts of Provident Fund.
- In the context of gradual expansion of insurance service in Nepal, license will be provided for life insurance business. Access to life insurance service will be extended to rural areas of the country through expanding their different branch and sub-branch offices.
- An appropriate environment will be created through insurance committee with the cooperation of domestic insurance companies to adopt re-insurance system within the country in order to check and control the capital drain problem. This is necessary since huge amount of capital is now being drained outside the country resulting from the existing arrangement relating to the group insurance of imported goods and the re-insurance of those goods by the Nepalese insurance companies.
- Stock Market system will be extended throughout the country in order to provide stock exchange services.
- The Security Board will create an environment to maintain up-to-date record of share investment of different financial, insurance and other companies, monitor regularly the activities of such companies, and provide information of the companies having high rate of return so as to develop the share market business in the country.

Mobilisation of External Resources

- Coordination will be maintained with donor agencies to estimate foreign assistance based on detailed development programmes and to mobilise investment as per the Plan's projection. The existing system of aid consortium will be made effective to further mobilise foreign assistance by eliminating duplication.
- Foreign assistance will be utilised in essential areas based mainly on national requirement long-term sectoral development plan and the Ninth Plan investment requirement. A Guideline will be prepared for the utilisation of foreign assistance. A system will be established to hold discussion with donor agencies only after necessary initial preparation and identification of needs.
- To remarkably increase the absorptive capacity for foreign assistance, drastic and planned improvement will be made to address various problems witnessed at the stage of pre-estimation of financial assistance, project formulation, agreement, approval of assistance and fund release, recording of expenses, audit report, monitoring and evaluation. Three-year rolling estimation of required resources will be prepared and revised every year.
- The system of personnel placement with responsibilities for the entire project period will be made more effective and they will be fully trained on project administration for improving their efficiency.
- Priority will be given to Nepalese specialist on consultancy services by keeping foreign consultancy services at minimum.
- Foreign assistance will be accepted only after pre-confirming the ability of the government on budgetary contribution necessary for the use of foreign assistance. HMG will try its best to make available the matching fund for the approved programmes of foreign assistance.
- Unproductive expenditure will not be made out of foreign grant or loan.
- A proper arrangement will be made to develop computerised data system on foreign aid, especially the loan, to track down the status of foreign loan receipt, its use and amortisation.
- No foreign loan will be accepted on government's guarantee. Private sectors will be encouraged to receive loan on productive sector for long-term trading and development loans.
- A proper arrangement will be developed for making necessary legal and procedural arrangement in order to encourage the direct foreign investment in an institutional way. Proper attention will be given to macroeconomic stability of the country while accepting short-term loans.
- Necessary steps will be taken to manage and to have proper auditing of the international assistance received through various non-governmental

organisations. Fund received (direct payment including direct project implementation) through HMG/Nepal will be made totally transparent.

- Technical support received under foreign assistance will be adjusted to the overall requirement of the Plan and it will be limited only to the area where internal sources can not be made available and report on such assistance will be made transparent.

5.2 Government Expenditure and Management

1. Introduction

Government expenditure acts as energy to the economy. Government expenditure makes major contribution to the balanced regional distribution of national income. But uncontrolled government expenditure brings unwanted inflation, which may ultimately produce various economic distortions. Therefore, it is necessary that objectives of government expenditure should be directed towards achieving the targets set in the development plan and to establish macro-economic stability.

Government expenditure helps to increase economic growth rate by encouraging private entrepreneurship and investment. The important aspects of government expenditure are to support to intensive economic activities of the private sector rather than to achieve immediate direct benefit. In other words, while examining the utility of the government expenditure, it is necessary to see whether such expenditure help to expand total economic activities of the country.

The next important aspect of government expenditure management is to increase the productivity of the expenditure. Government's continuous effort is necessary to achieve more benefit with minimum expenditure or to achieve more from similar expenditure, changing the pattern of expenditure. The important aspects of government expenditure control are its usefulness and productivity rather than the limit of revenue mobilisation. Generally, expenditure tends to increase as time passes, if firm and solid measures to control are not taken forth. To control the increasing trend of expenditure it is necessary to adopt various measures and examine each and every item of expenditure on the basis of its utility and productivity from time to time.

Most of the government expenditure may appear unreasonable if overall economic situation improves and involvement trend of voluntary exchange of goods and services increases. For example, now the government is expending huge sum of money in education and community development. This expenditure is important with a view to creating effective demand for education or well-developed community. Government may gradually minimise expenditure in those areas through the creation of effective demand or growth of willingness and ability of involvement in voluntary exchange.

2. Review of the Eighth Plan:

The Eighth Plan had emphasised the rational allocation of resources, the effective management of government resources and the increase in the mobilisation of internal resources.

Out of total expenditure in fiscal year 1961/62, the share of development expenditure was 45.4 percent and recurrent expenditure was 54.6 percent, but out of total expenditure in fiscal year 1974/75, the share of development expenditure increased to 63.90 percent. During the Seventh Plan period, development expenditure out of total expenditure remained an average of 66.14 percent. However, during the Eighth Plan period, this percentage had decreased to 55.73 percent. In the Eighth Plan, recurrent

expenditure increased by an annual average of 20 percent whereas development expenditure rose by 10 percent.

During the Eighth Plan period, structural change appeared in the allocation of recurrent expenditure. In fiscal year 1992/93, the share of expenditure out of total recurrent expenditure in general administration, defense, social services, economic services and amortisation of loans in percentages were 13,15,11,5 and 40 respectively. However, in last year of the Eighth Plan, the share of expenditure of social service increased to 24.44 percent from 11 percent, and in the economic service there was an increase by two percent. Noticeable decrease was seen in recurrent expenditure of other sectors. This could be taken as positive indicator. Likewise, in the fifth year of the Eighth Plan, recurrent expenditure remained nine percent of the total gross domestic production. This had remained less than 7 percent from fiscal year 1974/75 to fiscal year 1991/92. Increase in recurrent expenditure compared to total gross domestic production could not be taken as a positive sign.

During the Eighth Plan, more emphasis was given to economic service and transportation in the sectoral allocation of development expenditure. The share of total expenditure particularly in economic service, transportation and electricity increased in the fifth year of the Eighth Plan in comparison to the first year of this plan. Increase in investment in these sectors could be considered proper in view of supporting the private sector. During the Seventh Plan period, 21.28 percent of development expenditure was borne through internal revenue. But these percentages were 22.36 and 33.52 in fiscal years 1990/91 and 1991/92 respectively, whereas during the first four years of the Eighth Plan, it was on an average 26 percent.

Expenditure trend showed that dependency in foreign aid and internal borrowing decreased to some extent to meet the necessity of development expenditure. Development expenditure as compared to gross domestic production was less than 8 percent upto fiscal year 1974/75, whereas it remained between 11 to 15 percent during fiscal years 1984/85 to 1991/92. During the first four years of the Eighth Plan, development expenditure remained on an average 10 percent of the total gross domestic production.

During the Eighth Plan period, government concentrated its effort in proper sectoral distribution of expenditure for its effective expenditure management. The share of expenditure in social service, economic service, infrastructure development and maintenance, etc increased gradually.

During the Eighth Plan period, reimbursement release system was introduced with a view to controlling unnecessary expenditure and balancing cash flow. This helped to minimise deficit occurring at the beginning of the fiscal year and made noticeable decrease in freeze irregularities. Unnecessary control-oriented and ambiguous provisions related to Financial Rules and Regulations were reformed after the thorough study and analysis, and this process is still continuing.

To maintain uniformity in expenditure procedure of same nature of work, manuals were prepared and issued particularly for construction and the service-acquiring sector, and the process is still continuing.

3. Existing Challenges

Budget formulation is the first important step for effective management and control of expenditure. General tendency appears to exhaust anyhow the allocated overhead budget. There is a chance of budget being spent in unnecessary works or purposes if appropriateness of proposed expenditure can not be properly judged at the time of budget formulation. Similarly, at the time of budget discussion there is a tendency to cut down overhead cost as a lumpsum with a view to keep it within a desirable limit. This process has encouraged concerned agencies to propose more budgets on those line items, which can be made easily acceptable to get consent. This has ultimately encouraged a tendency to transfer excess budgets to line items of their choice. Scientific system has not yet been adopted to correct these weaknesses existing in budget formulations.

The Parliament takes three to four months for the approval of the proposed budget. During that period of financial year, there is system of expenditure on the basis of Vote on Accounts. Because of this system there is a possibility of incurring expenditure on those budget heads or programmes not mentioned in Appropriation Act approved by the Parliament. After the approval of the budget, the concerned authority, without providing authorisation letter in time, provides the letter only towards the end of financial year in haste, creating more pressure in cash flow at the end of financial year. There have been defects in the accounting of expenditure and lack of conformity to spend according to rules and regulations.

The inability to bring clarity and uniformity in the procedure of expenditure caused the failure of timely tender approval and created various obstacles particularly in construction and development works even after the acceptance of tender. Existing accounting system of expenditure was introduced nearly 40 years ago and this system is still in practice with some minor reforms. Existing accounting system treats money taken in advance as expenditure, this has created difficulty in correct reporting of expenditure. Financial statement as required by donor institutions has not been able to prepare in time due to lack of sourcewise accounting of expenditure. This has resulted in the delay in reimbursement of expenses incurred from the government source. In many cases, reimbursable expenses remain to be reimbursed due to the lack of proper accounting of expenditure. Present accounting system is even unable to prepare programme-wise expenditure report of agencies, which implement multi-programmes.

There is an increasing tendency on the part of donor agencies to provide commodity aid and to enforce direct payment and direct spending due to the lack of proper expenditure, accounting and reporting system in the government. The actual expenditure incurred in this way has created difficulty of including all expenditures in the central accounts of the government. In addition, this system has encouraged misuse due to the lack of control in the accounting of goods purchased under the heading of such expenses.

Absence of appropriate controlling system of durable goods and government-owned property purchased through government resource has enhanced the tendency in

government offices to increase unnecessary maintenance cost or provide new items leaving old goods unauctioned.

Under the present expenditure system, it is very easy to provide advance from government fund but the procedures of recovery are very lengthy. For this reason, outstanding advance is increasing every year.

Though advanced information technology has been adopted by making timely reforms in financial information system but due to human and physical infrastructure-related problems, the Ministry of Finance is unable to get timely financial information as necessary to keep cash flow under its grip. Preparation of integrated central account of the government takes about seven to ten months after the end of the financial year. Timely financial statement preparation by the reconciliation of all transactions has become very intricate tasks because more than 3,500 government offices receive and expend budget from the government fund, these expenses are managed from more than 7,500 bank accounts; and government revenue is collected through about 9,000 bank accounts. Management's attitude towards audit has not been positive. Internal auditing has not been taken seriously and attentions have not been paid to reform the drawbacks as suggested in the final audit. This has been made clear by the recurrence of the same nature of irregularities found in the audit of expenditure of each financial year.

4. Long-term Concept

Government expenditure management must concentrate itself towards giving positive contribution to economic growth rate by maintaining macro-economic stability. Continuity in government expenditure and its basic principles do not allow deviation in macro-economic stability. Taking all these factors into consideration, policy framework of government expenditure management in the Ninth Plan has adopted the following long-term concept:

- Regular expenditure of government will be allocated in maintenance of law and order, regulatory functions, social security, foreign relations and information collection and dissemination. Government will be cautious to stop unnecessary expansion of its organisation and will concentrate its effort to provide high qualitative service at minimum cost.
- Unnecessary overhead cost will be reduced and recurrent expenditure will be limited to six percent of total gross domestic product. The development expenditure of the government will be concentrated towards enhancing private entrepreneurship and investment. Inventory of projects like infrastructure creation and maintenance will be prepared and a system of gradual selection of project on cost benefit basis will be adopted.
- Government will not intervene through price subsidy in independent and self-operating market mechanism except for the regulation and policing of provisions of law.

- Accounting information system will be made prompt and objective-oriented by standardising audit and managerial monitoring to increase the utility of expenditure and to ensure financial discipline.

Ninth Plan:

5. Objective

The main objective of government expenditure management is to obtain optimum return by controlling unproductive and wasteful expenditure and make available government resources and means to the priority sector of plan at necessary quantity and in time. Under this objective are the following sub-objectives:

- To establish a system of programme selection on the basis of high cost-benefit ratio.
- To reduce magnitude of irregular expenditure by increasing effectiveness of expenditure.
- To include direct expenditure incurred by donor agencies within the framework of budgetary procedures and make it transparent and auditable in the government programme.
- To activate financial/accounting system to fulfill multi-sectoral requirement.
- To increase the utility of durable goods and assets owned by the government.

6. Policy and Implementation Strategy

- The offices, which are more in number than are necessary and minimum to fulfil the government's role as envisaged in the Ninth Plan, will be closed, adjusted or integrated.
- Expenditure norms will be developed to introduce a system of approving the budget not less than the set norms needed to run government offices at the village, district, regional and central level.
- Unitwise expenditure norms will be prepared and gradually implemented to formulate budget for programme expenditure and to evaluate the expenditure.
- Overdraft loan from the central bank for government expenses will be managed to keep at a limit of one thousand million rupees all the time.
- Each ministry will be directed to prepare a list of feasible projects under their jurisdiction and to implement the projects selected under the high benefit-cost ratio.
- Concept of three year rolling budget will be implemented in the formulation of development budget in order to prevent the deficiency in the budget recurred during the period of ongoing projects.

- National Planning Commission will make three-year sectoral allocation of the available resources to achieve targeted economic growth rate by maintaining macro-economic stability.
- Price subsidy system will be stopped in the Ninth Plan.
- Additional capital requirement of government-owned enterprises will be fulfilled through capital market. Those enterprises who fail to generate additional investment from market will be privatised and government will stop investing additional capital in such enterprises.
- System of budget approval by the Parliament before the beginning of financial year will be initiated, and immediately after the beginning of financial year, budget authorisation letter will be immediately issued to the lowest unit of government offices.
- Pre-audit payment system for recurrent expenditure will be arranged and the number of payment and accounting centres will be reduced.
- Physical audit system for procured or obtained assets of more than five million rupees will be introduced on the basis of cost effectiveness of construction or purchased activities.
- Simple and clear accounting system will be implemented to fulfill the need of the multipurpose financial information system by reviewing government accounting policy, system and procedures. Central financial statement of HMG will be prepared within five months of completion of fiscal year. Arrangement will be made to submit this statement in the winter session of the Parliament along with audit report.
- Life of goods and assets used by government offices will be determined through the classification of their durability and budget will be arranged on the basis of annual repair and maintenance norms. Those goods are fully utilised and assets will be auctioned which need more maintenance cost than determined by norms. Budget will not be made available to procure or for maintenance until those goods and assets are auctioned.
- After the transfer of goods by the donor agency, necessary arrangement will be made to inform concerned District Treasury Office and Office of Auditor General about goods and assets provided by donor agencies through commodity grant and by direct payment with a view to updating records of goods and assets.
- All foreign assistance made available to the government will be brought under the domain of budget by ending the system of non-bearing the accountability of direct payment for maintaining transparency in financial transactions to check the possibility of duplication in expenditure and to audit the expenditure and physical achievements.

7. Programmes:

Budget Formulation and Approval

- The National Planning Commission will provide three-year budget ceiling to each ministry to formulate development budget by assessing available resources and making sectorwise allocation of these resources. Each ministry will then inform budget ceiling to concerned project, district or unit offices.
- The Ministry of Finance (MOF) will prepare operational expenditure norms required to run government offices. Such norms will be prepared on the basis of the number of employees for each district. After the preparation of such norms the MOF will review them every three years. Unitwise norms of programme activities will be gradually prepared by the Ministry and will be made operational.
- Each project, district and unit office will prepare budget by the month of November on the basis of expenditure norms and budget ceiling, and submit it to the concerned ministry. Ministries will compile budget proposal received from all units and prepare integrated budget proposal by the month of December. This integrated budget proposal will be submitted to the joint committee of the Budget Division of the Ministry of Finance and the National Planning Commission, and discussion will be initiated. Discussion will be centred only on such proposed budget items, which exceed expenditure norms and budget ceiling. Discussion will be finalised by the middle of March and the Ministry of Finance will prepare final framework of the next year budget by the end of March.
- Efforts will be made to begin budget session of the Parliament within the third week of April, budget presentation within last week of April, budget approval by mid July and sending authorisation of expenditure to all the concerning unit offices by the third week of July.
- Each ministry will be required to justify its projects, while preparing development budget, that they are prepared on the basis of benefit-cost analysis and proposed according to priority based on high benefit-cost ratio. Each ministry has to update the lists of projects and programmes on a continual basis.
- If any changes in budget ceiling of the second and the third year of the three-year rolling budget are felt necessary after the implementation and approval of the first year budget, the NPC will change the ceiling and will inform the concerned ministry by the second week of October. Ministries will have to submit only details of changed budget items proposed in three-year budget due to changes made by NPC or due to other causes, and discussion will be concentrated in this matter only. Budget for those items, which need no change, will be kept the same as approved in the three-year rolling budget.

Budget Implementation and Expenditure Management

- Necessary arrangements will be made to issue budget authorisation letter and the programmes approved by National Planning Commission to the paying units by

the end of July. Then, all the unallocated budget of the ministries will be allocated by the mid December so as to make available the authority of all approved budget to paying units.

- Procedures of tender invitation, its evaluation, and contractor selection of construction and procurement works will be completed by mid November.
- Authority will be given to the office in-charge to transfer necessary amount from one line item to another line item of the main budget head.
- Arrangement will be stopped keeping payment outstanding of any kind and overdue advances at the end of fiscal year.
- The actions related to the transfer of budget from one head to another or one sub-head to the other upto ten percent of the main heading or sub-heading can be done upon the approval of the MOF, but it is to be completed by the second week of June. Consent of the NPC will be necessary in the case of development budget. No transfer of budget of any kind will be allowed after the second week of June.
- System of payment for recurrent expenditure by the treasury and financial controller offices will be gradually implemented after the pre-audit of such expenditure. On the basis of the experience in the recurrent expenditure with necessary reform in system and its pre-testing, central payment system will be adopted for development budget.
- The existing reimbursement system of released budget on the basis of expenditure will be continued until the centralised payment system is introduced. For the prioritised project, additional fund will be released in as operating fund upon the request of project chief to meet the immediate expenditure if the reimbursed amount does not meet the present requirement.
- Budget will not be released from central government account after the first week of July. Unexpended budget will be refunded 3 or 4 days before the close of financial year to treasury and financial controller offices. Last day of financial year will be taken as account closing day, and no financial transaction will be made on that day.
- To bring uniformity in expenditure procedures for each budget line items, necessary guidelines will be prepared and implemented. Existing guidelines for the construction and procurement of goods and services will be continuously reformed.
- Audit objection will be taken as one of the basis of performance evaluation of an officer who approves the expenditure, and staffs who make payments and perform accounting of expenditure.

Accounting, Information System and Auditing of Account:

- The existing accounting system of HMG will be reformed and accounting policy and standards will be formulated. Such reform will be made to reflect net revenue and net expenditure in books of account of each financial year. Attention will be

given to make internal control effective at the time of formulating accounting system. Accounting system will be developed in a way to enable to submit programmewise expenditure report.

- Arrangement will be made to compulsorily provide information about direct payment and commodity aid to the Financial Comptroller General Office by donor agencies. Arrangement will be made to keep all expenses of donor agencies in government programme within the framework of budget system.
- Financial Information system will be made more systematic with a view to preparing central account statement of HMG within the second week of December in each year. Arrangement will be made to cancel the present system of cashing unpaid cheques issued on or before mid July by mid November of the following fiscal year and a new system will be introduced to cash all unpaid cheques within one month after the end of the fiscal year. Computer network will be established among Financial Comptroller General Office, MOF and NPC so as to get up to date expenditure report immediately. For this purpose, computer technology will be applied with a view to making accounting information system regular and reliable.
- Emphasis will be given to concentrate on regularity of expenditure, mathematical accuracy on the part of internal audit, and selective financial audit and focus mainly on performance-oriented and physical checking up of achievement by the final audit.
- System will be developed to clear all irregularities pointed out by internal audit within the same fiscal year and, if not, the sum equal to irregularity will be deducted from the budget release of the next fiscal year.
- The provision of technical personnel will be made at the Office of the Auditor General to enable the Office to conduct performance-oriented and physical audit. On the part of mega-projects, arrangement will be made to conduct compulsory physical auditing by the expert group of technical and account personnel of Auditor General Office on the basis of cost benefit analysis at the time of execution of project implementation.
- Those contractors, who do not correct weaknesses pointed out by auditor at the time of physical auditing, will be blacklisted and their names will be made public. Provision will be made in civil service or concerned Acts to punish government employees recommended guilty by the Auditor General.

Miscellaneous

- Procurement procedures will be reformed through the scientific classification of goods to be used by government offices in order to maintain quality and uniformity. Central Service Department of HMG will be activated for this purpose. List of suppliers capable of delivering goods at various sites in fixed prices will be decided by open competitive bidding for one financial year. Such supplies will include paper, ink, and office materials of acceptable brand with manufacturing description, and provision will be made in financial rules that

there will be no need to call quotation or tender to procure such goods from these listed supplier at determined price. This will reduce pre-procurement administrative cost; decrease irregularities and bring uniformity in goods procured by government offices and minimise maintenance cost of durable commodity.

- Provision will be made in relevant financial rules about the commodities and assets lasting more than one year except government land and building. These commodities and assets will be classified into a period of three, five, eight and ten years respectively and new commodity will be purchased only after the utility period of concerned goods is expired. Such goods will be auctioned without repair or will be discarded by other means. Budget will be approved for overall maintenance and repair of building in every ten years.
- Arrangement will be made to store expendable commodities like medicine, pesticide and insecticide on the basis of expiry date, and these commodities will be used before the date of expiry. Unused medicines and pesticides will be returned to supplier as per contract, or if a contract does not exist, such medicine and pesticides will be destroyed within 15 days of expiry date, without causing any adverse effect on environment.

5.3 Money, Banking, Financial Institution and Price

1. Background

Ever since the late 1980s, Nepal has been pursuing a liberal policy in the financial sector. By the early 1990s, with the developments such as the autonomy to commercial banks for interest rate determination and investment management; the establishment of commercial banks in the private sector in joint venture with foreign banks; the establishment of new financial companies following the arrangement of Financial Company Act; the establishment of new development banks following the arrangement of Development Bank Act; and the authorisation to co-operatives for banking operations, financial institutions have widely been expanded in the country. Likewise, the use of indirect instruments in the implementation of monetary policy, the development of secondary market for debentures and the reforms in the field of foreign exchange have contributed to enhance the financial deepening of the country. By the end of the Eighth Plan, deposits of more than Rs 8000 million have already been mobilised from the financial sector. Nevertheless, in the absence of a close supervision and monitoring of financial transactions in the liberal financial system, crisis may occur in the financial system and the monetary authority has to be vigilant constantly for preventing the crisis. Similarly, when HMG utilises excessive overdraft loan from the Nepal Rastra Bank to finance budget deficit, monetary control can not be maintained and thereby internal and external stability of the country is affected. Therefore, the ability to keep budget deficit under control constitutes a pre-condition for the effective implementation of monetary policy.

2. Progress of the Eight Plan

The Eighth Plan had estimated a 13 percent growth rate of narrow money supply while the bank credit to private sector was estimated to increase by 27 percent. During the Plan period, the growth rate of narrow money supply remained at an average of 14.6 percent, which stood somewhat higher than the target of the Plan. In the early part of the Plan, the increase in net foreign assets resulted from the huge balance of payments surplus was the main reason for high monetary expansion. In the later part, the domestic credit from the banking sector utilised by His Majesty' Government in a larger amount became a reason for monetary expansion. Credit to the private sector channelised by the banking sector was increased by an annual average of 27.8 percent during the Plan period, which grew at a higher rate than the target of the Plan. However, higher share of that credit was flowed to import trade, which led to have an adverse impact on the trade and current account deficit of the country. In the latter part of the Plan, monetary expansion was brought under control; consequently, some improvement in the price situation could be achieved.

In the Eighth Plan, credit flow to the government sector stood at an annual increase of 9 percent; however, the tendency of government co-operations to take loan from the banking sector somewhat decreased in the Eighth Plan as compared to previous plans. During the Plan period, credit flow to government corporations increased annually by 3.8 percent and credit to financial institutions increased by 18.3 percent; however, credit to non-financial institutions decreased by 4.8 percent. Some corporations paid

the loan taken from the banking sector whereas HMG settled the bank loan to government corporations, which comprised of both loan on government guarantee and matured loan. For this reason, credit flow to non-government institutions during the Plan period decreased by an average of 0.5 percent. During the Eighth Plan period, deposits increased at a rate of 20 percent. Although a competitive environment in the mobilisation of deposits was created through the establishment of non-bank, financial institutions in the country, the deposits mobilised by commercial banks are remarkable.

Due to the high increase of time deposits as compared to that of narrow money supply, the growth rate of broad money supply during the Plan period remained at an average of 17.8 percent.

3. Existing Challenges

In the context of liberal economic policy pursued by the country, it is essential that fiscal and monetary policy should be liberal and sound to create a competitive environment. On the one hand, economic stability has to be attained along with high economic growth rate and, on the other, attention has to be paid on income distribution and poverty alleviation. To fulfill the dual objectives, balanced measures have to be undertaken through the fiscal and monetary policy. To correct economic instability caused by the balance of payment deficit, decline in foreign exchange reserves, high inflation and growing government deficit finance, the structural adjustment programme was adopted. Monetary policies were implemented as a means to attaining economic stability; as a result, since the inception of the Seventh Plan the country did not have to face the balance of payments deficit until the early part of the Eighth Plan.

However, in the later part of the Eighth Plan, signs of instability in the economy started to reappear. In 1994/95 and 1995/96, the balance of payments became unfavourable. Nevertheless, a remarkable progress in the balance of payments has been noticed in 1996/97. Although the existing foreign exchange reserves of the country by the end of 1996/97 has remained at the level of importing capacity for 6 months, there is no denying the fact that it will decline to a minimum level if the balance of payments surplus can not be maintained. Thus, the main objective of monetary policy in the Ninth Plan is to focus towards strengthening the balance of payments position. Moreover, to reduce unequal distribution of income; assist in poverty alleviation; promote the mobilisation of savings through positive interest rate policy; keep interest rate on borrowing at a minimum level; promote exports by maintaining real exchange rate at a competitive level; and create an environment of confidence for foreign investment, it is highly essential to keep inflation under control. There are several reasons for inflation; however, the significant factor is excessive money supply. Therefore, it is necessary that, keeping money supply within a desirable limit in order for inflation not to be caused by monetary factors, the monetary policy in the Ninth Plan will be adopted as a significant instrument for price stability.

In the context of liberal and open economic policy pursued by Nepal, the fact that foreign trade evolves as a backbone to economic development is indisputable. Since

exports have to play a lead role in this regard, it is absolutely necessary to maintain export competitiveness by keeping the real exchange rate at a certain level. To maintain the real exchange rate at a desired level, price level and prevailing foreign exchange rate have to be influenced. Therefore, in order for foreign exchange not to be overvalued, monetary policy has to perform functions like open market intervention and price control. So, the interim objective of monetary policy has to be conceived of keeping exchange rate at a certain level for maintaining healthy balance of payments position rather than controlling money supply. Thus, the fact that the strategy for monetary management in the Ninth Plan is to make exchange rate export-friendly is indisputable.

On the one hand, fiscal policy has to contribute directly towards the profound and challenging task like poverty alleviation as envisaged in the Ninth Plan and, on the other, measures of stringent monetary policy like directed credit programme have to be phased out in forthcoming years. In this context, without damaging the spirit of liberal fiscal policy, it is necessary to adopt the credit policy that promotes efficiency through competitive financial system; makes financial resources available for increasing production and creating employment; and provides means of production to the family below the poverty line for income generation. So, in forthcoming days, it is still mandatory to continue the priority sector credit programme more effectively while the programmes such as Deprived Class Credit Programme, Productive Credit Programme for Rural women, Educated Unemployed Credit Programme and Banking with the Poor need to be given continuity. These programmes can be implemented through development banks; however, only these institutions with limited resource base can not meet the demand for credit to the rural and lower class of the country. Due to the limited scope of financial resource and service, the Agriculture Development Bank and rural development banks can not meet the demand for credit to the entire rural and backward areas. And, on the other, with the concentration of commercial banks having abundance resource and strong capital base to urban and developed areas, it is certain that financial resources of the country will not be properly distributed. Therefore, unless there is an alternative institutional arrangement for providing financial service in the rural areas, it does not appear to be appropriate for commercial banks to escape from their responsibility of directed credit programme.

Among the complaints of investors in Nepal, high interest rate is the one. The rate of interest charged on loan by financial institutions in Nepal is also high as compared to the level of interest rate in the international market and even in many countries of South Asia. There are some reasons for this situation. (1) In the context of high rate of inflation while providing interest to depositors in parallel with even the rate of price rise, the prevailing interest rate on deposit remains high. (2) Due to the weak financial management system, high compulsory cash reserve ratio, growing proportion of bad debts and unnecessary expansion of organisation, operating cost of banks is high. (3) Due to the prevailing high interest rate on deposits and high operating cost, interest rate on credit is also high. As a result, industrial ventures utilising the bank credit have been unable to produce output at low cost. Unless such

a situation is improved, Nepal's export competitiveness can not be strengthened and the pace of industrialisation can not be expedited.

While talking about the improvement in the interest rate structure, two aspects come to appear: (a) To reduce the level of prevailing interest rate gradually to international level and (b) To reduce spread between the interest rates on deposits and credit. In order to attain the first purpose, the rate of inflation has to be reduced and the exchange rate has to be kept stable. Price and exchange rate stability can be attained only through macroeconomic stability. In this regard, monetary policy has to play a supportive role. Although commercial banks can mainly undertake measures such as organisational reforms of banks, maximum utilisation of resources and increase in non-cash reserve transactions to reduce the spread between interest rates on deposit and credit, Nepal Rastra Bank can contribute to this end through reducing the compulsory cash reserve ratio. Such a spread has remained high as a result of keeping idle a large chunk of resources of commercial banks in the form of compulsory cash reserve ratio.

When the balance of payments situation of the country appears to be favourable, it is essential that the reserve ratio has to be reduced to a low level with an aim to increase returns on the resources of commercial banks. Over the years, direct and indirect limits to bank credit were fixed; and the Government used to borrow a major portion of the resources within these limits to finance budget deficit. As a result, it had shrunk the possibility of the private sector for utilising credit from the banking sector.

While considering the argument that private sector can be more efficient for economic activity than government sector, it can be concluded that resources of the financial sector in the past have been channelised more to the inefficient sector than to the efficient sector. In addition to the government, public enterprises have also utilised a large amount of bank credit; as a result, resource flow to the private sector is crowded out, and the economic activity of the private sector has happened to be handicapped. In forthcoming years, it seems that monetary policy needs to be vigilant if such a situation is not allowed to create.

4. Long-term Concept

In order to make economic growth rate sustainable, internal and external stability of the economy requires to be maintained. Internal stability can be attained by allowing to create a favourable situation in price and interest rate whereas external stability can be achieved by keeping foreign exchange rate at a desired level. To meet these ends, monetary policy has to play a conspicuous role. Particularly, the monetary sector can contribute to attain macroeconomic stability by not allowing to create excessive demand while maintaining the expansion of money supply consistent with the level of economic growth rate, the expected rate of inflation and the requirement of monetisation of the economy. In addition, there still exists the situation in the country that the resources mobilised by the monetary sector have to play a substantial role in economic growth rate and poverty alleviation as well. In this context, the long-term target of monetary policy will be to attain macro-economic stability and to channelise savings mobilised in the financial sector towards productive sector and poverty alleviation programme. In order for monetary policy to reach this target, it is essential

to develop the central bank as an autonomous institution and to control the tendency of HMG to take unlimited overdraft loan from Nepal Rastra Bank. Therefore, HMG must reach in a position that it shall not utilise any overdraft loan from the central bank for the implementation of independent and effective monetary policy. While pursuing the fiscal policy of the country, it is necessary to take into account such a target of monetary policy.

In the liberal financial system, the role of central bank as a guardian of financial system comes to be more significant. The recent experience of Southeast Asian countries has shown that in the case of weak monitoring and supervision, financial crisis is likely to occur immediately. Taking this fact into consideration, it is essential to make financial system healthy and strong while enhancing the monitoring and supervising capacity of the central bank in coming days.

5. Ninth Plan:

Monetary Policy

Objective

While the unlimited flow of bank credit creates a hindrance to the attempt to secure stability in the price and the balance of payments situation, the control of credit flow from the banking sector to the private sector becomes a hurdle to the endeavor of achieving high economic growth rate. In this background, the objectives of monetary policy in the Ninth Plan shall be as follows:

- In order to secure economic stability, the growth rate of money supply will be maintained in line with the economic growth rate and the target of price and the balance payments surplus. Naturally, this target can be met through either tight monetary policy or minimum growth rate of money supply.
- The growth rate of credit flow should be limited to the extent of the limited of growth in money supply. However, adequate amount of credit flow to the private sector is needed for attaining high economic growth rate. Keeping money supply at a desired limit, more and more credit flow can also be channelised to the private sector. For that matter, it is necessary that HMG should not use overdraft loan from the banking sector and public enterprises should be oriented towards self-reliance. Therefore, by pursuing the policy of providing no overdraft loan facility to the government sector, an attempt will be made towards flowing resources from the banking sector to the private sector.
- The tendency of Agriculture Development Bank, Nepal Industrial Development Corporation, Financial Companies, Rural Development Bank and Commercial Banks to take assistance from Nepal Rastra Bank for avoiding their financial resource crisis will be gradually reduced. Keeping the monetary expansion at a desired level, adequate bank credit to the private sector will be provided so as to contribute to economic development.

Policy, Implementation Strategy and Programme

Monetary policy is the main instrument for economic stability. Therefore, it is indisputable that the main objective of monetary policy in coming days should be the attainment of economic stability. However, formulating the monetary policy for attaining economic stability without constraining endeavors to economic development is a challenge for the future. If the government sector does not utilise bank credit at a large amount, then the limited financial resources will be diverted to the private sector and thereby a situation is created to attain the economic growth rate. On the other hand, bank credit can be provided to the backward class, areas and family only by directing some part of the credit flow to the private sector. For this purpose, the monetary policy will be focused to flow the major portion of the bank credit in the Ninth Plan to the private sector and a certain part of that credit flow to the access of target class, area and family.

Projection of Monetary Situation

During the Ninth Plan period, while estimating GDP growth rate to be increased by 6.0 percent, growth rate of price by 6.5 percent and rate of monetisation by 0.5 percent, it is estimated that the demand for narrow money will be increased by an average of 13 percent and the demand for broad money by an average of 14.8 percent. The monetary policy will be focused on maintaining this desired growth rate of money supply. In order to keep narrow money supply at a rate of 13 percent, it is estimated that net foreign assets will be increased by an average of 9.1 percent and total internal borrowings by an average of 16.1 percent. In the case of government sector borrowings out of total internal borrowings, it is estimated that HMG will not utilise net borrowings from the banking sector by the end of the Ninth Plan period. It is estimated that credit flow to public enterprises will be increased by an average of less than 21.5 percent. However, private sector loan is estimated to increase by 20 percent. The credit flow to the private sector in the Eighth Plan increased by an average of 27.8 percent. With the expansion of development banks and financial companies in the Ninth Plan, it is estimated that some of the demand for private sector credit will be fulfilled by non-banking financial institutions. The growth rate of credit flow from commercial banks to the private sector is projected to remain only at 20 percent.

Although the current account deficit in the external sector of the country will persist during the Ninth Plan period, it is estimated that the balance of payments will generate surplus due to the surplus in the capital account. Particularly, due to huge amount of crowding-in government and private investment for large hydropower project, it is estimated that there will be capital account surplus, which will make a positive impact on the entire balance of payments situation. Thus, as the balance of payments surplus is projected to be an average rate of Rs 4400 million per annum, the net foreign assets of the banking sector is estimated to increase by the same amount. In case the increase in net foreign assets occurs more than the estimated amount and thereby exerts pressure on the monetary expansion, liquidity thus generated will be absorbed through open market operation in order to avoid that pressure.

During the Ninth Plan period government deficit is expected to control for macro-economic stability. When government budget is controlled in this manner, the government does not have to utilise net borrowings from the banking sector. Thus, it is expected that government finance situation will not make an expansionary impact on the monetary sector and the monetary policy will be effectively implemented.

Table 1
Projection of Monetary Situation in the Ninth Plan

(Rs in million)

	Final Year of Eighth Plan	Ninth Plan				
		1996/97*	1997/98	1998/99	1999/00	2000/01
1. Net Foreign Assets	40191	43691	47691	52191	57191	62191
2. Total Domestic Demand	100144	116501	135188	156748	1181827	211203
(a) Government	29230	31230	32730	33730	34230	34230
(b) Public Enterprises	3383	4233	5213	6323	7563	8933
Financial	1786	2086	2466	2926	3466	4086
Non-financial	1597	2147	2747	3397	4097	4847
(c) Private Sector	67532	81038	97246	116695	140034	168041
3. Demand Deposits	65263	75614	87587	101434	117445	135955
4. Net Other Claims	36613	41118	46183	52011	58864	66579
5. Narrow Money Supply, M1	38460	43460	49110	55494	62709	70861
6. Broad Money Supply, M2	103723	119074	136697	156928	180153	206816

* Preliminary

Although monetary expansion will remain at a desired limit, as HMG will not use additional borrowings from the banking sector, it seems that the private sector credit will be increased by an annual average rate of 20 percent. This growth rate is estimated to be able to meet the demand for bank credit required for the targeted economic growth rate of the Ninth Plan. In the Ninth Plan, credit flow to public enterprises is estimated to increase by an average rate of 21.5 percent. As public enterprises will be gradually privatised and corporations remaining in the government sector will also run in a business-like manner, it is estimated that non-financial corporations will not utilise excessive credit from the banking sector.

Policy and Programme Relating to Banking, Credit and Other Financial Institutions: The liberal and market oriented financial policy adopted for promoting competitive capability of national economy will be further expanded with more activation. It is believed that this will promote financial deepening, increase private sector participation in the economic sector through the availability of financial resources and contribute to the maximum utilisation of available resources. Since it will not be

adequate to meet the increasing demand for capital for growing private sector activities only through domestic savings mobilisation, financial institutions will be encouraged to mobilise external capital as well. In this regard, through the promotion of efficiency and capability of existing banking and financial institutions, the establishment of new financial institutions and the arrangement of new financial instruments and products, financial resources will be mobilised in a way to achieve high economic growth rate as targeted by the Plan.

In the liberal financial system, financial institutions naturally concentrate in the urban areas and in modern activities. However, the majority of population in Nepal engages in traditional activities and lives in the rural areas. 42 percent of the total population still fall below the poverty line. Out of these poor, majority live in rural areas. Since the banking sector and other financial institutions established so far have not been able to provide their services adequately in the agriculture and rural sector, agricultural and rural sectors have been marginalised from the benefit of liberal financial system. Moreover, the situation of women in the rural areas is still miserable. In this context, the role of banking and other financial institutions has to be extended effectively to the development of agricultural and rural areas and, in particular, to the socio-economic upliftment of deprived women. Taking this fact into consideration, policies and programmes of the Ninth Plan relating to credit and financial institutions have been concentrated to this direction.

Policy

- An open entry policy will be adopted to maintain financial development and stability and, making banking and other financial institutions competitive, healthy and strong, national and international credit of these institutions will be enhanced.
- The government ownership that exists in commercial banks, development banks and other financial institutions will be gradually transferred to the private sector.
- In order to increase additional and new opportunities of productive employment for growing population, the provision to invest compulsorily in the productive sector by commercial banks will be gradually increased. At the same time, definition of productive sector will also be refined.
- For the fulfilment of the credit need of the priority sector, specialised institutions in joint venture with commercial banks will be encouraged to establish and expand. Until these institutions do not operate effectively, the provision of compulsory investment in the priority sector by commercial banks will be maintained.
- The present level of credit flow to the deprived class by commercial banks will be gradually promoted.
- In order to ensure an effective implementation of Agriculture Perspective Plan, the managerial efficiency and the flow of financial resources of the Agriculture Development Bank and other financial institutions investing in agricultural sector will be enhanced.

- Increasing the efficiency of Nepal Industrial Development Corporation and Agriculture Development Bank for long-term industrial and agricultural development, the establishment of new development banks of various objective and nature will be given priority.
- Capital mobilisation from international financial market will be encouraged for the promotion of investment in national priority sector.
- An offshore financial intermediation centre will be developed in Nepal in order to increase international capital inflows.
- New institutional arrangement will be made to extend widely the number of financial intermediaries for providing micro-credit at the local level with a view to increase income and employment opportunities for the majority of low income people and create condition for equitable economic development.
- The financial institutions will be expanded and instruments for savings will be diversified in order to enhance domestic savings mobilisation through financial institutions.

Programme

- To increase the flow of institutional micro-credit for the socio-economic upliftment of deprived class including women of the rural areas, services of rural development banks, Small Farmer Development Programme, micro-credit project for women and non-government organisations established with similar objective will be extended in a sustainable and effective manner.
- While providing small loans directly from commercial banks and development banks to farmers, entrepreneurs, businessmen of low income level and the deprived class increases the operation cost of banks, local financial intermediaries / alternatives of organised or unorganised sector capable of flowing credit at low cost will be identified and the wholesale banking loan will be provided to the capable intermediary / alternative by commercial and development banks.
- The timely change and amendment of existing Act, rules and regulations relating to operation and establishment of banking and financial institutions will be initiated to make them of international standard. A necessary legal arrangement will be made for non-government organisations / institutions and other agencies in the organised or unorganised sector to make them capable of doing financial intermediation.
- In order to strengthen financial position and extend investment capacity of commercial banks, development banks and financial companies, their core capital base will be increased continuously.
- In order to develop an offshore financial intermediation centre in Nepal, necessary institutional development and related Act and laws will be formulated.

- The legal provisions like Debt Recovery Act will be formulated and enacted with a view to make the debt recovery system effective and maintain efficiency of financial position of the banking sector.
- An arrangement of necessary legal provisions related to new entry of financial institutions, merger and take-over of existing banks and financial institutions will be made and a take-over code will be formulated.
- Since there is a need to increase the project monitoring and evaluation capability in order to improve the quality of project loan flowed by banks and financial institutions, programmes for appropriate institutional arrangement in addition to manpower development will be formulated and implemented. Arrangement of consortium credit will be strengthened and the increase in such credit flows will be encouraged through the medium of external resource.
- To evaluate the transactions of commercial banks, prevailing supervision procedure at an international level will be adopted and arrangement will be made to keep accounting system on the basis of international standard.
- An institutional arrangement of credit rating for debt instruments will be made.
- An arrangement will be made to disclose publicly the information on the transactions of banks and financial institutions in a way to be transparent.
- Additional financial resources will be made available through the banking sector in order to promote the production, processing and exports of prescribed export-oriented commodities.
- Additional financial resources will be made available for increasing employment and income level of the families living below the absolute poverty line by extending rural development banking facilities in the hill areas as well.
- Necessary arrangement will be made to make rural banks operate gradually through the ownership and participation of targeted group.
- The inspection and supervision system of banks and financial institutions will be strengthened.
- Necessary legal provision will be made to promote the autonomy of the central bank, other banks and financial institutions.
- The government ownership that exists in Rastriya Banijya Bank, Nepal Bank Limited, Nepal Industrial Development Corporation and other financial institutions will be gradually transferred to the private sector.
- Commercial banks under the present arrangement have to channelise compulsorily a 40 percent of their total credit to the productive sector. This proportion will be gradually extended to 55 percent during the Plan period, which will contribute to increase the flow of financial resources in the areas such as agriculture, industry and international trade.

- In order to fulfil the growing credit need of the priority sector, specialised autonomous institutions will be encouraged to establish. Until such specialised institutions become effective, the present provision that commercial banks have to invest compulsorily in the priority areas will be maintained. Credit flow to the priority areas that include micro-energy and alternative micro-energy production, electricity for minimising environmental pollution, gas-operating means of transportation, rural communication service and export-oriented agricultural production and processing (Orthodox tea, silk, fruits, mushroom, medicinal herbs, cut-flower, tissue culture, etc.) will be encouraged. The present provision of 3 percent credit flow from commercial banks to the deprived class will be maintained. For this purpose, the amount of credit flow to the deprived class through commercial banks themselves and financial intermediaries in the organised / unorganised sectors authorised by rural development banks and Nepal Rastra Bank will be all taken into account..
- Credit programmes implemented through organised, government and non-government institutions for rural sector credit will be conducted in a more effective and co-ordinated manner. For that matter, Nepal Rastra Bank will play the role of co-ordinator in co-operation with HMG.
- An institutional arrangement for productive credit programme will be made to mobilise a large number of youth communities in the mainstream of development and solve the problem of growing youth unemployment in the country. For this arrangement, a national level financial institution will be encouraged to establish under Development Bank Act 1995. Through this institution, business loan based on skill and education will be provided for helping to create self-employment opportunities to unemployed youths.
- The rural banking practice adopted at present in the rural area in Nepal has appeared to be effective. This practice will be refined and extended to all districts in *terai* and to potential rural areas in hilly and Himalayan regions. Non-government organisations and other development banks being operated under this practice will be mobilised in a co-ordinated manner. Under this system, a total of Rs 2500 million micro-credits will be channelised to approximately 250 thousand deprived rural women for enabling them to operate micro enterprises.
- Since there is no financial viability to operate Far Western Rural Development Bank and Mid Western Rural Development Bank separately, both banks will be amalgamated.
- An emphasis will be given to the implementation of priorities set out in the Agriculture Perspective Plan. A minimum of Rs 25000 million credits will be flow through organised institutional sources under agriculture loan programme during the Plan period for food and cash crop production, irrigation, livestock, energy development programme in the agriculture sector and the commercialisation of the agriculture sector.
- In order to promote credit flow in the industrial sector, financial and managerial aspects of Nepal Industrial Development Corporation will be strengthened.

During the Plan period, permission will be granted to the Corporation to mobilise capital from internal and external markets in order to work as a lead bank for operating large scale projects of energy, tourism, transport, communication, health and the like in the private sector. Similarly, the large part of resources of commercial banks and financial companies will be encouraged to channelise towards industrial sector. On the whole, approximately Rs 25000 million credit will be invested in the industrial sector through the financial system.

- In order to fulfil the growing need of development for the country, private sector will be encouraged to establish and develop specialised banks with varied objective and nature, particularly for developing cottage and small industry, tourism, energy, education, health, employment, rural development, etc. Such banks will be encouraged to establish at the regional level with a view to contribute to regional balance.
- Permission will be granted to banks and financial institutions to issue bonds and debentures from external financial market as well, in order to mobilise capital for the establishment, development and expansion of infrastructures, such as energy and communications, and medium and large scale industrial projects.
- Foreign exchange system will be gradually made liberal and Nepalese currency will be gradually made convertible in the capital account as well.
- In order to accommodate new policy arrangements made in the area of foreign exchange, necessary amendments and changes in Foreign Exchange Act will be made.
- In order to provide an access to credit for the growing foreign trade of the country, an export-import bank (EXIM bank) will be established.

Price:

The first blow of price rise falls on the fixed income and vulnerable group of society, which, in turn, increases the intensity of poverty. Monetary policy should be formulated in line with the objective of avoiding the adverse effect of price rise on the living standards of all Nepalese people while maintaining an equilibrium between the demand for and the supply of goods and services; protecting the interest of producers, investors and consumers; and attaining economic stability by keeping the price level at a desired limit.

The analysis of the past statistics shows that both internal and external factors have put pressures on the price situation in Nepal. In addition to external factors such as the effect of international price rise and in particular the direct or indirect impact of price increase in India and the devaluation of Nepalese rupee, internal factors such as money supply, government budget deficit and supply situation tend to exert a pressure on price. Therefore, macroeconomic policy has to be adopted without having a pressure on price due to such internal factors. It is appropriate to aim at keeping inflation at a desired limit, particularly through the implementation of government fiscal balance and tight monetary policy.

Price Situation in the Eighth Plan

In the Eighth Plan, price policy was formulated for not allowing price at an annual average rate of more than 9 percent. While studying the national consumer price index in the urban areas, the rate of price increase during the Eighth Plan seems to have remained within the targeted limit. During the Plan period, a minimum of 7.6 percent and a maximum of 8.9 percent price increase have been recorded and the rate of price increase has stood at an average of 9 percent during the Plan period. Out of this, food and beverages and non-food and service sector have registered the price rise at an average rate of 7.9 percent and 8.9 percent respectively. It is realised that following the economic reform measures in line with the liberal economic policy adopted by the country, a balance in the fiscal and monetary sector has been maintained and, consequently, a positive impact on the price situation has begun to appear. In the improvement of the rate of price rise, HMG's open import policy, reduction in custom duties, tight monetary policy, consolidation of supply management, improvement of price situation in India, etc. constitutes the main factors.

Policy

On the one hand, price policy should be able to contribute to the efficient allocation of factors of production and, on the other, it should be directed towards protecting the interest of consumers. Factors of production, such as labour, capital and entrepreneurship, can be made active through the use of price policy in order to attain efficiency in production, exchange and distribution. Similarly, in the context of poverty alleviation set forth as the main target of the Ninth Plan, it should be able to reduce the tendency to increase the intensity of poverty through price control. To this end, price rise in the Ninth Plan has been set a target to maintain an average rate of 6.5 percent. In order to meet this target, price policies in the Plan are as follows:

- Generally, commodity prices are allowed to be determined in accordance with the market principle. Since the price of a particular commodity is influenced by the production and supply situation of that commodity in relation to its demand, first of all, price policies will be directed towards increasing the production of such essential and consumable commodities.
- Private sector will be highly encouraged to strengthen supply arrangement by increasing production through price signal.
- In the attempt to increase the supply of essential commodities by increasing the production and productivity of agricultural outputs, pocket-farming practice will be promoted only after considering the geographical reality region-wise. The transportation subsidy granted for transporting food grains to the food deficit districts will be gradually reduced. A special attempt will be made for the development of food crops in such districts.
- The timely projection of demand for inadequate or short-supply essential commodities will be conducted and their import will be encouraged from the countries exporting quality goods at low price.

- In order to ensure a smooth supply of essential commodities, a distribution system of such commodities at fair price through existing corporations and co-operatives will be commenced.
- A high priority will be given to maintain the level of, and increase the capacity of, minimum buffer stocks of essential commodities such as food and petroleum products, in order to control the situation of shortages arising out of natural disaster or excessive demand for such items in the country.
- In order to create an enabling environment for the price of chemical fertilizer to be determined in accordance with the demand and supply principle of market, the system of granting subsidy to farmers for chemical fertilizer will be gradually reduced.
- In order to protect the interest of consumers and develop awareness among them, Consumer Protection Act will be enforced and essential information pertaining to it will be disseminated through the various means of communications.
- Farmers will be encouraged through adopting a policy of minimum support price of agricultural products, such as paddy, rice, sugarcane, etc., in an appropriate time.
- It is most essential to study the real cost and selling price of essential commodities produced in and imported to the country in order to ensure their real price. Therefore, an arrangement will be made to constitute at unit at the government level for conducting price subsidy and monitoring of such commodities.
- A contribution will be made to supply system by establishing and expanding whole sale markets in various feasible areas of the country.
- Exportation of food will be made open.
- In order to assist in monitoring wholesale price of production and consumption goods, a wholesale price index will be prepared and gradually published.
- Since monetary expansion does have a negative effect on the price situation, money supply will be kept within a desired limit by adopting tight monetary policy. The expansion of money supply will be brought under control whereas government budget deficit will not be allowed increase beyond a certain limit. While formulating taxation policy, its likely impact on price will be taken into account.
- The corporations running under government subsidy will follow the business principle while setting the selling price of their commodities. However, a policy of price control through reducing the costs of production and transportation of corporations will be pursued.

5.4 Foreign Exchange and Balance of Payments

1. Background

Since the late 1980s and particularly the early 1990s, the concept of economic liberalisation and privatisation gained a rapid momentum worldwide and it more or less made an impact on both the planned and the market economy. Realising the need to integrate gradually into the wave of globalisation while adjusting and transforming national economic policies in line with the changed context of global economic system, economic policies since the Seventh Plan were adjusted and changed accordingly with a view to taking the maximum benefit from liberalised global market, which could take a full pace only in the Eighth Plan. In this context, export-oriented industrial and commercial policies during the Eighth Plan period were basically formulated while investment and One Window policies supportive of foreign investment as well as financial and hydropower policies favouring private investment were formulated and implemented. In an attempt to gradually make the economy liberal, integrated and competitive with the external sector, open import, current account convertibility, and market-based foreign exchange rate system are some of the far-reaching steps of the Eighth Plan.

With the adjustment and the reform of such policies and arrangements conducive to the external sector, the volume of foreign trade has tremendously expanded and such a comparative openness of the economy has helped to integrate into the external economic world. As a result, a congenial environment has been created for foreign investment. As the external sector of the economy becomes open in the current account, it also helps to build necessary infrastructures for capital account convertibility in future. Similarly, it has become strongly likely that the entire economy can ultimately benefit from the comparative advantage as limited resources are highly utilised and channelised towards the sector with a high return.

Over the last few years, the concept of foreign aid has undergone a change in the world. At present, the concept of 'trade, not aid' is becoming stronger. This will bring about a transformation in the structure of foreign capital in forthcoming days. This strongly activates the need for extending further an access to broad international market for goods and services by attaining comparative advantage through the maximum utilisation of internal resources caused by the use of foreign capital and technology. The South-East Asian crisis in recent days has alerted the country towards balanced and regulated liberalisation. While considering the fact that external sector instability and fluctuations can have multifarious contagion effects on the economy as well, a policy-level institutional preparation seems to be continuously made in order to strengthen the external sector by attaining the balance of payments surplus, to protect realised achievements and to reap the maximum benefit from the liberalisation of external sector in forthcoming days.

2. Review of the Eighth Plan

Foreign Exchange

Although the open and liberal system in the foreign exchange sector was begun in the final year of the Seventh Plan, the process of exchange rate determination shifted from the controlled system to a system based on market forces (demand and supply) only during the Eighth Plan. Earlier, the selling price of convertible foreign currencies tended to be determined by the market. However, due to the arrangement of selling some prescribed fixed proportion of foreign currencies to Nepal Rastra Bank at the rate determined by the Bank, such a composite buying rate could not have completely reflected the interaction of market forces. Such a system of exchange rate determination was implemented under the policy of partial convertibility of Nepalese currency.

Ever since the implementation of partial convertibility policy, a commitment had already been expressed that such a policy would be adopted only for the short term and, after some time, it would take the form of current account convertibility policy. Consequently, full convertibility of Nepalese rupee in the current account was made only after having reformed various policy measures already implemented under the partial convertibility during the Eighth Plan period. Under such a policy, an arrangement was made to buy foreign currencies required for business activities of the private sector as well as for the amortisation of external debt by the Government and the import of petroleum products and chemical fertilizers at the open market exchange rate. In this process, Nepal had expressed a commitment to meet the obligation under section 8 of International Monetary fund.

Once the system with the selling price of the convertible foreign currencies based on open market implemented, remarkable reform measures were undertaken in trade (import). As a result, except for a few prescribed goods, all other commodities were brought under Open General License system and the auction system was implemented in the very limited sector. Following the inception of a system of determining not only selling price but also the buying rate of convertible foreign currencies by market forces (termination of partial convertibility and implementation of the policy of full convertibility in the current account), such limited commodities were placed under the OGL system. Moreover, the auction system was eliminated during the Eighth Plan period. Thus, under this policy, except for a few prescribed commodities, a policy arrangement was made for providing foreign currency for importing all other goods at any desired quantity.

In addition to foreign currency required for commercial sector (import), remarkable reforms on the arrangement of foreign currency required in the service sector for various purposes were made during the Eighth Plan period. Under this policy, the amount of foreign currency provided for private visit was increased and the exchange facility of foreign currencies required for varied purposes could be obtained directly from commercial banks.

During the Eighth Plan period, foreign exchange earners in the export and tourism sector were provided with a facility to open account in foreign currency and allowed

to deposit cent percent of their foreign exchange earnings at any commercial bank situated in Nepal. An arrangement was also made for depositors to be able to spend for various purposes from the account thus opened in foreign currency. With this arrangement, the agencies earning foreign currencies from export and tourism sector obtained a new alternative to use their earnings. The forced situation of selling excess foreign currency at a low rate when it is not needed and of buying the foreign currency at a high selling price in moment of need was, to some extent, abolished.

The balance of trade between Nepal and India has always been unfavourable to Nepal. Although Nepal/India's overall balance of payments situation tends to remain in favour of Nepal due to the income earned in Indian currency from service and other sectors, it has also become deficit for several years. Since the unfavourable balance of payments had exerted a pressure on the reserves of Indian rupees remained in the banking sector, such a deficit in the past had been fulfilled by buying Indian rupees from the sale of convertible foreign currency. For this purpose, US dollar worth of Rs 220 million were sold for buying Indian rupees during the Seventh Plan period alone. Considering this reality, a policy was adopted during the Eighth Plan in order to allow importing some prescribed products payable in convertible currency. Due to the prevailing Indian export policy, this arrangement was implemented as Nepal received additional benefits from such an arrangement. The prevailing Indian policy stated that if an exporter exported his goods payable in convertible foreign currency, s/he would receive an exemption from excise duty/sales tax/income tax, etc. to be paid on such commodities. Such a policy offered Nepali-importers goods at cheaper price while the economy carried the burden of foreign currency expenditures only at lesser amount. The policy of importing Indian goods payable in convertible foreign currency affected the structure of foreign exchange reserve of the country, brought a deterioration in the proportion of convertible currency and thereby maintained the possibility of the likely increase in the proportion of non-convertible currencies. Consequently, a policy was undertaken to include only machinery and raw materials to be imported by industries in the list of goods to be imported in this way.

Foreign Trade

The policy reforms made in the direction of gradually integrating the Nepalese economy into the global economic system while encouraging foreign trade and investment remained promising during the Eighth Plan period. Particularly in this period, appropriate commercial policies formulated and the policy to make trade production- and export-oriented adopted. With this arrangement, except for few commodities that were sensitive from the viewpoint of public security and health, the import of all other commodities made open and the adjustments in the import tariff structure made accordingly. In the context of growing foreign trade, while considering the benefits to be obtained from broad and liberal world market, Nepal participated as an observer in World Trade Conference in Maracas (Morocco) in 1994. The Conference was held with an objective of transforming the decisions of the Eighth round (Uruguay Round) of General Agreement in Tariffs and Trade negotiations. It has already been decided that Nepal take the membership of World Trade Organisation that came into existence since January 1995 and, for that matter,

in addition to preparation, a commitment has also been expressed to gradually make adjustments in necessary aspects.

In accordance with the policy of making import trade more production- and export-oriented, an arrangement was made in this period in order to be able to import some industrial machinery and raw materials from India in convertible currency in addition to Indian currency. In the context of close traditional economic relationship with India and the need for transforming huge and liberalised Indian market into the great possibility of export expansion, a new trade and transit treaty with India was concluded. As a result, the past arrangement of the composite proportion of labour and commodity content was completely abolished in the export trade with India. With this arrangement, in addition to primary commodities produced in Nepal, semi-finished and finished goods can also enter into Indian market without any duties and quantitative restriction, and the number of commodities remained in the negative list in the past is limited only to three. Export trade and industries producing export-oriented goods were made tax-free. Bonded warehouse, back-to-back letter of credit and exchange facility of export earnings was arranged. An arrangement of using some part of export earnings for the import of raw materials was made; and up to Rs one million loan flow to the export sector was taken as the priority sector loan and interest was charged thereupon accordingly. Thus, an additional supportive policy was adopted in this direction through such banking and credit policies as well.

In line with the policy of attracting more capital and technology at the global level and channelising investment towards industrial, trade, financial and basic infrastructure sectors, foreign investment and One Window policy and accordingly Foreign Investment and Technology Transfer Act have already been formulated and enforced during the plan period. In addition to this, preliminary process has already been started in this period in order to attract foreign capital through capital market. During this period, appropriate water resource policy has been formulated and particularly in the hydropower sector an avenue for private sector foreign investment has been made open. For the purpose of institutionalising foreign employment by making it rule-driven and systematic Foreign Employment Act has been formulated and enacted in this period. With the objective of achieving sustainable economic growth rate by strengthening and adjusting various aspects of the economy, the Extended Structural Adjustment Programme (ESAP) of the International Monetary Fund has been started to implement; it has made a favourable impact on the balance of external sector of the country.

During the Eighth Plan period, total foreign trade of the country at current prices has been increased by an annual average of 21 percent. However, at the exchange rate of FY 1991/92 the annual average growth rate of total foreign trade during the Plan period has remained at 16.5 percent. The share of foreign trade at current prices with India during the Plan period has increased annually by 19.77 percent and the share of foreign trade with third countries has gone up annually by 21.7 percent on an average. While total foreign trade in FY 1991/92 has stood at Rs 45646.5 million, its level at the exchange rate of FY1991/92 has reached more than doubled or to an equivalent of Rs 97524.9 million by the final year of the Plan period. In the fiscal year 1991/92, the composition of total foreign trade with India and third countries has stood at 27.8

percent and 72.2 percent respectively. However, the composition at the fixed exchange rate in the final year of the Plan period has remained at 33.0 percent and 67.0 percent, respectively.

During the Eighth Plan period, the total export at current prices has increased only by an annual average of 11.4 percent. It has stood at 8.4 percent of gross domestic product at factor cost in the final year of the Plan period, which is lower than that of 9.5 percent of FY 1991/92. However, at the exchange rate of 1991/92, total export growth rate on average has remained only at 6.4 percent. Of this, export to India at current prices has increased by an annual average of 30.31 percent and export to third countries only by 6.8 percent on average. In the final year of the Plan period, the level of total export at fixed exchange rate has remained at Rs 18365.5 million, which becomes approximately 1.3 times higher than the total export (Rs 13706.5) of FY 1991/92. In the fiscal year 1991/92, export to India has tended to be about 10.6 percent of total export. This share in the final year of the Plan period has increased almost three times, reaching to 30.6 percent of total export during this period, in addition to traditional primary and semi-finished goods, the process of some finished goods exporting to India has also begun. Although main exportable commodities such as woolen carpet suffered from the reasons like quality standards, child labour, exchange rate and economic recession, the export of ready garments remained encouraging during the Plan period.

Total import at current prices, which was increased by an annual average of 24.0 percent during the Plan period, has reached to Rs 96005.6 million in the final year of the Plan, which stood at about 35.8 percent of gross domestic product at factor cost of that year. In the fiscal year 1991/92, such a ratio was 22 percent. The level of total import at the exchange rate of 1991/92 was increased by an annual average of about 20 percent during the Plan period. However, it has stood at Rs 79149.4 million at the final year of the Plan, which becomes 2.5 times as compared to total imports of the fiscal year 1991/92. During this period, import from India at constant prices has increased annually by 9.08 percent and import from third countries rose by an average of 17.91 percent. In the fiscal year 1991/92, the share of import from India in total import has remained at 35.2 percent whereas, in the final year of the Plan, it has declined to 33.7 percent, approximately. During the final two years of the Plan period, import of gold suddenly rose, which also affected the normal pace of total import.

During the Plan period, total trade deficit at current prices has increased by an annual average of 32.16 percent whereas its level as a proportion of gross domestic product has reached to 27.4 percent at the final year of the Plan as compared to 12.6 percent of 1991/92. Total trade deficit at the fixed exchange rate has increased by an annual average of 27.8 percent and at the final year of the Plan period, its level as compared to the fiscal year 1991/92 has gone up 3.3 times and reached to Rs 60739.9 million. During this period, the trade deficit with India has increased by an annual average of 17.2 percent and the trade deficit with third countries by that of 38.3 percent. India's share in the total trade deficit in the fiscal year 1991/92 accounts for 53.7 percent while this share has decreased to 34.6 percent in the final year of the Plan. Similarly, the ratio between total export and total import at the fixed exchange rate has remained

at 23.2 percent at the final year of the Plan. This ratio stood at 42.9 percent in the year prior to the beginning of the Plan. Thus, the decline of export in sustaining the importing capacity is a sign of being unable to realise trade performance in line with the goal of trade liberalisation. During the Plan period, export has not been able to take the expected pace of growth due to the fact that export was confined only to limited product and market; abundance of exportables could not be created; and export-oriented industrialisation could not be adopted.

Balance of Payments Situation

The current account deficit remained at about 7.0 percent of gross domestic product in the fiscal year 1991/92. However, no improvement could be seen on the current account deficit during the Plan period, as the growing trade deficit could not be sustained by the net income earned from services and transfers. In the final year of the Plan, the current account deficit at current prices has reached to 7.1 percent of gross domestic product. Since the service income from tourism and investment during this period, has increased by an annual average of 9.4 and 8.0 percent respectively, total service income has registered an annual increase of 32.6 percent and net income has increased annually by 68.1 percent, respectively. Whereas such incomes in FY 1991/92 have covered 21.3 percent of total trade deficit, it has reached to 49.3 percent at the final year 1996/97 of the Plan. During this period, service payment has increased by an annual average of 11.94 percent. At the final year of the Plan, service payment has reached to almost 26.0 percent of total service income. Since private remittances have increased annually by 19.29 percent and foreign grants by 41.97 percent, total transfer income has recorded a growth of 29.49 percent. While the annual growth rate of payments under transfer has remained at 44.14 percent (8.1 percent of total transfer income), net transfer income has registered an average growth of 28.64 percent, which has covered 19.7 percent of the total trade deficit as compared to 23.5 percent in FY 1991/92. Finally, current account deficit at the fixed exchange rate has increased annually by 17.8 percent during the Plan period. Under capital account, the inflow of foreign loans has increased annually by 5.22 percent only and amortisation of principal by 15.48 percent. But, the inflow of net foreign capital has increased only by 2.75 percent and this level at the fixed exchange rate in the final year of the Plan period is lower by 14.3 percent than that of the base year. However, since net miscellaneous capital including direct foreign investment in this period has increased by an annual average of 52.6 percent, the balance of payments surplus at the fixed exchange rate has occurred in all years of the Plan period except FY1994/95 and FY1995/96. The balance of payments during the Plan period has stood at a total amount of Rs 15750 million and foreign exchange reserves have been increased by the same amount.

During the Plan period, Nepalese currency has been devalued with convertible currency (US dollar) by an average of 33.88 percent and revalued with Indian rupee by an average of 3.0 percent.

3. Existing Challenges

The policy reforms undertaken in the external sector have not contributed to achieve more satisfactory progress in the field of foreign trade. Although there is a notable

increase in the export of the country, trade deficit is continued to rise due to the rapid increase in imports. The total export has been able to sustain only one-fourth share of total imports. Trade deficit has reached to about 25 percent of gross domestic product. Due to the huge trade deficit, the current account deficit in the external account has also reached to 7 percent of gross domestic product. High current account deficit has continuously exerted a pressure on the balance of payments position. Over the past few years, there appears an improvement in the balance of payments surplus; however, this situation does not tend to be reliable. Though the existing foreign exchange reserves of the country do not have the importing capacity of more than six months, there needs a huge amount of foreign exchange reserves for the amortisation of increasing official foreign loans and the repatriation of foreign investment in future. Similarly, in order to attract foreign investment in the hydropower sector as well, it is essential to maintain foreign exchange reserves at an adequate amount. However, this is not possible without ensuring diversification in export trade, which is so far centred on limited product and limited market. The implementation of South Asian Free Trade Association (SAFTA) and Nepal's entry to World Trade Organisation offer additional opportunities for export trade; however, the country confronts the challenge to enhance export competitiveness in order to transform this opportunity into national benefit. In the context of the world economy being integrated and the external sector transactions being liberal worldwide, the country also faces a challenge to initiate a big early preparation for making Nepalese rupee fully convertible in the external sector transactions.

4. Long-term Concept

In the context where the long-term strategy of external sector has to be geared towards reducing the imbalance witnessed in foreign trade; increasing foreign exchange reserves of the country; making the balance of payments favourable through a trade-off between the current and the capital account and supporting to foreign trade and the balance of payments through exchange system, the following long-term concepts have been undertaken in the field of foreign trade, balance of payments and foreign exchange:

- To make Nepalese rupee fully convertible in the capital account transactions as well.
- To promote export through the countrywise and productwise export diversification and reduce the trade deficit gradually.
- To reduce gradually the current account deficit of external sector transactions and maintain such a deficit at lower than 5 percent of gross domestic product.
- To attain sustainable balance of payments position by keeping trade and current account deficits at a minimum level and creating capital account surplus through private capital inflows.
- To keep foreign exchange reserves of the country at the level of at least a four-month importing capacity.

Ninth Plan:

5. Objective

- To reduce gradually the growth rate of trade deficit by bringing a complete improvement in the gap between export and import growth rates.
- To reduce gradually the present level of current account deficit by increasing service exports and transfers income.
- To strengthen gradually the balance of payment positions by filling current account deficit with capital account surplus.
- To keep foreign exchange reserves of the country at the level of sustaining the importing capacity of goods and services at a minimum of five months.
- To make exchange rate flexible in order to attain competitiveness in the export of goods and services, and to develop real exchange rate as the main instrument for the expansion of foreign trade.
- To reduce gradually the dependence on foreign loans of the balance of payments positions by increasing the inflows of private capital.

6. Policy, Implementation Strategy and Programme

Foreign Exchange

- Nepalese currency will be made gradually convertible even in the capital account. In this process, first of all, concession will be granted to projects investing in infrastructure sector and to a totally exporting industry in order to mobilise external resources for acquiring necessary capital. The exchange rate of convertible foreign currency will be made open and market-determined, and the existing exchange system of maintaining fixed rate with non-convertible currency will be reviewed, and a timely improvement in such a system will be made.
- The flow of foreign loans to the private sector will be made simple and return-based.
- By creating a favourable environment, the convertible foreign currency earned by Nepali nationals residing in foreign country will be encouraged to bring into, and invest in, the country through banking sector.
- Excessive foreign exchange reserves of the country will be invested in a way to attain higher returns.
- With a view to making a favourable impact on the economy through the loans received from public and private sectors, a monitoring and analysis of situation, trend and impact of foreign loan will be regularly conducted.
- Ever since the policy measures initiated towards making Nepalese rupee fully convertible in current account transactions, the target to attain full convertibility eventually in the capital account was already set. Under this policy arrangement, a liberal system has already been made effective towards several areas of external

transactions of Nepal. Nevertheless, in order to adopt full convertibility in capital account transactions, it is equally necessary that macroeconomic indicators of the country such as government budget deficit, inflation, balance of payments situation, interest rate situation, foreign exchange reserves, etc. should be kept at an appropriate level. At the same time, financial system should be competitive and strong and these aspects should be consistent with foreign exchange policies pursued by neighboring countries. Therefore, in the Ninth Plan, necessary infrastructures will be built gradually towards attaining full convertibility in the capital account, and a policy of gradually making capital account transactions liberal will be adopted in the areas that have adequate infrastructures.

- While it is necessary to open new industries for economic development, it is not possible to mobilise completely the required capital for industries only by the present level and structure of resources of commercial banks in Nepal. Particularly, in the case of projects related to infrastructure development including water resources, a huge amount of capital has to be mobilised; however, the supply of such a capital is not possible from the domestic financial system. Therefore, necessary arrangement will be made to mobilise foreign capital required for such areas. The opportunity for external capital mobilisation will contribute to make the interest rate of the financial system of the country realistic. While considering the reality that interest rate structures between internal and external sectors should not have much spread in order to make Nepalese rupee fully convertible, it is expected that these aforesaid measures related to resource mobilisation will make a positive contribution towards this sector. Nevertheless, while allowing to mobilise resources from external sectors in this way, the sector utilising such resources, its productivity and its capacity to amortise loan in foreign currency will also be considered entirely.
- In recent years, there appears a tendency in the investors of developed countries to channelise some part of their investment towards the stock exchange of developing countries. The main reason for this is the expectation of getting comparatively more benefit from the capital market of developing countries. In order to capitalise this opportunity, Nepal has already, to a limited extent, given concession for foreign participation in the stock market. In this context, if the legal provisions in regard to developing instruments that can attract foreign investors in our stock market can be made clear and transparent, there is a better prospect for mobilising foreign capital in the country. Therefore, an appropriate legal and procedural arrangement will be made in this regard. While making such legal provisions, shares in important areas will not be allowed to purchase from the stock market for the time being from the viewpoint of national economic interest. Similarly, an arrangement will be made to allow investment in the areas made open only by ensuring a prescribed percentage not to exceed.
- In the process of developing an offshore financial intermediation centre in Nepal, necessary legal provisions have already been made. For this purpose, adopting all other necessary procedural arrangements including the amendment of necessary supplementary rules and regulations and the necessary publicity, the offshore financial intermediation centre will be commenced to operate.

- With a view to attract foreign investors in Nepal, it has already been guaranteed that such investors can make investment in certain prescribed areas and the returns, including principal and interest, from the investment thus made can be repatriated abroad in foreign currency. However, in the context of constant fluctuations in foreign exchange rate, an additional risk will always persist for such investors. Therefore, provided that foreign investors are desirous of minimising their exchange risks, an arrangement will be made to make exchange rate transactions in advance through Nepalese commercial banks.
- Necessary amendments in all other Acts related to foreign exchange including Foreign Exchange Regulation Act will be made in a manner to be able to implement likely policy arrangements in future in addition to the policies adopted in foreign exchange sector by the Ninth Plan.
- Considering the importance of flexible exchange rate in the economy of the country, an improvement in the exchange system will be made. While implementing the exchange rate policy, its likely impact on export promotion, industrial protection and price stability will also be considered.
- Direct foreign investment will be given priority in the projects that contribute to higher value-added, export promotion, employment creation and infrastructure development.

Foreign Trade and Balance of Payments

The global economy in recent years has become even more liberal, broader and more integrated. It has intensified competition among nations in international arena in the attempt to secure market for their goods and services and it has also increased the possibility that the economic phenomenon of one corner of the globe can immediately have a contiguous effect on the other corner. The flows of increasing capital and technology in the world have brought about changes in the structure of foreign capital and thereby enhanced the possibility of external instability of the economy as well. In this context, the past concept of international cooperation has changed, and the concept of 'trade, not aid' is taking root in its place. By gradually integrating into, but not isolating from, this changed economic situation of the world, our present need is to strengthen the balance of payments for external stability and promote trade while taking the maximum benefit from the wide market prospect.

The balance of payments situation of the country is directly or indirectly related not only with the external stability of the economy, but also with other aspects of the economy, particularly monetary, financial, foreign exchange and investment, internal production and price. This as a whole reflects the competitive capability of the economy with the outside world as well as the external purchasing power of currency. Therefore, monetary policy, exchange rate policy and government fiscal policy as well have to be geared towards attaining the favourable balance of payments and, for that matter, production and price situation also requires to be supportive. In addition, it is necessary for this purpose that sectoral policies related to investment, industry, trade, labour and tourism should be made equally favourable.

In the context of the economy with limited production capacity and the compulsion to import unlimited goods and services as well as the lack of broad export competitiveness accordingly Nepal requires to maintain an adequate level of foreign exchange reserves. The import of necessary capital equipment for economic and infrastructure development and the obligation of timely amortisation of foreign loans will continue to increase in forthcoming years. In attracting foreign capital and technology directly and indirectly, the level of adequate reserves of foreign exchange constitutes a precondition for investment and, in order to maintain such a level of reserves, there is not any other alternative available than making the balance of payments situation of the country favourable.

Commercial policy will be implemented with a commitment and, in order to achieve this objective, a conducive condition will be created through the adoption of balanced government fiscal policy and stability-oriented monetary policy. In the changed global context, although there is not much room for being encouraged towards foreign grant available to the Government, there is an adequate scope for raising service income from tourism; thus, an attempt will be made towards the maximum utilisation of this possibility. Capital account will be made gradually liberal; capital account surplus will be created through private capital inflows rather than foreign loans; and, learning a lesson from the South East Asian financial crisis, a conducive condition for productive and long-term investment of capital inflows will be ensured as well.

Concept and Projection of Balance of Payments Situation

In order to attain the annual target of economic growth rate of 6.0 percent as set by the Ninth Plan, foreign trade will have an important role to play. On the one hand, this economic growth rate will contribute to export and, on the other, import will remain high due to high investment required for attaining targeted economic growth rate. Nevertheless, the volume of foreign trade in the Ninth Plan as compared to the Eighth Plan is estimated to increase only at a minimum level due to various factors as stated below. Keeping this fact in mind, the projection of foreign trade and balance of payments situation during the P Plan period has been made.

- In the Eighth Plan, as the growth rate of export at constant prices was remained only at 1.97 percent and imports were increased by 20.35 percent, trade deficit was almost doubled. In order to improve this situation, the growth rate of export in the Ninth Plan has to be attained higher than that of imports. Therefore, the export at constant prices during the Ninth Plan Period will be increased by 12.5 percent. Considering high possibilities of export to India as shown by Nepal-India Trade Treaty; the expansion of Nepal's export market in the South Asian region with the implementation of South Asian Free Trade Agreement (SAFTA); possibility of extensive market by virtue of being a member of World Trade Organisation, as Nepal has already shown its intention to take its membership; development of exportable commodities and new exportables for enabling the Plan to attain the expected economic growth rate; and possibility for expanding agro- and advanced technology-based (such as software) new productions, it is expected that such a growth rate of export will be attained.

- In order to achieve economic growth rate of 6.0 percent as targeted by the Plan and obtain export growth rate of 12.5 percent, imports at constant prices have been estimated to increase annually by 8.8 percent. In the Eighth Plan, imports except gold was increased by 15 percent whereas economic growth rate remained at 5.1 percent. This accounts for 1.3 percent import intensity of gross domestic product. However, it is expected that this situation will be improved by a number of reasons. First, the growth rate of import has appeared high while shifting from the controlled regime of the past to a liberal trade system as the import liberalisation was introduced only at the beginning of the Eighth Plan. Since there is possibility to decrease imports of several luxurious goods including gold in forthcoming years, it is expected that such a high growth rate of import will not take place. Second, it is estimated that the past trend of putting pressures on import demand, due not only to the internal demand for the import of capital and consumer goods, but also to the external reason, will be gradually minimised in forthcoming years. Third, in regard to several import-substituting industries (e.g. sugar, paper, cement, etc.) being established and operated and their production being expanded, imports of such commodities are expected to be lower in forthcoming years. Fourth, in the context of Agriculture Perspective Plan having already been started to implement, the demand for foodgrains, fruits, fish, meat and vegetables can be met with more supplies of such goods by domestic productions and the import of such goods is expected to decrease. Fifth, in the context of occurring some improvement in the structure of gross domestic product and attaining the target of high economic growth rate through the increase in agriculture production, it is expected that the import intensity of gross domestic product will continue to decline. For these reasons, the import intensity of gross domestic product during the Ninth Plan period will be gradually reduced and, in order to attain economic growth rate as expected by the Plan, it is estimated that the import growth of 8.8 percent will be adequate.
- The 8.8 percent growth rate of total imports is also sufficient to meet the demand for investment required for attaining the target economic growth rate. As it is necessary to attain the high growth rate of exports of goods and services in order to cover such imports and limit current account deficit at an appropriate level, a target growth rate of 11.4 percent from the export of net service income is set to attain. It appears that the net income expected from the service sectors is realised only when tourism, civil aviation and other services (foreign employment) in particular substantially contribute to foreign exchange earnings. Therefore, in addition to income earning and employment, these sectors have to be developed from the point of view of foreign exchange earnings as well.
- Although the growth rate of official grants has appeared to be low in the income from transfers, it is estimated that grants to non-government organisations will be further increased. Similarly, transfer income of the private sector is also estimated to increase only nominally during this period. On the whole, a target to increase net transfer income by 6.0 percent during the Plan period has been set. On the basis of the estimate that the growth rate of official grants in the Ninth Plan will

be low as compared to the Eighth Plan, the growth rate of transfer income is also estimated to be low as compared to the Eighth Plan.

- Although trade deficit will continue to rise with the increase in the income from services and transfers (net), it is estimated that some improvement will be seen in the situation of current account deficit during the Ninth Plan. While the current account deficit (except official grants and India excise refund) in the final year 1996/97 of the Eighth Plan accounts for 10.7 percent of gross domestic product, such a ratio is targeted to reduce to 8.5 percent in 2001/2002. It is estimated that this is likely to achieve, as the growth rate of trade deficit will be reduced in comparison to the increase in the service and transfer income. Therefore, it is projected that the current account deficit (grants included) will be declined from Rs 191200 million in 1996/97 to Rs 182800 million in 2001/2002, and the current account deficit (grants excluded) will increase from Rs 298700 million in 1996/97 to Rs 324500 million in 2001/2002.
- In order to achieve the expected economic growth rate, capital investment needs to be increased which will put a pressure on imports, increase the trade deficit and thereby exert a pressure on the current account deficit and finally lead to create an unfavourable situation for the balance of payments. In such a situation, private foreign capital investment will be continued to make open and, through expediting the mobilisation of foreign loans, capital account surplus will be increased and thereby current account deficit as well will be reduced and, in turn, the balance of payments will be made favourable. Accordingly, during the Ninth Plan period, official loans of Rs 79000 million will be mobilised. Capital inflows (grants included) in the form of foreign direct investment will be increased substantially in order to make a surplus of Rs 37450 million in the capital account in the final year of the Plan. As this surplus exceeds the current account deficit of Rs 32450 million of that year, a balance of payments surplus of Rs 5000 million is expected to realise by the final year of the Plan.
- While increasing the balance of payments surplus during the Ninth Plan by an annual rate of about Rs 4000-5000 million, foreign exchange reserves by the final year of the Plan will remain at Rs 71000 million which can sustain the importing capacity of goods for 5.8 months of that year. In the context of recent foreign exchange crisis experienced in Asian countries, such a level of foreign exchange reserves is estimated to be adequate for maintaining stability in the exchange rate and providing confidence to foreign investors towards the availability of exchange facility.
- While projecting the monetary situation, net domestic credit flow has been fixed in a manner to gradually increase net foreign assets for achieving the balance of payments surplus. Since monetary policy has been formulated without allowing domestic credit expansion to put excessive pressures on foreign exchange reserves, the balance of payments situation is expected to be favourable as projected. If the real economic growth rate of 6.5 percent at market prices is achieved, narrow money supply, which is estimated to increase by 13 percent, is expected to contribute to make the balance of payments situation favourable.

- Since the sectoral implementation Strategies of the Ninth Plan aim to make capital account transactions gradually open and to encourage portfolio investment in the stock market along with direct private foreign investment, foreign investment during the Plan period is estimated to increase by an annual average of 25 percent.
- As the real growth rate of private remittances in the Eighth plan period was 17.2 percent and there is a programme to attract more of such incomes into the banking system during the Ninth Plan period, such transfers are expected to rise by an average of 8.0 percent.
- The official grants during the Eighth Plan period were increased by 40.2 percent on average; nevertheless, there is not so much encouraging situation towards it in the changed context. Including official grants of Rs 32590 million as shown in the Approach Paper of the Ninth Plan and additional grants available to non-government organisations as well, grants will be increased by an average of 4.5 percent and foreign grant of Rs 56000 million is estimated to receive.
- The amortisation of foreign loans was increased annually by 4.3 percent at constant prices and foreign loans grew by 10.1 percent during the Eighth Plan period. When the official foreign loan which is estimated as a source of expenditure by the Plan, is maintained at a level of Rs 78950 million in total of the plan period, the growth rate of foreign loan will be 11.6 percent. The amortisation of foreign loan will be increased annually by 12 percent and the net foreign loan is estimated to increase by 11.4 percent.
- In order for external sector transactions to be covered completely, an accounting system will be developed along with the implementation of Balance of Payments Data Collection Directory (Fifth Amendment). As the amount that has at present remained at a high level under the heading of miscellaneous capital will be reclassified into various related headings, the amount under the heading of miscellaneous capital in the Ninth Plan is estimated to reduce by almost 20.5 percent annually.

Table
Projected Balance of Payments Situation During Ninth Plan (1997/98 - 2001/2002)
Period
(At FY 1996/97 Constant Prices)

(Rs in million)

Description	FY1996/97	FY2001/02	Annual Average Growth Rate (%)
Export, F.O.B.	22507.2	40558.7	12.5
Import, C.I.F.	96114.1	146471.9	8.8
<u>Trade Balance</u>	<u>- 73606.9</u>	<u>- 105913.2</u>	<u>7.5</u>
<u>Services, Net</u>	<u>39360.7</u>	<u>67387.2</u>	<u>11.4</u>
Receipts	53180.5	86735.5	10.3
Travel	8523.0	17142.8	15.0
Investment Income	1990.3	3205.4	10.0
Others	42667.2	66387.3	9.2
Payments	13819.8	19348.3	7.0
<u>Transfers, Net</u>	<u>15130.1</u>	<u>20242.5</u>	<u>6.0</u>
Receipts	16347.3	22392.4	6.5
Private remittances	5595.0	8220.9	8.0
Official grants	9743.2	12141.8	4.5
Indian Excise	1009.1	2029.7	15.0
Refund			
Others	-	-	-
Payments	1217.2	2149.9	12.0
<u>Current Account Deficit (Grants Included)1</u>	<u>- 19116.1</u>	<u>- 18283.5</u>	<u>- 0.9</u>
<u>Current Account Deficit (Grants Excluded)2</u>	<u>- 29868.4</u>	<u>- 32455.0</u>	<u>1.7</u>
<u>Official Capital, Net</u>	<u>8390.2</u>	<u>14413.6</u>	<u>11.4</u>
Foreign Loans	11232.9	19423.4	11.6
Amortisation	2842.7	5009.8	12.0
Direct Foreign Investment	1620.7	4953.5	25.0
Miscellaneous Capital	12319.5	3916.4	- 20.5
Changes in Net Foreign Assets (- Deficit)	3214.3	5000.0	-

Note:

1. Current Account Deficit / Gross Domestic Product - 6.8 - 4.8
2. Current Account Deficit / Gross Domestic Product - 10.7 - 8.5

5.5 Capital Market

1. Background

Development and expansion of capital market are essential for the rapid economic growth of the country. Capital market helps economic development by mobilising long-term capital needed for productive sector. The capital market was initiated in the country with the establishment of the Security Marketing Centre in 1976 in the government sector according to the industrial policy of that time. But there was no such plan or programme for the development of the capital market until the Sixth Plan. For the first time, the activities and programmes of the Security Marketing Centre were set out and included the capital market in the Seventh Plan. However, the planned development of this sector was initiated only after the Eighth Plan.

The main objective of the capital market is to create opportunity for maximum number of people to get benefit from the return obtained by directing the economy towards the productive sector by mobilising the long-term capital. The objective can be fulfilled only by the rational and accountable behavior relating to the three factors of the capital market such as institution, mediator and investor.

Rational and high moral character and accountable behavior of institutions such as the government, central bank, stock exchange board, stock exchange; organised institutions for accumulating capital from the market; mediators in the form of manager for issuing security; creator of market; manager for investment; security dealers such as brokers and investors in the form of government bond holders, ordinary shareholders, preference share holders, debenture holders and ordinary mutual fund unit holders help to develop healthy capital market.

The Eighth Plan had identified the policies and programmes related to the physical structures of the above-mentioned aspects and most of the programmes were implemented. But due to the lack of coordination between the three factors of the capital market as well as due to several other reasons, the anticipated development of the capital market could not be realised. In the Ninth Plan, it is essential to formulate and implement transparent policies and programmes for the development of the capital market, considering all aspects of the market.

2. Review of the Eighth Plan

In the Eighth Plan, commensurate with the target to develop institutional and legal basis for the operation and control of the security market, the security board was established by making amendment in the Security Transaction Act, 1983. The stock exchange system was initiated in the country by converting the then Security Marketing Centre into Nepal Stock Exchange. Similarly, in line with the target to determine the standard of information disclosure and notice for issuing Security for public information to be issued by the listed company, to publish notice for public information and to make institutional and legal arrangement for the effective monitoring, the Security Exchange Board has issued manual for the issue of Security.

According to the manual, the organised institution which issues Security has to publish additional description and information besides those determined by the Company Act. The Nepal Stock Exchange has made an arrangement for the manager responsible for the issuance and the sale of Security to include additional description and information on the company, which are related to the benefit of the public investors, besides those descriptions mentioned in the Company Act and Issue Manual of the Security Exchange Board. The status of transparency and the standard of the prospectus issued by the organised institutions have been improved due to the necessary arrangement to include additional description and information in the prospectus made by the Security Exchange Board and the Nepal Stock Exchange as mentioned above.

In the line with the objective of establishing the then Security Marketing Centre as a non-profit self-regulatory stock exchange institution and to increase participation of private sector gradually as well as to expand the physical facilities, the Security Marketing Centre has been converted into Nepal Stock Exchange. Stockbrokers at private sector have been involved in the share investment of the Stock Exchange and their representatives have also been included in the board of directors. In this way, the Stock Exchange has been in operation.

For encouraging the Employees' Provident Fund, insurance companies and other financial institutions to invest in shares, debentures and Security and attract the resources of financial sector towards the security market, no other significant progress in this sector has been made except the investment by the Fund in share capital of bank and financial institutions as per the amendment in the Employment Provident Fund Act, 1963.

For carrying out activities such as primary issuance of shares and debentures, guarantee provision, brokers, market, etc., through Citizens Investment Fund and other financial institutions so as to develop and expand investors, institutions and services of the capital market, security dealers like stock brokers, security issuance managers, market creators and portfolio managers are involved in security transaction activities by becoming member of the Nepal Stock Exchange.

According to the target to train manpower needed to expand the security market, Nepal Stock Exchange has arranged for one-time training on subjects like stock brokerage, market creation, management and sales of primary issue, guarantee and fund management. It has also arranged to send for study, observation tour and training for the employees of the Nepal Stock Exchange in both national and foreign institutions.

The target was to conduct various savings programmes through Citizens Investment Fund or institutions authorised to conduct such schemes in order to encourage smaller investors to invest their savings in Security and the organised sector for providing financial services, and to distribute profits among the participants. Even though the expected achievement could not be gained according to the target, altogether three savings schemes have been implemented which include programme for increasing employees' savings and citizens' unit scheme conducted by Citizens' Investment Fund as well as N.C.M. Mutual Fund savings scheme conducted by a financial company.

No achievement could be made during the Plan period in providing permission for various trust companies to function by developing relevant Trust Act.

No significant achievement could be made with regard to the targets to utilise security market for raising medium and long-term capital, to review the policy of providing grants, loans and share capital to the institutions of HMG, to encourage the practice of issuing shares at competitive values and to develop further the tradition of issuing shares for acquiring necessary means of investment in organisations like the Nepal Industrial Development Corporation and the Agriculture Development Bank. Companies of the private sector have been active in utilising security market for raising medium and long-term capital whereas Nepal Industrial Development Corporation and the Agriculture Development Bank and other government companies have not been able to achieve the progress for accumulating capital by utilising the security market. The target to adopt the issuance of shares by local urban units in their construction and development works on the basis for feasibility study could not be achieved.

Progress could also not be achieved as regards the target to set up necessary unit to make legal and administrative provisions related to activities like the liquidation of business enterprises, take over, mergers, fair trade practices, bankruptcies, property rights and the transfer of these rights during the Plan period.

No progress could be made to meet the target to promote the practice of raising public funds by companies and to make effective legal and institutional provisions to carry out proper monitoring of this activity.

Contrary to the target to encourage the establishment and functioning of companies, the tax exemption facility for organised institutions having extensive public participation and whose shares have been enlisted in Nepal Stock Exchange were enjoying for more than a decade on the income of such organisations, has been cut off. During the plan period, arrangement has been made to levy equal amount of tax on both institutions like private limited companies and the enlisted public limited companies.

An integrated registration unit has been initiated by establishing the office of company registrar according to the target to reform company administration by establishing a single registration unit with reform on the existing system of registering companies separately in the Department of Industry and the Department of Commerce.

No significant achievement could be made to meet the target to operate stock exchange by exploring the feasibility of a share depository and registration unit in order to impart dynamism to share transactions.

During the Eighth Plan period, industrialists are attracted to accumulate capital needed to run industries by issuing Security to the public through the medium of capital market. Similarly, an environment has been created to accumulate capital by issuing shares for those companies which have been providing adequate return on investment or able to provide it.

During the Eighth Plan period significant achievement has been made to protect rights and interests of the investors who invest in Security. Arrangement has been made with regards to companies who accumulate capital by issuing Security, security dealers who operate as mediators and serve to accumulate capital, and also the stock exchange market and other concerned agencies, to make them conduct activities by becoming sensitive and accountable to the investors. For this purpose, Security Transaction Act, Security Transaction Regulation, Security Market Membership and Transaction By Laws, By Laws to Enlist Security have been made timely. Security Directives as well as Security Allocation Directive have been implemented to make the primary market transparent and trust-worthy.

Participation of institutional investors is quite significant for the healthy development of capital market. During the Eighth Plan period, significant achievements have been made to create encouraging environment to invest in Security through the participation of banks and financial institutions in the Security transaction. This has produced positive impact on public investors. Banks and financial institutions have participated as security dealers by getting membership of Nepal Stock Exchange and conducted activities like market creation, and investment management. In addition, transaction of shares of companies has initiated. It is an encouraging indicator for the healthy development of the capital market.

3. Long-term Concept

- According to the concept of capital market for development, major portion of financial resources needed for infrastructure development projects like roads, electricity, water management, communication and development will be supplied through capital market.
- Well-organised private sector, capable of operating companies according to modern management system, will be developed to create opportunity to utilise return on investment by diversifying ownership of public companies to general public.
- An environment will be created to fully assure the public to invest in security by allowing only those projects which are technically feasible, economically and financially viable and which are also capable of providing competitive return to enter into the capital market.
- Practice of entering Nepalese companies for competition in international capital market in order to accumulate capital will be developed. For this purpose, professional capability of consulting firms, banks, security dealers including financial institutions involved in project formulation, implementation and monitoring, banks will be enhanced.
- Physical and institutional capability of Nepal Stock Exchange will be enhanced and arrangement will be made to conduct transaction from all the seventy-five districts of the country through the medium of electronic transaction system.

- On the basis of the estimate that only one percent of the total population are ordinary share holders, the total number of the shareholders will be increased significantly to five per cent or more.
- Existing condition of 99 per cent of transaction in share market taking place between retail investors will be improved. Institutional investors like mutual fund, pension fund, provident fund, insurance companies will be involved in transaction and such investors will be made to carry out 50 per cent of total transaction.

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4. Objective

- To conduct industry, trade, agriculture and other businesses as through companies established with share investment including that of the common people.
- To mobilise major portion of investment in the form of medium or long-term credit to be disbursed by HMG, Government Agencies and municipalities along with private sector by mobilising capital market through issuing Security.
- To issue different types of security by coordinating needs of industrialists and interest of depositors.
- To enhance public faith on security market by protecting rights and interests of investors who invest in Security and also of the promoters of public companies.
- To increase liquidity of Security by making stock exchange market fully transparent and trustworthy.

5. Policy and Implementation Strategy

- The capital market will be linked to financial system by establishing proper coordination among higher institutions supervising and controlling the money market, foreign exchange market, capital market, insurance market and other financial activities.
- Timely arrangement will be made on the code of conduct, accountability, liability of promoters and directors as well as managers of the companies which issue security, security market and its members, lawyers, accountants, auditors, consultants and so on for the healthy development of the market.
- Security transaction facility will be provided all over the kingdom in order to create opportunity for scattered investors so as to make them participate in the process of capital formation by investing small portion of their saving in securities.
- Liquidity of Security will be increased by floating appropriate portion of financial resources existing with banks and financial institutions in security market.
- Proper arrangement will be made for accumulation of capital by bank and financial institutions through issuing debenture against completely safe loans

among long-term loans issued by such institutions deposited with financially successful companies and also through developing the system of securitisation.

- Security of only those companies which can provide adequate return will be made eligible for public issue by enhancing the skills of sales managers who functions as mediators, on project evaluation, evaluation of company, and evaluation of shares, etc. for the issue of security.
- Manager for the issuance and sales of Security will be made effective in order to accumulate capital through the medium of Security. Security of different characteristics with and without risk as per the nature will be identified on the basis of categories of depositors or investors.
- National and foreign financial institutions will be encouraged to operate mutual fund.
- Transactions based on inside information will be identified. Arrangement will be made to take legal action against all those involved in such activities.
- The maximum ceiling of shares that can be hoarded by promoter, director, the person or the group of people responsible for managing the company will be fixed. Those companies whose shares are enlisted in security market by issuing shares to public or those companies whose shares have already been enlisted in the security market will be included to this effect.
- Duplication and forgery of security certificates and other documents related to security transaction will be minimised and arrangement will be made for the instant liquidity and immediate transfer of Security.
- Considering the return from secured government bond, as benchmark arrangement will be made for the transaction of government bonds in the security market in order to develop a system of issuing debentures by organised institutions.
- In order to augment credibility of public in companies, accounting system meeting international standard will be implemented. Financial auditing and cost auditing of companies working in sectors like industry, agriculture, public works will be done so as to make their financial activities fully transparent.
- In order to open security market to foreign investors, efforts will be made to arrange necessary legal as well as administrative management by establishing coordination among Ministry of Finance, Ministry of Industry, The Nepal Rastra Bank, Security Board and Nepal Stock Exchange.
- People will be encouraged to invest in Security by arranging compensation for the loss to be borne by investors due to forgery, betrayal or the like by the company which issues security or by mediators who are involved in security transaction or even by customers.

6. Programme

- A high level financial service and monitoring committee will be constituted under the coordinatorship of the Vice-chairman of the NPC consisting of Finance Secretary, Governor of the Nepal Rastra Bank, Chairman of the Security Board and Chairman of Insurance Committee. The committee will coordinate activities of money market and foreign exchange market, capital market, and insurance market, including other activities within the financial market, in order to develop financial sector in a healthy manner.
- Programme for the institutional development of private sector will be implemented in order to enhance people's participation in the ownership of public limited companies through the medium of shares. Since the economic development of the country can be made rapid only through institutional development of private sector, the ownership of the financial companies will be broadened.
- A system will be developed to run companies according to highly modern professional management by separating the ownership and the management of companies in order to develop private sector in an organised way.
- Security board will be made more effective for fair and healthy development of capital market. A code of conduct for managers, directors and promoters of the company which issues Security, officials of the security market, security dealers, lawyers, auditors, consultants, etc. will be prepared and enforced in order to oblige them to function in accordance with their professional norms and standards.
- A manual on accounting system to be adopted by companies will be formulated for the companies, which enter into capital market, and an accounting system of the international standard will be implemented.
- Investors' Guarantee Fund will be established for the safety of those investors who invest in Security.
- Capital market will be made fully transparent through making an arrangement for publishing updated information on status of company, status of market, transaction of security dealer, etc. by establishing contact among enlisted companies, security dealers and Nepal Stock Exchange through the medium of computer network.
- 'Investors' Education Programme' will be implemented in order to augment public trust on security investment. Investment awareness programme will be conducted through communication media like radio and television by including wide dissemination of information on status of enlisted companies, description of security transaction and status of the market in the government communication policy.
- In order to create opportunity to be involved in the transaction of security by investors all over the Kingdom, arrangement will be made to provide facility to

make transaction of securities from each region by expanding units of Nepal Stock Exchange on the basis of feasibility.

- Essential financial and physical facilities will be provided to further increase the efficiency of the Nepal Stock Exchange.
- Legal and institutional arrangement, based on necessary study, will be made for establishing Central Registration System of Security and Security Deposit System.
- A system of issuing debentures by organised institutions will be developed by considering the return from government bonds as benchmark by getting transactions of government bond made in Nepal Stock Exchange as government bonds occupy major portion of transaction in the security market.
- Resources of the institutions like Employees' Provident Fund, Rastriya Beema Sansthan, Credit Guarantee Corporation, Citizens Investment Fund will be mobilised with a view to flowing appropriate portion of resources existing with Banks and financial institutions in the security market for the sake of increasing liquidity.
- Arrangement will be made to issue Security of only those companies, which can provide returns, on a competitive basis, by enhancing capacity of project appraisal of security dealers associated with primary market.
- An appropriate institutional arrangement will be made in order to implement skilled manpower development programme by training government employees, employees of security market, employees of different companies associated with capital market as well as lawyers, accountants and security dealers on different aspects of capital market.
- Appropriate legal and administrative provision will be made for national and foreign financial institutions to establish and run different types of mutual fund.
- Legal and institutional arrangement of securitisation system will be made to enable banks and financial institutions to accumulate capital. For this purpose, debentures will be issued against the collateral of fully secured loan with financially successful companies out of the total long-term loan disbursed by banks and other financial institutions in order to increase liquidity of long-term resources existing with banks and financial institutions.
- Necessary legal arrangement will be made for the use of authorisation in the marketing of Security as in the case of fixed assets.
- Credit rating system will be developed to determine the level of risk prevailing in Security issued by companies by assessing such companies.
- Purchase and sale of shares issued under the system of 'right issue' will be managed at Nepal Stock Exchange by making legal provision for the transfer of such shares to others instead of buying them by the shareholders themselves who

have the right to buy shares of the companies issued under the system of 'right issue'.

- During the Ninth Plan period, huge amount of money can be accumulated from capital market if physical, administrative, legal and institutional arrangement related to the development of capital market during the Eighth Plan period, additional amount of capital accumulated through the medium of Security during the same plan period, policies and programmes to be implemented in the forthcoming days, increase in the number of companies that intend to accumulate capital through utilising the market, minimum paid-up capital of banks, financial companies as well as insurance companies are all taken into consideration. During the Eighth Plan period, additional amount of Rs 700 million was accumulated. The target during the Ninth Plan period is to increase this amount to Rs 5 billion.
- Total value of the enlisted security was Rs 4.72 billion at the end of the Eighth Plan at Nepal Stock Exchange, it will be increased to Rs 15.00 billion at the end of the Ninth Plan.
- The number of additional companies, which were enlisted during the Eighth Plan period stood at 35. It will be increased to 50 during the Ninth Plan period.

A situation that helps to provide competitive return to shareholders will be created. An improvement in the financial and economic conditions of the enlisted companies will be made after allowing only viable companies to enter into the capital market to issue the shares in general, making arrangement for the implementation of accounting system including cost adjustment according to the international standard. By this type of arrangement, the number of companies established and the share investment is expected to increase to a considerable amount due to the enhancement of faith of industrialists and the general public on capital market. Thus, the number of enlisted companies will be increased and there will be considerable improvement in their economic and financial condition.

Depth and width of the capital market will be increased with the initiation of the system of accumulating capital by issuing different types of Security according to the interest and types of the depositors.

During the Ninth Plan period, banks, financial institutions and other industrial and commercial companies will enter into the capital market with their shares and other securitised instruments including voting and non-voting, redeemable/irredeemable, convertible/non-convertible shares, bearer/ registered secured debentures, mutual fund units, preference shares, participatory/non-participatory in company (board of directors) management, convertible/non-convertible fund units and depository receipts. Likewise, the types and characteristics of the government bonds will be commensurate with the nature of the savers.

In the context of making necessary arrangement for protecting investors' interest and rights, such interests and rights will be protected and made more secured with the implementation of granting of permission to issuing shares to standard companies. Security dealers including promoters involved in establishing companies/directors

will be made to work according to the professional norms and standards, and to maintain full transparency by disseminating information on the market.

Nepalese capital market will be comparable to other emerging capital markets of the world by the end of the Ninth Plan with the development and expansion of mutual fund, venture capital fund, individual portfolio management, securitisation capital market support services, etc.

There will be noteworthy increment in qualitative as well as quantitative security in the security market due to such factors as the entry of only the standard companies in security market, discipline to be maintained by people and institutions in the market, full transparency of companies, and transaction of Security with different characteristics. As a result allocation efficiency and utilisation system will be developed again resulting from the development of market system based on supply and demand in the economy.

Security will be developed according to the interests of depositors as there will be seen the entry of different types of Security of less/medium/higher risk with the implementation of credit rating system.

System of issuing debentures by institutions at the government as well as private sector will be developed on the basis of the rate of return on government bonds. This will be in line with the objective of conducting transaction at stock exchange on principle of yield to maturity by putting an end to the existing practice of conducting transaction of government bonds with different maturity period and separate interest rates at par value or at a single value.

5.6 Public Enterprises and Privatisation

1. Background

In Nepal, after the dawn of democracy in 1950, there emerged an environment in which the needs and aspirations of the people were given primacy in the process of implementing government activities. Accordingly, apart from its regular government activities, HMG has initiated a system of establishment and functioning of public enterprises and made huge investment with an objective of speedy economic development, in addition to having direct participation in the production and distribution of goods and services. Government initiative was essential at a time when private sector investment could not be attracted in the provision of basic social and economic services, and in such situation, the institution of public enterprises was justified. Consequently, a number of public enterprises, covering different sectors of the economy, were established during different periodic plans. Many of them were established with assistance of donor countries. The number of such enterprises in the fields of industry, business, service, social and public utility reached above 60.

On the basis of analysis and evaluation of the roles and performance of public enterprises in the national economy, the elected government which assumed power after the restoration of democracy in 1990, reached the conclusion that the economic conditions and financial efficiency of government corporations were not satisfactory. The lack of basic elements contributing to the development of a professional culture in their inherent structure and operating procedures was singled out as the main cause for their poor performance. Public enterprises confronted with various problems and hindrances such as lack of managerial autonomy, inefficient use of means and resources; shortsightedness and weakness on the part of political leadership, production of low quality goods and services, uncontrolled administrative expenses, lack of competitive ability, lack of motivation in incumbent human resources, adoption of traditional technology and minimum use of professionalism, which brought about a progressive decline in their output and made the vast amount of government investment unproductive.

Statistics also reveal that the overall economic condition of public enterprises, particularly those involved in industry and trade sectors, is very poor. Likewise, the performance of the public enterprises involved in social sector is also not satisfactory. Even though the overall condition of public enterprises involved in service, public utility and finance sector is found comparatively better, it does not seem to be satisfactory. For example, the operational loss in industrial enterprises accounts for 9.4 percent and in trading enterprises 55.7 percent in proportion of net capital investment during the fiscal year 1996/97. While the operational profit of social sector enterprises is 1.6 percent, it is 4.0 percent for the financial sector enterprises. The percent of operational profit of the enterprises working in the area of public utility and service sectors accounts for 5.6 and 5.1 respectively. However, the ratio of net operational profit and net capital investment accounts for 2.3 percent out of the total investment of Rs 69 billion as of the fiscal year 1996/97. It becomes clear from

this low achievement that the public enterprises in operation are suffering from extreme economic problem.

A number of factors are responsible for deteriorating economic conditions of public enterprises. The management of the enterprises has tended to be oriented more towards administrative and political matters than towards business. As the higher management is appointed on the basis of political loyalty and commitment, decision-making process apparently lacks capability and efficiency. Moreover, there has been a marked decline in management accountability and responsibility. Consequently, the internal operation and control system have not been in conformity with professional norms, values and principles. Due to the lack of managerial autonomy, the working style and concerns tend to undermine rather than promote the interests of the enterprise. For these reasons, the corporations have failed to play pivotal role in the process of economic development through promoting social services and public welfare, creating employment opportunities, building economic and social infrastructures, delivering effective services in the areas of natural monopoly, providing proper direction to the private sector, stabilising prices, supporting the government to meet its obligations, contributing to consolidate national revenue, speeding up the regional development, and mobilising and optimising the use of national resources.

The corporations have not only failed to achieve their objectives but also have become a heavy burden on the national economy. While the return on corporate investment in various sectors is negative, financial liability of the government is increasing every year. The size of subsidy, particularly the functional and capital, is expanding beyond the capacity of national budget to support. The losses incurred from past *credit Security*, financial losses as well as in the banking sector, to be borne by the government, are the evidences of economic infirmities of the corporations. The corporations are suffering from inefficiency and lack of professionalism. Because of the lack of competitive ability and continued political interference, the higher management of the corporation together with personnel, economic and financial management (including *inventory, credit and cash* management) is all beset with problems. The future of the corporations has become uncertain due to the defective practice of rewarding individual decision-makers even when their working style ran counter to the norms and values and principles of the market economy. Since vested interests and ad hocism rather than the mission of the enterprise influence the decision-making process, marked inconsistencies exist in the use of acts, rules and regulations. The financial corporations, in want of financial discipline, have assumed the character of political institutions. In the absence of effective financial control, profligacy is rampant and decision making based on personal benefit criterion and personal uses of corporate resources have been playing havoc with financial management. As there is a lack of proper system of book keeping and accounting reflecting the realities of transactions and their regular and independent audit, the real situation of the corporations is believed to be worse than what is generally assumed. Thus, there is a total lack of efficiency in the corporations and the bases on which corporate reforms could be initiated are virtually non-existent.

Although initially the corporations enjoyed monopoly in their activities, competition of private sector in various economic activities is increasing. The policy of executing the same professional activities by the government and policy of letting the investors of the private sector enter into such activities has already been established and accepted. Realising this fact, the government has adopted a policy of liberal economy with the aim to raise the living standard of the people by bringing about structural reforms in various sectors of the economy. In this process it has been carrying on the policy of giving priority to the involvement of private sector in public enterprises. In line with this, sixteen public enterprises have already been privatised by way of different processes during the Eighth Plan period (1992-97). Out of the sixteen enterprises privatised so far, three (Harisiddhi Brick and Tile Factory, Bhrikuti Paper Factory, and Banshbari Shoe Factory) were handed over to the private sector in the first phase and remaining 13 in the second phase of privatisation programme.

2. Review of the Eighth Plan

The enterprises privatised during the Eighth Plan and the modalities adopted are presented below:

S.N.	Enterprise	Modalities
1.	Bhrikuti Paper Factory	Sale of assets and business*
2.	Harishiddi Brick and Tile Factory	Sale of assets and business
3.	Banswari Leather and Shoe Factory	Sale of assets and business
4.	Nepal Film Development Corporation	Sale of share **
5.	Balaju Textiles Industry	Sale of share
6.	Unprocessed Leather Collection and Processing Centre	Sale of share
7.	Nepal Bitumine and Barrel Industry	Sale of share
8.	Nepal Lube Oil	Sale of share
9.	Tobacco Development Company	Liquidation***
10.	Jute Development Corporation	Liquidation
11.	Nepal Cast Iron Industry	Sale of share
12.	Shree Raghupati Jute Mill	Sale of share
13.	Agricultural Input Factory	Sale of share
14.	Nepal Bank Ltd.	Sale of share
15.	Bhaktapur Brick Factory	Lease****
16.	Biratnagar Jute Mill	Management Contract*****

* All assets and ownership of HMG are handed over to the private sector and a new company is formed when the assets and business are sold.

- ** Ownership of HMG is transferred to the private sector and the company operates as usual when shares are sold.
- *** In liquidation, the company ceases to exist and the business comes to an end.
- **** The ownership remains with the government and the government receives some money as rent on an annual basis but the profit and loss is borne by the leaseholder.
- *****The ownership of the corporation remains with HMG. The profit and loss is borne by the government. The contractor is paid by the cooperation certain amount for management and operation of the corporation on an annual basis.

Income from Sale and Its Use

A total income of Rs 724.6 million has been received from the sale of the above enterprises. Out of the total sum Rs 435 million has been spent and remaining Rs 289.6 million has been deposited in *security account*. The expense was mainly used to extend loan to privatised enterprises, pay liabilities of the enterprises, provide salaries and benefits to the employees, gratuity and pension to retired employees, and to meet miscellaneous and contingency expenses. The Government has been relieved from direct economic burden after the enterprises were privatised. Since the fund received from sale of the enterprises was used in matters relating to the corporations, it has helped much to bring about improvements in their economic conditions.

Achievement of Privatised Enterprises

The analysis of various aspects of the privatised enterprises shows that their overall condition is improving. The average capital investment, employment and production of such enterprises have increased by 142.5 percent, 25.4 percent and 70.7 percent respectively. The adoption of new technology has resulted in higher quality and diversification of products leading to market extension. The goods and services produced by them have been able to compete in the market and their financial situation has been improved. Remarkable improvement has been noted in the capacity utilisation of most of the privatised enterprises. The number of employees taking opportunity of golden handshake and coming out for alternative employment has also been notable.

With a view to involving employees/labourers in enterprise management, five percent of its share has been made available to them. Accordingly, Bhrikuti Paper Factory, Harisiddhi Brick and Tile Factory, Nepal Film Development Corporation, Nepal Bank Limited, Nepal Lube Oil Limited, Balaju Textiles Industry, etc., have sold five percent of their shares to their staff. This has resulted in a positive impact, directly or indirectly, in the enterprise management. As an industrial culture has not yet been evolved, misunderstandings have tended to emerge, at times, between the employees and the management. The corporations privatised so far have included mostly small-scale and the sick enterprises. Before privatisation, the condition of these corporations was not satisfactory. As small scale, economically sick enterprises with an average

transaction profile were given priority in the privatisation policy, it was but natural that they could not produce impressive impact on the economy.

After privatisation, there has been an increase in the revenue contribution of these enterprises and savings due to the reduction in the size of government expenditure in the form of loan, grant and investment to these entities. There has been improvement in employment opportunities in the terms and conditions of the service and the quality of products. The price has become competitive, the business has been expanded on account of additional capital investment made, financial status of the enterprises has been improved, capital market has received impetus to develop and there has been an increase in public ownership of shares. These are some of the positive achievements of privatisation. However, some of the enterprises are still in need of improvement of their business skills and efficiency.

Considering the consensual environment that has emerged in recent years on the issue of privatisation, a conducive situation has been created for pushing ahead privatisation as an effective economic strategy having direct impact on economy. In future, privatisation as a strategy can contribute remarkably in terms of employment, production, productivity and overall economic development if implemented strategically sequencing it after the restructuring of enterprises and the identification of areas in which private sector is most interested to invest.

With the exception of one or two, none of the privatised corporations has been able to award dividends to its investors. In the stock market, the price of their shares is declining. Some of the corporations have been facing difficulty in paying their liabilities as required by the schedule. Within a brief period of its privatisation, one company was compelled to close down and 500 employees were rendered jobless. As amicable relations could not be developed, problems are emerging in the relationship between the new management and the employees of the newly privatised companies. Some of the formalities and actions concerning the privatised enterprises have not yet been completed. Nevertheless, the investors appear to be optimistic about the future of their undertakings. On the basis of the experience so far, privatisation may be construed as a business strategy, which points to the right direction of corporate reforms.

3. Existing Challenges

Overstaffing, heavy burden of debt, unproductive assets, lack of proper investors, semi-developed capital market, etc., are seen as the major problems appearing on the way of transferring public enterprises to the private sector. Steps taken to resolve these problems included additional package of compensation for those losing jobs, taking over the liabilities of corporations by the government, alternative uses of unproductive assets and the like. Although a policy was initiated with an objective to promote capital market, which made it mandatory to all privatised undertakings to register their shares in the share market, the prices of share have tended to stagnate at an unexpectedly low level due to the inherent weakness of the share market. So far, the shares of Bhrikuti Paper Factory, Harisiddhi Brick and Tile Factory, Nepal Film Development Corporation, Balaju Cloth Industry and Banswari Leather Factory have been sold to the public. Thus the public is provided with an additional opportunity,

albeit limited, to invest in shares, but the expected mobilisation of national resources in the capital market to increase industrial investment through privatised enterprises has not been realised.

4. Long-term Concept

Privatisation programme is being implemented as an alternative means of improving effectiveness in the utilisation of resources invested in public corporations and orienting them towards economic consolidation. The long-term vision, therefore, aims at making the economy more dynamic and efficient transferring all government-owned corporations to the private sector. Instead of production and distribution of goods and services, the role of the government should be concentrated in removing the weaknesses of the market system by keeping the economy in proper order.

About Seven years have passed since privatisation programme was initiated. During this period, for various reasons, the programme could not take a pace for fifteen months. However, sixteen enterprises have been handed over to the private sector, partially or fully, in a span of about five years. The figure stands at one fourth as compared to the total of 62 corporations existing in Nepal. In comparison with other countries of the region, the pace of privatisation of our country can not be considered slow. It is necessary to make this process more dynamic and effective to develop and extend entrepreneurship in the future.

Privatisation is not a short or medium-term economic strategy, rather it is a long-term process. Given the prevailing state of natural monopoly, huge investment requirements, a bleak prospect for attracting adequate private sector investment and the problem concerning a large number of employees associated with some government corporations, it appears that privatisation of most of the enterprises can be accomplished only in the long-term. For the sustainable implementation of long-term programme of privatisation, concrete measures should be specified for addressing such problems as lack of adequate resources and credible investors, unnecessary politicisation, vast amount of unproductive assets, heavy debt burden, determination of the price to be obtained from the sale, ignorance, dilemma and low level of awareness among concerned policy-makers towards the realities, their control-oriented cultural extremity, financial and other concessions and incentives required to be provided to the privatised enterprises, overstaffing and changes to be initiated in staff attitudes towards work, etc.

5. Strategy

In the process of privatisation, various studies must be undertaken and financial statements updated. Likewise, the assessment of assets and the business can be undertaken under the service of different professionals and experts. This task is not only difficult, but also complicated and expensive. Moreover, in the process, many employees of the overstaffed corporations have to be inspired for retirement even if it needs an attractive package of compensation. This requires a huge amount of money. However, it has not been possible to make provision of money to meet these requirements. That is why, so far, the initiative to privatise big enterprises with large number of employees is lagging behind. To push the programme ahead, it is

necessary to come up with a concrete personnel policy and compensation scheme on the one hand, and to obtain additional resources needed to run the programme on the other.

The price of a corporation to be privatised should be determined in the competitive market environment. The investors may not be inclined to come forward to invest in these corporations because of the burden of unproductive assets and heavy debt. Though it is possible to estimate about the value to be received from the sale of the enterprise through the evaluation of the assets and business of the corporation from the experts concerned, it is not easy to determine the actual price at which the corporation can be handed over. This problem will be solved by adopting a policy of pricing that would accept the business value determined by the competitive market as the appropriate price, instead of relying on the decision makers' arbitrary pricing.

In the process of privatisation, the investors of the private sector have to make additional investment and such investment may not produce attractive profit in the few years to come. Moreover, the financial and overall conditions of most of the public corporations being in a very bad shape, the private sector can not improve them in a short span of time. Accordingly, the government has to give some additional concessions to attract the private sector and improve the situation of these corporations. In the present situation, these corporations should be given the status of new companies and efforts should be made to provide the financial concessions as required by the law together with other incentives. Therefore, the policy of the government should be to assume a more positive role in mobilising such financial resources.

Whenever privatisation of any enterprise involves the reduction of excess employees, arrangements will be made to compensate them on a reasonable basis and for the employees to be retained, training will be arranged to provide them additional knowledge and skills on the private sector management.

By seeking national consensus among the main political parties on the issue of indispensability of privatisation, the privatisation process will be pushed further in the best economic interests of the country.

[Long-term Objective and Programme](#)

It will be in line with privatisation to promote private sector participation in the production and distribution of goods and services and other economic and social sector investment and management currently undertaken by HMG for ensuring efficiency and optimisation of national resource utilisation. Among these areas, postal service, civil aviation, highways, bridge, irrigation, canal, hospital, school, campus, university, media, drinking water, sewerage, transportation system, tax collection at the local level, traffic control system, sanitation and security of *Toles*, village and wards; forest management, river training and embankment, disaster management, fire control, distribution of medicine, supply of food, fertilizer, energy and petroleum products; study and research on mining and geology; control of school examinations, training management for human resources, management of physical resources and services of HMG, management of printing press of HMG, security, maintenance and

regular management of temples and other religious sites, management of national parks, parks and livestock farm, places of archeological importance, national library, reading room, conference-hall, museum, zoo, management of Hanumandhoka and other historic palaces, stadium and sports facilities, parade ground, management of expedition and trekking permits, management of transit facilities, management of *national debt*, printing and publication of HMG are important for the private sector. It is within this context that the long-term objective and possible programmes of privatisation will be viewed.

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6. Objective

Though the main objective of privatisation is to enhance productive uses of resources, in the light of economic, social and political realities of the country there can be various aims of privatisation. In our context, though privatisation programme encompasses all political, economic, financial, social aspects and is geared to achieve a particular objective, yet its direct and indirect effects have tended to disperse across the sectors. Hence the programme of privatisation has been oriented to attain multiple objectives. In line with this, the Ninth Plan has set the following objectives of privatisation:

- To increase the effectiveness and productivity of government resources through efficient utilisation;
- To make the government gradually assume the role of facilitator by encouraging and motivating the private sector for participation in economic development;
- To help maintain economic stability by enforcing financial discipline and relieving the government progressively from the burden of financing corporation deficits;
- To promote the participation of common people in the economic development by means of privatisation;

7. Policy and Implementation Strategy

- As the process of privatisation affects different sections of society, it is necessary that the concerns of those affected be heeded to. Accordingly, a consensual environment will be created through keeping people wellinformed about the positive and adverse consequences associated with the process.
- Because the modality of privatisation is directly related to its objective, the process will be pushed ahead by adopting appropriate modality so as to ensure a fair opportunity for all the investors.
- While selecting a corporation for privatisation, it will be assessed properly applying various criteria such as the nature of the job currently performed by the enterprise, its future prospects, current economic profile, potential to attract private sector investors, the size of additional investment required, technological and managerial requirements, the expected role of government and the needs of

the consumers, etc. Besides, detailed analysis will be carried out to determine the priority based on the study of timing, sequencing and pace of privatisation.

- The selection of the investor will be made only after the careful assessment of the business and technical resources, skills, knowledge and experience, the business plan, financial status and reputation, managerial efficiency, access to national and international market, competitive ability, etc.
- To ensure that the government gets fair price from privatisation, arrangements will be made to provide the prospective investor with all relevant information about the enterprise. To enhance the credibility of the programme and secure a competitive price for the enterprise, all relevant information about the *business value* of the enterprise, the value of its assets, its strengths and prospects will be widely disseminated in the public.
- In view of many public enterprises operating poorly due to the lack of capital and technology, foreign investment will be encouraged in some corporations requiring huge amount of capital and modern technology.
- The terms and conditions in which the transfer of ownership and management of a corporation is to be negotiated with the investor concerned will be explicitly laid down. Such terms and conditions will address the issues such as the continuity of an enterprise, restriction on the sale of assets and reduction in employees' compensation, value payment, the rights and duties of the investor, the right of HMG, the size of share which must be distributed to the employees, and general public, resolution of disputes and the type of Act applicable to the process.
- A clear policy and approach will be evolved to protect the interests and rights of the employees as well as to determine the other necessary compensation to be given to them while privatising government corporations.
- Keeping in view the differences in the operations of government owned enterprise and business enterprises in the private sector, programmes will be launched where possible, to make government corporations which are to be privatised, operate like commercial enterprises by developing appropriate work culture, initiating measures to improve their efficiency and even by restructuring them as required.
- Monitoring of the privatised enterprises will be undertaken in post-privatisation phase with a view to ensuring that they are observing all terms and conditions, are providing necessary goods and services as required, and the results will be made public. Moreover, the public will be informed about various aspects of corporations such as their efficiency, employment profile, quality and prices of goods and services, business expansion, revenue increase and economic status, etc.
- Measures will be taken to promote the private sector by keeping the door open for investment, enacting appropriate laws and by-laws and executing them. Emphasis will be given to the development of capital market, banking and financial sectors.

Instruments like shares and debentures will be utilised as a means of mobilising necessary resources.

- As the private and the public monopolies tend to be similar, to prevent the monopoly from taking place before privatising public monopolies, necessary laws and by-laws will be formulated for the appropriate regulation of such monopolies.
- Necessary amendments, based on experience of the past and long-term perspective, will be made in the existing Privatisation Act to improve its effectiveness. In line with the Act, a more practical, scientific and transparent set of rules will be formulated and implemented.
- Transparency of the programme will be enhanced in a way to ensure that the actions and procedures conform the dictates of law; all people willing to participate in the programme get equal opportunity; and anybody with an interest in the entire business or the decision process of privatisation be given all relevant information without any barriers.

8. Programme :

Within the conceptual framework mentioned earlier, to achieve the set objectives, actions will be taken to privatise the following enterprises during the Ninth Plan based on the findings of studies.

(1) Nepal Tea Development Corporation (2) Pokhara Dairy Development Project (3) Gorakhapatra Corporation (4) Himal Cement Company (5) Nepal Resin and Turpentine Ltd. (6) Nepal Bank Ltd. (7) Salt Trading Ltd. (8) Rastriya Beema Sansthan (9) Rastriya Banijya Bank (10) Butawal Power Company Ltd. (11) Lumbini Sugar Factory Ltd. (12) Janakpur Cigarette Factory Ltd. (13) Nepal Transport Corporation (14) Nepal Housing Development Finance Company (15) Industrial Management Ltd. (16) Agriculture Lime Industry (17) Agricultural Projects Service Centre (18) Birgunj Sugar Factory Ltd. (19) Dairy Development Corporation (20) Cotton Development Committee (21) Herbs Production and Processing Company (22) Hetauda Cloth Industry Ltd. (23) Morang Sugar Factory Ltd. (24) Nepal Telecommunication Corporation (25) Royal Nepal Airlines Corporation (26) Birendra International Conference Centre (27) Nepal Oriend Magnesite (28) Hetauda Cement Company (29) Udaypur Cement Company (30) Nepal Electricity Authority.

In case of the enterprises remaining in the public sector for the time being, various improvement programmes should be initiated so as to optimise the utilisation of available resources and capabilities. Structural reforms will be achieved by improving goods, services, and overall business efficiency, refining the process of pricing, controlling financial irregularities and leakage, making political and government involvement more productive, and orienting the size and capacity of enterprises towards the market.

9. Conclusion

- Information about various aspects of privatisation such as objectives, policies, processes of evaluation, selection of investor, provisions made in relation to the

employees, scope and criteria of privatisation, etc., will be made public and, in this way, the privatisation programme will be implemented by ensuring maximum participation of the people.

- Corporations not feasible to be privatised at the moment and expected to be privatised after restructuring in the long-term as well as other activities of the government will be run in a competitive environment on a commercial basis.

5.7 Foreign Investment

1. Background

The foreign capital and technology flow is an important means to supply the increasing demands of capital in the country. Accordingly, the Sixth Plan initiated a policy to utilise foreign capital and technology as a useful supplement. With an objective of providing contribution to the economic development of the country through the foreign investment and technology transfer, foreign investment promotion was adopted as an important strategy for industrial development and building legal infrastructure since the very beginning of the Sixth Plan. To introduce policy and institutional reforms in line with open and liberal policies, Foreign Investment and One Window Policy, Foreign Investment and Technology Transfer Act, Industrial Policy and Industrial Enterprises Act were amended and executed in 1992.

Notwithstanding the fact that the inflow of foreign investment and technology has registered a growth over the years, it has not been sufficient to meet the larger needs of water resources, tourism and infrastructure development. Given the limited size of domestic savings mobilisation and the huge amount of investment required for economic development of the country, the demand for foreign capital and technology is still immense.

2. Review of the Eighth Plan

During the Eighth Plan, the Foreign Investment and One Window Policy (1992), Foreign Investment and Technology Transfer Act and Industrial Policy and Industrial Enterprises Act were enacted. Foreign Investment and One Window Policy has created friendly environment for investment, and defining more precisely the forms of investment, the smooth flow of share investment, loan investment, technology transfer and management services has been ensured. To eliminate the barriers coming on the way of foreign investment, the registration and licensing procedures are simplified and it has been decided to grant licenses within stipulated time-span i.e. 30 days term the receipt of application. Legal framework and organisational structures have been erected to enhance the competitiveness of industries providing liberally the facilities and concessions to be accorded to industries. Industrial Promotion Board, involving private sector participation, has been constituted with a mandate for formulating and implementing policies while One Window Committee has been functioning to accord facilities and concessions. To introduce Nepal as a competitive country for foreign investment and win the confidence of the investors, the policy guarantees the protection against nationalisation and all industries except those in the negative list have been fully opened for foreign investment. Technology transfer is welcome in the entire range of industries.

To create a conducive environment for foreign investment, the first phase of macroeconomic reforms has been given due attention in order to implement policy and programmes favorable to the development of private sector and develop financial

institutions. With an objective of attracting foreign investment for the development and improvement of physical infrastructures, infrastructure development is redefined as construction industry.

As a part of its endeavors to attract foreign investment, Nepal has made some provisions, which are considered to be essential conditions by the international community. Nepal has secured the membership of Multilateral Investment Guarantee Agency for ensuring guarantee of the investment and repatriation of all investment and earnings. With a view to enabling the investors to lead a respectable life in Nepal, arrangements have been made to make business visa easily available to them. Similarly, Nepal has entered into reciprocal encouragement for the promotion and protection of investment agreements with Germany, France and United Kingdom and has signed agreement for avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income with India, Norway and Thailand. To settle the foreign investment-related disputes, the law of the country has explicitly made the provision for their arbitration within the framework of United Nations' Commission for International Trade Law (UNCTRAL). The disputes concerning large projects i.e. industries with *fixed assets* of more than Rs 500 million, may be settled as mentioned in foreign investment agreement between investors providing their autonomy. As a measure of the institutional reform, Industrial Promotion Board which is also involved in the formulation and implementation of industrial policy, and One Window Committee which provides all facilities and services under one roof, have been formed. Industries are entitled to the reduction in and exemption from income tax and duty draw back facility, which constitute the main incentives under the Act. In addition to these incentives and services, as the investors expect to receive infrastructure-related and other services through the one window service, there was a disparity between the investors' expectations and existing legal provisions, which had limited the function of the One Window Committee. The amendment of the Act last year has empowered the committee with authority to make recommendations on issues pertaining to the provision of infrastructures. To deliver the services and facilities to the industries more efficiently at the local level, the One Window Committee has initiated functions through sub-committees in some districts since last year.

Under the provision of the said Act, no foreign investment was permitted in cottage industries and industries having up to Rs 20 million fixed assets. However, the 1996 Act amendment eliminated the fixed assets limit and expanded the scope of foreign investment in all industries except a few included in the negative list. To expedite the process of granting permission, the Department of Industry is authorised to approve industries with foreign investment involving a fixed asset of Rs 500 million at the outset.

Table 1
Approval of Foreign Investment

Fiscal Year	No. of Industries	Total Capital Investment (Rs in million)	Part/share of Foreign Investment (Rs in million)	No. of Employees
Until 1991/92	150	12236	1861	28690
1992/93	63	17884	3752	13837
1993/94	38	3323	909	4734
1994/95	19	1627	478	2386
1995/96	46	9750	2220	8032
1996/97	74	7604	2373	9213
Total of the Eighth Plan Period	240	40188	9732	38232
Total	390	52424	11593	66922

As of FY 1991/92, the total number of foreign collaboration projects registered in the country stood at 150 and the total capital investment amounted Rs 12 billion 240 million. During the Eighth Plan, 240 new projects have been approved in which the total amount of capital investment involved was Rs 40 billion 190 million. Immediately after the initiation of liberal and open policies, in the first year of the Eighth Plan, 63 industrial projects were sanctioned involving the capital investment of about Rs 17 billion 880 million. This was a very encouraging start indeed, however, the momentum could not be sustained. As a result, subsequent two years experienced a decline in the investment. The situation has improved since FY 1995/96, the situation is not satisfactory.

The table above includes only foreign investment in the industries registered the Foreign Investment and Technology Transfer Act. The investment in banks and financial institution made under a different legal mandate is not included therein.

The total number of industries with foreign investment approved up to the FY 1996/97 was 390, out of which 188 were operating while 45 others were under construction phase and thus apparently 60 percent of the total approved projects may have been implemented. The remaining 40 percent industries have not been implemented even after securing the permission. (Table 2).

Table 2
Situation of Approved Foreign Investment Projects

Condition of the Industry	Number of Industries	Total Capital Investment (Rs in million)	Number of employees
Operating	188	19876	35183
Under construction	45	16599	7760
<i>Licensed</i>	95	12294	16458
<i>Approved</i>	34	1628	5273
Closed and Cancelled	28	2027	2248
Total	390	52424	66922

Under liberalisation and open market policy, foreign investment has been opened in the banking and financial sectors also. Before the Eighth Plan, the number of joint venture banks were three and out of their total issued capital of Rs 472.7 million the share of foreign investment was Rs 20 million (42.75%). During the Eighth Plan, seven such joint venture banks and three financial companies were established. The total issued capital of seven banks is Rs 1 billion 190 million out of which the share of foreign investment is Rs 485 million (40.75%). Similarly, the foreign investment in case of financial company amounted to Rs 44 million out of the total issued capital Rs 180 million.

A look in the foreign investment sectoral distribution pattern reveals that the investment tended to concentrate in manufacturing industry. (Table 3)

Table 3
Sectoral Distribution of Approved Total Foreign Investment
(from the beginning up to July 1997)

Type of the Industry	Number of Industry	Total Capital Investment (Rs in million)	Part of Foreign Investment
Manufacturing	218	22532	4331
Tourism	86	9567	2150
Service	64	7665	2430
Agricultural	10	330	75
Construction	5	294	93
Energy based	4	10883	1808
Farming based	3	1153	46
Total	390	52424	10933

As illustrated in the above table, 56 percent of the approved projects were in the manufacturing sector while 22 percent tourism sector and another 22 percent to services and the other sectors. In terms of capital investment, manufacturing, tourism, energy and the other sectors received 43%, 18 %, 21% and 18 % respectively. In addition to this, the banking and financial sector has secured Rs 729 million foreign investments.

Although the efforts made in the past few years have brought about some success in attracting foreign investment in the country, the achievements have not been up to the mark. The qualitative and quantitative flow of foreign investment, entry of some multinational companies in Nepal, transfer of management skills and technology, increase in industrial assets, creation of new job opportunities and increase in the size of exports particularly to India can be viewed as positive effects of liberal and open policies adopted by the country.

3. Existing Challenges

Nepal is endeavouring to be placed in a competitive position in order to attract foreign investment like other developing countries. Although adequate physical infrastructure and resources required to attract investment are limited, efforts have been made to introduce policy reforms, institutional strengthening and new resources identification and utilisation.

In spite of reviving policy in areas of foreign investment, technology transfer and services and also despite the incentives made more open and easily accessible compared to other countries in South Asia, the inflow of investment has remained below the expected level.

If the climate of investment in Nepal is tested against various parameters such as the state of infrastructure, policy stability, legal structure, capacity of the banking and financial sector, human resource profile, responsiveness of bureaucracy, quality of revenue administration and accessibility to the credit flow, many other areas require reforms.

In order to ascertain smooth transfer of foreign capital and technology, the absence of a strong and effective policy implementation mechanism capable of translating the policy intent into outcomes has remained the main problem before us. It is necessary that the institutional reforms be geared towards the establishment of legally competent, strong and efficient institutions at the implementation level so as to ensure effective delivery of services.

4. Long-term Concept

The attraction of foreign investment has become an increasingly competitive business. No one would deny the fact that in such a competitive atmosphere, a small and landlocked country like Nepal has to make some additional efforts to counter balance the negative impact of the competition. Therefore, special attention should be given to mobilise domestic and foreign investment to meet the increasing investment needs of the country through the creation and stabilisation of investment-friendly environment. Following matters should receive priority in order to achieve the goal:

- To identify the area and sectors of comparative advantage and decide upon the priorities for foreign investment;
- To prepare policy and legal framework in line with liberal and open economy and stabilise them;
- To make the administrative mechanism more efficient, active and smart to execute the policy and legal prescriptions;
- To give attention to the development of necessary physical infrastructures, particularly electricity and road transport;
- To make banking and financial sector wider, more efficient and simple;
- To enact environmental and labour laws in a way that provides enough room for industrial enterprises to develop;
- To ensure the supply of quality human resources to the industry, and give emphasis in improving productivity.

Ninth Plan

5. Objective

- To ensure the safe entry of foreign capital, technology and managerial and technical skills particularly for the development of industry, tourism, water resources and infrastructure;
- To accelerate the process of industrialisation through the mobilisation of foreign investment and private sector participation;
- To promote export in the international market by improving production, productivity and quality;
- To raise the living of the people by expanding the opportunities for gainful employment and income generation.

6. Policy and Implementation Strategy

- The *inflow and outflow process* of foreign investment will be made simple and transparent;
- Open and competitive market regime, which is conducive to foreign investment, will be maintained;
- Attention will be given to maintain the environment of security for investment and dividends;
- National economic management will be made transparent and the process of economic liberalisation, private sector development and globalisation intensified;
- Special priority will be accorded to the maintenance of economic and, particularly, financial stability;

- Appropriate incentives will be given to ensure efficiency, credibility and transparency of banking and financial sector management;
- Development of technical and skilled human resources will receive due priority with a view to helping investment;
- Measures will be taken to attract foreign investment by identifying areas of comparative advantage and promoting them;
- Efforts will be made to remove the infrastructural barriers confronted on the way of industrialisation;
- Based on comparative advantage, foreign investment will be given entry even in the area of service industries;
- Foreign investment as well as private sector will be attracted to the construction, improvement and operation of physical infrastructure by making appropriate legal and structural arrangement;
- One Window Committee will be made effective in providing infrastructure and services. The mandate of One Window Sub-committees will be expanded and they will be extended to other districts as and when required;
- The government will provide necessary support to the industries in bringing in new technology and skills as required;
- The situation of intellectual property rights will be improved as per international standards and treaties and a legal framework will be put in place to ensure a cleaner and more competitive environment for investment;
- Agreements encouraging investment promotion and protection and avoiding double taxation will be concluded with more countries;
- Appropriate legal and institutional arrangements will be made to enhance coordinated action to promote investment in various sectors viz. industrial enterprises, services, infrastructure building, banking and financial services;
- The flow of data and information pertaining to various economic activities will be made simple, dependable and more autonomous;
- Measures will be taken to create a more investment-friendly environment in view of competing promotional programmes in the international market;
- The process through which the repatriation of capital and dividends is carried out will be made more simple and transparent;
- In view of large market and proximity of neighbouring countries, Nepal will be developed as a centre for producing and exporting more value-added goods;
- The entry and execution of export-oriented industry will be made easier by procedural simplification and the concept of unrestricted entry will be adopted. Arrangements will be made to ensure that the exporters have an easy receipt of duty drawback.

- A high level inter-ministerial coordination committee will be instituted to remove barriers on the way of timely approval and implementation of big industries and infrastructure-building projects involving foreign collaboration.

Chapter - 6

Poverty Alleviation and Employment Promotion

6.1 Poverty Alleviation

1. Background

The problem of poverty has posed itself as a big challenge to Nepal. The income and consumption level and overall living standard of the people have remained very low. To raise the living standard of the people in a sustainable manner by alleviating the existing poverty has become the biggest challenge ever. The great majority of the population live in the villages and the big segment of them is poor. In this context, from the very beginning of the planned economic development process, great stress has been laid on the development of agriculture and physical infrastructure in order to improve the living standard of the common people. To this effect, the seventh Plan had formulated elaborate programme with a view to fulfill the basic needs of the people. Poverty alleviation was enshrined as one of the main objectives in the Eighth Plan and, with a view to addressing poverty in a planned way, comprehensive policies and targeted programmes were hammered out and put in implementation. At the time of the commencement of the Eighth Plan, 49 percent of the people were estimated living below the absolute poverty line. The objective of the Plan was to bring down the same to 42 percent. A living standard survey conducted in 1976 revealed 42 percent of the people still living below the poverty line. From poverty alleviation angle, the picture is far from encouraging. As such, it has become imperative to launch comprehensive poverty alleviation programmes as a campaign. Such programmes have to be guided by a long-term vision embodied in the Ninth Plan. The task of poverty alleviation seems possible only with multi-disciplinary effort. For this, all the activities under various sectors have to be pushed forward in a coordinated manner. On the one hand, extension of economic activities is indispensable for poverty alleviation, while on the other hand, it is equally essential to create conducive social condition to enable the ultra-poor to take benefit from opportunities that might open up in their wake. Similarly, it is necessary to engage the private sector in economic activities by providing them opportunities and facilities. It is equally necessary to ensure access of the ultra-poor group to opportunities created in this sector.

In the context of the country, the depth of poverty varies from region to region. It can be said that the basic reason of existing poverty is the inconsistency latent in the social and economic structure. Generally speaking, the level of education and health care is very low, which is even more pathetic among the backward communities. Because of unequal distribution of productive resources, which is the source of income, the condition of the landless and marginal farmers and their family is worrisome. Unless such problem is not tackled, poverty can not be alleviated soon. Beside this, poverty can not be alleviated from external efforts or programmes imposed from above. Participation of the poor themselves is very important in every programme, which aims at poverty alleviation. As such, the poor need to be made

capable, empowered and, then, mobilised. For this, it is very necessary to ensure to the poor maximum access to social and economic resources and services. It is also equally essential to create opportunities for the poor and enable them to participate in the decision making, policy and programme formulation and implementation of development programmes.

In our context, when we set out to formulate plan and programmes for poverty alleviation, we should basically think along the line of directing all our development process toward that objective. A development process to be pushed forward should be such which is broad-based and high paced; which organises, trains and enables the poor, reduces resource and income disparity and buttresses equitable distribution. In order to ensure to the poor, women and backward communities an access to social and economic resources, facilities and services, it is highly essential to adopt appropriate policies and programmes, provide the ultra-poor and poor access to information system and skill development activities and expand physical, social and institutional infrastructures in the rural areas. It is equally necessary as a matter of basic principles to seek to enlist active participation of entire population, trying to reduce the disparity which exists between regions and communities; to mount appropriate programmes on the basis of geographical diversity and local needs, and to generate additional employment opportunities in the urban areas.

2. Review of the Eighth Plan

When the Eighth Plan commenced it was estimated that 49 percent of the population lived below the absolute poverty line. An objective to bring down the same to 42 percent was set in the Plan. Policies were formulated to run self-targeted programmes for the poor, to increase access of the poor to productive resources, to arrange to award contracts of technically simple civil works to poor groups, to bring legislation to remove social malpractice and create public awareness, to provide legal protection to the destitute and the helpless against exploitation to open dialogue and come to agreement with foreign governments for employment to workers who is willing to work abroad, to create employment in the non-agriculture sector through food programme and to make institutional arrangement to monitor and coordinate poverty alleviation activities. Policies incorporated in the Plan relating to implementing self-targeted programmes, increasing poor's access to productive resources, creating people's awareness, food security and institutional arrangement for poverty watch is being implemented. Policies like awarding of contract of simple civil works to the poor groups, bringing legislation to remove social malpractice and exploitation, and opening dialogue with foreign governments for employment opportunities abroad did not materialise.

As the poor communities derive minimum benefit out of the investment on development of social and physical infrastructure and various economic activities, the policy of implementing special targeted programmes have been incorporated in the Plan for the upliftment of those communities. Programs were also formulated to bring about institutional improvement for implementing programmes bringing efficiency in the working system, to develop institutional arrangement for effective implementation of programmes and to mobilise NGOs. During the plan period, efforts were made to

execute special targeted programmes, mobilise NGOs and enhance efficiency in the working system.

During the plan period, contribution has been made, in reducing the intensity of poverty, by various economic opportunities resulting from economic growth and launching of sectoral programmes. In this context, agricultural programmes like development of co-operative societies, agricultural and rural credit, poverty alleviation credit, female farmer development, small farmer development and projects have directly supplemented poverty alleviation efforts.

Protection and utilisation of forest by the forest users' group has also helped to alleviate poverty by fulfilling the demand of energy sources. Forest development programme implemented by forest users' group, which were activated under community forest and other rural development projects, have buttressed poverty alleviation endeavours. Projects like micro and small hydel and alternative energy development programmes like bio-gas have also been found helpful in poverty alleviation.

Policies have been adopted to run various programmes to enable the local people to extend quality tourist services and direct various community based income generating programmes to the production, at the local level, of goods, especially food items needed to tourists. Policies have also been adopted to carry out formulation and implementation of tourism development programmes jointly by private, local people and the government.

This has greatly benefited the people of Annapurna and Shyabru Besi (Langtang area). Increasing participation of the local people in adventure tourism has also helped in poverty alleviation. The development of tourism in various pockets has led to employment and income generation, ultimately contributing to poverty alleviation. Other efforts at poverty alleviation is promoting the small and cottage industries, which have encouraged small vocation and created additional employment opportunities.

The progress review of some of the targeted programmes implemented during the Plan to alleviate poverty is in order.

Physical infrastructure:

Programmes is being implemented to build rural and agricultural roads to develop physical infrastructures in the rural areas for connecting markets of different regions with each other for poverty alleviation and to pave road up to district headquarters in order to affiliate regional and local economic activities with the national economy and to connect production area and the market.

Remote Area Development Programme: Under this programme carried out during the plan period, schemes like drinking water, irrigation, suspension bridge, construction of tracks, school repair, herbal farming, milk processing, fruit storage, afforestation, operation of mechanical mill have been completed in the 22 mountain districts.

Integrated rural development programme: The Gulmi-Argghakhanchi, Dhading, Gorkha, Lamjung, Seti and Karnali projects is being run along the integrated rural

development model in order to improve the living standard of the local people through multi-dimensional development of rural areas and poverty alleviation programmes.

Increasing access of the poor to productive resources:

Small farmer development project: This programme which has been in operation for last two decades is based upon group credit and has, along with credit, extended many other services to about two hundred thousand households in 652 VDCs within the country.

With the beginning of the Eighth Plan, programme for institutional development of small farmers has been implemented under GTZ assistance in order to speed up extension of this project and to reduce overhead expenditure.

Production credit for rural women: The principle aim of this programme has been to improve the socio-economic condition of poor women through institutional credit, training and community development. This programme has been going on for the last 15 years. At present this programme is being implemented in 652 VDCs in 67 districts. Under the programme, against its target of providing various trainings to 134505 women, 96655 women seem to have received training. Likewise, as against the target of organising 7912 groups, 12409 groups have been organised and Rs. 20 million has been invested. During the plan period, micro-credit to women projects has been launched in 12 districts under ADB assistance.

Rural Development Bank: In view of the important role credit plays in poverty alleviation, this bank has been providing credit through simple procedures to the rural poor for self-employment and income generating activities. It has helped increase income through establishment of five rural development banks in five development regions, and from 1400 centre and 8000 groups in 300 VDCs in 26 districts. Thus, it has provided 40,000 group members with credit and supported them in self-employment and in increasing their income.

Various NGOs have also helped the poor, especially women to increase their income by providing them credit following rural development bank model. During the plan period, the banks in the NGO sectors have extended credit facility of about Rs. 1.4 billion to 67000 poor people on group guarantee basis in 497 VDCs of 34 districts.

Intensive Banking programme: Under this programme 184 branches of Nepal Bank, 168 of Rastriya Banijya Bank and 2 branches of Nepal Arab Bank, altogether 354 branches of these banks, have extended credit to the poor groups in 75 districts.

Banking for the Poor: This programme designed and run under the Australian Development Cooperation has been helping 3600 poor in 68 places in 15 districts.

Education and Training:

Various skill development training is being provided under remote area development, women development and other rural development programmes. Under the training programmes, skill promotion training to 259 persons, income earning training to 38 persons, herbal training to 62 persons and cottage industrial training to 235 persons

have been given during the plan period. Similarly, 81 types of various training programmes on health, nutrition, population education and family welfare have been conducted. Beside this, carpentry and consumer group training and mobile skill training programmes for rural women have also been implemented.

Social Extension Programme:

Various programmes like social mobilisation, and cooperative development at the local level have been launched to enable the poor community to participate in local development programme and organise themselves in groups to increase their income and to uplift their community.

Population programme:

As high population growth rate erodes development efforts, the Eighth Plan has stressed on population control. Although some reduction in fertility rate is noticed, attaining the target of controlling infant and child mortality rates appears bleak. Maternal mortality is decreasing but the rate is still high.

Population education programme was run in various sector viz, education, health, local development, labour, agriculture, forest and industry in order to build awareness about population, popularise small family norm, and increase the demand for family planning services. Various extension programmes, which were launched to create public awareness about the adverse impact of high population growth upon national economic, social and environmental condition, have been found quite successful. This has increased the demand for family planning services.

Employment Generation:

Efforts have been made to produce appropriate manpower and increase employment by means of human resource development through pushing forward education and health facilities. Various sectoral and targeted programmes have been extended up to the local level in order to enhance employment opportunities to the poor people. Efforts have been made to give employment to the poor through intensive banking programme, extension of civil works, establishment of processing and industrial plants and miscellaneous activities conducted in the non-agricultural sectors. In order to give the poor household an access to economic resource, various programme relating to credit, community forest, distribution of land to the landless have been carried out. Institutional development in the public and private sector has been sought to manage the affair of foreign employment in order to fulfill the aspiration of the labour to work abroad and to solve the unemployment problem within the country.

Food Security:

Food for work: This programme was implemented with a view to giving employment and food as income to the people by launching physical infrastructure building activities in various districts. Under this programme, generating employment and income through activating users' groups has been laid stress upon.

Transportation of food grain and distribution: This programme has been continued to supply food in 38 hill and mountain districts, which is perpetually food deficit. Under

this programme, the Nepal Food Corporation transports, sells and distributes food grains in the remote areas to protect the local people from famine.

Nutrition Programme: This Programme of offering mid-day tiffin being run in Dhanusha, Parsa, Rupandehi, Doti, Dadeldhura, Accham, Rukum and Dailekh districts to improve the nutritional condition of the student and to attract school enrolment.

Programme for the Backward Community:

Programme for the development of Praja and other aboriginal race: This programme has been implemented in 21 districts of the country to uplift the socio-economic condition of backward and aboriginal races viz; Chepang, Raute, Mushahar, Jhagad, Dum, Chamar, Dusad, Shatar.

Programme for upliftment of the deprived, oppressed and the down-trodden community: This programme has been implemented in 22 districts through the NGOs and the users' communities to help the families of the deprived communities to earn a living by giving them skill training and employment.

National Programme for the upliftment of the scheduled caste: This programme has been launched since FY 2052/53 to uplift the condition of the scheduled caste by studying and conserving their socio-economic culture, traditions, dialects and culture. Feasibility study has been completed to this effect for the establishment of a Scheduled Caste Upliftment Academy.

Vocational development and rehabilitation Programme for Kamaiya: This programme has been in operation in Banke, Bardiya, Dang, Kailali and Kanchanpur where the very poor people of Tharu community take credit from the rich to support their family and for social functions. In return, they work as Kamaiya (bonded labour) in the household and the farm of the money-lender normally the landlord. This programme seeks to free them from the yoke of landlords and engage them in income generating activities through formation of groups, group credit, saving and skill development training. Also, it seeks to rehabilitate the homeless and the landless Kamaiyas through arrangement of residence and land for them.

Kamaiya women skill development programme: This programme is being run with the purpose of improving the socio-economic condition of the Kamaiya women by helping them to engage themselves in self-employment. Under this programme, various training on knitting, weaving, literacy, health and education have been given to Kamaiya women.

3. Existing problems

A look at the situation till date reveals that poverty alleviation efforts have not been broad, effective and focused on the poor and the ultra poor. The size of the poor covered by the targeted programmes stands minimal compared to the existing size of the poor people. The programmes targeted at the poor do not seem to succeed as they are externally operated and lack active participation of the poor. The targeted groups have not benefited from such programmes as real poor could not be identified and those programmes could not reach areas with high poverty ratio. There is a lack of

information at the local level on many programmes run by the government and NGOs. And because of lack of public awareness, these programmes are unable to bring about expected improvement upon the socio-economic condition of the poor. Besides this, as such programmes are extremely scattered at the field level, their effective monitoring is very difficult. As a consequence, output is very low as compared to the investment.

Although government agencies, NGOs and private organisations are active in poverty alleviation activities, due to the lack of co-ordination and cross-flow of information among these agencies, duplication in programmes, lack of mutual cooperation and spatial imbalance in distribution of programmes is in evidence. In totality, causes like failing to attain spectacular growth in GDP, not assimilating the poor as end and means in programmes seeking growth in production, the poor not having easy access to limited opportunity and facility and a say in the decision making have stood as a challenge.

Present Poverty Situation:

For the first time a study of income distribution, employment and consumption pattern was carried out by the NPC. In 1976 had estimated that 36 percent of the total population lived below the poverty line. A household budget survey done by the Nepal Rastriya Bank in 1984 revealed 41.5 percent of the population living below the poverty line. A study carried out during the formulation of the Eighth Plan found out that due to increasing population pressure and unequal economic distribution about 49 percent of people fell below the poverty line.

The Living Standard Survey of Nepal which was launched by the Central Bureau of Statistics in 1996 has made detailed study of the condition in which the people below the poverty line lived. Taking into account situation of poverty and the process of impoverishment based upon the consumption expenditure of the poor the size of the population falling below the poverty line has been estimated. While working out per capita consumption expenditure, the total expenditure which included expenses on food, housing and other items have been taken into account. As revealed during the study, the average per capita consumption expenditure per annum in the country stood at Rs. 6178.

In Nepal, while estimating the size of people living below the poverty line, per capita consumption level has been treated as the criterion. Expenses on consumable goods reflect one's economic standing. Expenditure on consumption is continuous on daily basis. As such, determination of poverty based on this criterion is more reliable, and for the same reason, acceptable than the one based on income. While determining poverty on the basis of consumption, calorie intake received from food has been treated as the yardstick for poverty measure. The Living Standard Survey has determined 2124 calorie as per capita per day necessity. The per capita annual expense to purchase that calorie equivalent of food worked out to be Rs. 2637. If the expenditure on non-food items is added to it, the per capita annual expenditure is estimated to stand at Rs. 4404. Based on this, the size of population living below the poverty line has been found 42 percent. Of this, 24.9 percent is the poor and 17.1 percent is estimated to be ultra poor.

Population under the poverty line has been described in the following table according to their geographical distribution. Geographic region-wise, 41.0 and 42.0 percent of the population is below the poverty line in hills and Terai, and as much as 56 percent people live below the poverty line in the mountains. Similarly, 23.0 percent in the urban and 44.0 percent people in the rural area live below the poverty line revealing high poverty concentration in the rural than in the urban area.

Population under the Poverty Line

Region-wise Description		Population below the Poverty Line (in percent)		
		Total	Poor	Ultra-poor
A	According to geographic region			
	Mountain	56	29.3	26.7
	Hills	41.0	21.3	19.7
	Terai	42.0	28.7	13.3
B	Urban and rural areas			
	Urban area	23.0	13.2	9.8
	Rural area	44.0	26.4	17.6
C	National average	42.0	24.9	17.1

4. Long-term Concept

Only those objectives, policies and programmes which is based upon broad perspective can bring about desired output from poverty alleviation efforts. Keeping in view this fact, a 20-year long-term vision has been embodied in the Plan. The long-term goal would be sought to achieve in a phase-wise manner. In order to solve the serious problems of poverty, its root causes would be identified and appropriate measures would be taken in all sectors. The cardinal factors of poverty is latent in the socio-economic structures themselves. As such, the incentive and participation of the poor would be broadened for the cause of poverty alleviation.

Pursuing the long-term vision, the present size of the population below the poverty line, the 42 percent, would be brought down to 10 percent in next 20 years, i.e. by the year 2073/74 BS. Attaining high aggregate growth rate and controlling high population growth would be aimed at in order to improve the social and economic condition of the poor community. Similarly, in pursuance of the long-term goal, appropriate programmes would be hammered out for the promote employment, increase in productivity, good governance, human resource development, empowerment of the people and also for building socio-economic and physical infrastructure.

Ninth Plan

5. Objectives

- To gradually raise the living standard of the people below the poverty-line by reducing the pressure of poverty.
- To launch special area and various targeted programmes to uplift the living standard of ultra-poor household which is without any means of production as well as income.
- To socially and economically empower the backward, deprived and weak communities.
- To reduce the concentration of existing poverty in backward and remote areas by developing physical, social and economic infrastructure.

6. Strategy

The existing size of the population, i.e. 42 percent living below the poverty line, would be reduced by 10 percent and brought down to 32 percent. In order to achieve this objective, following strategies would be adopted:

- During the Ninth Plan, all development activities under all the sectors of economy would be directed towards poverty alleviation. For this, it is highly essential to achieve high economic growth. The agriculture sector would play the lead role in poverty alleviation. Besides this, emphasis would be laid on massive employment generation in industry, tourism, public works, transport and service sectors. Likewise, in order to mobilise people's participation and create self-employment, social and economic infrastructure would be built and arrangement would be made for required productive resource and skill development.
- In addition to attempting to achieve high economic growth, special emphasis would be given to render primary health, educational and drinking water facilities to improve the socio-economic condition of the deprived and weak communities living in the backward and remote areas. Structural changes would be introduced in on-going, targeted programmes which would be implemented in an effective manner.
- Experience has belied the notion that the fruit of development automatically trickles down to the lowest group of the society. As such, special attention would be paid to equitable distribution of the fruits of development.
- The people falling below the poverty line have been categorised into two groups viz, the poor and the ultra-poor. Alleviating poverty would be attempted as per the categorisation. The impact of the overall strategies would be rendered complementary to each other as well as coordinated and integrated.
- Attempts would be made to generate employment and income and raise the living standard of the poor group, which constitute 24.9 percent. This would be done through sectoral programmes and assimilating them into the open market system.

- To the ultra-poor, who make up 17.1 percent, banking services and institutional assistance from development programmes would be extended at the local level. Besides this, backward groups and communities and women would be brought into the mainstream of socio-economic development by means of social mobilisation and empowerment. Households, which fall in above category, would be identified, their access to productive resources would be increased. The government would extend direct assistance in mobilising those resources. Sectoral and targeted programmes would also be implemented to this effect.
- In order to alleviate poverty in the rural areas, emphasis would be laid upon agriculture, agro-based industries, agro-trade, community and rural tourism and rural infrastructure development programmes.
- Employment and income opportunities would be expanded through expansion of skill development training and micro-credit.

7. Policy and Implementation Strategy

- To make poverty alleviation efforts sustainable and continuous, aggregate economic growth will be stepped up and the distribution system would be made effective through providing employment to people living below the poverty line. For this, emphasis will be laid upon the successful implementation of Agricultural Perspective Plan and attempt would be made to achieve high economic growth rate in the agricultural and non - agricultural sector.
- Stress would be laid on intensive agriculture, agricultural diversification and commercialisation, livestock and other agri-business which bring in high return. Employment and income opportunities would be generated in the agricultural sector or the poor households through provision of agri-inputs viz-irrigation, high yielding seeds and saplings, fingerlings, credit, fertilizer, etc. In order to enhance the poor people's access to productive resources, the tendency to excessive land would be discouraged by introducing study based progressive tax on land. The system of contract cultivation would be introduced by discouraging the tendency of leaving the arid farmland. Emphasis would be given to the construction of agricultural roads to provide market for the sale of agricultural products. The supply of fuel-wood and timber for building construction would be stepped up by emphasising upon community forest development.
- Programs for poverty alleviation and population control effects would be carried out together by laying emphasis upon study/research in order to ascertain the interrelationship between poverty, fertility rate, mortality rate and migration. Similarly, emphasis will be laid upon the extension of family planning service and environmental protection by effectively extending fertility health services to the people falling below the poverty line.
- Literacy programmes would be launched as a campaign to propagate literacy. In the education sector, the students of poor households would be encouraged to the study, up to middle grade, by increasing public investment.

- In the health sector, public investment would be increased, primary health care, inoculation and nutrition programme would be expanded, safe drinking water and sanitation facility would be provided and free basic health care would be effectively extended to the members of the poor households. Beside this, special programmes would be implemented for nutrition, education and health of the poor children.
- Poverty alleviation programmes would be launched on a campaign footing. Under such programmes, the ultra-poor living in the backward and remote areas would be kept in mind and priority would be given to see to it that this group has access to services and support which is intended for it.
- Special measures would be taken by the government to open up employment opportunities abroad for employment promotion. Skill development programmes would be conducted to enable workers to seize such opportunities.
- Easy credit facility would be provided to poor communities by extending banking services to them.
- Through the medium decentralisation, of the people would be empowered and social mobilisation programmes would be launched to make the people self-reliant for earning additional income.
- The destitute and down, trodden people would be protected from various forms of exploitation by introducing appropriate legislation.
- Women empowerment would be pushed forward as a inseparable component of poverty alleviation programme. To this effect, women's skill development, education and economic and legal rights would be taken care of.
- Rural electrification programmes would be pushed forward linking them with irrigation programmes, and use of alternative energy would be encouraged to reduce excessive pressure of energy demand upon forest resource.
- Emphasis would be laid upon labour intensive technology and development of agro-based industries. Tax holidays for a fixed period would be given to such industries to make small and cottage industries export-oriented for the sake of promotion of employment and income and to make such industries sustainable.

8. Programmes

For poverty alleviation, employment generative, multi-sectoral, high growth-yielding, sectoral and targeted programmes which give direct benefit to the poor community would be implemented.

Sector-wise Programmes:

Employment generation: In the agricultural sector, appropriate irrigation and other facilities would be expanded to increase productivity and create additional employment and to especially cater to the needs of small farmers. Generation of non-agricultural employment opportunities will be increased through building infrastructure for development of rural and micro cottage industries, easy credit,

technical assistance, marketing facilities and information flow. Self-employment opportunities will be created through extensive training, credit and technical assistance by involving the rural people, especially the women folk, in the rural areas. Programme like "food for work" would be launched throughout the country for infrastructural development and employment generation. While supplying food-grain under this programme, stress would be given to procuring food-grain within the country. In this regard, priority would be given to purchasing locally available food-grain. In the course of transporting food-grain, employment generation at the local level would be encouraged. Illiterate and unskilled workers and labourers would be given training as per the market demand in order to make them fit for employment. Highly employment-generative techniques and processes would be adopted in all kinds of construction and infrastructural development activities. Various other activities would be carried out for employment generation.

Manpower Development: Various programmes relating to primary and basic education, adult literacy, primary and basic health service, maternal and child health care, nutrition and provision drinking water facility to village, etc. would be implemented all over the country for the development of manpower. Special programmes would be run to encourage girls' and women's education in districts where general literacy level and educational standard of the girls and women is very low. Local bodies, NGOs and CBOs would be mobilised for manpower development.

Policy would be adopted only to own the programme on the part of the government. NGOs and CBOs would implement the programme which local bodies would supervise.

Sectoral programme:

Agriculture and Forest: Use of modern inputs in production would be emphasised to increase the productivity in agriculture, horticulture, livestock, production of herbs and their processing. In view of considerable potentiality which the agriculture sector still holds for the productivity to grow further, the agriculture sector would be made to play the lead role in achieving high economic growth and alleviating poverty. The concept of making adequate investment in specific feasible is as in an integrated manner as incorporated in the Agricultural Perspective Plan would be stressed upon. Emphasis would be laid upon effective operation of community forest development programme to enhance employment and income at the village level. The implementation of environmental and ecological protection and conservation programmes would be oriented towards employment generation.

Non- agricultural productive Sector programme: Besides stressing on expanding cottage and small industries, labour-intensive techniques would be adopted for employment generation. Similarly, emphasis will be given to employment generation through expansion of agro-based industries and evolution of an inter- relationship between industry and agriculture.

Infrastructure: The development of transport, communication, irrigation and physical infrastructure would also be linked with poverty reduction. Employment generation would be sought by adopting labour-intensive techniques in the construction mainly

of agriculture and rural roads or rural development. Thus the rural area will be linked with urban area and market by speedy development of rural infrastructure. Attempt would be made to develop water resources by widely mobilising domestic and external investments. This will lead to electrification in rural areas and also throughout the country which will lead to creation of a climate for expansion of industry and commerce. Likewise, this will lead to the flow of domestic and external investment towards productive sector and create employment opportunities. Consequently, this will improve the real wage rate for the workers capable of high productivity. The small and medium irrigation system would be expanded under the management of the farmers themselves.

Social service: The lives of the common people have been very difficult due to unavailability of primary education, primary health facility and safe drinking water. As such, emphasis would be laid on providing these facilities especially to the poor communities.

Population control: High population pressure caused by high population growth rate on the economy has been one of the root cause of existing poverty. Its impact upon the poor community has been even worse. Therefore, family planning programmes will be extensively implemented in an effective manner to control the high growth of population.

Targeted Programme:

Existing targeted programmes would be improved and implemented in an effective manner to uplift the geographical region with high poverty concentration, very backward and remote pockets, backward ethnic groups and communities. In addition to this, some new programmes would be initiated. For that, priority areas and groups would be as follows:

Very backward remote areas without road access: Production level and employment opportunities have remained very minimal in the remote areas with no road access. This has been the cause for high concentration of poverty in these areas. As such, emphasis will be laid on constructing and expanding roads to connect district headquarters along with development of rural and agricultural roads. Special programmes will be implemented for the upliftment of the poor people living in these areas.

Deprived, ethnic and down-trodden group: To carry out study and research on tradition, culture, and rites of the ultra poor groups like Musahar, Dusad, Dum, Chamar, Kewat, Damai, Kami, Sarki, etc., and also in order to implement special programmes for their socio-economic development, an ethnic academy would be established.

Social and other oppressed group: Special poverty alleviation programmes would be implemented for the group of people who is suffering due to social malpractices and, for other reasons, is unable to participate in production process and employment opportunities.

Landless rural family: Various employment and self-employment programmes would be run for the landless rural families. Credit facility would be provided to such families for the banking sector bringing them into the market system. Institutional arrangement would be made for this.

Families with small land holding: Emphasis would be laid upon upliftment of those families by implementing targeted programmes under the Agricultural Perspective Plan to provide agri-credit for production growth to the small farmer families. This would be carried out in addition to making an attempt at their upliftment through aggregate national development.

Specific Groups: The system of Kamaiya (bonded labourer) is still prevalent in the country. The families of bonded labourers is very poor. Programmes would be formulated to identify such families, create exploitation-free employment, rehabilitate and provide the Kamaiya an access to agricultural land. Similarly, programmes would be run to identify such exploitative labour relations in other communities and in other parts of the country and to see the welfare of labour families.

Urban poor and unemployed: For alleviating poverty in the urban areas, programmes would be implemented to create self-employment opportunities for educated and unemployed youth in the service and productive sector.

Social mobilisation programme: Drawing upon the experiences gained from institutional development at the grassroots level, emphasis would be laid upon the implementation of social mobilisation programmes to extensively replicate at the local level activities like group organising, skill development, capacity building, group saving and capital formation. Local bodies and NGOs would be involved in this task in a coordinated manner. Besides this, special attention would be given to employing the poor and women by mobilising the social motivators.

Institutional Arrangement:

Poverty Alleviation Commission: In order to carry out research on various dimensions of poverty and poverty mapping and to carry out programme formulation, monitoring and evaluation in a coordinated manner, a Poverty Alleviation Commission would be formulated which should give policy directives, bring about coordination in the formulation of policies and programmes in the public and private sector, and effect institutional coordination and mobilisation of economic resources required.

Poverty Alleviation Fund: A Poverty Alleviation Fund would be created to supplement endeavors of attaining the poverty alleviation objective. The fund, functioning as an autonomous body, would direct its activities towards fulfillment of the needs of the poor communities. The Fund would see to it that various poverty-related programmes is run through the local bodies, government agencies and NGOs through mobilising endogenous and exogenous resources.

Poverty Monitoring System: Effective poverty alleviation programme can be formulated only if studies is done on the intensity, extent and factors of poverty. As such, studies like the Nepal Living Standard survey would be continued. A poverty

monitoring system would be evolved to regularly monitor poverty alleviation activities. Arrangement would be made to extend this system down to the VDC level. A poverty monitoring system, based on various social and economic indicators, would be implemented in each VDC. A system of evaluation of the minute impact of national, social and economic policies upon the lives of the people at the local level would be carried out on regular basis.

Geographic Information System (GIS): Based upon the collection of spatial data on poverty situation, poverty mapping would be done through GIS to study the concentration of poverty. Such studies would be oriented toward poverty measurement by collecting realistic and spatial data. An institutional arrangement would be made to implement and formulate annual programme based on these data. Besides this, a system of reviewing the impact of aggregate policies on poverty would be evolved. Policies and programmes on poverty alleviation would be refined in accordance with findings of the review. A mechanism will be set in place in order to regularly monitor and evaluate the impact of liberal market economy and structural adjustment programmes upon the lives of the poor people.

6.2 Labour Force and Employment Promotion

1. Background

The main reason behind the existing level of poverty within the country seems to be the pervasive unemployment and underemployment problems. Of the total labour force, 4.9 percent is unemployed and 47 percent is underemployed. It was expected that there would be high economic growth which, in would turn, lead to income, increased saving and investment expansion in demand and supply. This chain effect would, it was hoped, generate massive employment opportunities. But that did not happen. Although the government, adopted liberal and open-market policy on the one hand, adequate level of investment did not come forth in a manner to inject dynamism in the economy, on the other hand, the growing pressure of population, entry of increasing number of women into the labour market and inhibited unfoldment of the private, etc., have rendered the unemployment problem grave. It is indisputable that equitable society can not be created without mitigation of the problem

It was estimated that at the end of the Eighth Plan, the size of labour force in Nepal stood at 11.669 million. Of the total economically active labour force, 4.9 percent remained fully unemployed. Of the total employed labour force, 81 percent is engaged in agriculture, 5 percent in industry, mines, power and construction and 14 percent is engaged in trade, hotel business, transport, communication, finance, real estate and social services sector. Of the total labour force in employment, the large segment, i.e., 47 percent is in a state of underemployment and is mostly engaged in agriculture.

On the one hand, more of such manpower which is unskilled and minimally educated is joining the labour market day by day, on the other hand, the kind of manpower capable of engaging in productive works, equipped with high intellectual caliber, skilled, capable, healthy and dutiful is conspicuously lacking. A balance between employment opportunities and the size of manpower produced could not be struck due to the lack of an analysis of demand and supply of manpower in the various sectors of economy, viz. agriculture, forest, industry, construction, transport, tourism, services etc. Basic facilities like quality education, vocational and skill development training, health service, supply of safe drinking water, sanitary housing and nutrition have not been provided. Therefore, a close link between employment opportunities and manpower development has to be established.

Two scenarios appear on analysis of existing unemployment situation:

Unemployment: It is estimated that of the total labour force, 4.9 percent is fully unemployed which include workers not engaged throughout the year and looking for jobs in the rural and urban areas. In recent years, the modern sector could not expand proportionately to provide employment to the educated youth. As a consequence, unemployment has been found increasing. On the one hand, the unemployed youth have not been able to fulfill the demand of labour market due to the lack of skill-oriented education, on the other hand, such labour force has been imported from

abroad. As such, the problem of educated unemployment is getting aggravated each year.

Under employment: The problem of underemployment is even more pervasive than full unemployment. The problem appears more serious among the people who is dependent on the agricultural sector. The main reason behind this seems to be the unavailability of full time work or the agri-labour and lack of alternative employment opportunities to give up dependence on farm. At the end of the Eighth Plan, 47 percent of the labour force seem to have been underemployed in Nepal.

2. Review of the Eighth Plan

During the Eighth Plan, various skill-development training were conducted by different training institutes/agencies to enable the unemployed and underemployed individuals to find employment and to engage themselves in self - employment. Employment opportunities seem to have increased to some extent on account of growing activities in the agriculture, tourism, transport, industry and service sectors. Detailed information on manpower development and employment situation is still lacking or inadequate. No substantial and systematic work has been initiated in this regard.

3. Strategy

- In view of unemployment and underemployment being main reason behind existing level of poverty in Nepal, additional employment opportunities would be created in rural areas through implementation of the APP.
- Poverty alleviation is the prime objective of the Ninth Plan. As such, high priority would be accorded to employment promotion.
- The Labour-force dependent upon agriculture has to remain idle four to five months a year due to extremely limited off-farm employment opportunities. A large number of laborers migrate from rural areas to urban centres within and outside the country in search of jobs. Therefore, off-farm employment opportunities would be created in rural areas by developing minimum physical infrastructure which is basics to development, like transport, power and public utilities and through promotion of cottage industries. This would give rise to skill development, capital formation and market leading to the development and expansion of cottage and small industries which, in turn, would create massive self-employment opportunities.
- Poverty is en twined with employment opportunity. Therefore, while formulating programmes for employment promotion in the public sector, targeted programmes would be set aside for very backward and ultra-poor groups of the society. Emphasis would be laid upon giving employment to these groups under various programmes like food for work, upliftment of down-trodden and backward groups and rural infrastructure building programmes. Credit from banks and skill development training programmes would also be directed to the groups to increase their access to productive resources.

- As the rural development concept was not based upon the study of local potentialities, no remarkable change could be noticed in the traditional rural economy and thus employment opportunities did not open up. Besides, this, the labour force which moved out of rural areas looking for non- agricultural jobs could not compete in the labour market due to lack of demanded skill and has therefore remained unemployed. In this context, attempt would be made to study the demand and supply situation of manpower in various sectors of the economy and, based upon that, planned efforts would be made for manpower development to fulfill manpower requirements in the years to come.
- In recent years, the youths among the workers have been very much attracted to foreign employment. But there has not been any appropriate institutional as well as administrative mechanism to send Nepalese labourers to the labour market abroad. Besides this, there has been no training programmes to enhance labour productivity. As a result, on the one hand, workers have been going abroad for minimum pay and facility, on the other hand, they are engaged in difficult, risky and unhealthy works. In addition to this, in the absence of monitoring system on foreign employment, many incidents have been found occurring whereby the labourers have been bluffed, stranded and thrown into insecure position. Therefore, institutional arrangement would be made to produce quality manpower as per requirement within the country and to dispatch surplus labour abroad.
- With the spread of education, the supply of educated workers is growing fast. Such educated workers are on the lookout for white collar jobs and are inclined to work in the modern and organised sector. It has been found very difficult for the youth manpower, of the 15-25 age group, looking for job to find employment. Besides this, as the public modern and industrial sectors did not expand as expected, the unemployment level among the educated youth is excessively escalating. As such, in order to give equal opportunity to the educated youths of the rural areas and to all seek job in the public, non-governmental and private sector and in the competitive labour market, an information system on employment exchange would be set up.
- Employment promotion is linked with various socio-economic dimensions, So, coordination among different sectors of the economy could be brought about to adopt such process and technology in the public, non-governmental and private sector which might generate employment opportunities.
- The role of the government would be turned into only that of a facilitator. The private sector would be given the principal role in employment promotion through local bodies and NGOs which are engaged in various implementational activities. Similarly, stress would be given on creating appropriate environment to strongly push forward the activities of other agencies.

4. Long-term Concept

- There is an inter-dependent relationship between unemployment and poverty. In order to raise the living standard of the people by providing them with a strong source of income, attempts would be made for successful employment promotion

and also for bringing down, in next 20 years, the present level of unemployment and underemployment from 4.9 and 47 percent down to 3 and 10 percent.

- By means of high economic growth, opportunities creating more employments in all sectors through employment oriented programmes, enhancing competitive capability of the labour force, encouraging generation of permanent employment and self-employment in industrial plants, NGOs and other service sectors and providing the common people with an increasing access to productive resources employment and self-employment opportunities would be enhanced. Arrangement will be made, to the possible extent, to generate and supply skilled, quality manpower from within the country needed for various sectors of economy. In this process, the need will be analysed well in advance

Ninth Plan:

5. Objectives

The Ninth Plan has set following objectives for the manpower development and employment promotion:

- To develop manpower as per national need and to enhance its productivity.
- To reduce unemployment and under employment by generating productive employment opportunities in various sectors of socio-economic development of the country.
- To produce and mobilise capable and skilled manpower who is able to adopt changing technology as per the demand in labour market within the country.
- To emphasis on the development of competitive capability of the manpower for foreign employment
- To promote self-employment by making the development of skilled manpower effective and increasing the access of the labour force to capital and productive resources.
- To launch employment campaign centre for the ultra poor group.

6. Policy and Implementation Strategy

Sectoral

- The agriculture sector, the mainstay of the majority of the people, will be commercialised and diversified.
- In order to generate additional employment of sustainable nature, the participation of the private sector will be encouraged for injecting dynamism and imparting continuity to the development of the agriculture sector and, at the same time, developing and expanding agro-based industries.
- The private sector will be attracted and mobilised for the development of the non-agricultural sector to resolve the unemployment and underemployment problems.

- Emphasis will be laid on creating income generative employments through the development of tourism, trade and promotion of educated employment.

Multi-sectoral

- Emphasis will be laid upon mobilising the manpower in the appropriate sector on the basis of its education, training and experience for its better use.
- Emphasis will be laid on fulfilling the basic needs like primary education, basic health facility and safe drinking water for the sake of manpower development.
- Priority would be given to backward groups and women while development of manpower and their participation would be encouraged in the employment programmes run under various sectors.
- Policies and programmes for manpower development would be formulated by bringing about multi-sectoral co-ordination.
- A policy of "one employment for one family" will be adopted to give full employment to at least one individual from each family in the rural and urban area.
- Necessary assistance will be extended from the public sector in skill development and capital mobilisation for the development and expansion of labour intensive cottage industries. Besides this, the private sector and the NGOs will be mobilised towards the same.
- Construction works relating to rural infrastructural development will be linked with local plan, and employment promotion will be stressed upon through adoption of labour-intensive technology.

Training

- Well-trained and skilled manpower, capable of adapting to fast changing technology, will be developed by rendering the training programmes qualitative.
- In order to expand appropriate training programmes for employment promotion, various programmes will be run in the rural and urban areas.

Institutional arrangement

- Institutional arrangement will be made in order to make foreign employment opportunities simple and well-managed for the Nepalese labour force.
- In order to bring about a unity of purpose among employment promotion programme co-ordination would be worked out among policies and programmes of various agencies.

7. Programmes

Manpower Development

- Institutional programmes will be run to coordinate, monitor and evaluate the manpower development activities carries out by the government and non-

government agencies and the private sector. Based on that, necessary policy directives will be issued.

- Participation of women and backward group would be given priority while conducting manpower development training programmes.
- In order to expand educational, health and drinking water facilities to the common people for the sake of manpower development, the pattern of investment in the social sector will be modified and the programmes of these sectors will be made extensive by enlarging the role of non-government and private sector in basic social service sectors.
- As high population growth has been a principal cause behind the pressure of growing labour force and unemployment and underemployment problems, population control programmes will be made extensive, and public awareness building through various programme relating to literacy, population, environment and health education will be run effectively at the village level.

Employment expansion and promotion

- In order to translate "one employment to one family" concept into reality, appropriate arrangement will be made to create additional employment opportunities in development works and construction programmes carried out by government, non- government and private sector.
- In order to provide employment to one person of each poor family in the rural and urban area, programmes will be implemented to identify poor households and give required skill development training.
- Programmes to carry out intensive cropping and raised productivity will be implemented with priority to commercialise and diversify the agriculture sector to expand agri-employment opportunities. Such programmes which will enhance additional employment generation and also help raise productivity in the agriculture sector will be pushed forward.
- In order to promote employment in the non-agricultural sector by attracting the private sector, programmes will be implemented to bring about improvement on policies and rules relating to industry and trade.
- The private sector would be encouraged to establish such labour-intensive agro-based industries which is based on geographical and spatial advantage, and spatial uniqueness leading to comparative advantage, and additional programmes will be run to create sources of sustainable employment in the rural areas.
- Viable programmes to develop and expand cottage industry will be incorporated in order to increase productive employment opportunities through small and cottage industries.
- Credit programmes will be effectively expanded to extend required capital to poor families from finance agencies for self-employment through micro-enterprises.

- Employment promotion programmes will be implemented with priority through developing employment-generative rural tourism.
- An employment promotion fund will be set up and mobilised to run employment promotion programmes on a phasewise basis at the local level to provide productive employment opportunities to the unemployed and the underemployed.
- Appropriate fiscal policies for employment promotion will be formulated to encourage labour intensive techniques in rural infrastructure development and construction activities.
- In order to increase women's access and participation in employment programmes run under various sectors, such programmes will be expanded which will enhance employment to women, extend skill development training to the village level and provides credit to trained women.

Training and Study/Research

- In order to run in a coordinated manner various skill development and employment training programmes under various agencies, different programmes will be implemented by setting up a training council in which the central and local bodies and non-governmental and private sector will all be represented.
- Detailed studies will be carried out with regard to existing human resources, its demand and supply situation in various sectors and various problems and issues which attend human resources development. Based on such studies, appropriate process will be adopted to develop manpower. Participation of the private sector and NGOs will be enlisted in this process.
- Co-ordination will be brought about among various training institutes operating within the country, and their training policies and programmes. Arrangement will be made to import training of different levels and subjects in order to fulfil the manpower requirement of various sectors of economy. The private sector and NGOs will be mobilised to the maximum for this purpose.
- New employment areas will be identified and self-employment vocational training programmes will be conducted in order to engage the existing unemployed youths in productive and income- generating occupation.
- Keeping in view the changing technology and the demand, trend of timely modification will be made in subject, course content and techniques of training. Besides this, in order to make the trained person practically capable, quality training will be conducted.

Institutional Arrangement

- Unemployed individuals with technical skill will be encouraged for self-employment by providing them with needed credit and other assistance.
- The role of the government and private sectors will be made effective in order to make Nepalese workers capable and competitive for foreign employment and to make them available for foreign employment in smooth and well-managed way.

- Monitoring and evaluation system will be initiated and reinforced to appropriately and effectively mobilise manpower existing in the country.
- A system of flow of information on employment at various levels in an institutionalised manner will be set up. Timely policies will be formulated and the system of implementation, monitoring and evaluation will be strengthened and made effective to stimulate implementation activities. The employment promotion committee will be mobilised to this end,

Chapter 7 **Population and Human Resources**

7.1 Population

1. Background

During the negative impact on national development created as a consequence of rapid population growth, the population programmes is being included in the periodic plans with the objective of creating conducive impact on family, society and state by curbing population growth in line with the extension of social services and economic development.

Although the growth of population is not a problem in itself, its unsystematic growth brings about various problems. As the problem of population management is multidimensional and multi sectoral, its solution has to be sought accordingly. Hence, according to the concept of population and development, the problems and programmes of integrating population have been accepted as multidimensional and multi sectoral. Previously, the population programmes were acknowledged to be the responsibility of the state considering the growth of population as a problem of national development. But now, it is obvious that it is also an individual and familial problem. Commitment has been made to implement population programmes to safeguard individual freedom and dignity in accordance with the rights provided by the Constitution of Nepal and guidance and action plan of International Conference on Population and Development, 1994 (Cairo, Egypt).

Since the last decade, the growth rate of population in Nepal stands still. But the fertility rate is on the decline. Fall in fertility plays a crucial role in reducing the growth rate of population. The different factors like extension of education for female, positive changes in social attitude towards female, slight increase in the age of marriage for female, growing knowledge of family planning methods and willingness for its services, extension of economic activities though in a limited way and initiation of modern communication technology in Nepalese society have been helpful in bringing about decline in fertility rate. Various studies prove that once the fertility rate starts to decline it keeps on declining. The declining trend of fertility rate, at present, is the result of partial success of population programmes carried out during the past plans.

Considering the achievement and shortcomings of the past plans in population management, international commitment displayed by HMG in this sector and problems which will have to be faced by the world in the approaching twenty-first century, the population management has been accorded priority in the Ninth Plan in order to achieve success in the programmes like reducing fertility rate, increasing average life expectancy, reducing high child mortality rate, and reducing infant mortality rate and maternal mortality rate by the joint efforts of governmental and non-governmental organisations.

Present Population Status:

The total population of Nepal is very much on the rise. According to the census of 1991 the population of Nepal was 18.5 million but the number is estimated to have reached 2,10,81,503 in fiscal year 1996/97. The age structure of population reveals greater number of children. Although the fertility rate is declining yet the population will not decrease immediately as a consequence of this tendency. The growth of urban population is expected to be high due to the process of rapid urbanisation coupled with extension of urban sectors. Moreover, there has been a rapid growth in the number of outside immigrants.

2. Review of the Eighth Plan

In the year 1992, the first year of the Eighth Plan, the population of Nepal was estimated to have reached 18.9 million. The objective set forth in the Eighth Plan was to help realise the human needs of the people by reducing high growth rate of population and by maintaining a balance between socio-economic development and environment. To fulfill these objectives the following targets were set forth:

- to reduce total fertility rate from 5.8 to 4.5 percent
- to raise the prevailing life expectancy from 54.4 to 61 years
- to reduce infant mortality rate from 101 to 80 (per thousand live births)
- to reduce the mortality rate of the children below 5 from 165 to 130 (per thousand live births)
- to reduce maternal mortality rate from 850 to 720 (per hundred thousand)
- to manage internal migration

In order to achieve these targets, programmes covering various aspects i.e. women's empowerment, population information, education and communication (IEC), integrated population programme, development of skilled manpower, population management, development and extension of information centres, easy access to contraceptives, maternal and child health services to target groups, and study /research and data management were launched. The achievement of the population sector in the Eighth Plan should be evaluated on the basis of these goals and programmes.

The Ministry of Population and Environment was established during the fourth year of the Eighth Plan keeping in view the need of the nation, commitment of the nation in this sector, the objective of taking ahead the population programmes in an integrated manner as stipulated in the international conference. In order to provide guidance to the ministry, the population committee formed under the chairmanship of Honourable Prime minister, was reconstituted. During the plan period, the programmes like integration of population and development were pushed forward. The sectoral programmes of agriculture, local development, women and social welfare, industry, and the labour education integrating population aspects all fall under such scheme. Population education has been incorporated into the curriculum

of school and higher level education under formal education, and it has also been integrated into the non-formal education as well.

One year prior to the Eighth plan only 92.7 percent of the married women of child bearing age had knowledge of family planning methods, but this percentage has gone up to 99 percent at the end of the Plan as a consequence of information, education and communication (IEC) programmes conducted during the plan period. Likewise, during this plan period, the use of contraceptive prevalence rate (CPR) has also gone up. During the period, the use of temporary methods has also increased continuously in accordance with the long-term policy of gradually increasing the proportion of temporary methods in the total use of family planning methods.

During the plan period, necessary support was provided to non-governmental organisations in line with the government policy of encouraging them in population programmes. In Nepal, there has been an increase in the number of non-governmental organisations and international non-governmental organisations in the field of population. During this plan period, the concept of collaboration between government and non-government sectors in population programme was advanced.

Various training and workshop programmes were conducted during the plan period in an effort to develop effective manpower in the field of population. The supply of qualified manpower has increased by incorporation of population education in the curriculum of higher studies. The linkage has been strengthened with international sectors particularly the Asia and Pacific Region in the field of population information system. Accordingly, Nepal has also become a member of the recently established South West Asia Sub-Regional Information Centre to enhance the relationship and cooperation in the field of population in the sub-region. During the last year of the Eighth Plan period, the regional population unit has been established in the three regions as per the policy of establishing the population information system within the country. These programmes have been proved fruitful to ensure easy dissemination of population information inside as well as outside the country.

In accordance with the policy of converting into towns the areas which meet urban facilities, the number of municipalities has increased to 58 at the end of the Plan from 36 prior to the Plan and the percentage of urban population to total population has reached 12 percent.

The estimated position of population indicators at the end of the Eighth Plan is as follows:

- Total fertility rate 4.58 percent
- Infant mortality rate (per thousand live births) 74.7 percent
- Child mortality rate (under 5 years, per thousand live births) 118

The data reveals that there has been substantial improvement in reducing infant mortality rate and child mortality rate during the plan period. The total fertility rate could not improve as per the goal yet the trend towards decline has continued.

3. Existing Challenges

During the period of the Eighth Plan, there has been a substantial progress in reducing total fertility rate, yet no success has been achieved in materialising the concept of two children and desire for the same into reality. In 1996, the average number of children desired by couples was about 3.3. The task of transforming the desire of two children into a reality is still a challenging job.

If the social attitude is conducive to increase marriageable age of female, it will result in the decline in fertility rate. The task of amendment in law to increase legal age of marriage and raising public awareness through IEC programmes failed to attain the estimated success during the Eighth Plan. The task of ensuring easy accessibility and availability of desired methods of family planning in proportion to dissemination of information and enlarging the number of users of temporary methods has still remained as a challenge. Likewise, meeting the prevailing unmet need of family planning as well as enhancing its demand has remained as additional challenges.

During the period of the Eighth Plan, there has been some achievement in the area of institutional development but an effective process and mechanism could not flourish in integrating population with several aspects of development and environment. During the Eighth Plan, the achievement was not very substantial in the task of mobilising and encouraging participation of non-government organisations and local units to providing family planning services and methods in a coordinated and effective manner in comparison to available opportunities. Since population programme is multi sectoral and multidimensional in nature the cooperation and co-ordination of all sectors is equally essential. Hence the Ministry of Population and Environment needs to play the role of an effective coordinator in ministerial level to augment population programmes.

As the available resources in the country is inadequate to supply the social services and facilities to ever-growing population, the available resources should be utilised in an effective and productive manner. Since it has been evident that the growing population has caused environmental degradation and also aggravated the problems of development, development the triangular relationship among population, environment and development should be integrated and utilised for the progress of the country. Additional emphasis on population management is essential to achieve the goal of poverty alleviation through high employment generation. In addition to bringing improvement and extension of services and supply system, it is essential to meet the unmet need of family planning and enhance its demand through extension and effectiveness of about IEC programmes.

4. Long-term Concept

Total fertility rate (TFR) will be reduced to the replacement level to give a concrete shape to the concept of two children in the coming 20 years.

Ninth Plan

5. Objective

- To attract the common people to have small family according to the concept of two children.
- To carry out necessary population programmes to reduce the total fertility rate to the replacement level in the coming 20 years.
- To ensure availability of qualitative family planning methods as well as maternal and infant health services in an easy and simple manner.

6. Target

The status of fiscal year 1996/97 has been projected on the basis of findings of family health survey of 1996 and prior censuses and surveys. While quantifying the annual goals in the Ninth Plan the achievement made in the past and the proposed programmes of the Ninth Plan have been taken into consideration

S.No	Description	Status of 1996/97	Target of the Ninth Plan 2001/2002
1	Total fertility rate	4.58	4.20
2.	Contraceptive users (in percentage)	30.1	37.0
3.	Proportion of married female aged 15 to 19 (in percentage)	42.1	36.1
4.	Infant mortality rate (per 1000 live births)	74.7	61.5
5.	Child mortality rate (below 5 years, per thousand live births)	118	102.3

In order to meet the long-term goal of reducing total fertility rate to 3.05 in the coming 20 years, the fertility rate needs to be reduced by more than one child per decade. Hence, the programmes in the sphere of population need to be launched more effectively and swiftly in the Ninth Plan than in the past years. The desire for small family has been observed growing in couples as a result of investment and efforts of many years. In addition to this, the demand for family planning services is increasing gradually. Fall in fertility rate seems possible if the present and estimated future demand of family planning can be fulfilled in due time by providing easy and qualitative services, and implementing effectively the legalised age marriage.

The population is estimated to reach at 2,36,70,000 at the end of the Ninth Plan, the growth rate of population is estimated to be 2.36 percent per year.

In addition to these demographic goals, the Ninth Plan has also followed the goal of undertaking qualitative reform in the management of population. The programmes such as increasing the satisfaction of target groups, intensifying the awareness regarding the benefits of small family, developing an attitude down the local level

that the balance between population and resource management is essential, enlarging male participation in population management and care of the infant as well as disseminating information, increasing effectively the participation of local units to provide quality services, and providing quality services by intensifying public awareness towards the importance of antenatal and post-natal care for the reduction of maternal mortality rate as well as infant mortality rate, safe motherhood and breast feeding, have been incorporated as qualitative goals in the Ninth Plan.

7. Policy and Implementation Strategy

- To develop the concept of limiting the size of family only to two children per couple by emphasising the economic and social programmes which encourage the desire for small family.
- To conduct the programmes of population, development and environment in an integrated manner.
- To provide special emphasis on fertility and child health in national health services.
- To provide the qualitative services and methods of family planning in the places and time in accordance with the demand of the users.
- To maximise involvement of local units and government organisations working at the rural level in the programmes of population and reproductive health.
- To provide curative and preventive health services in rural areas to lessen child and maternal mortality rate.
- To conduct informational and educational programmes in the sphere of various aspects of population as well as safe motherhood under health services, family planning, and additional programmes which encourage control in prevention of AIDS, diseases concerning reproduction and venereal diseases.
- To encourage international non-government organisations (INGOs) interested to contribute in the provision of services in reproductive health, maternal infant services and venereal diseases, and work in collaboration with Nepalese non-government organisations (NGOs).
- To promote female education and employment.
- To mobilise effectively the local units as well as non-government and community organisations by encouraging them in population programmes.
- To provide necessary assistance to district development committee and village development committee to advance substantially the programmes in the sphere of population management and empowerment of women.
- To regulate international migration by formulating policies and programmes on the basis of facts and conclusions obtained as a result of detailed studies, interactions and policy discussions.

- To undertake special programmes for the social security and welfare of elder citizens taking into consideration the fact of gradual increase in life expectancy.
- To launch programmes to enhance knowledge concerning population through formal and non-formal education.
- To conduct the types of programmes which promote male participation in family planning, reproductive health and caring of children.
- To develop a regular monitoring process, mechanism and institutional set-up and implement it for appropriate monitoring and evaluation of above-mentioned programmes related to population and environment with the involvement of experts from government, non-government and private sectors.
- To encourage academic and professional institutions engaged in studies/ research in the field of population.

8. Programme

Formulation of Population Perspective: The population of Nepal is estimated to exceed 32 million on the basis of different studies. Since population is a multidimensional and multi sectoral subject, it is essential to have a long-term vision on population management by strengthening and integrating sectors related to it as a necessity to launch new programmes to achieve the goal of reducing total fertility to replacement level. To fulfill these objectives, a perspective plan on population will be formulated and implemented during the period of this plan.

Special Programme for Adolescent and Youths: The number of adolescent and youth is high in Nepal because of high fertility rate. Therefore, taking into consideration that the principal actor for the growth of population will be the adolescent and youths aged below 25 years up to coming 20-25 years, special programmes will be launched in the Ninth Plan focusing on them.

Marriageable Age: Though the legal age of marriage for female and male is 16 and 18 years respectively with parental consent, and 18 and 21 years respectively without parental consent, yet the practice of child marriage is still prevalent in society. So, special priority will be accorded to the programmes which assist to raise awareness towards this as well as increase the minimum age for marriage of female and male. Moreover, priority will also be given to programme which enhances spacing to delay the conception of first child after marriage in order to lower the speed of population.

Family Planning Services: Family planning services will be provided in convenient place and time as desired by the public. To ensure easy distribution of temporary methods focusing on females aged 15-29 years, the methods and services of family planning will be made available under the programme of primary health services. Sterilisation services will also be provided in district level health offices as per the free choice of individual. Priority will also be given to the programme which intends to meet the unmet need and advance the need as well.

Information, Education and Communication (IEC) Strategy: Information, education and communication (IEC) strategy will be prepared and implemented specially to

popular the concept of two children, raise the age of marriage and improve the social status of women.

Vital Registration System: Several programmes will be implemented for the effectiveness of vital registration (birth, death, marriage, divorce and migration) system.

Population and Reproductive Health Education in Women Education and Employment: Since female education and employment play a major role in lowering fertility rate, the aspects of reproductive health and population information, education and communication will be included in such programmes.

Strengthening Monitoring and Evaluation Systems: Functional research will be conducted in the areas of formulation, monitoring and evaluation of population-related programmes. Moreover, a central monitoring and evaluation unit comprising experts of related areas will be formed for the regular monitoring and evaluation of above-mentioned goals.

7.2 Human Resources Development

1. Background

Human development are the ultimate objective of any development. Economic development is only a means to human development. Likewise, human resource is an important means for the economic development of the country. Human resource is the knowledge, skill, efficiency as well as physical and mental to perform inherent in the citizens of the country. Human resource is a means to human development as well as an aspect of human development too.

One of the main causes of poverty, which has remained as an enormous challenge in the country, is the inappropriate mobilisation of human and natural resources. Appropriate human resource is essential for the mobilisation of natural resources as well. In fact, a number of countries have achieved high human and economic development on the sole basis of human resources in spite of the deficiency in natural resources. Therefore, the role of human resource in the development of country is supreme.

An important aspect associated with the human resource is its mobilisation as well. If human resource could not be mobilised in spite of its development the problems of poverty and development of the country can not be solved. So it is very essential to consider in advance the type of human resource to be developed for its full and appropriate mobilisation. For this, it is necessary to consider more sensibly the natural resources of the country concerning the present and the future development of the economic structure and technologies and also concerning the present as well as future status of natural resources including present and future development in technologies.

2. Present Status of Human Resources Development

The status of human resource in Nepal is very poor. Because of poor nutrition and health services, the children at birth have high mortality rate and due to deficiency in nutrition their physical and mental development is very poor in comparison to their inherent capabilities. Besides, due to lack of education and training, the majority of Nepalese specially the female have to live without the knowledge, information and technologies prevalent in the world. Due to illiteracy as well as lack of education facilities, the level of human resource specially in rural areas is quite unsatisfactory. Moreover, polluted, unclean water as well as environment and minimum health facilities, the Nepalese is comparatively more ill and possess little vigour to work according to their capabilities even in absence of illness. In addition, the quality of education in Nepal is very low and there is no good congruence between education and economic structure, whereas there is unemployment among educated youths on one side and the required capable manpower in the country is forced to also due to fulfil from the foreign sources on the other.

Ninth Plan

3. Objective

The following objectives have been identified to meet the main goal of reducing poverty and reforming the status of human development by appropriate manpower:

- To increase the fundamental level of human resource in the country.
- To continue reducing the present inequalities on the basis of sex, region, class and community in the status of human resource.
- To prepare human resource capable of utilising the natural resources of the country in optimum level.
- To develop human resource of the country in accordance with the national and international need.
- To enhance the abilities of Nepalese manpower so as to make them capable of competing in international areas.
- To prepare the manpower capable of continuously enhancing their skill and efficiency in accordance with the rapidly changing technology and economic structure.

4. Policy and Implementation Strategy

There will be following policy/ strategies of human resources in the long run as well as during the Ninth Plan period.

Education and training

- To continue providing free and compulsory education at least to all the children of primary level.
- To conduct the literacy programmes extensively as per the goal of eradication of illiteracy by the end of the fiscal year 2073/74 or Twelfth Plan.
- To keep on increasing the opportunities for qualitative vocational trainings.
- To keep on enlarging the opportunities for enhancing the level of education or efficiency.
- To continue reducing the present inequalities perpetrated on the basis of sex, region and community in education sector.
- To adopt a policy which encourages to increase the government investment in providing basic education and vocational trainings, and also to channelise the investment of private, non-government and community organisations towards the same.
- To encourage indigenous private, non-government and community sectors, to provide quality education of different levels in the country.

- To encourage reliable foreign organisations to establish high level quality educational centres in Nepal.

Health Nutrition and Sanitation

- To make available easily the basic and primary health service to all.
- To improve the nutritional status.
- To provide safe drinking water to all by 2002
- To provide sanitation facilities to 40 percent of the total population.

Others

- To eradicate child labour.
- To adopt the policy of right person at right place.
- To adopt proper technology to raise labour productivity.
- To adopt labour-intensive construction technology to raise employment.
- To increase employment opportunities by encouraging the sectors such as labour intensive industry and commerce. (e.g. tourism, computer software trade, etc.)
- To encourage industrial and commercial sector to enhance the efficiency and increased productivity of their workers.
- to make timely refinement in labour laws to increase employment for the native workers and implement it effectively.
- To lower the higher growth of labour force in the long run by launching effective multi-dimensional population programme.
- To create an environment to develop harmonious industrial relations.

6. Programme

Education and Training

- To increase government investment to provide basic education and to increase opportunities in vocational training.
- To increase the investment capability in this sector, the participation of the guardians, local bodies and the private sectors will be encouraged in the management of education and training.
- The government sector will create a favourable environment for coordination, monitoring, evaluation and development. The responsibility of the management of the school will be gradually transferred to local bodies.
- Special programmes will be launched to eliminate prevailing gender, regional, class and community discriminations.

- The cost recovery principle will be adopted in higher level human resource development. Programmes will be launched provide scholarship and loans to the able persons not to deprived them of higher education and training opportunities because of financial crisis.
- The need-based projection of different kinds of human resources for domestic & international sectors will be made on periodic basis to undertake timely policy reforms. A separate body will be established if the existing bodies is not able in making such projection.
- Programs will be conducted to discourage the tendency of sending of going abroad for studies by encouraging private sector for the development of ultra modern education and for raising the level of education in Nepal.
- A package of terms and facilities to attract domestic and reliable foreign agencies will be developed and implemented to turn the possibility into reality that the attractive natural resources of Nepal is not only an asset of tourism but is also necessary for the establishment of educational centres.
- A programme will be carried out to provide loan facility and other kinds of assistance to uplift the quality of technical school conducted by the non-governmental and private sectors. Moreover, the monitoring system of such schools will be strengthened.
- Emphasis will be given to short-term trainings. Likewise, the existing opportunities for skill development will be expanded.

Health, Nutrition and Sanitation

- The government investment on health, nutrition and sanitation will be gradually increased.
- To enhance the investment capability regarding these sectors, the consumer groups, non-governmental organisations and local bodies will be included in the programme formulation and implementation process.
- The programme will be launched to provide financial and other assistance to non-governmental organisations or local bodies if they is delivering or planning to deliver health services.
- The services will be provided on the basis of the cost recovery principle to mobilise necessary additional investment in this sector.
- The general health insurance and community-based health programme will be extended to raise the quality reliability of health services.
- The necessary training and awareness programmes for the health workers will be launched to implement the principle of proper use of medicines.
- Taking into consideration preventive and promotional health programmes on the possibility of improving the health status of Nepalese citizens in a short period

and on small investment, such programmes will be implemented with special emphasis..

- There is severe shortage of adequate human resources involved in health services at different levels. The private and non-governmental organisations will be encouraged to conduct training programmes specially for nurses, health workers, laboratory technicians and doctors because of the severe shortage of human resources. The use of foreign human resources in the medical colleges, hospitals and nursing homes will be gradually reduced and eventually replaced by the Nepalese human resources.
- There is still doubts on the quality of trainings provided by the number of medical colleges and training institutes working in the health sector of Nepal. To resolved these doubts, monitoring process will be devised and strictly implemented by seeking cooperation of the concerned professional councils (e.g. Nepal Medical Council).

Others

- Several programmes concerning child welfare and rehabilitation will be carried out through government and non-government organisations to eliminate child labour and exploitation.
- Rural roads will be constructed by using labour intensive technology through consumer groups.
- An environment will be created to provide new professional skills to the farmers emphasareing on commercial agriculture. Beside necessar y training facilities will also be provided.
- Arrangement will be made to create a feeling of respect towards labour and skill in the educational curriculum at all levels. Likewise, a programme will be developed and implemented to promote the tendency of respecting the workers and the skilled persons. Financial policy and rules will be formulated and implemented to encourage the development of skill and efficiency of the workers of the respective industries and in this respects, a join task force will be set up consisting of various government as well as non-government agencies such as Ministries of Industry, Labour and Finance, Employment Promotion Committee, Technical and Vocational Training, Employers' Council, Federation of Nepal Chamber of Commerce and Industry and Labour Organisation.

Chapter 8 **Regional and Local Development**

8.1 Regional Development

1. Background

Although the concept of regional balance in the national development process emerged since the Third Plan period in Nepal, real efforts for systematic planning through regional development model were initiated only from the beginning of the Fourth Plan. The prime objective of planning exercises in Nepal has always been targeted towards increased productivity for which regional policies have been formulated and implemented during the last decade. Albeit such efforts of planned approach have resulted in some physical development in the financial and social sectors, the development results have excessively been concentrated in already privileged areas and have failed to create a positive impact on the life style of the disadvantage groups. The regional development model was conceptualised to overcome such imbalance in the development process. To attain fast equitable development within the country by minimising regional imbalances through provision of basic development requisites at the regional level is the main objective of the regional development model in Nepal.

The regional development model experimented for the past three decades has resulted in some physical development in the financial and the social aspects and has been successful in providing some infrastructure facilities within the country, but the problem of regional imbalance in the development process continues to be strikingly visible even today regions. Many districts of their parts falling in the mountainous or hilly geographical territories is relatively highly underdeveloped. High population growth rate and migratory reasons have led to population pressure build in the terai region. As a result of high population growth, villages is getting converted into unplanned large settlements and small towns. Settlements and urban centres lack planned physical development and social and economic facilities, and in some places haphazard growth has been observed. Many people live below the poverty line in many areas. Despite development of appropriate concepts and policies to enact the regional development model right since the Fourth Plan period, efforts for regional development have not been effective and adequate policy framework for implementing district and local level programmes have not been possible due to deficiencies enforcement of such concepts and policies. Because of these reasons, expected achievements could not be gained in reducing regional imbalance and in attaining regional balance.

2. Review of the Eighth Plan

The objectives defined in the Eighth Plan period were to attain increased regional and national productivity by effectively mobilising resources scattered in several areas of the country, to minimise regional imbalances, and to integrate local development efforts with the national economy through economic upliftment of marginalised and underdevelopment regions

The policies adopted for the realisation of the objectives were optimum development of resources and means within a region or sub-region, improvement of investment pattern for reducing regional imbalances, coordination of existing and proposed infrastructure and facilities with productive economic activities, establishment of rural urban inter-relationships and development of hierarchical settlements.

The policies also addressed mobilising of national priorities in regional and sub-regional projects, adoption of decentralised planning, promotion of small townships to promote internal transport, environment protection and conservation, planned urbanisation and rural development. Policies were also taken for the establishment of service centres and service units within appropriate reach, effective land utilisation planning for environmental conservation, active involvement of the Regional Offices in planning, and promotion for involvement of NGOs in regional programmes.

These policies were enacted through different regional, sub-regional and district level programmes. Expansion of the road network, rural electrification, establishment of at least one health post in each VDC, development and extension of infrastructure and facilities in schools for basic education, provision of extension of post office for development in communication at the VDC level, establishment of rural development banks and promotion of public accesses to lending facilities through non-governmental rural banks, undertaking of extensive rural infrastructure works for employment generation, extensive development of small irrigation systems with emphasis on hill irrigation, natural resources conservation through extensive community forestry is regarded as the achievements in the Eighth Plan.

Despite these successes equitable regional balance has not been effective. Inter and intra-regional or district level spatial disparities in the development status have complicated the development process. Although the development scenario among the areas of the region is different as indicated by differential poverty situation or differential human development indices, differential investments based on these have not become possible. People's empowerment has not been possible in the absence of effective decentralisation and as a result development has become a sign of dependency.

3 Existing Challenges

As the development works undertaken with the sole target for increased national productivity has led to programme focus on areas that is already privileged with means and resources, specific regions and groups remain to be ignored.

Formulation of policies and programmes is not based on continuous monitoring and evaluation of regional imbalances.

Mountainous and hilly districts of the mid-western and far-western regions and mountains districts of the central and eastern regions is relatively underdeveloped. Largely underdeveloped areas also exist in the sub-regions. Policies and programmes specific to development needs of such areas is lacking.

Number of families living below the poverty line is relatively high in the mountainous districts of the mid-western and far-western regions and hilly districts of

the mid-western region. Focused programmes, aimed at creating direct impact on such communities, encompass very few communities as compared to the total population of the poor. As a result such programmes have failed to create an impact. Attempt to implement non-focused programmes through regional mechanisms have also failed to create an impact as such programmes have been concentrated in limited areas for a small population.

NGOs have not been effective as programmes implemented by NGOs for poverty alleviation is uncontrolled and is not equitably among the regions. In the absence of skill-oriented training and financing mechanisms employment generation has not been encouraging in the non-formal sectors.

Migration rate from hills to terai and to urban areas continues to remain high due to difficult living conditions prevailing in the hills. Mountainous and hilly districts, especially those in the mid-western and the far-western regions, is found to be most disadvantaged in terms of social, economic and physical infrastructure. the disadvantaged districts also suffer relatively high population pressure.

Increase in national income and productivity to support the national development process through mobilisation of resources scattered in different regions and gradual reduction in regional imbalances has been minimal.

4. Long-term Concept

Based on above findings and in view of the present situation as regards geo-political, social and economic conditions of the country, long-term objectives of development is regarded as regional balance for regional development, poverty alleviation, socio-economic integration and optimum utilisation of local resources.

It is essential to have a regional concept in planned development to minimise the imbalance between important geographical regions and in between different classes. Expansion of development activities to different regions, sub-regions and areas to enable people from different areas to participate in the development process through optimum utilisation of resources at the local level in integrating the national economy requires regional concept in planned development.

Appropriate policies and programmes is necessary to decrease the present state of regional imbalance. This implies that proposed regional and sub-regional programmes should be implemented only after effective prioritisation and that social benefit programmes should be carried out in least developed areas. Policies to address local development aspects of the regional programmes under the regional development model should be developed and programme implementation should be made effective.

The second long-term objective of the regional development programme is poverty alleviation at the regional level. The regional development model should be aimed at identifying the poor at the local levels and implementing effective and specific programmes to address the local needs for poverty alleviation a self-sustaining process through social mobilisation, development of community organisation and people's empowerment. It is necessary to improve the accessibility of the poor to the

means of production. In order to do this, it is necessary to promote and extend the present limited coverage of families by programmes targeted to the poor like rural development banks, small farmers development and micro-credit for women.

In reference to the socio-economic integration, minimum requirements of social, economic and physical infrastructure pertinent to different places will be identified and, defined upon these requirements programmes will be implemented to provide such infrastructures. Areas defined as service centres in disadvantage districts will be developed as small market settlements to provide miscellaneous services through such centres. Public and private industries will be promoted in order to reinforce the economic interrelationships lying between the rural and urban areas that could provide employment and income generation opportunities to the rural poor.

Optimum mobilisation of local resources is the main objective of the regional development. It is essential to enhance national development and continuously reduce the regional imbalances by increasing production and income at the national level with a view to identifying and utilising resources scattered in different regions and sub-regions. In the context of this objective, formulation and implementation of regional development programmes should be carried out by accommodating with available resources at regional level. As a consequence, not only the productivity increases from the development investment but also the outcomes of the development is distributed through out the country and the foundation of local empowerment is built according to the expectations. Formulation and implementation of regional development plans will be carried out for balanced utilisation of different resources and for implementation of development programmes according to geographical endowment of different regions, sub-regions and places.

Ninth Plan

5. Objectives

Based on appropriate long-term perspective, the regional development objectives of the Ninth Plan is defined as below:

- To minimise the existing regional imbalances,
- To alleviate poverty,
- To achieve national socio-economic integration by expediting the social and economic development through promotion of activities that contribute to employment and income generation
- To give emphasis to production enhancement through identification of local resources specific to the geographical regions

6. Policy and Implementation Strategy

- Balanced distributions of resources will be made for regional and sub-regional development. Projects that optimally utilise the local resources and labour will be identified and, based on this regional investment frameworks will be designed.

- Regional imbalances will be gradually minimised through emphasis on increased productivity at the regional level on an area-specific basis. For the regional development, the private sector will be encouraged and attracted to invest on production-based activities in all possible sectors.
- Programmes for the regional development will be based and implemented on the basis of defined regional and sub-regional priorities.
- Workable inter-relations between the regions and sub-regions and rural and urban areas will be developed with the objective of promoting regional development and national integration. Hierarchical systems of national urban areas will be developed to this effect.
- Development programmes to be implemented at the regional, sub-regional and district levels will be based on hierarchical settlements systems and rural-urban inter-relationships.
- Appropriate programmes will be implemented so that the market-oriented urban development will support the regional development. Physical urban development will be planned and carried out according to the requirements of settlements.
- Poverty-stricken areas will be identified at the regional, sub-regional and district levels and poverty alleviation programmes will be implemented. The on-going programmes focused on poverty alleviation will be expanded and special poverty alleviation welfare programmes will be implemented for target groups in highly under-developed areas.
- Programmes will be expanded to promote peoples participation at all levels for social and economic development.
- As under-developed areas and disadvantaged communities is suffering mostly due to the lack of primary education, primary health care and drinking water facilities, programmes for human resources development will be implemented to reach the lowest levels by identifying and such disadvantaged areas and communities.
- Natural resource base specific to regions and sub-regions will be identified and the mobilisation and utilisation of resources will be linked with developments based on the principles of comparative benefit.
- Based on the principles of decentralisation, the districts will be empowered in formulation, implementation and evaluation of district level programmes and the districts will be developed as key actors in the process of regional development.
- Regional offices will be strengthened to coordinate at the local level.
- A regional planning cell will be established at the National Planning Commission Secretariat to monitor regional development programmes and Regional Planning Offices of the Secretariat will be strengthened for the purpose of regional level programme formulation, monitoring and evaluation.

7. Programme

- Production at the regional levels will be enhanced to realise the concept of sustainable development for the regions through optimum mobilisation of regional resources.
- Distinct potential and capacity will be explored at the regional levels and development programmes will be promoted accordingly.
- Priority sectors for development will be defined after identification of distinct potentials of regions and sub-regions. presently, the development of such potentials include assigning priority for promotion of cash crops like tea and cardamom plantations in the eastern region, tourism promotion in the western region, promotion of service industries in the mid-western and far-western regions.
- Area specific programmes like rural development banks, small farmers development and micro-credit for women will be expanded by strongly reorienting them towards poverty alleviation. Low-income people will be involved in infrastructure development works. Labour-based industries will be expanded in disadvantaged rural areas.
- Development-related non-government organisations is found to be concentrated in accessible areas. Attention will be paid towards maintaining the regional balance while assigning work areas to such organisations.
- Emphasis will be given towards developing sustainable framework for development through people's participation, local empowerment and institutional development and optimum utilisation of local resources and skill in formulating local development projects and programmes.
- Sustainable and production oriented local urban systems will be identified and developed for expansion and effectiveness of area specific development programmes.
- Such settlements systems will be developed as apart of the national urban development system. Locally created regional settlements systems will be utilised for implementation of development programmes.
- Investments for promoting production and productivity through maximum utilisation of present infrastructure, services and facilities available at the different regional and sub-regional levels will receive priority and construction of new infrastructure will be integrated with production.
- Appropriate standard for classifying the national, regional and district level projects will be ascertained. In formulating local, regional and central level programmes, inter-relationship among various agencies will be identified and coordinated.

- Expansion and development of various services will be undertaken and integrated settlements will be promoted to minimise difficulties in the delivery of services to scattered areas.
- Regional offices will be adequately strengthened and will be powerfully mobilised to formulate, implement, monitor and evaluate district level programmes implemented within the region.
- Coordination mechanisms will be established and developed, in accordance with the concept of regional development, to impart impetus to the development within the region. As development through decentralisation is a sustainable process to institutionalise the overall regional development of the Plan, decentralisation will be carried out to make these interdependent.
- Statistical database and skill will be developed and integrated development concept will be promoted at the district level by institutionalising research, coordination and information-base at the regional level for the purpose of developing regional planning as an appropriate process and effectively implementing the regional development policy at the national level.

8.2 Local Development

1 Background

The major objective of local development programme is to mobilise resources and technology available at the local level for the development of the rural area and for the delivery of the necessary services and facilities to the local people. Local people is the foundation of local development. Similarly, promoting participation and development work and developing a feeling of ownership among the users' groups of the local development project is other important aspects of local development programme. The major aspect of local development programme is to mobilise local resources, use local skill and technology in implementation of the programme and to assist local people in identification and research of possible programmes of their needs. The main philosophy of local development is to involve the local people directly in the identification, formulation, implementation and maintenance of local level projects and make the development works sustainable.

If local development programme is promoted by increasing investment in production-oriented programmes based on employment-oriented technology to create employment opportunity at local level, this will benefit a majority of the population, thereby, help in the task of alleviating poverty. The living standards of the local people can be improved by developing basic infrastructure in rural areas with the participation of the local people. Local development and people's participation is the means of improving socio-economic standards of the people. This will adopt the policy to extend livelihood opportunities and access of the rural people.

Local development programme has been implemented in Nepal for more than four decades. Different targeted projects and other rural development activities is included in this programme. These programmes have important contribution in developing infrastructure for rural development. Development of infrastructure has helped in improving living standard of the rural people by increasing employment opportunities. As some of the programmes of rural development, still, being implemented from the central level agencies, expected coordination has not been achieved between development programmes and people's aspiration with clarity and effectiveness. A need for institutional development in plan formulation and implementation at local level in strengthening the capacity of local bodies has emerged. Therefore, Ministry of Local Development (MLD) needs to transfer gradually the total responsibility of local development at local level along performing its role of monitoring, evaluation, coordination and motivation,

2 Review of the Eighth Plan

The progress review of the projects and programmes implemented under MLD during the Eighth Plan period has revealed as follows:

During the Eighth Plan period women development programme has been implemented in 620 VDCs of 67 districts of the kingdom. A total of 12,634 income generating groups have been formed and a loan amount of Rs 410 million from the

different banks has been disbursed. This has benefited about 40,906 families. Similarly, 132 child care centres have been established. Five thousand easy toilets have been constructed. About six thousand appropriate technology-based improved stoves and bio-gas plants have been constructed. Nine hundred eighty-five community development groups have been formed. A total of 75,000 people have been benefited through drinking water projects constructed at 701 places under community development programme. Under the same programme, health, nutrition, population education and family welfare training for about 17,738 people and skill-based training for 14,702 women have been provided. The women's groups have mobilised Rs 20 million savings and Rs 9.4 million 17 thousand mobilisation fund. This has increased the participation and access in development and has also helped in developing women's leadership.

Local Development Training Academy, since its establishment has provided knowledge and skills through training and workshop to a total number of 22,644 persons including the women workers, besides the elected people's representatives and officials of local bodies.

Orientation workshops for DDC chairperson and members have been completed in the process of intensive mobilisation of population education programme. Approximately 2500 village level family welfare mobile training camps have been organised. Similarly, 40 people have been trained for population education-related trainer's training.

Under the Remote Area Development Programme, skill development training for 259 persons, income generation training for 38 persons, herbal medicine training for 62 persons have been provided. Two hundred thirty-five persons have received skill development and entrepreneur training and 81 training programmes related to health, nutrition, population education and family welfare were organised.

During this period under remote area development programme, 139 drinking water projects, irrigation projects for 746 ha of land, 46 suspension bridges, 185 km of new trail construction and maintenance, 85 ha tree plantation has been completed to provide economic and social services in the remote area of the kingdom. Under this programme 81 monasteries, temple-schools, inns, etc., have been constructed.

From the second year of the Eighth Plan, rural self-reliance programme has been implemented to provide monetary resources directly to each VDC of the Kingdom for development and construction. In the Eighth Plan period by the implementation of small development and construction work to support daily needs of the villages 1610 km of rural road construction and maintenance work has been completed under this programme. Similarly, 772 km of trail and horse track roads has been constructed. In drinking water sector, by the installation of 81 wells and tube-wells and laying down of 171 km of pipelines, 3549 taps were installed. 6600 ha land has been irrigated and 808 culverts/bridges and 514 VDC buildings have been constructed.

Four hundred seventy-three km rural road and trails have been constructed under local development construction project, mobilising local participation. Similarly, under local roads and suspension bridges programme, construction of 15 suspension

bridges has been completed. 29 is under construction, 126 is at fabrication level and 77 is in the stage of survey, design and estimation.

In the Eighth Plan period, under monastery development programme 120 monasteries have been maintained. Country-side tour programme was arranged to 197 Lamas. A book has been published in Tibetan language. To maintain monastery inventory, 13 district inventories have been prepared.

Rural Community Infrastructure Development Programme (RIDP) are being implemented in 20 districts with food assistance of the World Food Programme (WFP) and technical assistance from Germany. Under this programme, approximately 361 km rural road, 488 km of trails, 97 km of small irrigation canal construction, 23 km of river control construction and improvement have been completed. Similarly, construction of 48 fish ponds, 1.5 ha cardamom farming, 65 ha agro-forestry and 0.5 ha school ground construction has been completed, benefiting altogether 66,228 families. RIDP has been started since 1996/97 under Asian Development Bank loan assistance. 40 km road reconstruction has been completed under pilot labour-based district Road Rehabilitation and Maintenance Project (RRMP) with loan assistance from World Bank and technical assistance from United Nations Development Programme. Similarly, with IFAD loan assistance under Flood Damaged Reconstruction and Rehabilitation Project, 139 km of rural road, 160 culverts and bridges and extension of irrigation facilities in 19,648 ha land has been completed.

In Dhading, Gorkha, Lamjung, Gulmi, Arghakhanchi, Kalikot, Humla, Mugu, Dopl, Ilam, Panchthar and Taplejung district, under different foreign resources, and under rural development programme 7,292 ha irrigation, 256 km rural roads, 8361 km trails and 134 community building projects have been completed. Similarly, 41,000 people have received skill-based training along with 53 community project implementation and approximately Rs 2.6 million in community savings have been collected.

3. Existing Challenges

Although programmes implemented at local level to meet the local needs is considered as local development programmes, a wrong conception exists that programmes implemented under MLD is only the local development programme. Similarly, there is no conceptual clarity between local development programme and central programme.

Line ministries is found to compete in establishing their own district level offices to deliver services at the local level. Because of this, local development programmes is implemented through the involvement of different agencies. Various problems have emerged as challenges in the course of local development such as lack of coordination in programme implementation among different agencies, misuse of resources, duplication in programmes, and the problem of undermining the concept of balanced development.

Project implementation has not become effective as the system of monitoring and evaluation could not become a part of the management. Similarly, resource utilisation has not been effective due to the lack of improvement in information system.

Human resource and local technology could play an important role in bringing effectiveness in local development programmes. The productivity of the local development programme has not increased as local institutions could not implement their programmes efficiently in absence of the trained manpower. Therefore, the aspects of local bodies such as institutional development, development of management capacity, promotion of economic and technical capacity, increase in the productivity of the programme, constitute major problems in implementing local development programmes.

Not only the infrastructure and service facilities developed at the local level, become unattended and defunct after withdrawal of the support given by districts, centre or the donor agency but also the trends to expand the services and facilities without the direct involvement of the local people have created a feeling of dependency among the people and the local bodies.

4. Long-term Concept

The long-term concept of local development programme is to implement development works in a self-sustained mechanism, building capacity and developing self-governance of local bodies and making the local bodies accountable towards local people for providing necessary services to them from the local level and to develop necessary and appropriate leadership as well as human resource for the local development programme through the efficient use of the locally available technology and resources for the socio-economic development of the rural areas where majority of the people live.

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In the process of institutionalisation of the local development programmes, it seems that the rural people need to continue the optimum utilisation of local technology, resources and materials through local institutions in their own initiatives. Without improvement in the technical and economic capacity of the local bodies, fulfillment of people's daily needs cannot be met efficiently from such institutions. For this, community development needs to be promoted as an indispensable part of national building by decentralising participatory development process at lowest level in an institutionalised way. It has become necessary to improve living standard of the targeted community by the means of social mobilisation through local institutions. It equally needs to continue the process of providing appropriate and necessary management, technology and resources for community development including the capacity building, strengthening of local bodies. In this context, following objectives, policy and implementation strategy have been adopted in the Ninth Plan:

5 Objectives

- To make DDC a focal point of overall development of the district.
- To give highest priority to those geographical areas which is backward in respect to socio-economic development.
- To develop technical manpower and appropriate technology as per local need.

- To develop basic infrastructure in rural areas by involving local people.
- To make the local people self-reliant by providing the services such as, water supply and sanitation, basic health, education and environment protection, and utmost development of agriculture sector including food grain at local level

6. Strategy

- Ministry of local development will work as a contact point and overall responsibility of local development will, gradually, be transferred to the local level.
- In view of the structural change taking place, remote area will be reviewed on the basis of scientific standard.
- People residing in the remote area will be brought in the mainstream of the national development by uplifting their living standard and implementing appropriate development programme.
- Local development programme will give special focus to backward caste, district and rural area to promote regional balance and proportional development.
- Special socio-economic development programmes will be implemented for the welfare of economically and socially weak groups, ethnic people and women community of the society.
- Fixed amount of grant will be provided for local development on the basis of appropriate standard to promote local skill on the basis of available local resources.
- Necessary skilled manpower will be developed for rapid and sustainable local development process.
- Special emphasis will be given to collection, analysis and updating of local level statistics.

7. Policy and Implementation Strategy

- Local development programme will be implemented with the direct involvement of local bodies.
- Local level community will be mobilised and oriented effectively and in coordinated manner towards self-employment.
- Access of local community to goods and services will be increased by implementing those rural infrastructure development programmes which can create employment at community level.
- Capacity of the local municipality will be strengthened for solid-waste management and sanitation by providing necessary incentives; and solid-waste will be mobilised as a resource by involving the of private sector.
- Priority will be given to the promotion of local technology for local development works and programmes for research and development of appropriate local

technology will be implemented that could assist in increasing production and productivity as well as employment generation.

- Local bodies will be made responsible for all steps of local development programme, from identification, selection, formulation, implementation, and monitoring and evaluation. Centre will provide necessary training, financial and technical support to improve the capacity of local bodies. Overall management of local development programme will be conducted by local bodies.
- Production-oriented, income-generating and employment-oriented programme will be implemented from the available natural resources in remote area.
- The working capacity of LDTA and the its training centres will be strengthened to develop necessary manpower for local development, and existing training institutions in governmental, non-government and private sectors will be mobilised to this end.
- Special programmes will be implemented that would use skill and knowledge of untouchable, downtrodden, backward and ethnic communities.

8. Programme

The following programmes will be implemented under local development in the Ninth Plan:

Women Development Programme: WDP has been implemented with an objective of uplifting socio-economic status of deprived women since 1983. In past, this programme had been implemented with regard to social upliftment of women by organising them in groups. During the Ninth Plan period WDP will be implemented focusing women under poverty line to increase their living standard by improving socio-economic status, enabling to develop the community and themselves and mainstreaming these groups in development process. In the Ninth Plan, this programme will be extended to other families of the already covered districts rather than to other districts.

In the Ninth Plan, necessary training, under this programme, will be arranged to make women socio-economically able and to change woman's traditional role. Women will be involved in income generation and self-employment by providing institutional credit. The women institutions organised under small women groups will be integrated as a self-motivated institutions to promote self-employment; and 100 such institutions will be formed a federation during this Plan period. Reproductive health programmes will be integrated and implemented under this programme. Environment will be created to involve women for family and child development and other activities by saving women's time and labour. By establishing formal relation between women and governmental, non-governmental and financial institutions, the programme to increase the capacity of the women in seeking jobs, people's awareness programmes to remove discrimination against women and concept of equal development of men and women will be implemented in different levels of the programme. Likewise, the programmes to promote hygiene, sanitation and environment will be implemented. Ninety non-governmental organisations will be

involved in credit flow, people's awareness building and other activities. Twenty-five of these non-governmental organisations will be developed as a financial intermediaries.

Steps will be taken towards developing mutual relations between different ministries and departments who is currently running women development programme to establish close relations between WDP and the programmes under different departments.

The target of different activities in the plan period under this programme is as follows:

S.No.	Activities	Units	Target
1.	Household survey and analysis	number	286545
2.	New group formation	number	24003
3.	Basic training	person	121297
4.	Skill oriented training	person	24003
5.	Implementation of child development programme	point	387
6.	Early childhood and gender sensitisation programme	person	16302
7.	Population education and family welfare training	person	87536
8.	Institutional development training	person	83846
9.	Credit disbursement	Rs in '000	1,487,800

Remote Area Development Programme: RADP has been implemented as an area targeted programme in 22 districts adjoining Northern border and also in very remote area of the Kingdom of Nepal to develop those areas which is socio-economically backward in comparison to other districts. In the past, as the programmes were implemented in an ad hoc manner without having any feasibility and considering development opportunities by the sectoral agencies including the RADP Committee, the investment-output ratio has always been very low. As a result, the pace of development has been found low as the rural infrastructure was not developed, and the lack of educational and other social services put the majority of the population of these areas under poverty line. Therefore, special efforts will be made to reduce the backwardness and poverty in these areas and by reviewing situational changes of remote areas, to classification will be done by adopting specific standards to develop these areas.

In the Ninth Plan, the actions under RADP will include the poverty alleviation and building the social and community infrastructure programme. For poverty alleviation programme, this will focus on growth in production in food deficit area by the means of small-scale irrigation. Income generating programmes will be implemented by mobilising community organisations. Appropriate technology will be developed to mobilise local resources; and training programmes to help activities like fruits farming, kitchen gardening, cash crops farming; and cottage industries will be

organised. Utmost priority will be given to develop pasture in Nepal's territory. To minimise the adverse effect in the environment of remote areas existing forest resources will be protected and conserved. Support will be provided in pasture development in local level by building necessary roads, bridges and culverts and water supply system for the remote area. The programmes related to construction of pedestrians roads, suspension bridges, water supply, schools and hostels under social infrastructure programme will be implemented. Efforts will be made to increase the participation of non-governmental sectors for rural areas development. A programme to establish business relations between remote area and other area will also be undertaken..

The target of different activities in the plan period under this programme is as follows:

S.No.	Activities	Units	Target
1	Micro hydro power project	number	30
2	Construction of suspension bridge	number	50
3	Construction of water supply project	number	200
4	Irrigation facility	hectare	1650
5	Horse track road construction	km	250
6	Income generating programme	number	100
7	Technology development and extension	number	10
8	Agriculture programme	number	45
9	Grassland development	number	10
10	Plantation programme	number	50
11	Construction of school hostels	number	10
12	Income generating and skill oriented training	number	350
13	Personnel training	number	325
14	Beneficiary training	number	250

In implementation, the programme of RADP will be incorporated with DDCs' programme. Effective coordination will be managed between different programmes implemented in the remote area. Proportion of the development grant provided to the remote area will be increased in comparison to other area. Participatory development process will be institutionalised to comprehend the ownership of the local project through the people's participation in making the decision of development projects implemented in the remote area. Training and technical services will be provided to the local bodies and absorptive capacity will be increased. With necessary reform in the structure of the RADP Committee, it will be made more effective and objective-

oriented. Institutional arrangement will be made for continuous monitoring. Regular impact evaluation of RADP will be arranged. Implementation of production-oriented, income and employment generating programmes will be emphasised after assessing the implemented development programmes in the remote area and preparing the inventory of required construction programmes and projects.

Local Development Training Programme: The main objective of the local development training will be to enhance the administrative, managerial and technical capacity of the local bodies and to develop well-informed, committed and skilled manpower to implement local development programmes effectively. During the Ninth Plan, the training programme will be made qualitative by overcoming the weaknesses seen in reviewing the training programme implemented during the Eighth Plan. The programmes implemented under Local Development Training Academy will follow participatory development policy and needs of the elected local level representatives. The prominent need of the present time is to strengthen the technical capacity of the VDCs. For this purpose, one centre of the centres of the Academy will be developed as “technical development training centre.”

In view of the formations of the federations of local bodies and by establishing relations with these federations, appropriate training programmes will be identified and developed considering their demand and arranging a cost sharing system between these federations and the Academy. The target of the Ninth Plan period under local development training programme is to organise follow up training, training and seminars to a total of 170,000 officials including 151,000 of VDC level, 9,000 municipality of level and 10,000 of DDC level. In addition, study, research and consultancy services will be continuously provided in the areas of rural development, local self-governance, local resource mobilisation and people's participation, etc.

Population Education Programme: Population education programme will be implemented as an integral part of local development training programme. This programme will be implemented in 900 VDCs of 25 districts. Under this programme, training will be provided to 22500 officials of local bodies in reproduction, health, population education and gender equality with a view to increasing population awareness. Similarly, follow-up training, training on population, trainers' training and seminars will be organised for local level officials. Village level family welfare mobile training camp will also be carried out.

Monastery Development and Management Programme: During the Ninth Plan, under monastery development and management programme, monasteries located in different parts of the Kingdom will be protected and conserved. Similarly, programmes conservation of monastery and promotion of their religion and culture will be carried out. A policy will also be undertaken to enhance the participation of Buddhism practicing Lamas in the national development.

The target of different activities to be implemented during the plan period under this programme is as follows:

S.No	Activities	Unit	Target
1	Maintenance of monastery	number	225
2	Lama's country visit programme	person	200
3	Training on Buddhist religion, culture and tradition	person	550
4	Training on fine art and herbal medicine	person	250

Human Resource Development Programme: The programme such as training, instruction and seminars, etc., for the officials of local bodies and personnels will be implemented to increase the capacity of the local bodies. Skill and technology development training for mason, carpenter and plumber will be organised. With a view to developing local human resources for assisting local development programmes.

Rural Infrastructure Development Programme: Rural road will be built to reduce poverty through the provision of road facilities to the rural hill areas and increment in income generating opportunities. Under this programme, low-cost rural road based on people's participation strategy will be built with the loan of assistance of the Asian Development Bank in Banglung, Kavrepalanchok and Tanahu districts, which aim at increasing agricultural productivity, construction of basic physical infrastructure and providing employment opportunities in agriculture sector. A total of 250 km of rural roads and village level 90 multipurpose buildings will be built under this programme.

Rural Community Infrastructure Development Programme: RIDP will be implemented in phasewise manner in 45 districts with the help of WFP. The main objectives of the programme is to improve food availability of the rural poor families, improvement and construction of community infrastructure in food deficit areas, strengthening the self-help capacity of rural community and to enhance the management capacity of the local bodies in implementing the programme. To increase the access of rural community in basic services, the programme such as linking rural roads with main roads and markets centres, community-based irrigation projects and river training to protect farm lands and farmers will be implemented. The programmes such as construction of small canals, pond construction and maintenance in hill and terai districts, and mule tracks and tractor roads, river bank protection and small landslide control in mid-hill will be implemented. Programmes to reduce the malnutrition of the community will be implemented by mobilising food under "food for work programme" in food deficit area. This will help increase in income generation by creating employment in rural areas. This programme has the target of implementing 2,300 community based activities and food deficit 200,000 families will be benefited by participating in the "food for work programme."

Lumbini Rural Water Supply and Sanitation Project: Implementation of Lumbini rural water supply and sanitation project will be continued to promote community development, and to implement water supply and sanitation programme in participation with local bodies in the rural area of Lumbini Zone. This programme will be implemented in participation with non-government organisations. A total of 180 projects will be implemented benefiting 100,000 people during the plan period.

Western Terai Poverty Alleviation Programme: Western Terai poverty alleviation programme will be implemented in 8 districts: Dang, Rupandehi, Banke, Kailali, Kanchanpur, Bardia, Nawalparasi, and Kapilvastu of western Nepal to help poverty alleviation by increasing income generation and improving welfare of rural women, landless and small farmers. This programme will provide credit facility to the targeted groups, public shallow tube-well will be constructed, production and employment oriented skill development training will be organised and community and institutional development programme will be implemented. By the implementation of this programme 28,833 women will be benefited from credit facility, 5,875 families from public shallow tube-well facility and 84,000 poor people from different training.

Integrated Rural Development Programme: IRDP has been implemented to improve the living condition of the rural people by providing different goods and services in a coordinated manner and to develop rural infrastructure. In the Ninth Plan, poverty alleviation, productivity increment by promoting people's participation, strengthening institutional capacity of the local bodies, and the projects generating employment and constructed and maintained by the users' groups will be given high priority under the Programme. The projects will focus on backward region and community and the poor people. The projects will have to be selected under the priorities determined by DDCs.

During the Ninth Plan, four integrated rural development projects will be implemented in five districts: Gulmi and Arghakhanchi Rural Development Project, Gorkha Development Project, Lamjung Development Project, and Dhading Development Project.

Intensive Labour Oriented Road Rehabilitation Project: Labour-oriented model road, trail road and standard road will be constructed and improved in different places of Kapilvastu, Rupandehi, Nawalparasi and Syangja district of western Nepal. Under this programme, training will be organised on different aspects of road construction and management to the employees involved in road construction, local contractors, beneficiaries, communities and labourers. This project will help in generating rural employment.

Solid Waste Management: In view of the increasing number of municipalities and quantity of solid waste, non-government organisations and private entrepreneurs will be involved in the management work. Municipalities will be promoted to adopt norms and standards determined for solid waste management and to produce compost fertilizer from the solid waste produced in municipal area.

Programme for Backward Groups and Ethnic Community: In the Ninth Plan, special programmes will be implemented for social, economic and cultural

development of backward ethnic communities of society. A National Ethnic Academy will be formed to develop and promote culture and livelihood of the ethnic communities based on the studies on their social and economic status. This Academy will formulate appropriate programmes for the economic uplifting of ethnic community and these programmes will be managed the concerned government agencies. NGOs will be involved in ethnic community uplift programmes.

Similarly, Praja Development Programme will be implemented gradually and appropriate programmes will be formulated and implemented for minority ethnic communities such as Raute, Praja, Mushar, Dom, Dushad, Satar, and Dhimal living in different parts of the country. NGOs will be promoted in implementation of such programmes. Necessary programmes will be implemented to study, protect and promote the culture and livelihood of these communities. In addition, cultural heritage of the ethnic community will be preserved and necessary steps will be taken to establish an ethnic community museum to attract the tourists in the Ninth Plan period.

People's Participatory Development Programme: Sustainable development is possible when people's participation can be achieved in rural development. The project prepared by the users' groups, VDCs and municipalities in participation with the local people will be jointly implemented with cash contribution of these institutions in the Ninth plan. Under this programme, on the basis of the demand of local people, project such as, water supply, irrigation, road, etc., that help income generation will be implemented. Such programmes will be implemented in ownership and control of the local users' groups and emphasis will be given in mobilisation of local indigenous technology.

Agricultural Road: As mentioned in the Agricultural Perspective Plan, agricultural road projects will be implemented to join the production area with nearest motorable main road to increase the economic activity of the private sector by helping market mechanism and production in pocket areas which is important in agricultural production. This programme, which is to be implemented in participation with local people, will help in increasing agricultural production. In the Ninth Plan 2,238 km agricultural road will be constructed. Technical aspect of MLD will be strengthened for the technical assistance in implementation, monitoring and evaluation of the agricultural road project. For this, Rural Infrastructure and Agricultural Road Department will be established.

Local Development and Construction Programme: Rural infrastructure is an important aspect of local development. These infrastructure projects, constructed with labour intensive technology, will help to develop the local economy and reduce poverty by creating employment and mobilising local resources and skill. Transportation facility will be provided to the local people by building suspension bridges over small and big rivers in the local roads in the hills and by building mule tracks and local rural road joining villages and district head quarters and which is important for tourism industry. With the objective of providing additional infrastructure for rural development this programme will be continued in the Ninth Plan period. This programme will be implemented with maximum use of labour-

oriented technology in direct support and participation with local bodies. In the plan period, survey, maintenance and improvement of 470 km of local rural road, 700 km of mule track, 1,530 km of other types of road will be constructed. Likewise, the target in the Ninth Plan is to build and improve 400 on-going and new suspension bridges.

Local Development Grant: In the Ninth Plan, grant provided to the local bodies will be continued to help to mobilise skill and resources of the local bodies. Under this, DDC grant, VDC grant and municipality grant will be provided. Provision will be made to promote the programme in investment, which increases production and productivity, human resource development, social security, poverty alleviation and employment-oriented programmes.

District Development Committee Grant: In the process of providing resources to the district level, implementation of programmes effectively in the districts, on the basis of district's population, geographical remoteness and existing infrastructure of development will be continued also in the Ninth Plan. DDC will be the focal point of the overall development of the district. This will help the development work of the district. Capacity of the DDC will be strengthened to implement the local development programme and DDC will be provided full autonomy in the local development process.

Village Development Committee Grant: The programme of fixed amount of grant provided to every VDC will be continued with objectives of making VDC a development centre and strengthen its capacity to fulfill minor rural needs with its own labour, skill and capital. It is believed that this programme will cease the dependency of the VDCs to make the rural development work more qualitative, to strengthen their capacity and to fulfill their minor rural needs.

Municipality Grant: The grant provided to the municipalities with low income will be continued to implement development works in their respective areas. Capacity of the municipality to mobilise internal resources will be strengthened. Local tax base of the municipality will be gradually broadened.

Electoral Constituency Development Programme: As per the outlook of the members of Parliament of House of Representative and National Assembly, electoral constituency development programmes will be implemented to promote the participation of the members of parliament in developmental works in their areas as usual. Institutional and procedural arrangements will be made to achieve coordination between this programme and the programme implemented by DDCs.

8.3 Development of Backward Special Region

1. Background

Geographical feature of Nepal has its own specialty. North-South expansion is approximately 80-85 km. with an altitude of 150 to 8,000 meters from the sea level. The land expands from East to West and altitude increases from South to North. By the rivers flowing from north to south, Nepal has geographically been divided into different small areas. Major area of Nepal has been socio-economically backward due to the very remoteness, difficult terrain hills and the absence of fertile lands. In the region, settlements of the people is very scattered due to geographical factors. Hence, it has been very costly to deliver basic services such as, transportation, health, education and water supply. Although efforts were made in the past to bring the people, living in the region, in the mainstream of development, it could not be materialised due to the lack of identification of real problems and lack of understanding the sensitivity of people from the projects point of view. Consequently, the region could not fall in the mainstream of national economic development and the outcomes of development could not reach the region.

In view of the total absence of infrastructure and economic backwardness, 632 VDCs of 25 districts of the country have been recognised in the Ninth Plan as a special region. The recognised region is not resource poor. There is a great scope of production of animal husbandry, herbal plants, vegetable seeds, and Kasturi deer, etc., in different places of the region. Many places can be developed as tourist spots. In consideration of these possibilities, the Ninth Plan has visualised to carry out development programmes in the region by appropriate utilisation of the resources.

2. Existing Problems

Geographical remoteness is the major problem of the specially recognised region. In some places, it takes one or two days to walk from one ward to another of the same VDC in the region. All the areas of the region is in Mahabharat range in the South and Himalayan range in the North. Due to high mountain ranges expanded from East to West and rivers flowing from North to South, geographical feature of the area is very remote.

Although, there is a scarcity of arable land due to the location of difficult high hills and mountain, majority of the area of this region have great scope of forest development, herbal plantation, animal husbandry and cottage industry. For this, scattered settlement needs to be concentrated in specific areas.

Lack of transportation, electricity and communication infrastructure has become the major constraint of overall development of the region. Livelihood of the people in the areas is very backward due to the absence of basic social services such as, health and education.

The goods such as fruits, vegetable seeds and herbal production, which is currently produced in limited quantity and has a great possibility, could not be commercialised in production due to the absence of infrastructure for the transportation to the market.

The effectiveness of the programmes on social services and local construction works carried out by the government has not been monitored due to remoteness of the region. As a consequence, output of the programmes implemented by the government with maximum available resources could not reach the people living in the region. Even from political point of view, all the people could not be mobilised.

3. Long-term Concept

In view of the prominent fact that expected development cannot be achieved until the people living in the backward regions of the country is brought in the mainstream of the national development, the long-term concept has been visualised to implement the programme in integrated manner for the development of the region. The region will be developed in equal status to other accessible regions of the country within 20 years by mobilising special resources from government as well as from other sectors. Socio-economic infrastructure development and construction will be gradually implemented in the districts of the special region. In addition, the people's participation in the region will be enhanced in the overall development of the nation by mobilising their skill and ability and with the utmost utilisation of the available resources of the region.

Ninth plan

4. Objectives

- To eliminate the social and economic disparity between the people of the special region and other regions of the country.
- To transform the districts of the region into accessible districts by optimum utilisation of the available resources in the region.
- To eliminate poverty and backwardness by the use of the available resources and by developing human resources of the region.
- To strengthen institutional capacity of the community and people of the special region.

5. Policy and Implementation Strategy

- Production, income generation and employment oriented programme will be implemented with the available natural resources in the region.
- By the implementation of appropriate development programmes socio-economic status of the people living in the special region will be uplifted and they will be brought into the mainstream of national development.
- By the implementation of the programmes in districts of the special region such as building of infrastructure, developing human resources and increasing people's awareness these will be gradually transformed into accessible districts.

- Output-oriented investment policy will be adopted through the participatory and integrated development plan in the special region.
- Development plan will be formulated and implemented by identifying developmental possibilities in the districts of this region.
- Since the goods produced in the market have no access to the market, so by developing infrastructure for transportation, market will be promoted for the goods produced in the region.
- The people in the special region will be motivated to identify their needs, and to formulate and implement the programme. For this, necessary technical assistance will be provided by the concerned agencies of HMG.

6. Programmes

Infrastructure Development

- In view of infrastructure development, the special region is very backward. The goods produced in this region is not getting appropriate market due to the lack of road transportation. During the third to fifth year of the Ninth Plan, road development programmes will be launched in specific areas with a view to connecting the strategically located centres of the special area. In addition, special programmes will be launched in for the construction of mule tracks until construction of road transportation is not built. Similarly, rural transportation development programme will be executed in a phase-wise manner for the development of rural infrastructure.
- The programmes for increasing agricultural production and productivity will be implemented by undertaking small irrigation schemes for the un-irrigated land of the region.
- 'Rural entrepreneurship development fund' will be established to produce industrial goods at the rural level by mobilising available resources in the region. Special arrangement will be made to promote local production and market management by entrepreneurship development and micro credit programmes.
- Infrastructure will be developed for industrial and other commercial activities through the construction of feasible small hydel projects with the participation with users' groups and private sector.
- Concerned beneficiary groups will be motivated to implement minor infrastructure and income generation programmes such as small embankment construction and plantation; maintenance of school buildings, temples, monasteries, nursery; vegetables and fruits development; animal and birds husbandry, etc.

Human Resources Development

- From educational point of view, the people of the special region is very backward. The density of the population of the region is very low due to the scattered settlement. Overhead cost of the educational institutions is very high

due to low number of students in these institutions. Despite this, the educational standard is very low. In view of these facts, detailed study will be made as how the scattered schools can be consolidated. Study will be made to evaluate the feasibility of mobile teacher and teaching during pasturing of animals.

- Because of low level of educational awareness in the region, formal and informal educational programme will be implemented as a special programme. Children will be motivated to join the schools through awareness programme.
- Efforts will be made to solve the problems emerged due to climatic as well as language barriers.
- Arrangement will be made to organise employment and skill oriented training for the youth of the region by identifying the labour market. Women in the region will be participated in awareness building activities by providing primary health training programmes in the areas of population education, maternal and child health, hygiene and sanitation.
- The people of the region will be trained and their capacity will be strengthened by giving them priority in admission in trade schools of the region.
- Special programmes will be implemented to prevent diseases through the supply of clean water, toilet construction and maintaining healthy environment around the houses.

Planned Settlement and Local Resource Mobilisation

- Infrastructure development work, and economic and social development programmes have been very complex and costly due to the scattered settlements in many districts of the region. To improve this situation, efforts will be made to build development infrastructure and consolidate the settlements in the feasible areas. On the basis of this, development programmes will be implemented by concentrating in specific areas and will be implemented with a vision of planned utilisation and conservation of local resources.
- From the view of local resources, districts under the special region is not poor. The situation is that optimum and practical utilisation of resources has not been made. Therefore, after studying the possibility of economically feasible resources within the region, different programmes will be implemented which would help uplift the living standard of the local people by mobilising these resources in different phases. Professionalisation in the production of animal husbandry, woods, herbal plants, vegetables seeds and *kasturi*-deer will be focused and appropriate market management of these production will be made.
- Emphasis will be given to developing tourist spots after identifying such spots at the district level in the region. Wildlife reserves and national parks will be gradually established and will be run in participation with the local people in feasible areas. Arrangement will be made for conservation and production of local resources in coordination and joint management between government, non-government sectors and beneficiary groups in appropriate places.

Other Programme

- The programmes and projects such as northern area tourism development project, conservation and promotion of disappearing forest, botany, herbal plants and animals, northern area trade development plan, and cultural development project will be developed and implemented in different phases.

Special Arrangement for Programme Implementation

- People's awareness programmes will be implemented to solve the existing problems of the special region. People's awareness will be increased in every VDC of the special region by implementing National Volunteers Programme. In this programme, local people will play the role of teacher, motivator and technician to implement the development programme with their own participation and identification of needs. This programme will be implemented in 632 VDCs of the region from the second year of the Ninth Plan.
- Sectoral programmes related to development of the special region will be implemented by concerned agencies and other programmes will be implemented by RADP in consultation with DDCs. For this, non-government organisations will be mobilised as needed. HMG's district line agencies will provide necessary technical supports as well as services of specialists.
- By integrating sectoral programmes implemented from different agencies of HMG will be made effective.
- District development action committee, to be formed in district level, will review the programme regularly. Arrangement will be made to monitor and evaluate the programme regularly from MLD. One separate unit will be formed in the NPC to monitor and evaluate the programme. For frequent monitoring and evaluation, information and reporting system will be made reliable, organised and regular.

8.4 Human Settlements and Urban Development

1. Background

The process of urbanisation is rapidly growing in Nepal. For some time in the past, Kathmandu Valley has rapidly been urbanised and many new markets have been expanded along the main highways. But necessary physical and social infrastructure have not increased equally in the pace of urban population growth. The environment of urban areas is becoming polluted and unhealthy because of the lack of sanitation, amenities and services. Since agriculture alone has been unable to support the growing rural population, internal migration is taking place and additional pressure has been put on the inadequate social economic and physical infrastructures of the urban areas.

In the urban areas, 24 percent families is living in rented houses and 7.3 percent families in cottages constructed on illegally occupied public land. It is estimated that there is 3 million residential houses in the Kingdom of Nepal: 2.7 million houses in villages and 0.3 million in the urban areas. In a country with limited resources like ours, the government alone cannot build houses and make them available to the people. Therefore, housing development programme can only be launched with the mutual participation of the government and private sector.

A huge amount of resources is invested annually on building construction by government, semi-government, non-government and private sectors. Therefore, it has become essential to make a study and research on the construction material and technology available in the country; to make optimum use of local construction materials; to enhance use of economical, simple, easily available and appropriate construction materials having no adverse effects on environment, and to develop and expand safe construction technology. Most of the offices of His Majesty's Government from the central to the district level is settled in the rented houses. Some of the government office buildings is old and devoid of physical facilities and therefore such offices lack appropriate working environment. Considering the necessity of government office buildings and residential buildings for employees, it is necessary for His Majesty's Government to prepare a long-term plan on construction of government buildings to implement it all over the country and to create appropriate working environment in all office buildings.

2. Review of the Eighth Plan

The fast urbanisation growth in the Kingdom was not only recognised in the Eighth Plan period as the expansion of physical facilities but also regarded as a major contributor to the national economy. For this purpose, emphasis was given on implementation of urban development programme mainly with strong participation of the private sectors. Impact of national infrastructure and financial policy in urbanisation process, facilities needed for surrounding village areas through the development of urban centres, creation of agricultural employment possibilities in rural areas and opportunities of employment in non-agricultural sectors were the

concerns of major policies in the Eighth Plan. Emphasis was given to the necessity of making regular improvement in the existing rural housing conditions from the perspective of the high living standard, to make improvement in the construction of urban housing in a planned way, to avail necessary services and facilities and to maintain a balance between income of the urban dwellers and their minimum housing cost.

During the Eighth plan period, the process of updating the physical development plans of almost all the municipalities in connection with urban development had been completed and the integrated action plan of twelve municipalities had been prepared. To identify and plan the projects thorough the “support of urban development management” and to develop the capacity of the municipalities and to eliminate the environment problems created by the unplanned and fast urbanisation of the Kathmandu Valley essential improvements have been made in the existing Acts and By-laws related to the improvements of infrastructures development conservation and urban development activities.

The pace of migration from rural to the urban areas is growing and the social economic and environmental problems of the rural area is becoming complicated day by day. Though some efforts have been made in the last few years to develop the mutual linkage between rural and urban areas through the development of small towns and markets, a large number of villages and people have not been covered by the programmes. In the formulation, implementation and review of urban development plans and programmes a total of 134.4 million as loan investment and 96 million as grant has been advanced through Town Development Fund.

National housing policy has been formulated and implemented. The role of government and non-government sectors in the housing sector has been clearly defined and short term and long-term programmes have been specified. The construction of some buildings for ministries and Birendra International Convention Centre have been completed and a master plan for the construction of the residential building for parliamentarians has been prepared. Building construction policy along with the necessary prerequisites for its implementation has been prepared. Likewise, some culturally and religiously important places of the Kathmandu Valley have been identified and plans have been made for conserving the same.

Under the reconstruction programmes of the schools affected by the earthquakes of 1988, school improvement and reconstruction programmes have been conducted under the loan assistance of World Bank. Under this programme, the construction of school buildings consisting of two rooms have been completed in affected twenty-nine districts of Eastern and Mid-western Development Regions

In the Eighth Plan, activities like the development of fully developed housing plots, supply of dwelling units, maintenance and improvement of existing houses, researches related with building construction, and activities of raising investment in development of residential sector have been carried out. Skill training for the development of local construction materials and technology have been conducted. Appropriate construction materials have been developed and expanded. Similarly,

Building Research Centre has been established at the central level and national work plan has been formulated.

Although it is accepted in the Eighth Plan that the maintenance of the existing buildings is more economical than the constructions of the new ones, housing improvement programme was not implemented in a planned way. No significant steps seems to be taken for providing necessary housing loan and improving financial system necessary for housing in unplanned and illegal settlements growing in the urban area, especially in the capital city. This has put adverse effects on urban environment. No significant programmes have been formulated for making any improvement of such situation

The efforts initiated in the Eighth Plan for reducing the increasing pressure of vehicle congestion; air, sound and water pollution; and illegal occupancy of public land in the city area have remained inadequate.

3. Existing Problems

- Balanced and planned development of the Kathmandu Valley has been obstructed because of the absence of integrated policy, the persistence of dual work procedures and the lack of coordination among several institutions.
- The number of emerging towns, densely populated settlements and market centres in the country is increasing due to the growing pressure of population. But the efforts made for providing essential physical facilities with the help of limited available resources have remained ineffective.
- Adequate facilities is not available in metropolitan, sub-metropolitan cities and other municipalities. Extensive programmes have not been formulated and implemented to develop municipalities and other markets and towns as the catalyst of the overall development of rural areas, and to increase the linkages between urban and rural places.
- The institutional efforts made so far from government and private sectors for making the supply for the growing need of housing turned to be insufficient.
- The new residential areas of the town is becoming disorganised because of uncontrolled land sub-division in the municipalities and urban areas.
- Imported construction materials is widely used for building construction, and the construction technology based on such materials is developing. No attention is being paid to make use of local resource materials and technology even in the construction of government buildings. Since there is no significant role of private sector consultants and construction entrepreneurs in the design, construction and supervision of government buildings, the inter-relationship between the government and the private sectors has not strengthened.
- Though, according to the policy of decentralisation, the municipalities have to bear greater responsibility for the preparation of town plans, the development and management role of municipalities for urban development has been insignificant. This is because the rights and duties of town development committees and

municipalities have not been clearly specified. Consequently, the utilisation of materials and resources has not been noticed as per the integrated development efforts of municipalities and towns for urban development because of the lack of coordinated efforts among various institutions responsible for providing them assistance from government sector.

- The organised development of urban system of the Kathmandu Valley has not taken place not only because of the problem of growing pressure of population but also because of the lack of physical infrastructure, basic principles of urban system and effective management. Similarly, Kathmandu Development Board has not become effective in the absence of its institutionalised development.
- The materials and resources of the private sector have not been desirably utilised and attracted as the roles of government and non-government institutions and the private sector have not been clearly specified.
- The services of Housing Companies is limited within Kathmandu and Lalitpur. The housing/land development companies have not been activated effectively to supply well facilitated sites for housing development.

4. Long-term Concept

A balanced urban system will be developed by making Nepalese towns unpolluted, clean, well-facilitated, productive and safe. The long-term objectives of urbanisation include the development of Kathmandu Valley as a cultural and tourist centre, promotion of planned urbanisation in other important areas, establishment of inter-relationship between towns and villages, and promotion of employment opportunities through the development of small towns and market centres.

According to the National Housing Policy, housing sectors will be promoted as an important medium for economic development, poverty alleviation and upliftment of the living standard of the people. Similarly, commodious and economical residential buildings will be built in the urban areas by developing land and physical infrastructures, facilities and appropriate construction technology supported by necessary financial management and institutional improvement. In order to strengthen the existing self-housing system by making the housing sector self-reliant, the government will make people abide by law, and play the role of a catalyst and facilitator, and promote the role of the private sector.

Necessary infrastructures will be developed in order to establish dense residential sites in geographical appropriate locations of remote hilly areas. Big projects like hydro-electricity projects and construction of highways will be implemented and integrated rural housing development will be launched in project affected areas.

Government office buildings will be gradually constructed by making optimum use of local construction materials and skills in such a way that they reveal local architecture. The building construction activities of the private sector will be organised on the basis of appropriate construction standards and regulations. The historical and cultural heritage of the nation will be preserved and promoted.

Ninth Plan

5. Objective

- Integrated physical and social infrastructures will be developed through physical planning system in order to develop urbanisation process in an organised way, and to make urban living commodious, productive and healthy.
- The role of urban area in national production will be made more efficient, sustainable and employment oriented, and urban development will be taken as the supportive of rural development and poverty alleviation as per the urban development policy.
- Emphasis will be given on the development of infrastructure and public utilities of municipalities and other cities in order to systematise the process of internal migration.
- Private sector will be encouraged to actively involve in housing facility development with a view to systematising housing facilities in the rural and urban areas. Similarly, the standard of housing facilities will be increased by developing less expensive safe, hygienic, well facilitated and environmentally appropriate technology.
- Appropriate management of government office-buildings and residential buildings for employment will be made. Similarly, places of cultural and religions importance will be renovated and preserved.
- In order to make the government, non-government, and semi-government building construction sectors more cost effective, safe and production-oriented, research on building construction technology will be extensively carried out and national building regulations will be brought into practice.

6. Policy and Implementation Strategy

- Emphasis will be given to increase the inter-relationship between increasing urban centres and rural areas to minimise the imbalance encountered in the urbanisation process. On the basis of feasibility, some areas will be developed as small towns connected with big cities. Similarly, dense residential areas will be developed in geographically appropriate places of the remote hilly regions.
- Kathmandu Valley will be developed as a culturally and touristically important capital city, and it will be organised with physical development conducive to environmental balance.
- In order to make the organised development of the infrastructures and services of market towns including the municipalities the participation of the private sector will be increased in the field of financial management, appropriate financial resources will be utilised for private and public land development and urban environment will be improved through the implementation of rules, regulations and standards.

- To associate housing development along with the over all economic development of the nation, buildings safe from natural catastrophe and appropriate for different geographical reasons will be constructed by using local construction material and improved technology and will be exhibited for dissemination. The publicity of such buildings will be made through public media. Housing system will be strengthened through the institutional development of integrated housing system.
- For the preservation, promotion, maintenance, and operation of public places in the urban area, the participation of private and non-government institutions and community will be encouraged. Similarly, permanent management for regular maintenance and preservation will be carried out for improving the environment of places of historical, cultural and tourist importance.
- For the appropriate management of urban development and housing, the role of the government as a facilitator and sustainer will be strengthened and VDCs, DDCs and municipalities will be made fully responsible.
- A detailed study will be carried out of available resource, physical features, population and environment and religions and cultural conditions of all big and small cities of the nation. On the basis of the study, the economic role of the cities will be decided and support will be given for the extension of facilities. Necessary financial resources will be provided by the TDF for the improvement and development of infrastructures of municipalities and towns.
- The mutual participation of government, non-government and private sectors for urban development will be encouraged. Similarly, in order to encourage the participation of the private sector for the development of urban infrastructure in an integrated way, the policy based on the principles of 'build, operate and transfer' will be encouraged. Necessary rules and regulations will be formulated to this end.
- A study or a research will be conducted for identifying the opportunities of economic development based on rural and urban inter-linkages and on various aspects of the mobilisation of private and public sectors for it with a view to assisting in the development process on the basis of rural and urban understanding. By involving the government, local bodies, the private sector and the community as the development partners, inspirational and model programmes will be launched development programmes as a campaign.
- A provision will be made to provide squatters and landless farmers serviced housing plots through Rural Housing Company.
- NPC and concerned ministries will regularly follow up the programmes in order to make the investment in urban area as per the approval of physical development programmes, and to establish a system to implement investment programmes only on the basis of the master plans prepared by municipalities, town development committees and other concerned institutions by maintaining coordination among organisations associated with infrastructure development.

Similarly, the authorities, duties and responsibilities of the concerned agencies for urban plan formulation and implementation will be specified.

- Although urban development is mainly the responsibility of municipalities, institutional support will be provided for giving special support on the partnership basis from the centre until the municipalities become efficient and resourceful.
- Organisational improvement and human resource development activities will be strengthened in the areas of housing, building and urban development.
- Additional residential buildings will be constructed through cost effective, safe and modern technology by providing housing loans. Necessary programmes will be planned in order to strengthened the role of house wives for the construction, operations and maintenance of residential houses.
- Building policy will be formulated and authority will be delegated to the concerned institutions for implementing national regulations through Housing Act and their implementation will be followed up regularly.
- The government and public building constructions activity will be implemented in a planned way by using internal and external resources.
- The renovation and rehabilitation of old government buildings with historical importance will be carried out.
- Model houses appropriate to the environment and safe from natural catastrophe will be constructed and public awareness will be raised to construct such houses.
- Necessary acts, rules and regulations will be formulated to set the standard of the capacity and skills of the consultant and construction entrepreneurs involved in building design and construction.
- Infrastructures development programmes will be conducted in an organised way on the basis of findings of studies on the effects of the big projects on the surrounding environments.
- Long-term plan will be implemented from this plan period for constructing HMG's office buildings and employees' residential buildings in the centre, regional headquarters and district headquarters. Furthermore, this programme will also be used for model exhibition of appropriate technology.

7. Programmes

Policy Formulation and Research

National urban development policy and implementation strategy will be formulated and implemented for regulating unplanned and disorganised urbanisation taking place in different parts of the Kingdom. Similarly, parameters will be formulated for the classification of new municipalities and urban centres.

National building policy and implementation strategy will be formulated and implemented for making government, semi-government and non-government building construction cost effective, safe and conducive to environment and for

systematically mobilising the investment of both the government and the private sectors.

Cost effective, adequate, safe and environmentally suitable construction technology will be adopted for raising the production cost of the residential building with minimum services and facilities in rural and urban areas, and technology will be handed over through women participation and media by developing building construction technology resisting natural disasters. Similarly public awareness will be raised against natural disasters.

The professional experiences gained in the government, semi-government and non-government sectors will be revised and reformed on the basis of set standards and efficient procedures by enacting national building codes into acts.

Financial and institutional provisions will be made to provide private residence to employees working in government, non-government and private sectors. Priority will be given to mobilise the financial resources of Employees' Provident Fund and commercial banks for this purpose.

Group housing schemes will also be brought into practice as model by encouraging to construct residential buildings through different institutions

[The Formulation of Act, Regulations and Standards](#)

Urban planning and development act, land consolidation act and housing occupation act will be formulated and implemented.

Building Act and National Building Code will be implemented.

Necessary amendments in the existing Nepal acts related to building, housing and urban development will be made.

Environmental Impact Assessment guidelines will be prepared for building housing and urban development.

[Institutional and Human Resource Development](#)

All the government, non-government and private sector institutions related with building, housing and urban development will be identified and their roles and responsibilities will be specified.

Human resource development policy will be formulated and implemented.

By upgrading the capacity of Urban Development Training Centre, Pokhara for in-service training related with human settlements sector will be provided to employees of different levels working in different sectors.

Training's will be organised for masons involved in the occupation in different districts for transferring the findings of building research centre at the local level.

As a prior preparation for the implementation of national building code, the technicians of concerned agencies municipalities, District Housing and Urban Development Office, VDCs and DDCs local masons and carpenters will be trained..

Sub-regional Development Programme

The functional role and future directions of the main cities of the Kingdom will be specified and implementation of infrastructure in appropriate places will be developed with a view to achieving planned development of uncontrolled sub-regional market centres, and settlement problems increasing along the north-south highways as well as the problems of escalating urbanisation, migration, large hydro-projects construction and the construction of high ways and branch roads

Kathmandu Valley Development Programme

By integrating all the metropolitan cities, sub-metropolitan cities, municipalities and VDCs, a physical planning system will be developed. A detailed land-use policy in the valley, a land-use policy in the metropolitan areas and a local area plan in VDC will be prepared and implemented. Similarly, a five year investment plan will be implemented for every development activity carried out by government, non-government, local bodies and private sectors.

By giving continuity to the first phase programmes of Kathmandu Urban Development Project and by raising and improving integrated physical infrastructures as per Kathmandu Valley Urban Development Strategy, water supply, sewage, electrification and road maintenance activities will be carried out.

Under the renovation programme of Singh Durbar secretariat, the buildings for Ministry of Laws and Justice, Defense Women and Social Welfare, Education and Finance will be constructed and the provision of all infrastructures related with buildings will be done. Similarly, the construction of the building of the Ministry of General Administration will be started by completing the renovation of the western front of Singh Durbar.

Construction of huge complexes with the mutual participation of government and private sectors will be initiated with a view to increasing the productivity of public land and bringing together all the scattered government and non-government offices and business activities.

Appropriate projects will be launched for making a dependable and sustainable management for the promotion and improvement of important areas of historical, cultural, religious and tourist importance.

The preservation and maintenance activities of Changunarayan, Suryabinayak, Gyaneshwore Mahadev and Neelabarahi, which is underwrote now, will be completed. A list of public open spaces and ponds will be prepared and their preservation and construction will be done.

Five unplanned squatters settlements located in urban areas will be organised and upgraded.

Emphasis will be given for the development of two townships in appropriate places of Kathmandu Valley. Renovation, extension and preservation will be carried out in the areas such as Shankhu, Chapagaun, Tokha and Thankot which is identified by Kathmandu Valley Development Strategy.

Land integration programme will be conducted in appropriate places of the valley and developed housing sites will be made available.

Environment improvement programme will be gradually launched in the bank of the big rivers of the Valley.

District Level Integrated Physical Development Plan

With the view to fulfill the regional and local need, integrated physical planning of 20 districts will be made and implemented through concerned agencies for regulating urban development process as a supplementary to rural economy.

Building construction activity will be launched in 15 districts lying in different geographical regions according to the aim of fulfilling the necessity of the government office buildings and employees' residential houses in the district level.

On the basis of available data, government property will be conserved by making necessary renovation of old government buildings with historical importance whether or not they are used for the purpose of government offices.

Urban Area Development Programme

Town plan will be prepared for 22 municipalities formed in fiscal year 2053/54 by preparing the field map of the municipalities and by clearly specifying economic role.

Integrated Action Plan will be prepared for 20 municipalities having no town development plan and emphasis will be given to the development of physical infrastructures with the concept of developing secondary cities in the feasible areas.

For upgrading and development of physical infrastructures in different municipalities of the kingdom, loan investment will be made in the project planned through Town Development Fund.

Under public open space conservation policy, the list of public open space (open fields, ponds and forests) of each municipality outside the Kathmandu Valley will be prepared and conservation and development programme will be launched at a place of at least 25 municipalities on the basis of priority.

A total of 15000 housing plots will be developed by developing land development programmes through Town Development Committee.

Nepal Housing Development Finance Company will be more activated and housing loan will be advanced for renovating, expanding or contracting new residential houses for the households falling under certain income level. The capacity and work area of that company will be expanded.

Small Towns, Urbanising Village and Market Centre Development Programme

The following programmes will be implemented for strengthening the linkage between urban and rural areas by making the development initiatives and all other services and facilities provided by the government reach the village in an integrated way, for creating more employment opportunities in non-agricultural sector, for making the management of the market for agricultural products and for making

gradual improvement in national urban settlement system. Physical development plans of different market areas will be prepared and implemented through concerned agencies.

Loans and grants along with technical manpower will be made available through revolving funds to the Town Development Committee on the basis of approved plan and priority for project implementation.

In different areas, the management of open areas, market place development, has park, passengers' waiting room, bank, post office, police post and other institutional areas will be developed.

Necessary funds will be managed for the maintenance and renovation of residential buildings and for constructing new ones.

The construction of village roads, their maintenance and the construction of bridges will be carried out through concerned agencies for enhancing the linkage of the surrounding rural areas with the emerging market centres.

Six thousand (6000) housing plots will be made available by launching land development programme.

[Programmes for Rural Housing and Compact Settlements](#)

In order to reduce the increasing pressure of population caused by migration on urban areas from the rural areas of the kingdom and to expand the basic minimum facilities to the grassroots level, compact settlements programmes will be initiated in some places of remote hilly areas. While launching such programmes, the use of local construction materials, female participation and the results of building research will be brought into practice for publicity.

Land development necessary for 14 thousand housing plots will be launched for developing planned settlements and market centres in different part of the country through Rural Housing Company. A model village development programme will be launched for 750 families in each of the five development regions for supporting village development by developing a commodious model village for human habitation. A provision will be made to provide cost effective and cheap housing plots to 50,000 families of backward minorities of the society, landless farmers and genuine squatters.

[Town Development Fund](#)

For infrastructure development and income generation programme in the different municipalities of the kingdom of Nepal, loans and financial support will be extended through Town Development Fund. It is expected that this provision will strengthen the financial and institutional capacity of the municipalities.

[Other Programmes](#)

The construction of United Nations Park will be completed on both the banks of the Bagmati River from Shankhamula of Kathmandu to Teku to control soil erosion, to check the illegal occupation of public land along the banks of the Bagmati Rivers, to

preserve and develop the culturally, religiously and historically important places and monuments lying on both the banks by making a proper management of sewage system to improve the environment and to save the cultural and religious importance of the Bagmati.

The programmes of Greater Janakpur Development Project will be implemented with priority basis for developing Janakpurdham as religious town by developing the religious spots lying in the surrounding rural areas.

Chapter 9 **Environment and Sustainable Resource**

9.1 Environment and Natural Resources Management

1. Background

The future of the Nepalese people, which is so much dependent upon the environment, has bearings on the commitment and interest of the people themselves. So what Nepalese people is getting or expecting to get from the utilisation of environmental resources is important. Therefore environment protection programmes need to be directed towards creating a condition in which Nepalese people can lead a happy, prosperous and peaceful life. Since Nepal is a country of villages, it is necessary to pay special attention to the problems of village people, especially flood, land erosion, loss of forest cover, and fulfillment of daily needs: wood, grass, etc. Likewise, it is equally necessary to eradicate the problems associated with the process of urbanisation, especially the problems of solid waste, air and water pollution. In view of these interests and concerns, it has been an imperative to implement laws and regulations to ensure sound environmental programmes, and people's participation in the implementation of development programmes.

The concept of sustainable resource management adopts the theory of carrying capacity of the natural eco-system. Nature can recreate the resources consumed by human beings. Especially, this principle is associated with the consumption of renewable resources. According to the concept of sustainable resources, consumption of resources should go without affecting natural life cycle so that nature can recreate the natural resources on a continuous basis.

According to the concept of sustainable economic development, resource management means to fulfil the demands of the present and the future generation without depleting the available resource stock. Therefore, resource management means not only protection but also judicious utilisation, which fulfil the need of existing generation and guarantees to fulfill the future needs. In the context of Nepal, sustainable resource management means ensuring sustainability of available resources by fulfilling the interest and needs of the Nepalese people. Problems like land erosion, landslide, flood, destruction of forest exist in the village areas whereas smoke, dust, water pollution and lack of proper management of garbage is urban problems. These have left adverse effect in natural resources.

Many failures of management efforts in the use of common resources are, caused by the lack of property rights. The concept of community forest has made the consumer both the owner and manager of the forest, so it has achieved a remarkable success. Creating ownership is a successful use of managing resources. The success achieved in forest management proves it. Likewise, good result can come out if we hand over skill and knowledge to the community by creating their ownership in the management of brooks and small rivers, and land and watersheds. Because of increasing number of vehicles in city areas, pedestrians are compelled to breathe polluted air. As a result, there is an adverse effect on their health. By using economic and legal policy of

discouraging to private vehicles and adopting a system of compensation to the public, social equity can be maintained.

Although various resource management and conservation programmes were prepared and came into vogue in the past, managing own resources have not been effective in the development programmes. The development programmes in the past emphasised on intensive agriculture and mono-culture system which led to decline in the productivity of land, a major problem being faced today. It has also affected biodiversity. The random use of land without land-use planning has added more problems to it.

Traditional technology, skill and knowledge is disappearing gradually. Some negative effects of modern technology have also been witnessed. It has been necessary to revive, and utilise traditional skill, knowledge and technology from the viewpoint of resource management. Despite a great role in the protection of small resources in the village like tap, small irrigation canals, temples, etc. traditional religious and cultural organisations is being eroded gradually. Therefore, it is necessary to revive and make such micro organisations effective.

Increased use of science and technology has changed the pattern of consumption and the society is becoming consumption-oriented. The technology of consuming resources and their reusing and recycling has to be emphasised. Poverty and unfulfilled needs of the people is, in fact, the greatest challenge to our resource protection. Therefore, efforts should be directed to people-based programmes. These problems have obstructed the management of main resources (soil, water and forest) of rural areas.

Sustainable development of economy and environment is not possible without proper co-ordination of economic, social, natural and human resources, particularly in view of their inter-relationship in environment protection. A system of making less adverse effect on environment has to be adopted while development programmes are prepared and implemented. Development and environment have to be accepted as inseparable parts. There will be no fraction in opinion that environment should be protected in order to achieve Nepal's sustained economic development and to ensure quality human life. Traditionally, attention was being paid only to economic development and quality of life, but now it is necessary to take environmental aspect either main or secondary objective.

Human beings have been getting service including food, cloth, shelter and medicines from biological heritage available on earth. It is necessary to get opportunity for consuming the basic five elements required for life (water, land, air, sky and light) without any obstruction. Because of the inter-relationship between human and environment, achieving an environmental balance between various activities and development efforts is the need of the day. In this context, it is necessary to link environmental programmes and management with development planning from the very beginning.

Besides this, environmental education and awareness programmes need to be widely and intimately associated with development programmes in order to create awareness

and seek active participation of people in environmental resource conservation and development.

2. Present Status of Environment

The environmental condition of Nepal is related with the country's economic condition, social and geographical structure and the process vested with them. Despite various efforts, the state of environment has degraded due to higher dependency on natural resources and high population growth. The problems of land slide, land-erosion, flood, decline in agricultural production and deforestation is existing in villages while smoke dust and garbage is increasing in the city day by day. Because of this, the lack of

Although coordination between development and environment has become an issue confronting us, there has been some encouraging change in community forest management by means of people participation, forest resource is being depleted and the number of people depending on forest is increasing. The gap between demand and supply of forest products such as wood, fodder is widening. No change has come in the process of de-forestation and in land-use. Though environmental concern is increasing, a hard work is needed to protect the ubiquitous natural beauty and biodiversity in the process of economic development of Nepal.

The policy and practice of conserving environment and the formulation and implementation of other programmes that empower people have, indeed, increased environmental awareness. The process of expanding activities favorable to environment and the practice of environmental impact assessment (EIA) have been started. But still, adverse effects are seen on public health and tourism development due to degradation of environmental quality. The problem has exacerbated due to establishment of industry without proper management and EIA. City life is being vexed with uncontrolled rise in the number of vehicles and inadequate and ineffective implementation of emission standards.

3. Review of the Eighth Plan

The adoption of the process of environmental impact assessment and strategic environmental assessment is seen a useful means throughout the world in order to incorporate environmental aspect in development programmes. Remarkable work has been done in the field of EIA in the last five years. An independent environment sections have been formed in some concerned ministries related with physical development, and the planning sections have been directed to work on environmental issues where there is no environment section. Work related with environment seems at primary stage from institutional point of view. Environment and planning sections have been formed in some ministries but environmental guidelines is not being implemented due to lack of capability of those sections.

Environment Protection Act, 1997 and Environment Protection Regulations, 1998 have been effective. Environmental Impact Assessment Guidelines as a tool to minimise environmental impact has been enforced in formulation and implementation of projects. Separate Environment Impact Assessment Guidelines for forest and industry sector have been formulated and implemented. Though there is various

provisions to protect environment and control pollution in the Environment Protection Act, 2053, no effort has been made to institutionalise the process and the system in the sector agencies. Likewise, necessary knowledge and skill have not been disseminated to change working capacity and mentality of the people. The concerned agencies have not been effective to successfully implement various existing provisions for the promotion of environment.

Realising the concept of sustainable development, various legal provisions have been made. But the acts and regulations related with environment have not been effective due to the lack of integrated environmental policy, lack of co-ordination among various agencies, and lack of adoption of holistic approach.

The maximum permissible limit of vehicle emission has been determined. However the implementation is not effective due to failure to enforce it throughout the country. The tolerance limit for the quality of exhausted air and the standard of drained water of some industries have been determined, but its implementation has yet to be made effective.

Governmental and non-governmental agencies are creating awareness among people about environment protection. Participation of NGOs, local communities and consumers is in the rise in land-use, plantation, protection of water resources, improvement of public health, development of small and cottage industries, and protection and promotion of bio-diversity. In formal environmental education, achievements made by the Ministry of Education, National Planning Commission, World Conservation Union and some other NGOs is encouraging. Primary level course on environmental education has been designed and incorporated and the same is being incorporated in the course of secondary and higher secondary levels.

Environment subject is also included in the university. Nevertheless, environmental awareness programmes have not been disseminated at the people and at the village level. No adequate provision has been made towards encouraging joint participation of NGOs, community and private sector in environment protection.

Small hydro-electricity projects, community forest, watershed management and income generation programmes of agriculture sector were successful programmes in the past. The capacity 21 programme prepared with the spirit of Agenda 21 can be taken as an example. This programme is now being operated in three districts (Dang, Surkhet and Kailali) of western Nepal. Under the programme, groups are formed for economic and social development and environment and resource protection at village levels. The programme, which mobilises village community, has helped in village development, resource protection and to uplift of the living standard of villagers.

The Environment Protection Council established in 1994 has been reformed from time to time. The Council has been preparing environment policy, formulating plan and working policy and publishing them. The Ministry of Population and Environment was established in 1996, and the Ministry has been working as a secretariat of the Council. It has been necessary to make a detailed provision in the Environment Protection Act about the duties, responsibilities of the Council. In order to make the Council effective, its capabilities needs to be enhanced in areas of policy

direction, inter-sectoral coordination, supervision and evaluation, and problem solving in the field of environmental management. Though HMG has ratified various international conventions in the Plan period, no homework has been done in regard to the impact of these conventions on the development agenda and the subsequent role to be played by the Government.

There is no adequate manpower and training opportunities in the field of environment management. Adequate formally trained manpower is not available in the labour market while implementing the HMG programmes. As a result of the scarcity of trained manpower in environment management, necessary arrangements for additional manpower and resources have not been made.

By effectively utilising the provisions of the bio-diversity convention, it is necessary to establish a judicious system that delivers the economic achievements of the convention to the grass-root level instead of limiting it to protected area. It has also been necessary to give priority in making participation of people and NGOs.

In the absence of inter-agency coordination, no system of monitoring and evaluation of sectoral policy and their implementation were established in the Eighth Plan. The system of monitoring and evaluation of environmental programmes needs to be institutionalised. The data and information related with environment is collected by various agencies of HMG and NGOs. "National Data Bank " could not be established during the Eighth Plan period by incorporating the data collected by those agencies in the national system.

4. Long-term Concept

Long term target implies achieving sustainability in resource protection and sustainable use of available natural resources. To integrate development and environment and render government, non-government, local body and private sector's active participation in the implementation of participatory programmes is the goal of long-term policy. Since poverty and unfulfilled needs of the people is the challenge to resource management, an approach will be taken to involve people directly in management of resources, thereby fulfilling people's needs and minimising poverty.

To integrate the concept of environment in various development sectors and to achieve sustainable development through the marriage between environment and development will be the long-term policy. Environment will be protected, promoted and managed by using voluntary or participatory techniques, with joint collaboration of government organisations, local bodies, NGOs, user groups and private sector and by creating awareness of people towards environment protection as their individual concern and common responsibility.

Ninth Plan

5. Objective

The Ninth Plan will have the following objectives:

- To consolidate working system and planning and/or environment sections of various ministries in order to maintain environmental balance and all-round economic development of the country;
- To develop capability of manpower in the field of environment;
- To coordinate the agencies involved in environment protection;
- To adopt a unified approach to environment and development;
- To formulate regulations and maintain coordination in regard to national resource protection;
- To widen the concept and area of bio-diversity;
- To adopt scientific techniques in forest management;
- To enforce mandatory and voluntary measures of pollution control by fixing emission and effluent standards;
- To make legal provisions for mobilisation of non-governmental and private sector effectively in the field of environmental public health and garbage management;
- To adjust economic and financial policies in tune with environmental policy;
- To protect developmental infrastructure and national heritage and provide security to life and property of the public by minimising effects of natural calamities; and
- To promote national capacity in disaster control and management by developing necessary institutional infrastructure for the management of natural calamities.

6. Policy and Implementation Strategy

- Priority will be given to participatory programmes, particularly involving women and the under-privileged people while preparing and implementing environmental programmes.
- Environmental programmes which directly benefit the village people and which raises their living standards will be implemented with priority.
- Necessary provision will be made for voluntary initiatives of local bodies, communities, as well as governmental, non-governmental and private sector in raising public awareness and common participation in the field related with environment, EIA, etc.

- The environment of remote areas of the country will be protected and promoted under special programmes. Priority will be given to the development process with EIA that preserves bio-diversity.
- Community and user groups' participation will be sought in protection of national heritage of religious and cultural importance, bio-diversity conservation, watershed development, and forest management.
- Financial assistance and other appropriate incentives and punishment measures will be adopted to enhance voluntary leadership in environment protection. People will be motivated in environment protection by preparing and implementing income-generating programmes and by providing alternate opportunity for people relying on the consumption of natural resources.
- The scope of protecting bio-diversity will be made wider; and local bodies, communities, non- governmental sector and private sector will be given priority in this field. Necessary legal amendments will be made as required.
- Environmental awareness will be extended to the people's level by giving training and environmental education in the field of protection and promotion of environment. Institutional arrangements will be made for research and development of the environment sector. Participation of governmental, non-governmental and private sector will be initiated to develop necessary manpower, environmental research, training, supervision, assessment, development of management system, and environmental assessment.
- In order to protect environment, joint cooperation will be forged with NGOs by delineating clear-cut duty and responsibility and ensuring participation in local environmental protection, prevention of garbage and pollution. The role of HMG will be to ensure transparency in the activities of NGOs.
- Private sector and joint venture investment will be promoted by making active participation of local bodies in solid waste management.
- Indigenous technology and environment protection process based on traditional and cultural values will be utilised for sustainable development of the nation. Proper use of such technology will be promoted in modern society.
- Environment-related NGOs run by women will be promoted.
- Management pattern of Environmental Protection Fund will be reviewed for its effective utilisation.
- Environmental health programmes will be prepared to apprise people of preventive health service, minimising the adverse impact of environmental pollution.
- Environment and resource conservation education will be imparted at school and university level. Production of manpower will be increased, including various aspects of environmental education even in informal sector.

- Small environmental information centres will be set up with providing pictures, course books and other visual aids related with environment to the primary schools in villages. Mobile library will also be managed.
- The process of EIA will be made participatory and will be incorporated into economic plans and developmental activities right from local level.
- Proper environmental management plan will be prepared and implemented by determining emission and effluent standard of air and water coming out from industrial plants to ensure environment-friendly industrial development. Vehicular pollution control will be made effective. Determining tolerable pollution levels of water, air and land, voluntary or compulsory policy will be prepared for adoption. Required legal provisions will be made in this regard
- Special attention will be given to identify and protect the environment of transition zone and settlements.
- Institutional system will be adopted to coordinate, supervise and review the formulation and implementation of sectoral policy and programmes related with environment. The environment sections within the ministries will be made capable to make social and economic development favourable to environment. In the context of legalised provisions of EIA as an inseparable part of the development programme, line agencies will be consolidated accordingly.
- Co-ordinative policy will be adopted by reviewing existing legal provisions related with national resource protection.
- Necessary legal and procedural measures will be adopted to implement international conventions related with environment ratified by HMG.
- Governmental, non-governmental and international institutions will be motivated to invest in the project related with environmental protection, management and education.
- Necessary arrangements will be made to identify and protect forest and wet land areas and plant and animal genetic diversities
- Efforts will be made to make financial and economic policy favourable to environment policy, reviewing the tax, custom and investment policy in the context of environment.
- The environment data centre under the Ministry of Population and Environment will be updated with the available data and information regularly. Public access to the data will be increased.
- Programmes related with environment protection and population management will be coordinated and promoted.
- Recycling will be promoted by motivating people engaged in the recycling business.

- A Natural Disaster Management Information System will be developed. National and international resources will be mobilised for mapping of areas prone to earthquake, flood, landslide, etc., for integrated disaster mitigation, control and management.

9.2 Land-use Plan and Land Reform

9.2.1 Land-use

1. Background

Land use is the most important aspect for economic and social development. No project of national level for land-utilisation has been implemented in successful and sustainable manner, though there have been many efforts in the past for balanced utilisation of various natural resources existing in the country. Climatic and soil characteristics of various geographical regions like Himalayan, hilly and terai areas are posing hindrance to successful land-use plan. Uncontrolled population growth has made the condition more serious.

If land-use plan is managed properly, more economic benefit can be derived from the specialisation and diversification of agriculture production. Thus, on one hand we can increase productivity of agriculture and on the other hand balance can be maintained in geo-physical environment. It is indispensable to protect and promote biological heritage, water, and forest and utilise land by scientific use according to social and economic structure and quality and capacity of the land.

While preparing land-use policy, attention should be paid to the high pressure on land engendered by unchecked population growth. Encroachment of land is increasing even in marginal areas leading to land-erosion and an imbalance between man and land resources. For example, about 65 percent of agriculture land is dry land where mainly maize, millet is grown and the remaining 35 percent is marginal land which is very sensitive from ecological point of view.

The structure of agriculture production of the country is directly and indirectly based on forest resources. The decline of forest resources at present has an adverse effect on water resources, productivity of agriculture and livestock. Landslide, flood and land-erosion produced in hills and *Chure* range, which is amongst the most sensitive areas from environmental point of view, have affected the areas on lower slopes of hills, river banks and fertile land of terai seriously. This has made maximum adverse effect on irrigation, hydro- electricity project, road construction, and transport and tourism development.

Therefore implementation of land-use project is very important to protect, promote and develop bio- diversity, to protect and maintain balance of the environment, to maintain balance and permanency among residences to specialise and diversify agricultural production by utilising land according to its geographical feature, quality and capacity.

2. Review of the Eighth Plan

The following policies were adopted during the Eighth Plan:

- To give priority to increase in employment opportunities by using land-resources;
- To give emphasis on maximum use of local resources on the basis of land structure and diversity of climate.

- To link regional and national agriculture research with geo-physical environment;
- To protect environment and control land-erosion and river cuttings.
- To extend industry, urbanisation and commercial farming within the areas influenced by road;
- To use land-use plan for extension of urban areas;
- To increase coordination and policy formulation to utilise land at the local level;
- To make efforts to prepare pilot project in order to coordinate among land, agriculture, forest, environment and development sectors;
- To keep information about land-use in the district and centre level and implement new laws and rules and review and amendment of existing rules and regulations. In view of long-term nature of land-use effects, these efforts is reflected into sectoral programmes of the Eighth Plan.

3. Long-term Concept

Sustainable development will be emphasised by judicious utilisation of land and other natural resources, promoting and protecting environment of various areas in mountain, hills and *terai*.

4. Strategy

- Land use will be made effective by making necessary coordination among various bodies for the economic and social development and maximum use of sector-wise resources on the basis of climatic variation. In order to make land use effective in Nepal, its responsibilities will be extended to the local bodies.
- Control of adverse effects on natural environment caused by high population growth, increased landslides and protection of geographical and environmental diversity will get emphasis. Institutional arrangements will be made to prepare comprehensive land-use plan at the national level and make land-use map available to the district, village and town levels. Priority will be given to maximum and appropriate use of the resources in order to increase productivity of land and other natural heritage by preparing land-use plan.

Ninth Plan

5. Objectives

The main objectives of the Ninth plan in land use will be the following.

- Classification of land for agricultural, forest, pasture, residence, urban development and industrial purposes.
- Classification of agricultural land on the basis of geographical characteristics, capacity and quality of soil in order to produce much beneficial agricultural products of comparative advantage.

- Zoning and identifying land for residence, industrial areas and non-agriculture purpose in existing municipalities and urban and village areas and maintaining environment balanced and sustainability by protecting and developing water, forest and biological heritage.
- Planned development will be made from environmental point of view, after identifying main residential areas in transition zone.

6. Policy and Implementation Strategy

- Formation and implementation of land-use plan by maintaining relation and coordination with the related organisations and bodies from the centre to district-level.
- Making people aware about the role and importance of land-use plan in agricultural production, environmental protection and in other area-wise development on the basis of land structure, climate, soil etc.
- Technical and institutional capacity for identifying national problems like landslides and erosion will be developed.
- Total land of the country will be identified and classified for agriculture, forest, pasture, residence, urbanisation, industrialisation and other purposes, and will be gradually utilised after preparing land-use map from national to district level.
- Productivity of land will be increased through discouraging the practice of keeping land barren.

Programmes:

- Land-use map will be prepared by using necessary regional and district level data, map, land and weather survey, Geographical Information System, (G.I.S.), and remote sensing system Land-use will be based on such map. Information system necessary to prepare district -level plan and land use map and mechanism to collect and publish data will be consolidated and extended.
- Steep land and marginal areas which is sensitive from environment point of view and where agricultural practice is ongoing will be identified. These areas will be converted into tea, coffee, agro-forestry or private forestry zones on the basis of climate and soil quality of the area concerned on order to generate income from them.
- Cultivation and processing of herds of high value will be emphasised for hilly areas. Likewise, off-season vegetable, and vegetables seeds production and their export promotion will be encouraged.
- Appropriate land-use plan will be prepared, having identified the possibility of remote and backward areas.
- Livestock farming will be emphasised in high hill area by developing pastures.

- Intensive cropping will be promoted in terai and flat area of mountain where irrigation facilities can be developed. Intensive cropping in hilly areas will be linked with land conservation technology.
- Appropriate land will be given priority on the basis of land-use map, while developing and extending municipality, newly urbanised areas and new settlement areas. Physical infrastructure like road, drainage, drinking water, electrification, schools, health-centre, communication media will be constructed by making pilot project in large scale for this.
- In order to control the rapid loss of forest, community forest will be emphasised by providing optimum public land to the V.D.C. level.
- Pasture rotation system will be promoted by developing community and private pastures areas in order to protect the areas very sensitive from erosion point of view.
- Integrated settlement areas will be promoted in appropriate places in Himalayan and hilly areas by integrating scattered housing.
- In order to control the heavy loss of land by erosion and landslide in hilly areas and by flood in lower flat land of hills and terai, water-shed will be protected, after identifying such areas.
- Private sector will be motivated to utilise public land of Himalayan areas for entertainment and sports and for promotion of tourism.
- Existing laws and regulations in regard to land-use will be amended. New regulations will be enforced, where necessary.
- A secretariat will be established after formation of Land-use Council with the coordination of the National Planning Commission. Land-use committees will be formed in regional and district levels. The relation and coordination of the agencies like agriculture, forest, survey, industry, housing, and irrigation will be maintained through such bodies from district to national levels. Emphasis will be given to increase public awareness regarding land use.

9.2.2 Land Reform and Management

1. Background

Nepal's present socio-economic structure shows that land is the main property and source of income for the Nepalese people. Agriculture has been the main source of production in the country. Most of the farmers are marginal farmers and hence their economic condition is very weak. Population is increasing in a rapid manner. Few years ago, Nepal used to export food grains but now has turned an importer. This situation shows that unless an effective measure to increase agricultural product and its productivity is introduced, the economy of the country will not move forward.

As land is the main source of production, the effort to eliminate poverty without land reformation will remain incomplete. The APP has also suggested that infrastructure for economic development should be made through reforming the current land ownership and farming system. Total agricultural land of Nepal is about 2.6 million hectares. On an average, a farmer holds 0.95 hectare or 18.6 ropanies of land. The number of farmers who have less than one hectare of land is 70 percent. Among them, 44 percent farmers have less than 0.5 hectare or 10 ropanies of land. The farmers who have more land have less farming skill. And the farmers who have more skill have no enough land. It has affected the growth of national productivity. Therefore, proper environment should be created so that the land should come in the hands of the skilled farmers. Effective land reform plan is necessary for land management reform. Along with it, subsidiary projects for agricultural development and production growth should be carried out.

2. Review of the Eighth Plan

To eliminate dual-ownership of land, to computerise the records of land ownership and implement one person one-land certificate system, to complete First Cadastral Survey, were the main objectives of the Eighth Plan. Existing land reform law has been reformed to eliminate dual ownership of land. Application from tenants, and landowners separately and from tenants and landowners jointly have been coming up in this regard and they have been finalised during the Eighth Plan period. A report has been prepared to computerise the records of land-ownership. Under this software project, the land ownership records of the three districts of the Kathmandu valley and Kaski district is being computerised. Efforts have been made to emancipate "bonded labour" system and to develop skill and knowledge of these groups of people. However, there has been no remarkable reform in the land ownership and in the land information system.

While formulating programmes in the area of land, there should be more people's participation in it, and the government intervention should minimum. It can help investing governmental as well as private resources in productive sectors. Similarly, the present practice of using fertile land for non-agriculture use should be stopped. It has also become necessary to control fragmentation of land and implement Land consolidation (Chaklabandi) programme effectively and, to develop land information system to get necessary information for land-related projects.

The latest amendment in Land Reform Act, 1964 in 1997 has envisaged eliminating dual ownership of land by making provision for dividing land equally to both owners and tenants. It should be implemented in an effective way to eliminate the prevailing dual ownership situation soon.

Likewise, the land reform act has also determined the maximum limit of land a family can hold: in terai and Inner terai 25 bighas, in valleys 50 ropanies and in the hilly regions 80 ropanies; and for housing use, per-family 3 bighas in terai, 8 ropanies in Kathmandu valley and 16 ropanies in the hilly regions. But the law has special provisions to eliminate the limit of land. Provisions have been made to of certain purposes such as industries, educational institutions, medical institutions and cooperative farming systems. But the system of land limitation has not been so fruitful as it was expected in the beginning, and hence it has also become necessary to make it productive.

Cadastral survey, which was started long ago as a part of land reform project, has almost been completed now. It has made the data of land more factual. But it has to be made more service-oriented by using it in the context of the change in land-use and in its economic importance. It should be made more effective by giving special priority to it.

3. Long-term Concept

The long-term concept of land reform and management sector will be to maintain sustainability in the use of agriculture land on the basis of land environment by using land-use system based on geographical feasibility and comparative advantage. Accordingly, the following will be the main objectives:

- To establish and implement base projects, which will develop a system using land according to the regional variation and optimum productivity and create their long-term stability.
- To start measuring land most suitable from economic point of view in terms of regional variation and optimum productivity by using new technology, to check the frontiers of the nation, and to prepare data of personal, governmental, public and trust land.
- To make people feel secure of ownership of their houses, crops and land by starting appropriate land administration.
- To continue the software information system to collect the land -ownership, measurement of land, etc. related with simplified land administration.
- To bring stability in the system of production through appropriate land-use system and environmental conservation an atmosphere for voluntary involvement of people in it the process will be created through market mechanism.

The Ninth Plan:

4. Objectives

In the process of fulfilling the long-term plan, the Ninth plan will have the following objectives:

- To eliminate tenancy (Mohiyani) system by eliminating dual-ownership of land.
- To develop appropriate land-use system.
- To update land information by using scientific technology.
- To computerise and make available data related to land-ownership, plot measurement and land mapping.
- To simplify land administration and give people a sense of security for their land.

5. Targets

Programmes will be launched to meet the main targets like elimination of dual-ownership of land, creating appropriate atmosphere for the reformation in prevailing land ownership structure, development of appropriate land-use system and arrangements to stop land fragmentation, management of settlements and self-development for landless farmers, establishment of land data preservation office, and development of land communication system.

6. Strategy

Keeping in mind the long-term target, strategies of the Ninth plan will be to preserve ecology, to create market, to encourage people for self-motivated participation, to introduce appropriate land-use system and bring stability in production system.

7. Policy and Implementation Strategy

- To create appropriate opportunity for the families who are dependent on land; to increase their agricultural production and means by providing them the land certificate; and to make prevailing land distribution system balanced and productive by enforcing reform in it. To eliminate land tenure and the prevailing dual-ownership of land; to control increasing land fragmentation; and to promote consolidation of land. To stabilise agricultural and other uses of land by developing appropriate land-use system; to make land-ownership secure by making land administration simple and scientific; to collect land data on lands, which have more possibilities for productivity and development. To prepare single land certificate for one land-owner and make the data of female land-owners by knowing the measured agricultural area of the nation. Similarly, to make land information more useful, to establish a modern land-information system by computerising the land data; and to maintain the frontier of the nation properly, will be the main targets of the Ninth Plan. Based on these targets, the followings will be the implementation strategies.

- To bring expected progress in agricultural sector and to increase employment and income of landless and small farmers by increasing their land access to. By means of progressive tax in land, priority will be given in the actual use of land.
- To increase productivity of land, land occupation beyond specified limit and keeping barren will be discouraged. To systematise the size and use of land ownership, progressive tax system will be used. To limit the use of land, progressive tax will be implemented on the basis of minimum farming, farming for living and commercial and industrial farming; the later will pay more than the farmer. It will be started after proper study and analysis.
- Government has created a situation to eliminate dual-ownership of land by introducing law in the year 1997. It will be implemented in an effective way. It will be given more priority in making the use of land scientific to increase its productivity by providing more chances of investing in land. Foundations will be created to computerise the data related to all the land of the country and provide a single land certificate, incorporating all the lands farmers own within the country.
- Arrangement will be made not to allow further fragmentation of land beyond a specified limit. Necessary legal measures will be adopted to eliminate fragmentation problem
- Central office for land record will be established for land record and it will be consolidated to secure land ownership records.
- Consolidation programme will be implemented with the involvement of the consumer's groups in the tubewell irrigation areas. The consolidation programme will also be started in other possible areas with priority.
- Land mapping activities in places of economic importance will be carried out with priority. The works like giving net area of land to the landowners, checking the frontier regularly, providing necessary information of land for development, producing manpower for cadastral survey will be made effective.
- A study will be done to provide guidelines for national land-use pattern. The use of fertile and irrigable land for non-agricultural purpose will be discouraged to ensure the use and to get maximum benefit. To bring stability in the relationship between environment and development, an agricultural land-use project will be prepared and implemented with priority. Keeping in mind the condition of land, its alternative use will be emphasised.
- The land and property of Guthi will be used for its preservation and development as well as in other economic development activities. Emphasis will be given on the preservation of Guthi heritage and its art and culture. For this, the law will be amended.

8. Programme

Programme to End Dual Land Ownership

The fourth amendment to the Land Reform Act has a provision to abolish 'land tenure' system by means of programmes for reasonable division of the land between the owner and the tenant. Thus the programme to eliminate dual-ownership of land has been implemented throughout the country. In the Ninth plan, the ownership will be eliminated through giving priority to satisfy the tenants who are farming in two hundred and 45 thousand bighas of land. As the tenancy system itself has been eliminated, an environment not to leave the land barren because of the fear of tenant has been created. It will help increase employment opportunities to the landless farmers as they will get chances to get land.

Reform in Land-Ownership Pattern

There will be a study to limit the land for survival, land for commercial farming and land for industry. The study will also include irrigation facility in the land, the price of the land, transportation and other fundamental facilities, number of landless farmers, available land and increasing land for social justice. On the basis of the study, the situation for land-use limitation of will be created through applying progressive tax in land. On the basis of the same study, the marginal farmers and small farmers will be given the facility of loan so that they will be able to buy land to eliminate existing injustice in the land distribution, and to eliminate poverty. For this, appropriate financial institution will be arranged.

Land-use

It has become necessary to bring stability in the use of land by classifying it according to the nation's geographical possibilities for different uses. Similarly, it has also become necessary to employ appropriate land use system, to create foundation for food security and income, to cities, industries, settlements and services through using the agricultural land scientifically on the basis of comparative advantage of the land-use for agriculture and for other purposes. Forest and wildlife conservation needs to be developed from environmental point of view. Since the agricultural land already used for other purposes is difficult to bring into multiple uses. Therefore, there will be a detailed study to prepare and implement a land-use plan, which will decide the optimality of land-use. The land-use programme will be established and implemented by enforcing law about it. Initially, it will be implemented in the selected two districts.

Consolidation and Prevention of Land Fragmentation

Consolidation programme will be started with social involvement by coordinating it with the tube-well irrigation area, which will be developed under long-term agricultural plan. To save expenditure and manpower in production and to make use of advanced technology easy and practical for interested individuals, groups as well as village development committees (VDC) for Consolidation will be facilitated with loan and discount in the fee of measurement and registration. To stop the decline in the production because of land fragmentation, a study will be made to limit the

division of land-used in different places and for different purposes. A law will be enacted to stop making the land smaller than a specified size while purchasing or transferring it. A law will be enacted to give first priority to the frontier while selling the lowest limit of the land to coordinate with consolidation programme.

After the fulfillment of the requirements, the programme will be started in one district of terai, one from inner terai and one from hilly region as pilot projects during the Ninth Plan period.

Settlement of Landless Farmers and Their Self Development

To stop unmanaged use of land and to make managed settlement of the landless people, a planned programme will be started keeping in mind the environment and by giving emphasis to preserve public land.

To improve the lot of landless labourers and to help in eliminating poverty by managing their proper settlement and by developing their skill in gainful employment, skill development programmes for them will be started in proper places.

Geological Information System Programme

Reliable information and data are necessary for programmes for agriculture and forest production, land-use, land consolidation, the preparation of local and regional housing and physical plan, the preparation of environmental programmes to preserve, develop and use natural resources, and the preparation of poverty alleviation programme and sustainable development. This also includes the impact and implementation study of all these programmes. To provide the data on maps, land and land ownership, a computer based land information system will be developed. Such an information system will be implemented with a view to coordinate it with geographical information system. Foundation for one individual and one land certificate system will be created through computerising the records of land ownership. Record of the female ownership of land will also be included in it.

Measurement and Map Preparation Programme

Programmes like settling the conflicts on land by preparing the records of land in a systematic way, increasing revenue by winning people's confidence in land-related transactions classifying land, preparing land-use map, and providing information for consolidation programmes will be conducted under measurement programme. Keeping in mind the growth in the price of land, cadastral survey will be introduced. To run land information system, microfilming will be systematised. Central office for land record will be established to preserve the records of maps and land by getting the map of plot and the photocopy and ammonia print of field-book. A programme will be launched to preserve the valuable records.

To help in land policy formulation and implementation, the preparation of the maps of different size and measurement for different projects in the country and re-survey will be started by giving priority to the districts with more economic activities. This will make plot measurements more reliable and net by eliminating first cadastral survey of the land. Geographical point system will be established for measurement;

and survey-training programmes will be started to produce manpower for survey. Topographical map of Western Nepal will be completed.

Following chart shows the main programmes, which will be started under survey programme.

<u>S.N Programs</u>	<u>Unit</u>	<u>Target</u>
1. Re-survey	Hectare	380,000
2. Left out survey	Hectare	5,000
3. Map tracing	Sheet	2,500
2. Microfilm	District	75
3. Prepare the land-use map	Sheet	250
4. Map Design	Sheet	336
5. Prepare the maps of municipalities in large scale (measurement)	Municipality	38
6. Update Western hilly area's(sector)1.1 mile land map	Sheet	50
7. Release the new edition of district maps	Sheet	75
8. Reprint of map	Sheet	75
9. Basic survey training	Person	150
10. Junior survey training	Person	120
11. Senior survey training	Person	20
12. Computer training	Person	120
13. Survey diploma training	Person	20
14. Production of trig sheet for scale mapping	Sheet	21, 000
15. G.P.S. point survey (also for leftout survey)	Point	3,750
16. Elevation point establishment and survey	km	1,000
17. point of gravity establishment and survey	Point	500
18. Establishment of gravitational base point	Point	1
19. Astronomical survey and the re-survey of first rate point	Place	150
20. Consolidation of observatory and survey of astronomical time	Percent	100
21. Prepare the map of Western Nepal through Topographic Map Project	Sheet	344
22. Establishment of the Central Office of Land Record	Time	1

Security of Guthi Property

The land under land trust (Guthi) will be arranged for commercial use. A fund will be established from the income and it will be used in preserving the Guthies, in running rituals in the temples and in the maintenance of the temples. For this, legal provisions will be made through amending existing laws and regulations

Monitoring and Evaluation

The land reform and management programme will be made effective through regular monitoring and evaluation. For this, prior to the formulation of annual programmes, a detail study of the possible programmes and policies will be made. In addition,

regular progress review and problem resolution committee's meeting will be held, and regular monitoring and evaluation of the projects will be carried out.

Manpower Management

A programme to supply manpower for land reformation and management programme will be taken place under the policy of development administration.

Implementation Arrangement

Land reformation and survey programme will be implemented by concerned departments of HMG in a coordinated manner, the Ministry of Land Reform and Management will start a separate programme for land information and management, and the Ministry will coordinate programmes run under its departments.

9.3 Forest Development

1. Background

The forest sector has made significant contribution to economic and social development of the country. Nepal is very rich in terms of natural resources and biodiversity. Here, a broad range of ecosystems flourishes per unit area of the land. If proper scientific management and utilisation of renewable resources could be done, development may be pushed forward in rapid speed. However, necessary calculation and analysis of the forest sector's contribution in the gross domestic product of the country has not been done. The forest sector has been the backbone of the agriculture sector. This sector has played an important role by providing agricultural inputs as required for the agriculture system, animal farming and other organic matters required for compost fertilizer, fodder plants and pasture for cattle as well as fruit and flowers, vegetables, medicines in the form of herbs etc. In addition to this, the forest sector gives support to irrigation and electricity projects by conserving watershed and ground water. While considering the aspects like increased encroachment upon the forest areas increased pressure on steep land for agriculture and residence and gradual decline in the productivity of agriculture livestock and horticulture systems, it is necessary to pay special attention to the forest sector development. Likewise, the forest sector keeps environmental balance, makes daily supply of timber, firewood, fodder plants etc. that may be needed to the people and gives important support to the agriculture sector. This sector has enormous potentialities to be able to play important role in the industrial development of the country by making supply of raw materials as required to the industries based on forests. In our context, herbs and plant products have been used as medicines since ancient time and it has been found that approximately 700 species of herbs and plants is being used as medicines. This sector has been providing opportunities for employment and income-generation through various types of industries based on forests. It has also been supporting tourism industry through national parks and wild life reserves. It has been found that around 23 percent of the tourists to Nepal in 1996 came to enjoy eco-tourism based on forest resources

Although the forest sector has a dominant place in the environmental conservation in Nepal, its condition has been on the decline over the past few decades. The forest sector used to cover more than 45 percent area of the country according to the statistics of 1964, 43 percent area around 1979 and 37.4 percent in 1986 and a survey concluded recently (1998) shows that the forest sector has remained only in 29.0 percent of the territory. The same study has shown that the forest area of Nepal's *terai* is being destroyed by 1.3 percent per year. During the past decades, the adjacent belt of the forest sector was cut down for residence and re-settlement and, in many places, the forest areas were encroached in an illegitimate manner. The smuggling of forest products also increased. The forest sector was used for road construction, academic institution and for other development and construction works, and the increasing pressure of population and other so many reasons also caused adverse effects upon the forest sector. The productivity of the forest sector decreased by the effects of uncontrolled migration, pasture and grazing practices, fire etc.

Although the forests located in *terai* area is extremely productive, scientific forest management system could not be applied due to the existing adverse factors. If the forests of terai situated in deep soil, enormous ground water level, appropriate rain, warm climate and plain land could be managed scientifically, the number of industries based on forests would have increased and the opportunities for employment would have expanded by leading the country towards industrialisation. Moreover, a significant increase in the gross domestic product of the country could be made as well. However, all these did not happen due to negligence in the forest sector and the natural resources could not be utilised in a proper manner.

The adverse effects made on the forests located on hilly areas during past decades also remained as such. The final impact of soil-erosion and landslide caused by the increase in demand for timber, firewood and fodder plants and by the farming practices in extremely steep land due to the increasing population fell on the forest sector. Some animals and birds reached the level of extinction because of the destruction of forests as well.

The World Conservation Union has decided that *Rhodonessa Caryophylla* has already disappeared from Nepal and it has also stated that 24 species of mammals, 9 species of reptiles, 27 species of birds, 2 species of insects and 13 species of vegetable is in endangered condition. Likewise, the convention on international trade in endangered species of flora and fauna, (CITES) has put Nepal's 58 species of animals and 13 species of plants on endangered list and included them in its annexes. Because of a lack of proper balance between the demand and supply of timber and firewood, illegal theft and export have flourished. It seems that every person has fulfilled own requirements, but the royalty has not been realised. On the other hand, more manpower is to be mobilised to control the smuggling and export and it has increased unproductive expenditure, and the scientific forest management system to be applied has also fallen in shadow.

In such situation, a serious responsibility of conserving various types of vegetation and animals and birds existing in the country and of rescuing them from extinction has fallen on the forest sector. The challenge of making arrangements to fulfil the requirements of daily consumer needs like timber and firewood etc. for increasing population has also been added.

There is no information on identification, cultivation technology etc. of hundreds of invaluable non-timber forest products. As the system of proper management of them has not been applied, the collection of them is being made in an unscientific manner and a question mark is raised in the sustainability of such situation. Neither a study on which area or district and on how much of these forest products is available and how much and to what extent its proper utilisation will not cause endangered situation has been carried out, nor an appropriate management system has been started. Many non timber forest products is extremely valuable, if they could be started from governmental or non-governmental level in national community and private forest areas, the nation would have earned a large amount of foreign currencies had there been proper utilisation of such products. Expansion of agriculture area and crops intensity has encroached the forest sector in order to maintain harmony between the

production and demand of food grains. Consequently, soil-erosion has increased which has diminished the compost cycle. The life of electricity and irrigation projects has been rendered very shorter than expected because of problems like flood and landslide. While taking consideration of all these facts, the need for wise and prudent utilisation and management of the resources located at our hilly watersheds has been apparent. The factors affecting watershed resources is mainly the people living there, land, water and vegetation. Soil and watershed conservation programme is being carried out with the recognition that long-term effects would be made on development and development would be longlasting if a system of managing these resources by local people could be established.

It is revealed that a total of 352, 326 hectares of forest areas have already been transferred as community forests to date since the enforcement of community forestry programme. Although the programme like herb cultivation, apple farming, sericulture, beekeeping, rosin collection, rubber industries and vegetable ghee industries is being carried out in small number in community forests, the programme of these types is not widespread. At present 15 forest areas of Nepal have been provided conservation status and approximately 16.5 percent of the total land area of Nepal has been maintained, as conservation area. Likewise, resources conservation and mobilisation system in buffer zones has began on the basis of people's participation. Moreover, 84787 tourists visited different national parks in 1995, having attracted by the natural beauty of Nepal. Similarly, the activities of identification, conservation and proper utilisation of forests, botanical resources and bio-diversity have been initiated. In recent years, the possibilities of earning foreign currencies by wide-spread cultivation of important and extremely invaluable herbs like taxus baccata, ginseng, withamia, ipecac have been seen. By similar means, the possibilities of supporting the programme like poverty alleviation, market development and trade and industrial development may be linked to cultivation of medicinal, fragrant, elegant and tuberous plants in the forest areas.

The productivity of our forest area has declined extremely. Very old trees have not been utilised in various places, whereas in many other places, immature trees have been cut down in an uncontrolled manner. Because of this, qualitative timber could not be produced. As timber of quality and standard is not produced, there is no market and the situation is leading to decay of timber. Even the produced timber and firewood could not be made available to general Nepalese citizens in an easy and widely available manner because of the geographical diversity.

2 Review of the Eighth Plan

The Eighth Plan had set the main objectives of obtaining sustainable economic growth, reducing poverty and lessening the regional imbalance. Accordingly, community forestry, private forestry, lease-hold forestry and pasture development programme, soil and water conservation programme, national parks and wild-live reserve programme, vegetation and herbs development programme were carried out in the forestry sector during the plan period. Various income-generating programmes for biological conservation and employment generation, which are in the interest of farmers living below the poverty line were also implemented.

Table 1

Targets and progress of the Eighth Plan

Program	Target	Progress
A) Community forest user's groups formation	5004 Forest user's groups formation	5316 User's groups formed
B) Afforestation	67119 Hectares	26456 Hectares
C) Sapling Distribution	111 Million	87 Million 4 hundred thousand
D) National Forest Management	628301 Hectares (40 districts)	Plans prepared for 14 districts
E) Lease-hold Forest Management	25000 Families	2432 Families
F) Community soil-conservation service	60 Districts	50 Districts
G) Soil-utilisation development plan preparation and implementation	5 Unit	5 Unit
H) Support to the pre-requisites of development	5 region	5 region
I) National parks and wild-life reserves conservation area management	12 Unit	15 Unit
J) Forestry and botanical research	5 Region	Continuity of the conservation and research activities by making available 230 hectares of land in the 7 conservation areas

In respect of national forests management, the target was the management of forest area in 628201 hectares. Forest management working plans have already been prepared for 14 districts during the plan period, but the management could not be done in all districts due to lack of financial resources. However, silviculture operation is being carried out in 6 districts in the fiscal year 1996/1997. Likewise, the target of expanding soil-conservation service in 60 districts was set in the Eighth Plan period under the soil-conservation programme and the service has been expanded in 55 districts during that period. Watershed conservation and soil conservation programme is being implemented in sub-watershed areas only on the basis of people's participation.

In plant development area, activities of recording publications as well as some works towards herbs cultivation, plant and wildlife development and collection, processing, industrial development and management of herbs and plants have begun in the Eighth Plan.

Approximately 2500 species of plants have been conserved ex-situ and in –situ in 290 hectares of area of botanical gardens including the Royal Botanical Garden, Godavari. Moreover, 13 nurseries is being run at present for publicity and awareness. Consequently, fragrant oil industry has been established and some land-less families have been involved in flower cultivation (floriculture) and herbs cultivation. Likewise, tissue cultivation has been carried out in 75 species of plants. Preliminary study on saffron farming has been conducted and is being carried out by forming farmer's groups.

It is found that organisational improvement has been made during the Eighth Plan period and continuity has been given in the long-term plans and programmes. It has been found that partnership and mutual co- operation between governmental and non-governmental organisations has grown and because of this, a good opportunity of carrying out development programme with the co- operation of other concerned institutions has increased. During the Eighth Plan, very positive impacts have been made in community development, community forestry and people's participation in bio-diversity conservation. The partnership of national and international institutions and organisations may also be taken as another significant aspect.

Although the progress of the Eighth Plan period was satisfactory, some important challenges were also felt during this period. A total of 67,000 hectares of forests was targeted to be made available for lease –holding during the Eighth Plan period, but only 31,000 hectares could be made available due to some legal and policy level difficulties. Sale of approximately three million cubic feet of old timbers could not be made during the plan period. As the timber is going to decay and finish, the situation indicates that even the royalty would not be realised. It is more important to give priority to the regeneration and management of natural forests in the coming days rather than reforestation. A number of problems were seen at the review of the Eighth Plan. They were: lack of resources to meet the targets, poor institutional mechanism, lack of inter-ministerial coordination, land resources and forest area enforcement, lack of adequate and skilled manpower and career development opportunity for them. A realistic attitude should be taken during the Ninth Plan period in order to solve these problems.

3. Long-term Concept

The long-term concept of the forest sector development has been taken in accordance with the 21-year long-term forestry development Master Plan 1989. The Plan aims at making available timber, firewood, fodder plants and other forest products to meet the basic requirement of general public, making contribution to food grain production with an effective co-ordination between forest and agriculture system. The Plan also set the objective for conserving the land territory of the country from soil erosion, flood, landslide, desertification and other environmental imbalance, preserving ecosystem and genetic resources, and making effective support to national economy by forest management and development of industries based on forest products.

Timely adjustment in the guidelines set by the forestry development master plan is likely to supplement the Ninth Plan objectives. Moreover, the long-term plan of agriculture has already adopted the forestry sector as a priority production sector in a

clear manner. Pasture development is also included in this long-term framework. The intention of taking sustainable approach to development and scientific utilisation of forests in accordance with the liberal economic policy has also been reflected in the approach paper of the Ninth Plan.

The Forestry Development Master Plan has prepared the framework for the development of forest sector in Nepal. The projection of its impact evaluation has also been included through examining the alternative scenarios. Six main programmes and 6 supportive programmes is included in this master plan. The main feature of this Master Plan is to take an integrated and programme-oriented approach.

4. Objective

On the basis of the current situation of forest resources, natural environment and development is regarded as a foundation for the overall system. Based on this assumption, the main objectives of the forestry sector will be the mobilisation, conservation and management of forest resources to equilibrate their demand and supply; the creation of income-oriented and employment opportunities for the poor and marginal families, the mobilisation of peoples participation for productivity enhancement, and the adoption of proper land-use plan

5. Target

To adopt the private sector and free market system for the long-term development of forest sector, to implement the forest management working plan, to make an institutional arrangement for a revolving fund with a certain percent share of the revenue obtained from the sale of forestry, to provide lease-hold forest to forest industries and institutions and develop industrial forest, to prepare an integrated plan for implementing the forest production and management in the hilly area, to strengthen the agro-forestry and leasehold forest system in poverty alleviation programme, to support the management, marketing, industrial development, processing and export of herbs and forest product, to adopt a coordinated approach to alternative energy management are the policies and implementation strategies that will be adopted.

6. Policies and Implementation Strategy

- By encouraging the local users in the efforts of fulfilling the day-to-day needs of wood, firewood, fodder plants (Daleghans) and other forest products, for the general public continued supply will be ensured through community forestry development.
- Private sector will be encouraged through providing the opportunity for the commercial management of government-owned forests in potential areas.
- For the purpose of making contribution to national economy by proper utilisation of forest products as well as for regular supply of materials required for the forest-based industries, the selling procedures of such materials will be simplified.

- Support to poverty alleviation will be provided by promoting lease-hold forestry through the identification of policy –related and legal problems seen in this sector.
- Policies and working policies such as the development of bases for tourism promotion by means of preservation of forest and wildlife and their habitats will be adopted.
- For the purpose of preservation, cultivation, promotion and expansion of the herbs and plants on the verge of extinction, emphasis will be given on research relating to appropriate technology and to the collection of data.
- Employment and income generating opportunities for the people living in rural and remote areas will be increased through training, publicity, expansion, collection, processing and promotion of commercial farming of herbs and plants.
- Conservation of *Siwalik* area, which is very fragile, will be carried out in order to maintain the renewal capacity of ground water reserve by giving priority to the soil and water conservation programmes.
- Additional increment in the income of farmers will be encouraged through the afforestation of multiple use of the varieties of plants, while carrying out afforestation programme. Emphasis will be given on producing other forest products apart from timber and firewood.
- The institutional capacities of the concerned agencies will be strengthened in order to make the monitoring and evaluation process effective.
- Necessary initiation will be taken in the management of national parks, wildlife sanctuaries and other forest sector to be self-reliant in income generation. Mobilisation of resources of the same sector in a sustainable manner will be emphasised in this regard.
- For the above mentioned programmes, policies such as making the role and responsibilities of the private and non-governmental sector clear and transparent with the development of institutional bases will be adopted.

Guidelines based on concept are as follows:

Participatory Management

This planning period will be the next phase of users' strengthening and people's participation in the implementation of local forest working plans. The basis of people's participation in soil and watershed conservation, buffer zone management, bio-diversity preservation and development of herbs and other non-timber forest products will be widened and made flexible in approach.

Management Based on Situation

The existing challenges of forestry sector need to be managed in view of the up-to-date scientific technology by taking overall approach on the basis of the situational system. Such system leads to making the management problem shooting systematic

and based on sustainable foundation to increase the productivity of resources. Under such framework, the programmes of income generation and poverty alleviation will also be included.

Production Increment, Overall Development and Poverty Alleviation

The programmes for the preservation, enhancement and development of forestry sector are aimed at sustainable production and supply and resource conservation. The community forestry will adopt a management system, which makes further more contributions at local level in production and management of forest. The productivity of national forest will be increased up to six cubic metre per hectare on an average through scientific management. Furthermore, while carrying out the management of the national forest, effective arrangement will be made not to waste the production capacity of forest sector from problems like fire and grazing, apart from other aspects of production loss. Afforestation will be carried out by exotic species of plants, which have been proved successful. During the plan period, management training will be promoted in accordance with high priority given to the production management of forest. Moreover, except in the specified programme, forest area will not be used for any other programme. Likewise, emphasis will be given to the productivity and mobilisation of resources for the development of herbs, wildlife preservation and plants development programme. Programs will be carried out in such a way that 50 percent users of community forest and leasehold forest as well as national parks preservation programmes will be represented from among the backward or poverty stricken or women users.

Income Oriented, self-reliant and Users Centred Management

Private sector will be encouraged in forest management. Users will be made the focal point of management in order to support the self-reliance by linking the management of resource with the rural life style, and an outlook of making such system widespread in general will be taken.

Establishment of National Forest Fund

Taking into account the fact that the main difficulty in the scientific management of forests is financial resources, a national forest fund will be established and some percent of the revenue earned from the forest sector will be deposited in that fund. Thus, fund will be mobilised by encouraging the participation of private sector in the generation of additional funds.

Internal and Inter-sub-sectoral Co-ordination

Inter-sub-sectoral co- ordination will be institutionalised and the co-ordination arrangement within each sub sector will be strengthened. In order to enhance the inter-sectoral co-ordination at national and local levels in resources conservation, mobilisation and management committee will be established and the previous national resources conservation committees will be made active and competent. Legal base will be prepared in order to make the national resources preservation and mobilisation committee active and for effective inter- relationship with the sectors

like industries, roads, irrigation and drinking water. Departments will be made more action-oriented and up to date gradually on the basis of working areas and workload.

Moreover, necessary organisational reform will be carried out gradually on step by step basis keeping in harmony with the forest development master plan and existing forest policy. The role and responsibilities of regional directorate will be made effective by requisite policy and rules. For an overall coordinating provision, sectoral management information system will be developed.

Role of the Private Sector

Provisions will be made to motivate the private sector to take an effective role. Non-governmental and international non-governmental organisations working in the fields of forest industries and forest sector will be involved in an effective manner through policywaree monitoring system. Non-governmental organisations having developed from among users groups will be given special priority. Private, indigenous and joint venture investment will be expanded through utilising indigenous capacity for forest sector management and industrialisation.

Management of Renewable Natural Resources

For the preservation and promotion of non timber forest products as well as the tree species available in the forests located at various geographical areas which can provide timber firewood and fodder plants (Daleghans), management working plan will be implemented in the districts of *terai* area. Such forest resources will be encouraged to enhance in quality and quantity by having them managed through governmental, non-governmental and joint venture practices in hilly and high hill districts. The forest products of short-rotation will be mobilised as cash- crops with the management and proper utilisation, in an appropriate manner. The renewable natural resources, which have remained idle or unused will be managed and utilised properly.

Career Development of Women

The forest sector will be mobilised as the main source of income generation and employment for individuals, communities and, especially for the impoverished class and women living in the rural area. For this purpose, proper arrangement will be made for career development of women in the private sector and communities associated with any aspect of development, management and or proper utilisation of the forest sector. As women is mainly involved in collection of timber, firewood, fodder plants, animal bedding etc, necessary arrangements will be made to include them compulsorily in the forest users committees. Women will be given high priority in the skill-oriented training organised by the forest sectors like management of buffer zones of national parks and wildlife sanctuaries.

Women will be selected with priority for training, workshops and especially for opportunities of career development related with the community forest and buffer zone management. For the accomplishment of these objectives during the Ninth Plan period, a feasibility study will be carried out to find out, programmes, employment and income earning opportunities for women to be increased. Clear and specific

provisions will be made in respect of the role of women and the opportunities that can be provided to them.

Sub-sector Programmes:

Community and Private Forest Development:

This programme will be pushed forward for producing forest products needed to the people through scientific management of the forest sector with the direct participation of people, for making available raw materials as required to industries, and for increasing gradually employment and income-oriented opportunities for poor and marginalised families. Under this programme, necessary arrangements will be made to manage non-timber forest products existing in natural way in forest areas and which may be available through feasible cultivation, by modifying the working plans of community forests.

In order to implement working plans for managing the community forests under the action programme, priority will be given to carry out activities like providing necessary training and technical support. For this purpose, the preparation of working plans and transfer of community forest will be completed, and community forest development works will be made more dynamic and effective through necessary technical and other fundamental assistance and through the continuous monitoring and evaluation of community forests.

For the fulfillment of the aforementioned objectives, priority will be given to the management of natural forests and necessary arrangements will be made to develop the method, through which the regeneration of such forests may be achieved. In addition to this, private forests will be encouraged in order to reduce the dependency of general people on community forests and national forests. Entrepreneurship for forest undertaking will be developed, and the training for appropriate technology transfer and publicity and extension services will be provided.

For the management of non-timber forest products by means of community forestry, a feasibility study will be carried out in the subject that can produce the commodities of increased value, create opportunities of employment and increase income. It will be implemented in accordance with the recommendation made by the survey. Necessary training, publicity and extension, seminar and workshops will be organised to support the less expensive treatment method of traditional Ayurvedic medicine by drawing the attention of local people towards the methods of curing diseases at local level. Extensive people's participation will be sought in the preservation of bio-diversity for promotion of non-timber forest products. For this purpose, local physicians (vaidya) and social workers will be mobilised as resource persons. Personnel working in the community forest development programme and women users at the local level will be included in such activities.

Technical assistance that may be required to encourage private forestry programme will be provided, and the transfer of technology as required for the proper preservation, promotion and management of non –timber forest products of high value and low volume in the private sector. Training for general public and rural peasants, feasibility study, reports, technical assistance for this purpose and necessary

information in respect of market will also be made available. Moreover, activities like seed collection, cultivation technology development will be promoted and seed storage technology will be made available. Encouragement will be given for the cultivation of non-timber forest products in community forests and marginal land of the private sector. For the encouragement of these programmes, assistance will be provided from the government level to flow the information in regard to market provisions in order to develop the cultivation of non-timber forest products and fragrant oils. A feasibility study will be carried out on the cultivation of non-timber forest products in the districts of *terai*, and programmes will be formulated to cultivate the varieties of recommended, agro-forestry system and to process such products in the country.

**Table 2
Programme**

Sub-sector	
A. Community Forest Development	
1. Formation of users groups	7510 in number
2. Community forest management	
3. Afforestation.	30,000 hectares
4. Post formation support to the forest users groups	16,000 in number
5. Income growth programmes	in the feasible areas
6. Trainings and publicity extension	as per need
B. National Parks and Wildlife conservation management of national parks and wildlife sanctuaries	16 in number
2. National parks management	16 in number
3. Buffer Zones management	5 places
B. Soil and Watershed Conservation	
1. Soil-Conservation service extension	75 districts
2. Community integrated watershed management	100 sub-watershed areas
3. Productivity conservation, Land utilisation development and exhibition and publicity- extension	75 sub watershed areas
C. Vegetation and herbal plants Development	
1. Plant protection area research management	12 in number
2. Technology development and expansion	5 in types
3. Botanical garden and herbs Centre development	10 in number
D. Bio-diversity Conservation	
1. Co-ordination between natural bio-diversity and environment conservation	75 districts
2. Implementation of national bio-diversity working plans	75 districts
F Forest Industries development	
1. Support to forest based industries development	As per necessity
G. Support to the Development of Industries based on Non-timber Product.	
H. Supportive Programmes:-	As per necessity
1. Project formulation and management information system	1 in number
2. Monitoring and evaluation system development and expansion	1 in number
3. Training and publicity extension management expansion	As per necessity
4. Manpower and organisational reform	75 districts
5. Research and technology extension	

National and Lease-hold Forests

National and lease-hold forestry programme focuses on activities like scientific management of forests, production of raw materials for industries, industrial development, employment enhancement and production increment in the forest resources. This programme will be initiated in 2 districts in the beginning and extended to 18 districts of terai (Ilam, Jhapa, Sunsari, Morang, Udaypur, Sarlahi, Rautahat, Bara, Parsa, Makwanpur, Chitwan, Nawalparasi, Rupandehi, Kapilvastu, Banke, Bardia, Kailali, Kanchanpur) during the plan period.

The management programme of above-mentioned districts aims at producing approximately one million two hundred thousand cubic metres of timber and 2 hundred 60 thousand cubic metres of firewood. Likewise, this programme will create four million one hundred thousand opportunities of employment based on labour. A system of mobilising non-governmental and international non-governmental organisation will be established in this programme. The management of non-timber forest products will be carried out side by side while formulating and implementing the forest management working plans.

The existing sale procedures will be simplified. Three million cu. ft. of old timber produced from national forests during the Eighth Plan period, which is yet to be sold, and approximately 40 million cu. ft. of timber, which may be available from scientific forestry management plans to be implemented in 18 districts of *terai* and inner *terai*, will be sold after indigenous processing and addition of value during the Ninth Plan period.

National Parks, Wild-life Reserves and Conservation Management

By 1998 the effort of wildlife and plants conservation programme which was started in 1972 has been able to cover approximately 16.5 percent of the total area of the nation including 8 national parks, 3 wildlife reserves three conservation areas and one hunting reserve. These areas have been providing significant contribution in the preservation, promotion and development of magnificent scenery, wildlife and other natural resources and have been providing assistance in the community development in the periphery of these areas as well. During the Ninth Plan period, other areas, which is considered sensitive for the conservation of bio-diversity, will be developed and expanded as national parks. The main target of national parks and wildlife conservation management will be seeking massive people's participation in the management and implementation of buffer zones by promoting income generating activities like education, agriculture, forestry and tailoring, hosiery, etc.

Under the programme, activities such as conserving the bio-diversity in harmony with the situational variables, expanding and making widespread the buffer zone management, enhancing international co-operation and understanding and promoting eco-tourism will be given high priority.

For the success of this programme, a number of policies and implementation strategies will be adopted. These include managing the national parks and wildlife sanctuaries in accordance with scientific working plans, establishing buffer zones to mobilise effectively people's participation in preservation activities, carrying out

improvement, management and expansion of the habitat of rare wildlife and vegetation and wetland areas for the conservation of wildlife and bio-diversity. Ploughing back 30 to 50 percent of income from national parks and wild life sanctuaries for community development works and creating necessary for promoting eco-tourism are also included.

In view of the fact that about 75 million rupees in revenue is being received each year from the management of national parks and approximately 330 million is being spent for the conservation and management of these areas, appropriate steps will be taken to make these activities self-supporting. Income from utilisation of available natural resources will be mobilised more effectively and efficiently for this purpose.

Soil and Watershed Conservation Programme

Under soil and watershed conservation programme, services being provided in 55 districts will be expanded to 75 districts by determining priority on the basis of evaluation of the deteriorating condition of sub- watershed areas. While doing this, necessary arrangements will be made to expand and make wide spread the programme being carried out through people's participation by means of enforcing requisite regulations. In order to provide support to the prerequisites of development, to the proper utilisation of role and to production, programme, publicity and extension, the activities of integrated watershed management will be given high priority. Moreover, participatory benefit monitoring indicators will be maintained in setting the objective and targets of each programme and in monitoring. By making simple the central working plan of sub watershed, income generating, poverty alleviation and production programme as well as the system of inter unit co-ordination and mobilisation of savings and resources of rural people will be adopted. In addition to this, productivity of land will be increased. Formation, operation and strengthening of users groups will be coordinated and integrated field wise in sub watershed and other programme of the forest sector from the soil conservation programme.

There is an inter-dependent relation between flood control in *terai* and watershed conservation in the upper riparian area. The river control work may not be sustainable in isolation if not integrated with the soil and watershed conservation programme

For the success of the programme watershed management programme will be carried out with priority in order to mitigate the negative impact that may be caused by the destruction of resources in the watershed areas of big hydro electricity and irrigation projects. Integrated resource management and mobilisation will be carried out through people's participation in the functional watershed areas of 15 to 25 sq km. Taking into account the negative effect on geological structure of *Chure* area, soil conservation will be accorded high priority in the area. To protect the land from the potential calamities of flood and landslide, policies and implementation strategies such as affiliating the bases of upper watershed with conservation, establishing participatory watershed management training centre, conservation and exhibition sites and watershed laboratories, mobilising massive people's participation in watershed management and developing human resources at the local level will be adopted for conserving river and stream banks.

High priority will be given to provide support to the development activities to be carried out in the context of soil conservation works under the programme. Activities like controlling landslide and carrying out conservation of watershed areas, developing bio-engineering system by selecting non-timber vegetation, which may help in income generation, will be taken up as well.

Botanical Garden and Herbal Plants Development

This programme will have the main objective of making contribution to the economic and social upliftment of the country through income-generating employment and industrial activities. Participation of non-governmental sectors in the utilisation of non-timber forest products and resources like botanical garden and herbals plants will be sought to achieve this objective.

For the programme, priority will be given to identification, conservation, promotion and enhancement of diverse botanical resources through practical botanical research and development and processing of herbs at the people's level by establishing herb centres and international markets of herbs.

For the success of the programme research, publication and development activities of botanical resources, ecological system and socio-economic dimensions will be carried out. Bio-diversity conservation, improvement and consolidation will be achieved through developing biotechnology. Botanical and herbs research, development and management programme will be expanded on a gradual basis at the regional and district level. Implementation strategies such as conducting programme to the marginalised, poor and backward class in an effective manner, ensuring people's participation, developing human resources for research and development activities on vegetation in co-ordination with academic and other institution and associations, carrying out study and research on useful plants and seedlings to maintain environment conservation, and strengthening and making effective the implementation by means of master plan, feasibility study, working plan and guidelines will be adopted.

For the development and the proper utilisation of non-timber products, research and development, technical assistance, market management assistance, training and publicity and extension programme will be carried out in respect of the herbs located at various geographical areas and of the vegetation, from which fragrant oil can be extracted. In the same manner, production programme of herbs and plants of high value will be promoted with priority from both the governmental and non-governmental levels. Rural people living in remote northern areas will specially benefit from this programme. As majority of herbs and plants of high altitude is found in these areas the people of these areas, may get enormous opportunities of employment and income. From such situation, significant improvement may also happen in their economic condition.

With an objective of sustainable development of herbs and fragrant oil and other non-timber forest products, and promoting the use of these resources in rural areas, a fund by the name of non-timber forest products conservation and indigenous knowledge

fund will be established. These types of programme will be carried out through this fund.

Support to Bio-Diversity Conservation and Tourism Industry

The bio-diversity conservation in Nepal began with the establishment of conservation areas. Various types of conservation areas system established for the preservation of scarce wildlife and their habitats have been playing significant role in the preservation of the main bio-diversity, vegetation and animals of Nepal. Programmes have been carried out taking into account the conservation of important bio-diversity outside the purview of conservation areas. International responsibilities for the conservation of bio-diversity have increased after Nepal became a member of the international convention on bio-diversity in 1992. Policies and programme have been carried out accordingly on a gradual basis.

In order to bear responsibilities on long –term basis as per the need of bearing national and international responsibilities for the conservation of bio-diversity, the following policies have been included in the Ninth Plan.

For the programme, management based entirely on the ecosystem and the activities of developing policies and working policies on the basis of people’s participation will be given high priority.

Carrying out the improvement, management and expansion of rare and precious vegetation, habitats of wild-life and conservation of wetland areas, ensuring benefit to human beings by conserving and promoting wild genetic diversity in a scientific manner, implementing the international commitments regarding bio-diversity including *Ramsar* conventions, making joint efforts for the effective conservation of bio-diversity by complying with and carrying out gradually the national bio-diversity action plan, carrying out the expansion and establishment of conservation areas on a gradual basis for the conservation of bio-diversity; making representation of various ecological zones are the policies and implemetation strategies that will be adopted.

A decision will be reached after reviewing the conservation situation of these plants and non-timber products, which are being collected from natural habitats despite a ban on collection. Similarly, to comply with CITES conservation of the species of plants considered important from bio-diversity point of view and enlisted in the annexes of the convention will be banned for collection, if necessary, after evaluation of the situation. While utilising these plants, mitigating measures will be adopted to minimise negative impacts and a system of periodic monitoring of the uses will be done.

Moreover, as many types of non-timber forest products in national parks and reserve area may decay and decompose, provision of making proper utilisation of them by local landless families and consumers in the buffer zone will be made.

Industries Based On Forest Product

Privatising industries of governmental level, developing forest industry associations, developing industries of non-timber forest products will be given high priority in

order to encourage the industries based on forest products in accordance with the objective of the Forest Sector Master Plan 1989:

- Encouraging foreign investment.
- Expanding industries at regional level.
- Privatising the industries run at governmental level.
- Categorising the industries.
- Controlling the environmental pollution.
- Developing industries as per necessity.

Objective classification of industries based on the forest sector on the basis of priority order will be carried out. Action plans for sustainable utilisation of non-timber forest products will be prepared and implemented. Activities in respect of the production forest organising programmes will be carried out in accordance with the districts forest action plans to make the private industries self-reliant, creating pre-requisites for industrial development. Necessary training and extension activities will be conducted to develop skills in respect of forest-based industries and cultivation of herbs, preparing database for multiple use and valuable forest products, and adopting necessary measures. To control environmental pollution, investment will be promoted in joint venture in the activities of forest conservation, development and management. Other policies and implementation strategies will be adopted for the development of the industries based on forest products.

In addition, establishment of shellac industries, silk industries, mushroom farming, tanning industries, vegetable ghee, dyes, rubber, spices, cosmetic and other industries based on forest product will be encouraged.

Under the programme, development of industries based on forest products will be encouraged with the inclusion of appropriate non timber forest products by managing the vegetation, which may generate income in short rotation, in the working plans and management plans of community, leasehold and national forest. Proper training and extension programmes will be organised to transfer technology, as may be required for this programme to the general public. Special emphasis will be given to the development of industries based on forest products through utilising properly the non-timber forest products available at adjacent areas or the inner parts up to a certain distance from national parks and reserves, and through the processing of such products at the local level.

Over the past few years, furniture industries run in private sector have started to import and use the timber of some exotic species of decorative and long-lasting types. The demand of such timber has been growing in markets. The afforestation of such new species is being carried out on experimental basis since the past few years. Attention will be paid to the expansion of species of such types which is appropriate for the industries based on forest products. Consumption pattern in the existing market will be analysed to determine the size of demand for these species of plants.

Supportive Programme:

Rules, Regulations and Institutional Arrangement

The existing policy of the forest sector has reflected the policy of the Ninth Plan. In addition to making this policy timely, modifications in the rules and regulations of the forest sector will be made taking into account the greater objective of the Ninth Plan.

Manpower and Human Resources Development

The Ninth Plan will give contribution to the policy of HRD adopted in the Eighth Plan. Providing career development opportunities to the existing manpower through domestic and international training, hire academic exposure and study tours and making them capable of unchanging duties as per the need of the organisations in the forestry sector will be continued.

In the context of the fact that skilled manpower is required for the proper development of the forest sector as foreign currencies may be saved if such manpower could be produced in country. Since such services may be available publicly and easily, emphasis will be given to start Master's level education in forestry science and to make qualitative and timely improvement in the certificate and bachelor level programmes.

Forest Research and Resources Information

High priority will be given to survey and research works on the subjects necessary for the development of the forest sectors. Increasing the development of the forest sector, increasing productivity by making improvements in forest resources and agro-forestry system by implementing study results and providing support to poverty alleviation will be the focus of research activities. In addition to this, fundamental policies and working policies such as giving high emphasis on the need of the users by identifying them on priority order and keeping co-ordination with the local and foreign agencies will be adopted.

A countrywide resource assessment of economically viable non-timber products will be done and the result of analysis made public so that people know the status of the bio-resources in forms of availability and depletion. By collecting the research findings on the forestry of Nepal carried out by different agencies necessary arrangement will be made to carry out the additional research on the basis of such research and collect all information through research information source programme to avoid duplication in research works. Moreover, applied research activities will be given more priority by carrying out a need assessment in respect of the problems experienced at field level.

In addition to above, a separate programme will be launched in regard to necessary research and development on the production, promotion and proper utilisation of valuable timbers that may be produced in the forest areas for sale.

Monitoring and Evaluation

The achievements made in the Eighth Plan in monitoring and evaluation will be taken into consideration to make this system more effective. Apart from periodic progress review, impact evaluation and target-oriented M & E will be launched. Support programme in the forestry sector will be made an important part of management information system by making necessary institutional and capacity enhancement arrangements. On-the-spot M&E. will be expanded, MIS will be developed, periodic review and related interactions will be made simple and useful on a priority basis. Apart from this, emphasis will be laid on capacity enhancement, preparation of sub-sectoral policy and procedure, evaluating performance standards in accordance with monitoring guidelines; reward and punishment system. To evaluate the effectiveness of community forestry programme, on-the-spot study will be carried out on the contribution of the programme to income generation of consumers. All geographical areas of the five development regions will be represented to evaluate the community forestry programme carried out by users groups themselves .

Planning and Management system development

Plan formulation and programme design, policy formulation and implementation aspects will be developed separately in the Ninth Plan period, while formulating annual and periodic plan of the forest sector. While setting the targets for resource management, conservation and mobilisation, special emphasis will be given from the ministry level to make the forest sector a direction-and scientific management-oriented taking into account the experiences gained from monitoring and evaluation activities of the past.

Priority will be given to the activities of formulating integrated situational system oriented planning of the forest sector. Complying with the objective of the Ninth Plan, policies and implementation strategies such as developing the management information system including the activities of formulating plans, setting programmes and arranging resources and means, and making co-ordination in foreign aid will be adopted.

Demand and Supply Situation of Timber and Wood During the Ninth Plan Period:

According to the estimates made by the Forest Sector Master Plan 1988, it seems that the consumption of timber per person has been 0.11 cu. m. and according to which, it is estimated that approximately 11 million cu. m. timber will be consumed during the Ninth Plan period. In this, approximately 5 million 9 hundred 20 thousand cu. m. of timber will be supplied from the community forests, national forests and from the private sector as well. In this way, it is estimated that there will be a shortfall of 5 million 80 thousand cu. m. of timber during the period of the Ninth Plan. It is estimated that 263, 000 cubic meter of sawed timber will be required for urban population during 2000-2001 only, which will be approximately 45 million cu. m. in total during the whole period of the Ninth Plan. Consumption of firewood during the Ninth Plan period is estimated to be 14 million 7 hundred thousand tons per year, of which, 2 million 9 hundred thousand tons is estimated to be supplied from the agriculture sector and the dependency on firewood is estimated to be 50.8 percent. It

is estimated that the need for fodder plants (Daleghans) will be approximately 7 million 9 hundred thousand tons per year and its dependency on the forest sector will be 30.6 percent. The requirement of plywood in Nepal is approximately one million sq. m. per year, of which, only 40 to 45 percent is being supplied from the local plywood industries and the balance are imported from India. In spite of being expensive, the trend of importing plywood is growing because of the demand for good quality and better standard. Therefore, the trees of those species, which is required for plywood are necessary to be managed in commercial forests as well. The consumption of paper was 18,200 tons per year in the year 1986 and it is estimated that its consumption will be 21,000 tons per year around 2000.

Projections:

Significant contribution to the national economy is expected through scientific management of the forest sector with an additional 25 percent gain in revenue during the Ninth Plan period. It is estimated that approximately 5.5 billion rupees in revenue will be obtained from the forest sector through the production of 7 million 3 hundred thousand cu. m. of timber and 8 hundred 67 thousand cu m of firewood by managing only 50 thousand hectares of natural forests. It is pre-estimated that forest management will be self-reliant by means of national forest fund and will be developed as an independent sector by the apportion of governmental financial resources. It is also estimated that about 2.5 million employment opportunities will be created during this period.

**Projects Under Foreign Assistance At
the Ministry of Forest and Soil-Conservation**

<u>Projects</u>	<u>Donor Agency</u>	<u>Years of Completion</u>
<u>Ministry of Forests and Soil Conservation</u>		
1. Shivapuri watershed management project (second phase)	Norway, FAO	1997
<u>Department of Forests</u>		
1. Community forestry development project (third phase)	IDA	1998
2. Hill area lease –hold Forest and pasture development Project	IFAD	2001
3. Tree Improvement Project	DANIDA	1997
4. Nepal –Australian community resources development project	Australia	2001
5. Churiya Forestry development project	Germany	1997
6. Dolakha – Ramechhap community forestry development project.	Swiss	2001
7. Forest enterprises programme	USAID	2001
8. Community forestry training project	DANNIDA	1998
9. Nepal –UK community forestry project	ODA	1998
10. Bhutanese refugees project	UNHCR	1998
<u>Soil-Conservation Department</u>		
1. Syangja- Andhikhola watershed management project	CIS	1998
2. Nepal –Australia Community resources development project	Australia	2001
3. Farm project	UNDP	1998
4. <i>Churiya</i> forestry development project	German	1998
5. Watershed management project	JICA	2001
6. Forest enterprises programme	USAID	2001
7. Bagmati watershed project	EVC	2002
8. Community Forestry and watershed conservation project	JICA	Current
9. Nepal –Denmark watershed management project	DANNIDA	1999
10. Participatory watershed management training program	FAO	1998
<u>National Parks and wildlife Conservation Department</u>		
1. Forest enterprise programme	USAID	2001
2. Parks and people project	UNDP	1998
3. Makalu Barun National parks and wild- life preservation project	TMI	1997
4. National bio -diversity working – plan programme	GEF/UNDP	1998
5. Bardia Integrated conservation project	WWF	2000
6. Buffer Zone development project Bardia	CIS Nepal 2002	
7. Aannapurna Conservation Area Project for Nature Conservation	King Mahendra Trust	current
<u>Research and Survey Centre</u>		
1. Forest resources and information collection project (third phase)	FINNIDA	1999
<u>Project being Prepared</u>		
1. Land resource management project, terai forestry management soil conservation, Bio-diversity and trust fund community forestry 38 Districts	World Bank	1999(5years)
1. Soil-conservation, development of forests, community training, tree improvement, 26 districts soil-conservation	Denmark	1988 (5years)

Chapter 10

Agriculture

1. Background

In the background of the natural resources of Nepal, agriculture and forest resources are the main basis of the Nepalese economy, which contribute to raising living standard of the majority of the people. As these are the foundation for the development of the non-agricultural sectors, until and unless such sectors are developed as industries on the basis commercialisation, poverty alleviation is not possible. Therefore, it is clear that to attain poverty alleviation, which is the main objective of the Ninth Plan, agriculture and forestry play a major role.

The decision making process of million of farmers, who live in rural areas, influences the utilisation of natural resources in the development of agriculture and forestry and their sustainability. As long as resource utilisation process is not reconciled with the natural regeneration process, the sustainability of such resources can not be ensured. The utilisation of soil, water and vegetation has become more sensitive due to the abundance of mountainous topography, steep and fragile terrain. Moreover, different community and ethnic groups have their own values, norms, attitudes and experiences of the utilisation of such sensitive resources in different ecological zones. Therefore, development endeavours should give full attention to profit-oriented commercial agriculture rather than subsistence one while incorporating these sensitiveness and experiences.

Though there has been obstacles of diversity, marginalisation, topographical and topographical fragility due to our geographical situation, presence of small agro-climatic zones provides comparative advantage for diverse agricultural and forest based productions. Indications of transformation in agriculture towards commercialisation and diversification have been noticed in areas with the transport, electricity and technology. Now, it is a need to transform subsistence agricultural system towards productivity-oriented, comparatively advantageous and commercialised agricultural system for sustainable agriculture development by reducing the pressure of increasing population and generating modern technology with existing resource utilisation patterns and developing transport and market mechanism.

Considering the fundamental aspects of agriculture development, the basic features of plan formulation, implementation and monitoring process for the agriculture and forest sectors are to make the agriculture system more beneficial and commercialised, to utilise the transportation and market facilities, to mobilise farmers resource endowment, to develop interrelationship among various programmes and to sustain the productivity and production process through co-ordinating such activities. The Agriculture Perspective Plan (APP), prepared on the basis of such approaches, incorporates programmes giving priorities to production inputs like roads, irrigation, electricity, fertiliser and technology; development of high value agriculture products

like silk, honey, citrus, apple, fresh vegetables and vegetable seeds; animal farming like cow, buffalo, sheep and goat raising, and poultry farming; community-forestry; soil conservation, suitable farming system; and land ownership system. It also gives priorities to accelerate economic growth of agriculture sector for poverty alleviation, and for employment and income generation of common people. It guarantees food security as well as improvement in economic situation.

2. Review of the Eighth Plan

The prime objective and priority of the Eighth Plan were formulated in the background of the need of transforming subsistence agricultural system to an attractive business-oriented system as agriculture plays a leading role in the national income and employment. The objectives were set to achieve to meet the growing domestic food demand in order to contribute to national economy, increase production and productivity of agriculture-based raw materials, create opportunities for income generating employment and maintain balance between agricultural development and environmental protection. In the Eighth Plan, it was aimed to increase annual growth of food crops by 5.4 percent, pulses by 8.4 percent, cash crops by 9.1 percent, horticulture crops by 5.4 percent, livestock development by 3.8 percent and fisheries by 12 percent in order to attain set objectives.

To accomplish these targets in the plan period, the production programmes like food crops, cash crops, horticulture, vegetable, animal based production, fish production were incorporated mainly to emphasising intensive cropping, diversification and commercialisation of agriculture. Similarly, the programmes on agriculture research, market, training, loan distribution, improved seeds, improved animal husbandry, veterinary medicine, vaccination, improved technology, fertiliser, improved seed and sampling production, other services and support programmes and women farmer development programmes were also implemented. Most of the policies incorporated in the Eighth Plan were implemented through these programmes. Though efforts were made to remove subsidy in chemical fertiliser, the problems in fertiliser supply could not be solved, as it could not be initiated well in the plan period. The supplies of other production inputs were not adequate and the distribution of agriculture credit was not initiated according to the targets. New agriculture market centres have been found growing slightly. Their implementation process has to be managed. Market for animal and animal based products has not been managed, and animal slaughterhouse has not been established in order to produce and process meat and leather.

Few agriculture farms were given on lease to private sector. Most of these farms are pulled back as they could not be run as desired. Similarly, actual progress has not been achieved in the area of extension of agriculture technology services and animal health services through private and co-operative sectors. Jute Development Corporation was liquidated. It has been decided to privatise the Agriculture Tools Factory. The decision to privatise Tea Development Corporation, Cotton Development Committee, Dairy Development Corporation could not be materialised during this plan period. Similarly the policy to initiate the principle of one umbrella system to integrate the agricultural extension service was not pursued. Though the of plan formulation, monitoring, evaluation process have been developed, appropriate

data dissemination system was not implemented effectively. Proper institutional framework to provide basis for the agro-business promotion and appropriate policy to analyse the agriculture price has not yet been implemented. As a consequence, substantive work has not been carried out in order to identify competitive area through continuous analysis, in spite of having occasional analyses in cost of production for recommending steps for its reduction, facilities available to border farmers and local farmers, and feasibility of export. The recruitment of personnel under available autonomy has already been undertaken after the improvement of organisational aspects of the agriculture research. Nepal Agriculture Research Council (NARC) Act has been enforced after amendment.

Keeping in view the important contribution of women farmers to the agriculture development, a system has been initiated to formulate programmes by effectively involving women participation in the agriculture development.

Comprehensive analysis of the state of physical progress on average production showed that food production, which was aimed to increase 400,000 mt on average per annum during the plan period, was not achieved. Crop-wise, millet, barley and pulse production surpassed the set target while cash crops such as tea and sugarcane production met the target. Besides tobacco, progress in other crops seems to be on the rising trend. Yet, desired goals were not accomplished. Small crops like coffee and mushroom were far below the set target. In horticulture, target has been achieved while potato production is little below the target. In the context of change in baseline data on horticulture, the growth rate seems quite satisfactory. In the area of animal based production, meat and fish production attained desired targets while progress in milk, eggs and wool were a bit below the target. In comparison to the set target of agriculture productivity, all crops remained below the target in the last year of the plan period. The productivity of rice, which is the main food crop, reached 2.46 mt per hectare while the estimated rice production at the end of the plan period was 2.85 mt per hectare. But, in comparison to the average situation of the base year, besides jute, millet and tobacco other food and cash crops showed improvement in production.

The analysis of export revealed some positive indication in leather, ginger, pulse, crushed-oil-seed, and jute materials while mustard seed showed some decrease. Some substitution in the import of animal products was seen while local milk production contributed to import substitution of powder milk in some respect. As poultry farming have been commercialised, it has highly contributed to import substitution.

The supply of agricultural inputs based on technological development plays a leading role in agriculture yield. In terms of uses, chemical fertilisers, improved seeds and saplings, and improved animal breed are the main agriculture inputs in Nepal. The supply of chemical fertilisers is not satisfactory. The supply of improved seed and saplings, and animal breed have not been effective both in terms of quantity and quality. Though it is said that besides the institutionalised nurseries the supply of fruit plants, vegetable saplings, seeds by the farmers has increased, supplies from private sectors have not yet been reviewed by monitoring the progress.

Agricultural credit has not up to the set target. The disbursement of agriculture loan from Agricultural Development Bank which was aimed to reach Rs 54,760 million in the FY 1996/97 at the current prices of FY 1991/92, has not reached up to the same level even at the current prices. Due to the low supply of agricultural inputs, investment remained at a low level and due to weak management, the targeted progress was not achieved.

It is important to prioritise the agricultural research activities, which can contribute to the present and long-term need and reality. Similarly, viewing the status of market opportunities and activities which raises commercialisation and diversification in the areas where transportation facilities are available, the development of farm roads and the rural electrification need to be emphasised. If necessary, training and extension as well as service support and production materials based on integrated package can be mobilised for prioritised production programme, then only the output of the investment can be guaranteed. In this context, special attention should be given to ensure the efforts of the private sector as they can play a major role.

The implementation strategy of land management in the Eighth Plan emphasised on minimum government intervention and more practical programmes based on actual market oriented mechanism and participation at the public level. Regarding this, legal base has been prepared to end dual control on land and work is being carried out to enforce it. In the absence of proper legal base the activities like land consolidation and control of land fragmentation have not been carried out.

There is no opportunity for increasing land area to increase agricultural production in Nepal. Regarding this the main basis for increasing agricultural production is to increase productivity and cropping intensity. But both are much complicated unless crop management activities like increase in irrigated land, intensive use of available irrigation, involvement of farmers on irrigation system, development of appropriate technology and its adequate extension as well as supply of appropriate inputs and market management are mobilised as a co-ordinated package. The factors to be taken into considering are of annual climatic change, sustainability and increase in productivity. As climatic changes have been experienced from time to time during the plan period, lack of effort in mobilising technological package, service and supports in a co-ordinated manner has made it difficult to attain the target of productivity in the Eighth Plan. As the target of productivity has not been achieved apart from vegetable, the target set for other crops has been affected in attaining the rate of production growth.

On analysing the situation of progress in production target, supply target of production inputs and other service and support programmes, it was seen that the supply of inputs in agriculture development programmes was not enough. Similarly, the progress in production was not satisfactory in accordance with the target. The review of other programmes of service and support revealed that the programmes were not integrated as these were conducted in isolation. The programmes could not be interlinked in intensive manner. It was also aimed to prepare a perspective plan in order to streamline agricultural sectors during the Eighth Plan. Regarding this, plan has been prepared and efforts have already been executed it in this period.

The indication of changes has been experienced in some places in the production patterns of agricultural sector. These changes were specially seen in places where facilities of transportation and feasibility of market existed. Since the food crops are necessary for national consumption, priority should be given to minimising the production risks in order to increase productivity. The experiences gained in the Eighth Plan clarify that there is need to give priority to small irrigation programmes, which can be completed quickly and managed by farmers. In addition, it is necessary to give priority to the balanced use and availability of good quality chemical fertilizers in order to accelerate agricultural production through the intensive use of plain irrigated areas. In the context of market opportunities, it would be feasible to increase the production of agricultural crops in the hilly areas where the demand for high value commodities are increasing, by mobilising incomes gained through increase in the production through the use of fertilisers. Therefore, it has become important to implement programmes by giving priority to the production of high value crops in selected hilly areas.

In order to boost export, there is a need to assess and monitor the availability of agriculture inputs, prevailing interest rates, subsidy and production cost situation of the neighbouring countries with a view to competing with them through production cost and prices. Similarly, for a continuous search for feasible exports to the third countries by analysing production feasibility of commodities. Besides, the need has been felt to develop commercialisation and export promotion.

Table 1
Major Production Target and Achievement in Agricultural Sector during the Eight Plan

S N	Programme	Unit	Production	Target for	Achievement				
					1991/92	1996/97	1992/93	1993/94	1994/95
1	<u>Cereal crops*</u>	'000 mt	5464	7454	5033	5879	5413	6246	6395
	Paddy	„	3223	4452	2712	3493	2928	3579	3699
	Maize	„	1205	1476	1291	1210	1273	1331	1312
	Wheat	„	779	1258	765	873	914	1013	1056
	Millet	„	229	236	237	274	268	282	289
	Barley	„	28	32	28	29	30	41	39
2	Pulse	„	155	186	191	205	202	215	224
3	<u>Cash crop</u>		1404	1738.5	1476	1416	1621	1701	1760
	Oil seed	„	88	174	94	98	102	116	119
	Sugarcane	„	1291	15.30	1366	1431	1500	1569	1622
	Tobacco	„	6	9.5	6	6	7	6	5
	Jute fibre	„	19	25	10	11	11	15	14
4	<u>Horticulture</u>								
	Fruits	„	354	478	366	377	398	367	428
	Vegetable	„	1128	1278	1197	1197	1257	1327	1350
	Potato	„	733	1033	733	780	840	898	961
5.	<u>Livestocks</u>								
	Milk	„	872	1028	877	885	904	962	1012
	Eggs	million pieces	368.1	479.8	370.9	375.1	412.1	396.4	421.5
	Meat	mt	148	173	150	154	159	162	174
	Wool	„	620	814	620	621	625	618	624
	Fish	„	16500	22311	15190	15524	17578	21879	23200
6	<u>Miscellaneous</u>								
	Tea (Corporate only)	„	866	970	860	982	1009	1096	925
	Cotton	„	2975	7100	1553	2907	2542	2650	1604
	Silk Cocoon	„	25	400	32	47	49	49	28
	Mushroom	„	56	300	80	80	80	79	81
	Cardamom	„	2734	3540	2200	2240	2290	3000	3700
	Coffee	„	75	153	80	80	45	29	37
	Honey	„			23	23	24	24	60
	Spices	„			45000	47000	48000	49000	50000
	7	<u>Vegetable seed</u>	mt						
Production		„		181.6	226.0	310.4	261.0	463	419
Government Sector		„		17.6	11.0	10.4	11.0	13	19
	Private sector	„		164	215	300	250	450	400

* Projection is based on the old growth rate in respect to the variation in the basic number in FY 1994/95 as studied and updated by the Ministry of Agriculture.

Table 2**Productivity of Some Major Food Crop**

Crops	Target for 96/97	Base year 91/92	Productivity					% increment	
			1992/93	1993/94	1994/95	1995/96	1996/97	Compared to target	Compared to base year
Paddy	2.846	2.28	2.05	2.40	2.06	2.39	2.46	-13.56	7.89
Maize	1.939	1.59	1.67	1.60	1.65	1.68	1.66	-14.39	4.40
Wheat	2.045	1.36	1.25	1.41	1.44	1.55	1.59	-22.25	16.91
Millet	1.140	1.15	1.17	1.08	1.07	1.09	1.11	-2.63	-3.48
Barley	1.143	0.93	0.93	0.95	0.96	1.05	1.04	-7.96	11.83
Sugarcane	38.250	34.52	35.95	35.49	35.99	35.0	35.14	-8.13	-1.76
Tobacco	0.990	0.92	0.83	0.90	0.91	0.90	0.79	-20.20	-14.14
Jute	1.404	1.27	1.11	1.21	1.21	1.31	1.27	-9.54	0
Potato	10.760	8.59	8.43	8.76	8.62	8.40	8.76	-16.35	4.77
Oil seed	0.906	0.57	0.57	0.59	0.60	0.63	0.66	-0.27	15.79
Pulses	0.823	0.59	0.60	0.61	0.65	0.69	0.71	-13.73	20.33

3. Long-term Concept**Concept:**

In spite of high priorities given to agricultural development from the very beginning, this sector has not kept up with the desired speed. Therefore, the Agricultural Perspective Plan has been prepared to streamline this sector during the Eighth Plan period.

In the context of Nepal, the main source of income, employment and production is, no doubt, the agriculture, but the present investment to increase productivity by utilising such resource does not seem to be sufficient and even on-going efforts are not satisfactory. In the past, the efforts were directed towards the expensive technology instead of giving emphasis on low cost technology for irrigating agricultural land. Average consumption of fertilisers per hectare was very low in comparison to the neighbouring countries. The productivity could not be increased

due to the insufficient utilisation of existing agricultural technology as well as the use of location specific technology for comparative advantages. As the animal health development was affected by the inadequacy of nutritious fodder plants, the productivity has been low. The situation of the agriculture roads and energy supplies, which support the private entrepreneurship promotion and competitive production, were also insufficient.

Obviously, the country with a variation of altitude from 100 ft. to 29,000 ft. shows feasibility of numerous agricultural crops. However, the objective is unclear about as the priorities. Income from the economic growth gained through food grain production of the *terai* can be ploughed back to boost up demand and production of high value agricultural crops in the hilly areas by developing inter-linkages between the production of the two regions. Because of the absence of such inter-linkages, enough attention has not been given to the comprehensive economic growth and its sustainability. Though institutional mechanism has been extended down to grass roots level, there has been insufficient investment in the mobilisation of resources. The Agriculture Perspective Plan has emphasised the need to resolve these problems.

Therefore, the Agriculture Perspective Plan has emphasised the need to alleviate poverty through appropriate use of geographical feasibility of Hills and *terai* areas where multiplier effect of economic growth occurs and to achieve investment capability as well as to increase opportunity for economic integration. In this context, the plan does not propose to disperse the means and resources here and there but to concentrate development efforts within limited areas where economic growth can be accelerated, simultaneously replacing subsistence agriculture by commercial agriculture system. It will strengthen the foundation of industrial development and alleviate poverty through employment promotion. This conception is also based on the experiences of the Asian countries, which are the pioneers in the development.

The APP has envisaged accelerating economic growth by raising productivity of resources, alleviating poverty by increasing employment and generating income, raising living standard, creating opportunity for macroeconomic changes by developing additional base for commercialisation through the development of infrastructure and comparative advantage and by providing guidelines for periodic plans.

Target:

The main objectives of the perspective plan are to accelerate the rate of economic growth of agriculture sector from the current three percent to five percent, to raise current per capita agricultural income growth of 0.5 percent to three percent, to ensure food security by increasing the current per capita food availability from 270 kg to 426 kg and to contribute to narrowing the gap of regional imbalance and to reduce the increasing poverty to 14 percent through agricultural development.

Strategies:

This plan has adopted strategies such as making green revolution based on improved technology as the basis of speedy economic development, channelling the investment in certain priority areas by utilising and strengthening existing resources, means and

infrastructure, utilising the efforts of public and private investors in a co-ordinated manner in order to promote the utilisation of comparative advantage based agricultural technology in accordance with the geographical diversity. Other strategies include sustaining the agricultural development by broader public participation, maintaining regional balance and ensuring women participation. The following priorities and implementation strategies will be followed for the Plan

Priorities:

Agricultural Inputs: Priority has been given to the availability of chemical fertilisers; the irrigation system developed and controlled by farmers by prompt utilisation of small surface irrigation and tube well irrigation potentiality; development and utilisation of agricultural technology which provides location specific comparative advantage and minimises the production cost. Likewise priority has been accorded to the expansion of the network of agriculture roads and rural electrification in prioritised production pockets and the easy availability of the agricultural credits.

Production and Services: In area of animal health, preferences have been given to the animal husbandry for milk and meat production; the development of nutritious animal feed, animal health, poultry and goat farming, orange, apple, honey, fresh vegetable, off-season vegetable and vegetable seed productions which are prioritised as high value agricultural produces. Similarly, in agriculture-based business development, priorities have been given to the comprehensive policy adjustment in agro-industry, business and market and various market-related development programmes. In the field of forest development, preference has been given to the community forest and soil conservation as well as capacity enhancement works. Furthermore, emphasis has been given to the supportive activities for the continuity of agricultural commodity production which are being commercialised due to the industry and market situation of selected places.

Programme Implementation: Emphasis have been given to orient the on-going programmes and related inputs towards the prioritised areas; increasing the level of investment; and strengthening of organisational capabilities of respective agencies such as national support committee at the national level for monitoring, district agricultural development committee at local level for plan formulation, execution and monitoring and Agriculture Road Development Office, Department of Agricultural Development, Department of Livestock services, Nepal Agriculture Research Council, Agricultural Development Bank and so on monitoring at the local level.

Implementation Arrangement:

There will be a working system in order to identify pocket areas where the commercial pockets of prioritised agricultural crops can be developed in accordance with the geographical feasibility. While selecting such pocket areas, first priority would be given to those areas, where infrastructure like irrigation, agriculture roads, electricity and market centres are available. Programme will be conducted in order to integrate production input, technical services and resources. Arrangements would be made in order to continue agriculture production programmes in the form of integrated packages by developing infrastructure in the areas.

To carry out implementation of prioritised package programmes in such areas, the system for implementation, monitoring and evaluation would be developed by preparing time bound policies/programmes for selected pocket areas.

Ninth Plan

4. Objective

For achieving the targets set by the Agricultural Perspective Plan in the area of production, food security, employment and income growth, the objectives of the Ninth Plan in agricultural sector are as follows:

- To contribute to poverty alleviation by increasing productivity of resources and inputs and by generating opportunities of employment through speeding up of the economic growth of the agricultural sector.
- To minimise impact on environment by amalgamating the utilisation of external production inputs and the natural resources in agriculture sector.
- To strengthen the foundation of agro-based industry and industrialisation through diversification and commercialisation of agriculture.
- To develop leadership of women in the production programmes by involving them in the agricultural development and by increasing their participation.
- To improve the situation of nutrition of the people by increasing the production of the food grains and nutritious food in order to promote food security.

5. Strategy

The strategies identified in the APP like green revolution based on improved technology, adequate utilisation of available infrastructure, comparative advantage, large scale public participation and women involvement and programme implementation based on the selected priority, are the strategies adopted by this plan.

6. Policy and Implementation Strategy

The APP has prioritised food security through increased production and income as well as women participation and has also emphasised maximisation of farmer's income and employment. It gives more attention in the localised high value agriculture crops like apple and citrus fruit, milk, honey, fresh vegetables, vegetable seeds, milk producing cattle, goat, chicken and so on. Discouraging the exploitation of marginalised land has also been emphasised. Similarly, commitment has been shown to support soil conservation through the programmes like grass and fodder development. This has taken the direction of long-term sustainability as desired by the nation by improving the fragile interrelationship among the agriculture, forest and environment. Therefore, the comprehensive policy and procedures adopted by the Ninth Plan are as follows:

- In the Ninth Plan, the agriculture sector will be taken as a lead sector and will be moved forward as an economic sector which can contribute to poverty alleviation and income and employment generation for the common people.
- For speeding up the rate of overall economic development and restructuring the on-going programmes, additional programme budget and manpower management aspects will be oriented towards the priority of the APP. Irrigation, road, electricity, industry, and commercial sectors will be mobilised in order to assist in raising the productivity of the agriculture sector.
- The land reform programme will be implemented for the agriculture and the overall socio-economic development. While implementing programmes, attention will be given to the dual ownership of the land, squatters and bonded labour, extension of the irrigation facilities, agriculture roads, agriculture co-operatives and agro-industry.
- Emphasis will be given to the foodgrain production growth in order to improve the nutrition status of common people and to maintain the food security.
- Special attention will be given to livestock raising, a business that tends to distribute the urban income to the rural areas for the latter's development. In addition, the security of food and nutrition will be provided to the common people by increasing the availability of foodgrains; production, opportunity of employment and income will be increased through crop diversification and intensive cropping; and high value and nutritious vegetable production and promotion of fruit farming and other feasible crops will be emphasised to this effect.
- Appropriate policy and service and support programmes will be initiated to amalgamate cash crop development to the agro-based industry. The Tea Development Corporation, which is being run in the public sector, will be privatised accordingly.
- The main problems at present are inadequate supply of chemical fertilisers, improved seed, improved breed, agriculture loan etc. To speed up agriculture production and productivity and to enhance economic growth and to overcome these, enough opportunity will be given to the private, public and non-government sectors for the supply of such development inputs by making market mechanism effective.
- Emphasis will be given to the development of resource centres for the production and supply of inputs through local farmers and entrepreneurs. By identifying appropriate service and support programmes, these resource centres will be mobilised for developing technology transfer and training, which are being provided by the service centres.
- The agriculture information and extension services will be directed specially towards comparatively beneficial production, agro-business promotion and market interaction, which go beyond production. Similarly, emphasis will be

given to comprehensive economic policy, which is favourable towards such aspects.

- The basic level agriculture manpower, which is engaged in agri-extension at the service centre level, has special responsibility in the area of technology transfer. Without mobilising them, field level policies of agricultural development will not be effective. Hence, appropriate management will be made to render them active. Similarly, agriculture farms will be made more productive through optimum utilisation of available resources as well as privatisation of feasible agriculture farms.
- According to the priority given by the APP, agricultural research will be carried out according to the suitable technological need of the farmers in respect to particular location. Regarding this technological development of the prioritised agriculture crops, the reduction of the production cost by economic use of the irrigation and fertiliser, use of compost fertilisers for the increment of total production and the promotion of the fertility of the soil will be motivated. In order to prepare high level manpower for agriculture research and technology transfer, arrangements will be made to provide opportunities for competent and dedicated technicians to get higher academic exposure of post-graduate and Ph. D. By means of affiliation with internal and external universities.
- In order to standardise improved techniques in the agriculture at the farmer and entrepreneur level, the standard of all the agriculture-related syllabi and training programmes will be improved.
- For the promotion of the agro-industry, business and market, regular interaction will be made to solve problem of the entrepreneurs and to extend support through proper initiatives. The structures of the current agriculture statistics, market development and economic analysis programmes will be consolidated and activated in order to develop the capacity of analysing internal and external market opportunities. In this context, a separate organisation under the Ministry of Agriculture will be established to support entrepreneurs through interaction programmes, to promote internal market facilities and to monitor external export feasibility on a regular basis.
- In the first half of the plan period, subsidy in the fertilisers will be completely removed in order to facilitate easy distribution of the chemical fertilisers and to create the atmosphere of adequate supply by removing the burden on the government, which is one of the causes of insufficient supply. Opportunities will be opened up for the private sector's participation in this area.
- In order to manufacture fertiliser with appropriate nutrients according to the need of crops and places, establishment of a chemical fertiliser factory in the private sector will be encouraged based on feasibility.
- Without agriculture roads linked with highways and feeder roads and rural electrification, the private sector is not attracted to invest in agro-industry in rural areas. The agro-based industry and business cannot flourish in the absence of

such environment; and without the initiation of private sector, employment cannot be generated. Keeping view of these aspects, integrated and package programmes will be implemented and continued by identifying the areas which can be developed as a pocket for prioritised agricultural products.

- To support market development in hilly areas, emphasis will be given on programmes to develop rope way, pulley and suspension bridge of small scale and to establish collection centre, market stall and wholesale market with local initiative and involvement in the feasible sites of the country.
- Keeping in view the inevitability of agriculture roads in the agro-economic growth and rural development, a separate institutional arrangement will be made to guide such activities technically. As sub-urban centre can be developed through the increase of the transportation linkages, the vision for reducing pressure on urban areas and for balanced development will be kept to make rural areas attractive place to all stockholders involved in education and health services, industry and commerce.
- Emphasis will be given to develop agro-based industry as a major market source for the consumption of agricultural products.
- In accordance with the APP, concerned agencies will be mobilised with priority to exploit feasibility of the tube well under the irrigation development programmes in order to avail irrigation facilities in the terai round the year. In hilly areas, permanent supply of water and its sustained availability will be ascertained through the source promotion of the small scale irrigation like surface, sprinkler and pond irrigation and the regular maintenance of existing irrigation canals.
- As agricultural loan investment programmes are inevitable for the agricultural development, arrangements will be made for loan flow in a co-ordinated manner by reconciling loan investment programmes with the irrigation programmes along with the tube wells as well as production and market business activities.
- To ease the access to the agricultural loans, present institutional arrangements will be strengthened and extended. The animal insurance services will be strengthened, and the crop insurance service will also be initiated by analysing the possibility.
- Co-operative programmes will be conducted to mobilise the economically active age group by orienting towards business promotion such as supply of production inputs, purchase and sale of products, collection and processing through training and education. These programmes along with pre-co-operative education will be provided to the groups who are involved in agriculture-related programmes in different places for income and employment generation. Even new groups, which are willing to participate, can be constituted for this purpose.
- In the context of institutional capability of the co-operatives based on the co-operative principle, appropriate measures will be taken in order to support the government policies on the role and jurisdiction of the Co-operative Department

and the National Co-operative Development Board. As the capital collection and investment has gradually started, encouragement will be given to developing their own financial systems, which can mobilise such funds for the business of the co-operatives.

- High emphasis will be given on the production of nutritious food and their proper utilisation. Food technology, nutrition and processing programmes will be made more effective in order to monitor the negative impact on public health caused by food adulteration and contamination, and overall state of nutrition. Laboratory facilities will be provided to serve and support as envisaged in the Food Act.
- In order to implement agriculture programmes at the field level, first priority will be given to utilisation of infrastructure by integrating irrigation, roads, electricity and market centre facilities while executing programmes of production and related technical services, support, loans, chemical fertilisers, seeds etc. Where such infrastructure is not available, priority will be given to the development of infrastructure through the concerned sectors. The selection will be made for pocket development of prioritised commodities in such areas as identified in the Agricultural Perspective Plan with the commitment of all concerned sectors, and priorities will be given to mobilise integrated package programme in such pockets. Such programmes will be implemented on the time bound basis with the conception of pocket area based small projects.
- Programme and their effectiveness of implementation will be monitored in respect to the priority and implementation arrangements ensured in the APP. In this context, related organisations will be strengthened and made capable

7. Major Physical Targets

On the basis of sectoral programmes as incorporated in the Ninth Plan, major physical targets are given in the following table. If economic growth is attained according to this, it is estimated that the poverty level will be checked and lowered by five percent during this plan period.

Table 3
Major Agricultural production
 (base year 1996/97 = 100)

Particulars	Weigh- tage	Produc- tion target for FY 1996/ 97 (000mt)	Produc- tion Target for FY 2001/02 (000mt)	Percentage			
				Total	Annual average	weightage increment	Annual in- crement
<u>Cereals</u>	41.13					52.94	5.18
Paddy	23.10	3699	5000	135.7	6.21	31.42	
Maize	9.98	1313	1600	121.95	4.04	12.17	
Wheat	5.10	1056	1300	123.11	4.25	6.28	
Millet	2.66	289	300	103.81	0.8	2.76	
Barley	0.29	39	42	107.69	1.5	0.31	
<u>Cash crop</u>	6.62					9.07	6.50
Sugarcane	0.46	1622	2100	129.47	5.30	0.60	
Oil seed	2.02	119	155	130.25	5.43	2.63	
Tobacco	0.40	5	6.5	130.00	5.39	0.52	
Jute	0.62	14	18	128.87	5.15	0.80	
Potato	3.12	961	1300	135.27	6.22	4.22	
Pulses	2.17	224	300	133.93	6.02	2.91	6.04
<u>Horticultur e</u>	13.84					16.47	3.54
Fruit	7.04	428	500	116.82	3.16	8.22	
Vegetable	4.82	1350	1716	127.11	4.91	6.13	
Others	1.98	96	103	107.29	1.42	2.12	
Total crops	63.76					81.39	5.00
<u>Total of Livestock- Products</u>	35.78					47.56	
Milk	22.42	1012	1326	131.03	5.56	29.38	
Meat	11.56	174	235	135.21	6.22	15.63	
Egg(Millio n)	18.0	42	595	141.67	7.21	2.55	
Fish	0.46	23	35	152.18	8.76	0.70	8.76
Grand Total	100.00					129.63	5.33

* Other:

Particulars	Unit	FY 1996/97	FY 2001/02
Coffee	mt	37	110
Cotton	mt	1604	4720
Tea	mt	2905	4102
Mushroom	mt	81	85
Cardamom	mt	4456	4700
Silk	mt	25	44
Spices	mt	87208	89800

* This total annual growth rate does not include forest sector and capital formation, hence it does not match with growth rate mentioned in economic sector.

8. Programme

8.1 Prioritised Programmes:

The APP has fixed certain priorities with the vision to contribute to poverty alleviation by utilising available resources of the country effectively and by expediting of sustainable development agriculture. In the Ninth Plan, the agricultural development programmes will be carried out on the basis of these priorities. The prioritised programmes implementation based on the APP will be conducted in respect to the laying out of the prioritised pocket areas in the form of package of all services and materials in such pockets in the form of major prioritised programmes. The major programmes are like follows.

Prioritised Production and Service Programmes:

Cropping Intensity and Productivity Enhancement Programme:

The following programmes will be implemented under intensive production based on priority package for the growth of production per hectare of command area under irrigation and road links:

- market oriented commercial production programme along with the delivery of improved seed, chemical fertiliser, and water distribution, crop protection, loan facilities for such programmes;
- the programmes on the utilisation of fertiliser to keep fertility of the soil and intensive crop growth as well as on the extension of soil testing services;
- external research programmes in the programme area;
- necessary market information and management services programmes to the farmer groups for marketing of surplus production;
- programmes which facilitate interaction among the production group, local businessmen, industrialists and exporters;
- maintenance programmes of the irrigation canals.

High Value Agricultural Commodities Production and Development Programme

The following programmes on production promotion of the crops like vegetable, fruit and silk in a commercial manner giving priority in the areas facilitated by roads and small irrigation:

- The programmes on pocket identification-based project formulation, implementation and their monitoring and evaluation in respect to the services support in the form of package according to the APP.
- The programmes on the sericulture development will be conducted in the district as identified in the ten-year plan on sericulture,
- The programmes on bee keeping which will be carried out by integrating the areas of horticulture and seed development programme;
- Commercial programme on fresh vegetable and off-season vegetable development to be conducted in the adjoining areas of highway, sub-highways and other roads, keeping in view the demand and export viability of urban areas and dense settlements.
- Extension programmes of apple farming to be conducted in the mountainous areas of high possibility;
- The vegetable seed production programmes.

The resource centre establishment and strengthening programmes, which support aforementioned programmes.

Livestock and Poultry Production Related Extension Service Programme

Livestock and poultry production programme will provide a substantial contribution to alleviation of poverty through income generation and employment promotion in rural areas. The main sources of milk are cattle and buffalo. The Major sources of meat and egg production are buffalo, goat, and poultry in the country. Transfer of income from urban to sub-urban and rural areas is facilitated by the sale of livestock and livestock products produced by the farmers. Development of these important livestock resources will certainly contribute to economic enhancement. Priority programmes for these livestock development are:

- Activities such as identification of potential pockets for development on priority basis as envisaged by the APP, formulation, execution, monitoring and evaluation of project on pocket areas on the basis of support services in the form of package,
- Improved technical inputs such as improved fodder seeds, improved livestock breeds, forest nursery, Veterinary establishment for development programmes for entrepreneurs, farmers or farmers group,
- Programmes to support the promotion of dairy cattle and buffalo farming for milk production,
- Activities to promote buffalo, goat and poultry raising for meat and egg production,

- Programmes to improve the nutritional fodder and feeds, expand veterinary services and develop community forest activities,
- Programmes to strengthen and develop resource centres for the supply of improved livestock,
- Natural and artificial insemination programmes for breed improvement,
- Programmes to support private veterinary practitioners to strengthen the livestock services,
- Programmes to inter-link producers, processing industries and entrepreneurs,
- Training programmes to provide improved animal farming in commercial pocket areas.

Agro-business Promotion Programme

Programmes to introduce commercialisation and diversification of agriculture sector are possible only through the promotion of agro-based industries. Following are the activities to help such programmes:

- Overall economic policy adjustment and service-oriented programmes for the promotion of agriculture and forest related industry.
- Programmes to provide and expand market for agriculture products by analysing the study on the possibility of national and international market potentials.
- Programmes to conduct research on development of market infrastructure in the potential pocket areas with the close participation of private, co-operative and farmers group.
- Extension programmes will be launched after analysing the information and statistics on production records, price, production expenses and profitability of demand driven agriculture products
- Education and training programmes to be launched through co-operative mechanisms in order to promote co-operative-based agriculture industry
- Programmes to enhance women participation in improving agriculture activities like harvest, grading, packaging and storage of grains in the farms to produce quality products
- Programmes to support entrepreneurs and business groups after evaluating policy on local food processing, quality specification, industrial food processing activities, technology dissemination, use and consumer security.

Programme on Priority-production Input Mobilisation:

Irrigation Facilities Expansion and Utilisation

Following are the programmes to support and develop irrigation facilities since they are most important components among the priority sectors in the APP:

- Tube-well irrigation Programmes in which terai farmers can construct ground water tubewell within a short period and can handle its maintenance by themselves
- Small scale irrigation projects in terai and mountain region
- Geologic and watershed conservation programmes to be operated from forest and geo-conservation sector to maintain ground water recharge capabilities in the *Siwalik* region.

Fertiliser Supply

- Programmes to bring continuous supply of quality chemical fertiliser in order to sustain the increasing trend of agriculture production and productivity by maintaining the balance between needs of various cropping system and use of nutritional ingredients in soil.
- Supportive programmes to private sector involvement in import, sale and smooth distribution of chemical fertiliser.
- Programmes for bringing sustainable supply of chemical fertiliser.
- Programmes to keep soil fertility and balanced utilisation of chemical fertiliser.

Agriculture Credit

Among the APP priority sectors, agriculture credit should particularly flow in marketing of improved seeds and chemical fertiliser and also in installation of shallow tubewell, livestock and poultry farming, high value crops, establishment of agricultural entrepreneurship and operation. Programmes to increase the flow of credit from Agriculture Development Bank and other banks in these activities.

Agriculture Research

Following are the research programmes to increase the productivity by bringing and promoting the agriculture farming such as cropping intensity, production of livestock and high value crops:

- Programmes to formulate appropriate technology package which is associated with judicious water management, intensive and economic use of chemical fertiliser and development of comparatively advantageous cropping system in year-round irrigated land
- Research to help increase self-employment opportunities, women participation, technology for increasing productivity of high value crops such as tangerine, orange (Junar), lime, apple, silk, bees, off-season vegetable and vegetable seeds.
- Research related to animal nutrition, and fodder development activities to increase milk production, veterinary, animal breeding, livestock management and meat production.

- Research activities to help increase agricultural productivity with maintenance of soil fertility by reducing the production cost so as to make the products competitive in the open market.
- Outreach research activities for genetic resources conservation, pure breed production on farms.

Agriculture Extension

Following are the programmes to help make efficient agriculture extension in the changed context:

- Programmes to monitor and evaluate the project, which is formulated on the basis of pocket package strategy by identifying the potential prioritised pocket under the APP.
- Programmes to set up and develop the resource centres to supply production-related inputs like improved seeds, fruit and vegetable nursery in the field of leader farmer or farmers group.
- Programmes to provide services related to industrial agriculture, processing industry, easy dissemination of government policy and available opportunities, market development, market price, quality market information, etc.
- Programmes to provide training to resource centre manager, to make available improved inputs, to give technical services for sustaining quality production and distribution and monitoring of such activities.
- Programmes of mini-kit distribution to demonstrate improved technology of recently recommended seeds and breeds from resource centres

Development of Agriculture Roads and Electrification

Following are the infrastructure development programmes to be implemented by concerned agencies to encourage the private entrepreneurs towards agro-based industries :

- Agricultural roads construction programmes in the potential production pocket areas which can be connected to main high-ways, feeder roads, district roads and marketing centres.
- Rural electrification programmes to support the potential industrial activities by tubewell and pump installation in the rural areas.
- Programmes for electricity generation services in the vicinity of small-scale hydro-electricity centres in rural areas.
- Bioengineering programmes needed for the promotion and conservation of agricultural roads.

Women Farmer Development Programme:

Following are the programmes to develop leadership of women in agriculture activities by making them participate actively in implementing the agriculture programmes:

- Thrust programmes to increase women participation in income generating agriculture profession through mobilisation of inputs and services.
- Programmes to develop women efficiency and leadership in agricultural activities.

8.2 Other Programme:

Programmes will be executed to improve the process of implementation of those activities, which are not on a priority list of APP, but are needed to boost the agriculture production. These are fisheries, sugarcane, tropical fruits and other related programmes.

9. Sectoral Programmes

In order to meet the set objective of the Ninth Plan, various agriculture sectoral programmes with concrete policy and strategy are highlighted below. The priority programmes as envisaged by the APP and other important activities are listed as follows:

9.1 Crop Intensification and Productivity Enhancement Programme:

It is less likely to expand the agriculture land to majority of farmers because of geo-physical complexities. The only way to increase the agriculture productivity is the judicious use of improved seeds, fertiliser, irrigation facilities and cropping intensity backed by appropriate technology.

Some main food crops and high value crops contribute about 45 percent of agriculture GDP. That is why it is necessary to achieve substantial growth in crop sector so as to achieve rapid agriculture development. This will fulfil the demand of raw materials used in agro-industries, food security and self-reliance in food production.

The crop sector contributes 52 percent, 41 percent, and 7 percent in agriculture GDP in terai, hill and mountain areas respectively. It will be wise to take benefit by exploiting full production potentiality of terai in food crops, and high value crops with proper cropping system as this region has more agriculture roads, irrigation and marketing infrastructure than that of hill and mountain regions. It is necessary to implement the intensive production programmes in irrigated land with connection of agriculture roads by conserving and promoting the possible small-scale irrigation projects in mountain foothills.

According to APP, it is necessary to give special thrust to food crop development programme on the basis of which other sectoral development is possible. In view of increasing demand of food and cash crops, it will fulfil an important role in foodgrain export. The fact is that poverty alleviation, employment generation and national development are possible only from agriculture development. Therefore, market-

oriented food and cash crops of comparative advantage are the needs of today to increase productivity and crop intensity by using appropriate cropping systems. This will help bring rapid increase in total agriculture GDP by increasing productivity per unit land.

Although production and productivity increments are the main objectives in the last eight plans, productivity of rice, wheat, corn, millet, potato, sugarcane, jute, mustard and pulses is less than expected target at the end of the Eighth Plan except the productivity of millet and sugarcane. In comparison to FY 1991/92 millet and tobacco production has been on declining trend though there is slight increase in productivity of some crops. In similar way, negligible progress was seen in chemical fertiliser but the progress was encouraging in such location where agriculture credit and year-round irrigation facilities were available.

In such a background, it is necessary to translate subsistence agriculture system to commercial agriculture by increasing the cropping intensity from comparatively advantageous cropping system with proper physical infrastructure. Annual agricultural income growth rate is expected to achieve 5 percent in the first five years and then 4.57 percent with a view to achieving poverty alleviation and increasing agriculture based national income. Participation of women will be increased in production programme. It is necessary to implement programmes to increase productivity and cropping intensity in the Ninth Plan so as to provide sustainability in agriculture development by balancing crop development and environment. Annual per capita food availability has to be increased from 270 kg to 426 kg. Hence, it is expected to increase production and productivity of each unit land from crop intensification. This programme has the objective of providing sustainability in agriculture development from regular participation of women by conserving environment and commercialised agriculture production system, which eventually helps poverty alleviation.

Policy-oriented Programmes

These programmes will be implemented by focusing mainly on the following agenda to substantial increase the food and cash crops production under the crop intensification and productivity enhancement programmes:

- Prioritise necessary services in order to boost production and productivity of food and cash crops by intensive use of irrigated land. Improved crop seeds, which require less water, will be used with proper focus in the plant protection activities. Intensity of comparatively profitable crops will be increased in the irrigated land by appropriate cropping pattern.
- Supply of quality seeds and development of seed resource centres for the production of quality seeds in farmers field will be emphasised. Such certified seed production programme will be implemented for farmers group in the irrigated land of five development regions. The price of seed will be decided by District Seed Production Committee, which includes seed producers. The produced seeds will be consumed in the production areas.

- There will be special focus to provide services in package form for the promotion of commercial agriculture in the appropriate areas based on agricultural diversity and comparative profitable cropping system in and around marketing centre, and these areas where irrigation and agriculture roads are available. Intensive production services programme will be launched in priority sectors by maximum use of available infrastructure such as agriculture road, irrigation facilities, and chemical fertiliser and agriculture technology. By such activity green revolution can be achieved with maximum utilisation of tubewell and surface irrigation in terai and mountainous plateau.
- According to the concept of APP, farmers group or private entrepreneurs will be provided practical training, production input, agriculture credit, marketing services in the potential pockets. The goal will be achieved through co-ordinated and packaged service system. The programme will be made transparent by giving responsibility to service centre chief to mobilise the available resources in the district. Packaged services will be available in pocket areas, which are suitable for commercial production in view of export promotion or in pocket areas which are identified for the production of commercially viable agriculture products based on the demand of marketing centre and the agro-industry.
- Necessary services will be mobilised in order to develop local service centres through farmer group and private sector's management to meet the demand for production input. Such resource centres will be the basic venue for training and extension of agriculture technology.
- In order to make supply of quality fertiliser easily available, appropriate and efficient monitoring system will be implemented. The private sector will be encouraged to establish the mixing plant of chemical fertiliser based on its potentiality.
- Agriculture credit programme will be launched in such a way that farmers would not have to wait and spend unnecessary time and money to take agriculture credit from the bank.
- The extension system, training, marketing and promotion programme and other services will be mobilised to include the needs of commercial farmers and their groups. Training curriculum and agriculture information will be developed and amended accordingly.
- Agriculture extension services will be made effective to support the commercial production. Timely implementation, monitoring and evaluation of projects and programmes in active participation of farmers through mobilisation of agricultural technical services will be made effective.
- District Agriculture Development Committees (DADC) for the formulation, implementation and evaluation, and programme executive committees secretariat of DADC, will be formed in each district for implementation of agriculture packaged programmes.

- Programmes on communication and capacity building will be launched to increase women participation in the family and community decision-making process for overall agricultural development.
- Programmes related to integrated pests management and balanced use of chemical fertiliser will be executed to check environmental degradation caused by agriculture production programme.
- Agriculture farms, regional and central programmes will be strengthened and made efficient after evaluating their roles in services and to co-ordinate all agricultural development activities in the districts.
- Agriculture labour force will be allowed to have leased land for cultivation to ensure that nobody will keep fallow land. This policy will help alleviate poverty by generating additional employment opportunity.
- Service centres will be developed as improved technology resource centres and the farmers group will be upgraded in an institutional manner.

Mobilisation of Service Programme And Prioritised Programme:

Seed Multiplication Programme

Activities on species development and seed production are the basis of crop intensification and productivity increase, but only 3 to 5 percent seed demand of farmers is supplied from Agriculture Inputs Corporation in an institutional manner. Hence, to meet the demand of improved seeds, seed producers and distributors should be the farmers or farmers groups at local level. To increase self-reliance in improved seed production in irrigated and non-irrigated areas productivity of land will be increased by mobilising these farmers group.

- Seed production programme will be launched from the second fiscal year 1998/99 of the Ninth Plan in commercial way by the farmers groups of irrigated pocket areas. For this purpose, Nepal Agricultural Research Council will make available foundation crop seeds of 84.73 mt (rice-12 mt, maize-0.73 mt, wheat-72 mt) from the fiscal year 1998/99 to the District Agriculture Development Office. 25 percent subsidies will be given to the foundation seed price. Seed production programme will be implemented in irrigated pocket areas of five mountain and ten terai districts of five development regions. The five mountainous districts will produce improved seed necessary for the farmers of mountains and high mountains.
- The first generation of improved seed will be produced, on a regular basis, in selected irrigated areas of each development region under improved seed area expansion programme of District Agriculture Development Offices. Such first generation improved seed will be distributed in the areas to be covered by improved seeds through producer farmers or groups. Accordingly in every four-year period, all coverage will have tried new seeds according to rotational system. From this, seed production programme will be commercialised, group oriented and regular.

- District Agriculture Development Office (DADO) will launch a programme to cover 25 percent of districts cultivated area with improved seeds each year up to fourth generation seeds produced by farmers from the certified first generation seed. District level governmental, non-governmental and INGOS will advertise the use of first generation seed produced by seed resource centres.
- The user group will request to National Seed Board for the supply of fixed quantity of foundation and first generation seeds required before one year of cultivation. The district office will submit the demand of improved seeds suitable for agro-climatic condition as per the interest of local farmers. The available seeds will be distributed through the farmers group. There will be discussion between the private seed traders and the farmers group with a view to sustainable mobilisation and marketing of improved seeds. The assurance of regular change of seeds will be communicated to farmers from time to time.
- Transportation subsidies of foundation seeds from NARC's production site to the site of expected seed production will be maintained in DADO's budget. Revolving fund for seed development will be established with each seed producer group. From this fund, marketing of seed will be managed credits will be made available to the group for purchase of necessary equipment and inputs.
- Nepal Agricultural Research Council and Concerned Regional Directorate under Department of Agriculture Development will co-ordinate and monitor necessary foundation seed production, distribution and price fixation in all five development regions. These institutions will make seeds available in growing areas one month before sowing time.
- Compensation will be provided to the seed producer if the seed production is less than average due to natural calamities and other technical causes. On this basis, experience will be accumulated for introducing of crop insurance system.
- A technical team comprising assistant agriculture extension officer, assistant plant protection officer, assistant seed production officer of regional seed laboratory and leader farmers of seed producer group will be formed to implement the programme of district food seed production with the help of District Agriculture Development Office, crop development section. This team will provide technical suggestion, training and regular supervision in first generation seed production area according to schedule. The district agriculture office will give the approval to market appropriate seeds certified by the laboratory to the farmers group.
- Development of qualitative seed variety by the use of agriculture inputs, easy technology, short duration, more market price and higher productivity will be the basis for research. Nepal Agriculture Research Council will co-ordinate regularly to implement the variety of development activities on the basis of the problems faced by the farmers, utilising media like mail, seminars, and workshop through the District Agriculture Development Offices. Besides site visit by the concerned institutions and the discussion in the quarterly meeting, review Nepal Agriculture Research Council, seed will be taken into consideration the problems pointed out by DADO offices in this regard.

- Training will be provided to farmers and JTs/JTAs about seed production, storage, packing and marketing by concerned technical division. Necessary equipment and packages will be provided to farmers of all agriculture service centres (about 70 service centres per year) in a phasewise manner for producing seed. Such management will be applied on a priority basis in prioritised pocket areas.
- Some private traders sometimes import hybrid crop seeds from the neighbouring country. Such information should be recorded by the Nepal Agriculture Research Council and be ready to solve the problems of hybrid seed availability. It should also collect information related to hybrid seeds from the international agency and disseminate such information to extension workers and farmers.
- Table 4 and 5 depict the production site, coverage area and quantity of different crop varieties produced, which are needed for the production of foundation seeds and first generation seeds.

Table 4
Regular Supply Management of Foundation Seed and First and Second Generation of Seed in
National Level

Crop	Target of NARC from 1997/98 foundation seed production every year on regular basis		1998/99			1999/2000		
	Area in ha	Production in mt	Required Quantity of Foundation seed in mt	First generation seed production area in ha	Production of first generation seed in MT	Required Quantity of first generation seed mt	Second generation seeds production area in ha	Production of second generation seed in MT
Paddy	4.80	12.00	12.00	236.00	472.00	472.00	9440.00	18880.00
Maize	0.35	0.73	0.73	36.00	55.00	55.00	2750.00	4125.00
Wheat	35.25	72.00	72.00	600.00	1200.00	1200.00	10000.00	20000.00
Total	40.40	84.73	84.73	872.00	1727.00	1727.00	22190.00	43005.00

Table 5
Supply Target of Agriculture Inputs during the Ninth Plan

Agriculture inputs	Unit	Status from 92/93 to 96/97	1996/97 status	Target for 2001/02	1997/98	1998/99	1999/2000	2000/01	2001/02
1 Irrigated area (rainy season)	000 ha.	1056		155	22.4	26.4	30.4	35.4	40.4
2 Chemical fertilizer (Nutrients)-supply	000 mt		64	200	70	120	140	175	200
Use	Kg/ha.		18	49.57	17.79	30.29	35.13	43.59	49.57
3 Paddy seed - Foundation	mt			12	12	12	12	12	12
- First generation	..			472		472	472	472	472
3 Maize seed - Foundation	..			0.73	0.73	0.73	0.73	0.73	0.73
-First generation	..			55		55	55	55	55
Wheat seed - Foundation	..			72	72	72	72	72	72
- First generation	..			1200		1200	1200	1200	1200

Irrigation and Intensive Cropping Programmes :

Besides the crop and seed production programmes, initiation of programmes to increase the irrigated lands throughout the season are the foundation for the cropping intensity increment. During the Eighth Plan period, total agricultural land with irrigation facilities was 1056000 ha. in summer, 3,63,000 ha. in winter and 1,60,000 ha. in spring. In the Ninth Plan period, irrigated area will be increased by additional 1,55,000 ha. To increase production, productivity and cropping intensity in these irrigated lands, package service programmes with fertiliser, improved seeds and technologies along comparative high utility of with priority crops will be promoted and transferred effectively in the needy areas through the agriculture extension experts. In mid and high hills, extension works will be carried out the technology and utility of the water collection for high value crops. With these objectives, following irrigation programmes will be undertaken during the Ninth Plan period.

- In order to increase intensive cropping while preparing locality specific intensive production pockets on the basis of local feasibility, emphasis will be given to introduce cropping pattern based on two or more crops system such as spring maize, spring paddy and fast growing vegetable crop especially in the areas where irrigation is available in winter and spring. A minimum of ten percent of land will be encouraged to use all the time for vegetable and spices in such areas. The farmer groups, co-operatives, private sector and NGOs will be involved in necessary infrastructure development for the necessary fertiliser, availability of improved seeds and storage including packaging processing and market.
- In the area feasible for foodgrain production, arrangements will be guaranteed for irrigation round the year through the development and growth of irrigation facilities. Co-ordination for irrigation area extension will be maintained by giving priority to the ground irrigation in the hills and shallow and deep tubewell in the terai region. In addition, capability of collection and conservation of rainwater ditches and ponds will be encouraged. The process of handing over of large irrigation projects to farmer user committee in a gradual manner will be assisted. To complement the availability of water throughout the year in the command area of such large irrigation projects, emphasis will be given on construction of tube well in the terminal part of the irrigation command area where water is scarce during the winter.
- Shallow tube-well will be constructed, utilised and mobilised by organising small farmers. Water use practices will be improved by encouraging the linking of farmer managed irrigation system to the agriculture programme. Wide publicity will be made to utilise technology for moisture conservation of soil, rainwater collection and utilisation in the dry areas.
- Proportional and alternate water distribution system on the basis of canal construction, water leakage control, farmers' land area and their contribution for proper use of water will be managed. Emphasis will also be given on low cost

irrigation technology and its utilisation bearable to the farmers in terms of cost, and flood control management.

- Intensive cropping and production growth will be carried out through the District Agriculture Office, which identify the areas where irrigation is available throughout the year, and prepare map of such areas as well as avail improved seeds, chemical fertiliser, agriculture and technical service for proper promotion of species and crop system. The package programme will be conducted intensively in order to increase yield per unit land by selecting comparatively beneficial species of crop and crop rotation techniques in each irrigation system for intensive crop growth. In order to minimise crop damage after production, emphasis will be given to publicise the opportunity in local and distant markets for improvement of processing and storage facilities. Use of balanced chemical and compost fertilisers and adoption of local crop conservation technology will also get emphasis.
- In the absence of baseline data and reporting system, concrete and clear programme could not be initiated in a desired manner in the previous plans. Therefore, emphasis has been given to baseline data preparation, reporting system and clear programme for establishing cropping intensity as a major factor of production growth in the Ninth Plan Period. In this way, intensity of the main crop will gradually be increased from current 160 percent to 172 percent in the last year of the plan period.
- Data collection, analysis and regular and surveillance of information on climatic environmental change at the regional and global level, will be maintaining through concerned agency. Regular broadcast on monsoon and its end as well as condition of drought will be transmitted to the farmers by analysing such information and climatic data of the country.

Balanced and Extensive Utilisation Of Chemical Fertilisers:

Contribution of the chemical fertilisers to the production growth of the agriculture sector will be 44 percent as estimated in the APP. For this, large quantity of fertiliser needs to be utilised. Therefore, sale and availability of the chemical fertilisers will be increased with the participation of the private sector. In order to make effective the balanced and wide utilisation of chemical fertilisers in fertiliser supply programme, emphasis will be given the following areas:

- Emphasis will be given to increase crop yield by wide utilisation of chemical fertiliser in irrigated areas. Priority will be given to the balanced use of chemical fertiliser in order to minimise negative impact on the soil due to extensive use. Widespread awareness raising programmes will be conducted in order to reduce over reliance on such fertilisers, use of compost and balanced use of chemical fertilisers.
- Arrangements will be made to collect farmers' demands for fertiliser on seasonal basis and provide such information to the importers in a regular manner.

- Information on utilisation pattern, quality and impact of fertilisation on production growth will be analysed and disseminated.

Service Programmes:

Agriculture Extension Services

In the Ninth Plan period, the agriculture service centres will be strengthened and developed as a source centre for agriculture technology extension. Based on feasibility package programme mobilisation by prioritising productive irrigated pocket areas through the water consumer and farmer groups will be the main role of agriculture extension. Agriculture extension programme, of governmental, non-governmental and private sector organisations will be mobilised at the grassroots level in accordance with the principle of decentralisation by co-ordinating and involving for the adoption of improved technology. The agriculture extension service activities, with the aim of increasing the farmers' participation even in the extension programme formulation and implementation, will be mobilised as follows.

- Agriculture extension, communication and training programmes will be implemented with focus on priority programmes formulated by the districts as encouraged by the APP. While identifying prioritised pocket area for this purpose, the district will give first priority to the areas where irrigation, road, electricity and market centres are available throughout the year and work to facilitate other areas to bring them to priority pocket. The programmes will be conducted by co-ordinating with other sectors.
- Prioritised inputs and outputs of agriculture will be mobilised and implemented package programme as envisaged by the APP. Accordingly, annual programme formulation, implementation and monitoring will be conducted on the basis of area specific small projects in order to produce prioritised agriculture products.
- Group formation activities in the past were taken up as a target in itself not as a strong medium of agriculture extension, so programme implementation could not become effective. So for majority of the farmers, programmes will be conducted by identifying improved agriculture technology extension for various crops, their comparative benefit and the aspects of market management as an extension package. In this regard, activities such as group activities and exhibition through groups will be carried out and farmers involved in the groups will be developed as technical leaders in various subjects according to location.
- Resource material production centre and agricultural input supply centres will be developed at the initiation and management of farmers group. Emphasis will be given to such progressive farmers/farmers' groups to improve their quality by subject matter specialists and technicians of the service centres. Farmers group and co-operatives will be activated in the distribution of seeds, plants, fingerlings, chemical fertilisers and other agriculture inputs at the district level. Such resource centre will be used as forum for farmer's training. Excellent farmer as a resource centre manager will also be mobilised as a trainer for farmers' groups training.

- In the stipulated irrigated area of 15 districts of 5 development regions comprising of 5 hilly and 10 terai districts, strong seed producing farmers' groups will be constituted by creating awareness, motivation and interest among them for first generation seed production every year regularly. Intensive training will be provided to the working JT, JTA, agriculture officer and farmers' groups in areas of seed production, crop inspection, processing, certification, sales and distribution. The programmes will be carried out to strengthen and organise such producing farmers' groups in order to develop them as a permanent seed production and distribution agency.
- Active farmer groups or resource centres or managers', will be institutionalised through reward and recognition. A system will be developed to keep saving fund of the group. Local resources will be mobilised properly for production and yield growth.
- Programmes will be carried out for government, non-government and public sector to assist each other. A minimum of 10 percent farmers' family in each district will be incorporated into groups, which will be raised, to 20 percent in five years. Among these, viable groups will be involved in local resource mobilisation by developing them into co-operatives step by step.
- Inputs and services needed for agriculture development will be mobilised in the prioritised pockets by giving them first priority. Extension programme directed to link with increase the use of agricultural technology and development inputs will be agriculture credit flow in the prioritised area.
- To minimise per unit production cost and to continue techniques of productivity increment from agriculture research, arrangements will be made for interaction at the farmers level to achieve co-ordination in extension and research and carrying out programmes in the interest of the farmer, researcher and extension worker to match each other's need.
- By identifying agro-business extension system such as transforming subsistence farmer into business oriented farmer, and informing entrepreneurs about the market situation, export feasibility, local and foreign market opportunities, programmes will be conducted to make them aware of such agriculture extension.
- By creating uniformity in the policy and priority in the on-going programmes of the governmental, non-governmental and public sector agencies involved in the agriculture development, integrated programmes will be implemented. Memorandum of understanding will be signed for concerted activities and co-ordination among these different agencies.
- For the conservation of the fertile land, policy will be adopted for necessary land use system. Soil management programme will be carried out as mentioned in the chapter of chemical fertiliser supply management.
- In the social context (group formation, meeting conduction, technical education etc.) technical service, skill and local capability will be increased for agriculture production and yield growth by organising and uniting farmer's groups in the

mobilisation of local resource centres. Co-ordination with non-governmental organisations and will be maintained for organisation of farmers group and mobilisation of resources.

- A system of providing technical service of JTA on the basis of fee will be launched on an experimental basis in the 15 districts under first generation seed production programmes. Sale of improved seeds, insecticides, tools, equipment, audio cassettes, brochures and booklets from service centre and sub-centre will be started
- In the context of major role to be played by the regional offices in the monitoring, evaluation and supervision of agriculture development programme, these offices will be made responsible for timely information flow of the progress of prioritised programmes of the APP at the district level.

Agriculture Training

- The training programmes which provide skill to the farmers and agriculture extension workers in cropping techniques, farm management, agro-market, agro-industry, business management, knowledge of cropping system, will be conducted. Attention will be paid to impact training designed to promote the growth of self-employment opportunities by improving agricultural production qualitatively and quantitatively. For this, improvement of training materials will also be done.
- Training programme will be carried out in accordance with the APP. priority programmes for the prioritised area. The training programmes of the Agriculture Training Centre and the Co-operatives Training Centre will be identified and carried out to complement each other.
- On-the-spot and mobile training programmes in the prioritised pocket area for women, small and marginalised farmers will be carried out so as to develop leadership capability in them in the production activities.
- In the central training centre, trainers training including officer level training will be organised. Under the convenorship of central training centre, the private sector will be supported and encouraged to provide training to farmers and agriculture traders on the basis of training package. These training will specially focus on farming techniques, comparatively beneficial (low input and high yield and competitive agro production) cropping system, agro based industry, business promotion and farm management.
- Women participants' involvement will be ensured in the training programme. The proportion of the women participants in the plan period will be raised up to one third.
- Departmental quota will be fixed for outstanding agriculture technical officers and assistants to create opportunity for higher studies in the Institute of Agriculture and Animal Science.

Agriculture Communication Services

- Scientific approaches in sowing, cropping, harvesting, thrashing, marketing, storage, animal husbandry and fishery will be widely publicised among the farmers through agriculture extension programme. Agriculture Communication Division due emphasis on areas of environment and agriculture, agriculture and forestry, animal husbandry and crops, comparative benefits, agro-based industry, business promotion and their inter-linkages through radio, video, publications, etc.
- In accordance with the APP, objectives of attracting and motivating farmers' improved agriculture systems, various means, media like radio, TV, pamphlet, poster, etc. will be utilised for promotion of activities like soil fertility growth, environment friendly crop protection, post harvest damage control techniques, local resource mobilisation, comparatively beneficial agriculture and animal products production, active farmer group preparation and production and helpful techniques for yield growth. In this context, activities and commercialisation of prioritised pocket area selected by the district.
- Quality of brochures and booklets on agriculture, animal husbandry and fisheries will be improved and their distribution will be made wider. Emphasis will be given on regional diversity and publicity of ongoing activities will be carried out on regional basis also.
- In the publications of Agriculture Communication Division, arrangements will be made to include various captions for public awareness. Video films on success stories of farmers and popular technologies of specific areas will be prepared, processed and telecast to reflect the interests and concerns of farmers.
- Various magazines, pamphlets, folders and posters published by Agriculture Communication Division will be circulated to the farmers by the District Livestock Offices (DLSOs) and Agriculture Development Offices. Audiocassettes on improved technology will be prepared and will be distributed to mainly field level workers. Improvements will be made by collecting and analysing information on the effectiveness of such tools. In the plan period, cassettes on main food grain, soil fertility management by oil seed and pulse cropping, integrated crop protection and sustainable economic development will be prepared and distributed through the active farmers groups in every district.

Seed Quality Testing Services

Under the Seed Act, 1989 and Seed Regulations 1998, necessary technical services in qualitative seed use will be provided in organised manner. Regional seed testing laboratories established in five development regions will be strengthened in order to provide better testing services to the farmers. By strengthening central seed testing laboratory, quality control and regulatory works will be made effective.

Integrated Plant Nutrient Management Service

- Necessary programmes will be carried out in compost, green manure, legume production, biogas and bio-fertilisers in the marginal land and plots borders which is suitable to the agriculture system.
- On the basis of results of experiments agro-zonation will be made more practical by declaring special crop production area. Such programmes will be implemented as a pilot project in limited feasible districts looking at singularity of this programme and present technical manpower and physical facilities. In order to control the problem of nutrients due to soil degradation in the cultivated land, necessary demonstrative extension will be carried out.
- Regular monitoring will be carried out on the soil fertility on the basis of the data obtained from soil analysis. By making soil analysis services compulsory in the pocket areas where intensive production programmes are being carried out, soil testing services will be carried out.
- Chemical fertiliser monitoring activities will be activated to monitor the quality of different chemical fertiliser, which are used in the country. Necessary act will be prepared for the implementation of fertiliser management. Emphasis will be given on regular and increased supply of fertiliser by including chemical fertiliser on the list of the essential goods.
- Emphasis will be given to integrated plant nutrient management in irrigated areas. Likewise, green manuring and organic manuring will be emphasised for maintaining soil fertility.

Integrated Plant Protection Services

- Integrated pest control services will be carried out to lower down the adverse impact of the pesticides on the environment and public health. Technologies reducing the post harvest loss will be developed and extended and local mechanics will be provided with practical training for preparing appropriate tools for crop harvesting, processing and storage. Private sector involvement in the supply of these tools will be increased.
- Arrangement for necessary insects and pests crop hazardous organisms equipment will be made for survey surveillance and impact map preparation. Training and demonstration programmes will be carried out through the medium of farmer household/ family by giving continuity to annual programmes.
- To control the use of pesticides and its management, programmes such as pesticide registration, import license distribution and training for the retailers and pesticide inspectors will be conducted continuously by implementing Pesticide Act, 1991 Efforts will be made to establish a central laboratory to check and test the quality of pesticides.

- For the plant quarantine programme, which is the prerequisite of the import promotion, external and internal quarantines will be strengthened by managing necessary laboratories, manpower and physical facilities.

Agriculture Market Management

- Competition among private sectors will be encouraged for supply of production inputs and development and expansion of local markets, which will ensure appropriate price for the producer and supply of essential commodities to the consumer. Necessary information on agriculture market will be provided to the producers and the consumers. In this regard, agriculture extension programme will emphasise on the co-ordination through the interaction among professional farmer and the industries.
- In order to strengthen market information system, regular and reliable information through speedy communication medium will be provided to the target groups on the demand situation, quantity available in market, stock situation, cold storage condition, consumers buying capacity and their interest and capabilities. For this purpose, information collected by the District Agriculture Offices on the wholesale, retail and farm gate price of the agro-based goods will be collected and processed on a regular basis.
- By strengthening mobile market (*Hat*) at the local level and by studying the feasibility of new markets as per need of various districts, such markets will be organised at the local initiatives. By forming group for such market, programmes will be carried out at the local level. Technical supports will be provided to minimise the loss in grading, packaging and transportation. Locality specific support package for farmer groups will be identified to establish cottage industries based on processing, packaging and quality enhancement of local agricultural products. These activities will be supported and encouraged in order to increase employment opportunities in rural areas.
- In order to minimise the trend of low price of agro-products during the harvesting season and high price during the off season, arrangements will be made for appropriate cold storage and godown facilities. For this, electricity will be supplied with special preference.
- In order to provide road facilities in production pocket areas, priority will be given to agriculture road construction in the production areas. In the Ninth Plan Period, according to the APP's concept of integrated programme, agriculture road construction will be given high priority in necessary areas, which will link production pocket area with the market centre and nearby roads.

Women Participation

By developing knowledge and skill of women farmers on food production and productivity development especially in seed production, their entrepreneurship will be given high priority. Women involvement will be increased in post-harvest activities and marketing. In rural market (*Hat*) and market development and management

activities, at least 10 percent representative will be ensured from the women group. At the end of the plan period, arrangements will be made to ensure one-third women in training programme.

Production Programme:

There is high potential for growth in productivity of main food grains in view of the current national productivity situation and the productivity achieved through special programme launched through research farms/centres. The situation of cropping intensity also points to this. This task seems quite complicated looking at the existing situation of resources, irrigation facility, transport, improved seed availability and use as well as the availability of technical services. However, this problem needs to be tackled for improvement of the economic condition of majority of the Nepalese people. Other programmes like family planning, health and education need to be launched along with the agriculture programme in a joint package to achieve this end. The concepts and strategies adopted by the APP for the production growth of food crops and cash crops simultaneously in order to stimulate other economic sectors will be taken into consideration in this regard.

Food grain production can be increased if irrigation, fertiliser, improved seeds, pesticides, management of soil fertility and market management are incorporated into integrated package while launching productivity enhancement programme. The Ninth Plan has, therefore, envisaged to prioritise district level food grain and cash crop production programme in areas with road and cropping intensity will be increased in available irrigated areas through the use of improved seeds and chemical fertiliser. Programmes of crop production and productivity enhancement will be launched with priority under the above concepts

Prioritised Production Programmes:

Rice

Rice, the staple of the Nepalese diet, has covered more than 50 of paddy cultivated land. 74 percent of total rice production is in terai region. Paddy used to be cultivated only in 1.24 million hectares of land 25 years ago. At the end of the Eighth Plan, rice has covered 1.505 million hectares producing about 3.7 million metric ton. About 42 new species of paddy have been recommended at the base year of the Eighth Plan. Productivity of rice was 2.34 mt per hectare, but at the end of the Plan the productivity increased to 2.46 mt per hectare. During this plan period, rice production per hectare was 2.42 mt on an average.

Rice productivity in irrigated area will jump to 3.35 mt per hectare at the end of the Ninth Plan from 2.7 mt at the base year of the Plan, and in unirrigated land to 1.91 mt per hectare from 1.87 mt. Total rice production from both irrigated & non-irrigated areas is targeted to be 5 million mt at the end of the plan period. Productivity of rice has not increased substantially despite the coverage of approximately 58 percent of rice area by so-called improved seed, which is available from farmer to farmer. Therefore it is targeted to cover about 75 percent rice area by certified first to fourth generation improved seed at the end of the Ninth Plan. Programmes on productivity, cropping intensity and seed production in rainy and spring season irrigated land

launched during the end of the Eighth Plan will be carried on. Productivity in other non-irrigated land will be increased by applying integrated pest management technology, improved seed, chemical fertiliser, soil fertility, water conservation technology and so on.

Maize

Maize is second important crop after rice in terms of production, area coverage and food habit. The production and productivity of this crop have to be improved as its production is more than 75 percent in mountain area. It is possible to increase its productivity by applying plant protection technology with the general use of improved seed and chemical fertiliser. In order to increase total production, it is necessary to focus intensive cultivation of winter and spring maize in irrigated land.

Total maize production was 1.312 million mt from 793 thousand hectare at the end of the Eighth Plan, with the productivity per hectare of 1.65 mt. Summer maize is targeted to produce 1.521 million mt and the productivity 1.92 mt per hectare from the 1.63 of the base year at the end of the Ninth Plan by using chemical fertiliser and the productivity of increment technology and that of winter maize production 79 thousand mt with productivity of 2.25 mt from 1.7 mt. The area covered by first to fourth generation of improved seed will reach 75 percent at the end of the Ninth Plan period from the present coverage of 20 percent through seed production programme. Activities on hybrid seed and baby corn cultivated exclusively from private sector will be encouraged by providing appropriate technical services. Hybrid seed production activities will be started within the country. Maize cultivation will be focussed on non-irrigated area of terai region for the use of animal feed and green fodder.

Wheat

Special focus will be to increase the productivity of wheat from the very beginning. This crop occupies third position in food crops. Wheat production was 1056 thousand mt from 665 thousand hectares of land at the end of the Eighth Plan. But its productivity remained only 1.59 mt. Experimental studies show that it is possible to substantially increase its production and productivity.

Wheat farming will be carried out in 160 thousand hectare at the end of the Ninth Plan in irrigated land from its base year of about 85 thousand hectares. At the same time, its cultivation in unirrigated land will be reduced to 548 thousand hectares from 580 thousand hectares of the base year. During this period, wheat productivity will be 2.77 and 1.56 mt per hectare from 2.50 and 1.45 of the base year, which produces 443 thousand mt and 857 mt in irrigated and unirrigated land, respectively. Thus, the total wheat production will reach to 1300 thousand metric ton. At the end of the Ninth Plan improved seed will cover 75 percent of wheat cultivated area from the present level of 50 percent coverage.

Potato

Potato is important food crop in the hilly districts. At present, potato is considered to be cash crop in all high mountain *Sivalik* and terai regions. Production and

productivity of his crop has to be increased as it is a source of income and employment generation to farmers. Potato production recorded 733 thousand mt from 85 thousand hectare at the base year of the Eighth Plan. At the end of the Eighth Plan its production reached 961 thousand mt from 110 hectare. Similarly its productivity reached 8.76 mt per hectare from 8.59 mt in the base year of the Eighth Plan. In the Ninth Plan the programmes on potato area expansion, production and productivity increment will be launched in potential pocket area. It is targeted to produce potato in 140 thousand hectares and to increase its productivity from 8.76 mt in fiscal year 1996/97 to 9.29 mt per hectare. From this coverage and productivity status, total potato production will reach 1300 thousand mt at the end of the Ninth Plan period.

Priority of potato production programme will be centred especially in the irrigated area. On the other hand, productivity increment programme will be launched in unirrigated land by applying improved seed protection technology. The private sector will be encouraged in potato processing. Healthy potato seed production, tissue culture and pure bread potato seed production will be expanded through using improved seed. The problems of potato preservation such as lack of cold storage and low price will be solved through mutual understanding between government and private sector.

Other Programmes:

Millet, Barley and Other Secondary Crop

Millet, barley and buckwheat are secondary crops cultivated in unirrigated areas. Their production and productivity will be increased through managing crops and qualitative seeds from the selection of local species. Increase in production and productivity of barley as per the demand of beer and biscuit industry will be focussed on variety selection and the media communication.

Pulses

Pulses are cheap source of protein for the majority of the Nepalese population and a useful crop to ameliorate the soil fertility. Because of its great demand in internal and external market, it has the export potential, if produced in necessary quantity and quality. Black gram, lentil, gram, soybean and yellow arahar are the main pulses. In order to increase their productivity selection of improved and local variety, and integrated plant protection programme will be launched. Lentil farming will be expanded with an increase in crop production and its intensity, as it is suitable for the area, which is irrigated in rainy season but unirrigated in winter in terai. During the Ninth Plan the productivity of the pulse will be increased from 0.72 mt per hectare of fiscal year of 1996/97 to 0.90 mt.

Cash Crops

Traditionally, cash crop has played an important role in providing employment and income. These crops help to purchase basic needs for daily life and to supply raw materials required for agro-industry. Sugarcane, mustard, groundnut, jute, cotton and tobacco are the main demand-driven cash crops and *latte*, junelo, popcorn and niger are subsidiary and creation specific cash crops. The programmes of demand driven

cash crops production will be launched to increase their quality production from the point of view of export potentiality and the requirement of agro-industry. Production inputs, agricultural credit and a technical services will be mobilised in close co-ordination with the agro- industrialist and the exporter.

Oilseed:

It is necessary to launch special programmes for the development of oilseeds in view of their increased demand in national and international market. This crop will also help vegetable oil industry as its raw materials within the country. Until 1996/97, oilseed crops occupied 185 thousand hectares out of total 250 thousand hectares occupied by cash crops. At the end of the Eighth Plan, 119 thousand mt oilseeds have been produced in the country. If the internal demand of oilseed were met, about Rs 40-50 million equivalent foreign currency can be saved, which otherwise can be funnelled to other development activities. Therefore, during this Ninth Plan, improved quality seed supply programme will be implemented with special consideration. It is estimated to produce 155 thousand mt of oilseed with its productivity of 0.83 mt per hectare at the end of the Ninth Plan from its 119 thousand mt at the base year of the Plan.

Sugarcane

Sugarcane is the main cash crop. It is the vital source of raw material for sugar factory, and sugarcane product producing mills. At the end of the Eighth Plan, sugarcane production was 1622 thousand mt with its productivity of 35.26 mt per hectare. In the Ninth Plan, its production will reach 2100 thousand mt and its productivity 43.75 ton per hectare. Total production will be increased mainly through increased productivity using chemical fertiliser and improved variety. The sugarcane will be marketed in a planned way by arranging interactions between the factory management and sugarcane producers.

Tobacco

The tobacco crop has also significant contribution to the national economy. It has played a vital role in uplifting the livelihood, especially of low -income group farmers in Bara, Parsa and Rautahat districts. However, at the present situation, its production and productivity has been reduced due to the lack of extension package of appropriate production technology and low market price at the farm gate. Consequently, its total production has been 5,120 mt at the end of the Eighth Plan and its productivity 833 kg per hectare. Considering all these shortcomings, re-evaluation of tobacco price will be made; supply of necessary fuel for tobacco processing will be made available; availability of improved seeds and fertiliser will be ensured to meet the national requirement of cigarette and *bidi* industry. The tobacco production is estimated to be 6 thousand 500 mt at the end of the Ninth Plan from the present production level of 5 thousand metric ton. Productivity will be 1.08 metric per hectare at the end of the plan period.

Cotton

Cotton Research Programme was initiated in FY 1972/73. At present, cotton development programme under Cotton Development Committee is being run. Cotton production and productivity could not be increased even though priority is given to cotton development since cotton farming is subject to disease and pest and more use of expensive pesticides has resulted in little comparative advantage. Necessary plant protection technology has not been disseminated to farmers. During the Eighth Plan period, about 4 thousand hectares was targeted for the cotton production, only 2 thousand 300 hectares was cultivated at the end of the Plan. Similarly although the productivity target was 1.479 mt per hectare, only 0.70 mt per hectare was achieved. Considering this situation productivity improvement is focussed in the Ninth Plan keeping the usual target of four thousand hectare for cotton production. Its productivity will improve to 1.18 mt per hectare at the end of Ninth Plan. More focus will be given in the judicious use of improved seed, balanced chemical fertiliser and the technology development for low production cost. Research on integrated plant protection programme will get special focus to develop a suitable cotton variety for the increase of production and productivity.

Jute

Jute is produced mainly in Morang, Sunsari, Jhapa, Saptari and Udayapur of the eastern Development Region, Central and Western terai region is also suitable for its seed production. At present, the jute variety of Nepal has low productivity and hence its production level could not be increased during the Eighth Plan period due to low price in comparative market. At the end of the Eighth Plan, FY 1996/97, jute production was recorded to be 14 thousands mt with its productivity 1.27 mt per hectare. Hence in the Ninth Plan jute mill commercial association will be encouraged to establish in jute producer farmer groups and farmer labour for increasing jute production. And, in order to disseminate new technology of jute production in the farmers' field, special training will be given to JT/JTAs. At present jute mills are facing the shortage of raw materials. To meet their demand production programme will be launched such that these means will be able to export the finished product. Jute production will be 18 thousands mt and its productivity 1.64 mt per hectare at the end of the Ninth Plan.

Main Physical Target:

Area, production and productivity of major crops in the Ninth Plan is given in table 6.

Monitoring and Evaluation

District Agricultural Development Committee and Programme Execution Committee will monitor the activities related to identification of potential pocket areas for the increase of production and productivity, programme formulation, mobilisation of package programme and mobilisation of available resources in priority programmes. Monitoring will be carried out by regional offices and by the department at the central level. Table 6 depicts the physical target of total production resulting from the increase of productivity and the intensive farming system of main agriculture commodities. To meet this target, effective programme will be launched to mobilise

additional technical personnel, their capacity building and to improve institutional co-ordination at the district level.

Monitoring and evaluation will be carried out to examine the progress achieved by different programmes as compared with their set targets and their impacts. In doing so, emphasis will be given to different aspects such as the priority sector of the APP on cropping intensity, and the productivity increase programme, programmes of farmers group, saving fund and group permanency, production and productivity increment and cropping intensity improvement status. Likewise use of chemical fertiliser, improved seed, local demand and supply of agriculture credit, installation of tubewell, condition of irrigation water, development of irrigated land, increase in women participation in agriculture production, availability of technical services to small and marginal farmers will be stressed to this effect.

Expected Main Achievements:

Cropping intensity of major crops will reach 172 percent from present level of 160 percent. There will be additional production of 1,847 thousand mt of main food grains. Its productivity will also have additional 417 kg per hectare. Additional production of major cash crops will be 523 thousands mt and their productivity will increase by additional 1.955 mt per hectare. In major food crops, rotational system management will be developed in order to replace fourth generation improved seed by the first generation improved seed in every four year.

The use of chemical fertiliser in crop sector will reach 49 kg per hectare at the end of the Ninth Plan with continuous increase from 18 kg per hectare in FY 1996/97. Package programme implementation will be initiated in a co-ordinated way on the basis of MOU among related sectors. Employment opportunity will also be increased in rural areas through packaging of production and post-harvest marketing with proper storage and other processing of the agriculture product.

Table - 6
 Projection of area, production and yield of major agricultural crops in the Ninth Plan
 Unit area thousand hectare, production thousand mt, Yield mt /ha

Crops	Status of FY 1996/97			Projected targeted of FY 2001/2002		
	Area	Production	Yield	Area	Production	Yield
Major food crops	3262	6395	1.960	3468	8242	2.377
<u>Paddy</u>	1505	3699	2.458	1632	5000	3.064
Monsoon irrigated	945	2588	2.739	1187	3973	3.347
Spring irrigated	80	211	2.637	120	406	3.380
Non irrigated	480	900	1.875	325	621	1.911
<u>Maize</u>	793	1312	1.654	829	1600	1.930
Monsoon	769	1271	1.636	794	1521	1.915
Spring/winter	24	41	1.700	35	79	2.250
Wheat	665	1056	1.588	708	1300	1.836
Irrigated	85	213	2.506	160	443	2.769
Non irrigated	580	843	1.450	548	857	1.560
Millet	260	289	1.111	260	300	1.154
Barley	39	39	1.000	39	42	1.077
Potato	110	961	8.760	140	1300	9.286
Pulse	313	224	0.716	334	300	0.898
<u>Lentil</u>	158	116	0.724	179	181	1.011
Terai	149	109	0.732	170	175	1.029
Hill	9	7	0.777	9	9	1.000
Other pulses	155	108	0.697	155	116	0.750
<u>Cash crops</u>	250.3	1761.6	7.038	254	2284.2	8.993
Oilseed	185	119	0.643	185	155	0.838
Sugarcane	46	1622	35.261	48	2100	43.750
Tobacco	6	5	0.833	6	6.5	1.083
Jute	11	14	1.273	11	18	1.636
Cotton	2.3	1.6	0.7	4	4.7	1.180
Vegetables	146	1350	9.246	160	1716	10.725

Cropping Intensity		
Particulars	FY 1996/97	FY 2001/02
Total area covered by the crop *	4081	4356
Total cultivated land *	2551	2534
Cropping intensity %	160	172

* Total cultivated area has been presented by subtracting area of permanent crops like fruit, tea, etc. from the total area as mentioned in agriculture census,1991.

9.2 High Value Crops Production Programme :

There will be enough possibilities to produce comparatively advantageous high value crops in different ecological zones on the basis of ecological diversity of the country.

High value crops are especially horticulture crops such as citrus based fruits, apple, seasonal and off-seasonal fresh vegetable, vegetable seed production, bee keeping, sericulture, floriculture and commercial farming and other crops such as tea, coffee and spices crops. Such high value crops are mainly export oriented. The farming of such crops will generate five times more income than that of food crops in mountainous area with road facilities. Such farming will help improve the environment by stopping landslide and land degradation, especially through cultivation of fruit plant and providing food security through the increase of purchasing capacity from the income generated by high value crops. This will especially benefit women community. Thus, it is necessary to focus special attention to the expansion and development of these high value crops.

An analysis of areas under high value crops shows that during the Eighth Plan period, vegetable, potato, cardamom, and mulberry (silk) areas were slightly more than targeted but the area coverage by fruit, tea and coffee were less than targeted. In production side, citrus fruit production has not been achieved according to its target but the production of other fruits has been more than the target. Production of the vegetable, cardamom and tea has achieved its target. The production target of coffee, silk and potato has not been achieved.

Table 7
Progress of some major high value agricultural products in the Eighth Plan
(Area in '000 ha; Production in '000 mt ; Yield in mt /ha)

	Unit	Target of the Eight Plan			Level of 1996/97		
	mt	Area	Production	Yield	Area	Production	Yield
<u>Fruits</u>							
Citrus	"	17463	105325	9.82	15924	92994	9.97
Others	"	47620	275212	10.29	46996	335231	10.17
Total	"	65083	380537	9.0	62920	428225	10.13
<u>Vegetables</u>	"	14,1000	1278000	9.1	145000	1350000	9.31
Vegetable seed distribution	"	-	181.6	-	-	261	-
Potato production	"	96,000	10,33,000	10.76	109800	961490	8.76
Cardamom	"	7411	3540	-	9554	4456	-
Tea	"	4187	2485	-	3564	2905	-
Coffee	"	350	153	0.3	300	37	-
Silk production	"	533	300	-	1127	24.5	-
Honey production	"	-	50	-	-	60	-

Inadequate supply of technical services and production inputs, inefficient mobilisation of manpower and budgets are the major problems in production and development of high value crops. Quality production is also a problem. Processing capacity has not been adequately developed and producers are not working in an organised manner to mobilise the scattered production. Appropriate technology was also not available adequately in such crops due to the lack of co-ordination among units that rendered resource and the services. Supervision and evaluation of such activities have not been done in an effective way.

High value crops have great potential in improving environment through planting of fruit in marginal land, providing food security from income generation, providing three times employment opportunities to women, helping increase value added, bringing diversification and commercialisation in agriculture and possibility of earning income five times more than food crops since this sector is the priority sector of the APP. The programmes for the development of this sector in the Ninth Plan need focus obviously.

In this background, the food crop oriented subsistence agriculture system has to be transformed to diversification and commercialisation in agriculture by adopting the

production system of high value crops, which are comparatively more profitable than other crops in specific ecosystem. This will help promote agriculture industry, increase employment opportunities and improve economic growth rate. The programme to boost the production of high value crops will be launched to bring sustainable agricultural development by improving women leadership in decision making process.

Policy-oriented Programme:

- Programme will be launched to develop pocket area of appropriate agriculture land in such a way that agriculture product will be produced in commercial way. Considerations will be given to export and sale in local market on the basis of possibility of availability of necessary services. Commercialisation of bee keeping, silk farming, off-seasonal fresh vegetables and vegetable seed, high value fruit such as orange varieties and apples will be achieved by encouraging farmers group or private entrepreneurs in areas accessible by road.
- Programmes will be launched to make necessary services available on the basis of comparatively profitable production programmes such as marketable cut flowers, special fruit and food crops. Supply of qualitative resource inputs for the execution of programmes to establish co-ordination among marketing centres, processing industries and the producers will be ensured.
- Co-ordination will be established among the related sectors in order to manage rural electrification and to construct agriculture roads linking with potential production pocket areas. Programme will be executed to provide transportation facilities to local resource centres until the resources are not fully developed and available in local area for the production of high value crops. Special attention will be given to minimise environmental pollution by applying integrated plant protection technology through the use of pesticide and to facilitate all marketing services of products, agriculture inputs, technical services and agriculture training in package form.
- Pay back period of agriculture credit taken for the crops, which take longer time to produce, will be amended and the process to get credit will be made easy and cost effective. Monitoring and evaluation of each programme will be carried out effectively to formulate time bound projects in pocket area with active participation of farmers of identified pockets so as to mobilise agriculture technical services, to help promote agriculture profession, extension services by bringing co-ordination among the programmes of financial institutions. The members of district agricultural development committee will execute the plans after selecting pocket area and monitor the development programmes.
- A separate arrangement will be made to look after high value crops as a national priority programme. An authority responsible for production, research, marketing and national level co-ordination of the programme will be fixed. Technical staff relating to high value crops will be provided with career development opportunities in the specific programme area.

- Horticulture farm resources will be fully utilised by using the concept of programme operating fund on the basis of cost-effective production and motivation to the employees. Such farms will be the main resource centres of improved genetic material.
- Programmes will be launched to disseminate the information from pocket area to central level by removing the pitfalls in the process of data collection, analysis and publication, especially in pocket area of high value crop production.
- Programme will be launched in order to co-ordinate and disseminate appropriate technology developed by agriculture research, to provide training for capacity building of personnel, to increase the role of women in decision making process of agriculture profession and to provide regular training to technical staff of local and the central level.

Priority Programme:

Citrus Development

Since citrus fruit like tangerines, oranges and the lemons can help increase the farmers' income in mid hills, the programme will be launched in potential pocket areas with priority.

Commercial Citrus Orchard Development Programme

- Commercial orchard establishment programme will be implemented as a campaign in potential pocket areas of districts where citrus fruit farming especially in mid hills connected by highways, feeder roads or roads to be constructed in future. The situation of highway, feeder roads, populated area, transportation infrastructure or nearby pocket areas or easily accessible in a day on foot from the road-head will be taken into consideration while developing commercial orchards.
- Activities will be implemented to set up farmers' groups in order to develop pocket area under commercial orchard establishment programme. Technology related to all activities from planting to fruit marketing will be delivered through farmers groups.
- Co-ordinated research activities will be carried out by establishing co-ordination with Nepal Agriculture Research Council to carry out research works for solving the problems faced by farmers especially in citrus type fruit farming.
- Marketing will be facilitated with construction of cold storage and collection centre with the active participation of farmers' groups or commercial groups in different places of the country to minimise post harvest loss and to provide proper price to fruit products. Packaging will be improved. Special subsidies will be provided in electricity bill and packing equipment used to sell preserved fresh fruit in cold store and to open industry related to the processing of citrus fruits.
- The private sector will be encouraged to export of citrus fruits by exploring markets and providing information related to these markets.

Nursery Establishment and Strengthening Programme

The demand for the fruit plants for establishing citrus orchards will be supplied through the farms and the private sector nurseries. Focus will be on the private nursery establishment and strengthening of private nursery in the district so as to supply citrus fruit plants from the local resource centre. Government farms will complement the supply of such plants. Private nurseries will be established according to the needs of district for the sake of expansion of fruit farming. Old nurseries will be strengthened to increase their capacity to produce qualitative plants in a competitive way.

There will be a ban to bring or send out citrus plants from disease prone area. Legal act will be formulated for the sale and distribution of quality fruit plants and certify high quality scion for the production of fruit plant.

Demonstration Programme

Management Demonstration: The programme for the demonstration of establishment and management of model citrus orchards will be launched in joint technical supervision of technical staff in the service centre and horticulturist of concerned district. Producer farmers from the potential pocket area will be chosen under this programme. The model orchard will be developed as training site for that pocket area. At most, 15 model orchards will be developed in each district in such a way that farmers groups will have model orchards. Established model orchards will be strengthened through providing continuous technical services.

Promotion of Orchard in Other Areas: Problem solving demonstration programme will be executed for solving the problems faced by citrus fruit farmers. Activities for preventing and controlling citrus orchard disease such as pest control demonstration, pruning and use of micro nutrients inter-crop and green manure demonstration, weeding, mulching and irrigation demonstration activities will be launched through the participation of efficient manpower and farmers' groups. Demonstration programmes will be launched from time to time by evaluating its effectiveness.

Beehive Demonstration: Since bees help increase pollination and production, demonstration programmes will be carried out through keeping beehives in the orchards. The bee-keeping farmers will be the resource persons to provide training on beehive and bee-keeping to farmers. Such programme will be implemented under bee development programme.

Other Programme

Kitchen Garden Development: Fruit plants, required by the farmers will be made available from local resource centre of potential districts. Kitchen gardening programme will be executed to increase the farmers' income and nutritional status of common people. Such programme will include regular technical services.

Physical Target: During the Ninth Plan period, commercial gardening of citrus fruit will cover additional 3,400 hectares and kitchen gardening an additional 1,600

hectares. From the existing plants, it is projected that citrus fruit production will be 126,000 mt during the Ninth Plan. It is also projected that productivity will be 1,050 mt at the end of the Ninth Plan from 9.97 mt of the base year. Productivity of the commercial orchards under the priority programme will reach 11.5 mt from the present 11 mt.

Table- 8
Projected area extension of citrus fruit in the Ninth Plan

	Programme	Additional area of the Ninth Plan (Ha)				
		1997/98	1998/99	1999/2000	2000/01	2001/02
Commercial	580	620	680	740	780	3400
Kitchen garden	300	310	320	330	340	1600
Total	880	930	1000	1070	1120	5000

Table 9
Projected production of Citrus fruits in the Ninth Plan
Area: ha, Production: mt, Yield:mt /ha

<u>Progra- mme</u>	<u>Status as of 1996/97(approx)</u>				<u>Projection for the Ninth Plan (FY 2001/02)</u>			
	<u>Total area</u>	<u>Producti- ve area</u>	<u>Yield</u>	<u>Producti- on joint area</u>	<u>Total area</u>	<u>Produ- ctive area</u>	<u>Yield</u>	<u>Product ion joint area</u>
<u>Comme- rcial</u>	<u>9236</u>	<u>5411</u>	<u>11</u>	<u>59525</u>	<u>12636</u>	<u>7200</u>	<u>11.5</u>	<u>82800</u>
<u>Kitchen garden</u>	<u>6688</u>	<u>3919</u>	<u>8.55</u>	<u>33469</u>	<u>8288</u>	<u>4800</u>	<u>9</u>	<u>43200</u>
<u>Total</u>	<u>15924</u>	<u>9330</u>	<u>9.97</u>	<u>92994</u>	<u>20924</u>	<u>12000</u>	<u>10.5</u>	<u>126000</u>

- **Apple Farming:**

- Commercial Apple Orchard Development Programme

- Commercial apple gardening programme will be launched in successful pocket areas of mid hills and high hills of western, mid-western and far-western regions by focussing on apple production programme, especially in potential pocket area of high hill districts of Karnali zone. Technology dissemination programme will be implemented through farmers' groups. Agriculture inputs necessary for the farmers will be made available at the production site by easy procedure from Agriculture Inputs Corporation, co-operative society, related institution or private sector. Special training package will be given to apple producing farmers about apple orchard establishment and technology that includes fruit packaging time,

fruit picking process, fruit storage, packing and fruit transportation activities and adoption of special precaution.

- Special attention will be given to the use of integrated plant nutrition management activities for the preservation and management of soil fertility of apple orchard by thick mulching to increase quantity of compost for maintaining wetness in the orchard. Appropriate water ponds will be constructed by mobilising the farmer/farmer groups, wherever possible.
- Priority will be given to construct, gravitational ropeway, short-distance ropeway and agriculture roads in the potential apple production sites.
- Internal marketing system will be efficiently managed for apple sale. Search for apple export will be carried out. Farmer groups will be mobilised to build collection centres and cellar store in the production sites. Agriculture credit will be made available to construct small cold store near the airport and potential urban areas. Minimum import tax will be levied on equipment needed for cold store construction. Operation of cold store will be made cost effective by subsidising electricity bill.
- Private entrepreneurs will be encouraged to establish apples processing industry by providing them technical services. Women will be encouraged to set up cottage industry for apples processing by providing them training on the use of small-scale technology in the production sites.
- Statistics on apple farming will be maintained up-to-date by conducting survey on production cost and collection of apple farming data. Co-ordination will be established with the research component so as to make apple-farming production oriented according to the needs of farmers and market.

Nursery establishment and Strengthening Programme

Private nursery will be given special priority for the production and supply of apple plants needed for apple orchards. A minimum of two nurseries will be established in private farms for the production of apple saplings in the potential districts. Nursery strengthening programme will be launched to maintain old nurseries.

Nursery establishment and management technology kit will be made available to the nursery owners. Horticulture centres will be made responsible to supervise and monitor nursery management and their registration.

Demonstration Programmes

Problem Solving Demonstration: Demonstration programme will be launched for inter cropping such as soybean in order to increase soil fertility in the orchard until the beginning of apple production. Demonstration programme such as apple pruning, integrated plant protection for apple disease and pest, integrated plant nutrition management for orchard nutrition will be launched to solve the problems faced by apple producing farmers.

Model Orchard Establishment And Management Demonstration: Model orchard will be established in the selected private farm of apple production pocket area with

the objective of supporting commercial orchard management activities to be done by apple orcharder. Programme will be implemented to impart site training for the development of resource centre in the pocket area to make it effective through technical supervision.

Beehive Demonstration: Demonstration programme will be launched by keeping beehive in the apple orchard since bees help in pollination to increase apple production. Resource centre will be developed by making farmers and farmers' groups efficient to impart training in beehives management and bee-keeping. Commercial entomology development programme and bees development programme will provide necessary technical services in order to launch beehive demonstration programme.

Other Programme

Kitchen Garden Programme: Regular technical services will be provided to the farmers of apple production districts to execute kitchen gardening programme where few saplings will be grown in their orchards inaccessible by roads.

Physical Target: Additional 2,275 ha will be covered by apple orchards in the Ninth Plan period. A total of 31,397 mt apple production is projected in this plan by strengthening old orchards and establishing new orchards.

Table- 10
Projection of the Apple area extension in the Ninth Plan
Area: ha

Programme	Additional area in the Ninth Plan					
	1997/98	1998/99	1999/2000	2000/01	2001/02	Total
Commercial	117	169	264	626	825	2000
Kitchen gardening	72	65	55	45	38	275
Total	189	234	319	671	862	2275

Table- 11
 Projection of apple production in the Ninth Plan
 Area: ha Production: mt, Yield: mt /ha

Programme	Estimated Status as of 1996/97				Projection for the Ninth Plan (FY 2001/02)			
	Total area	Productive area	Yield	Production	Total area	Productive area	Yield	Production
Commercial	2352	1520	10.6	16112	4352	1650	10.8	17820
Kitchen gardening	2300	1486	8.4	12483	2575	1614	8.4	13577
Total	4652	3006	9.5	28595	6927	3264	9.6	31397

- **Bee-keeping**

It is necessary to give priority to bee-keeping since it is an important activity to increase the productivity of horticultural crop through pollination from bees. It also helps create self-employment.

Up to the end of the Eighth Plan some progress was made in improving institutional capacity and farmers training in this sector. Activities like construction of bee-hives, bee-keeping management, farmers training and the beehive distribution have been carried out in some potential districts. In the Ninth Plan period, priority programme of bee-keeping will be initiated by integrating apple and orange orchard pocket areas and seed production with pollinating crops. The following will be focused while implementing such programmes:

- Priority programme will be launched to involve women and low income farmers of the fruit and vegetable production districts in close co-ordination with related crops in the pocket areas. Fruit and tree saplings will be distributed to help the development of bee-keeping. District agriculture extension and related crop programme will launch the activities and programmes related to the distribution of bee hives, equipment and training in bee-keeping to the farmers of developed pocket areas.
- Resource development centres will be set up at the farmers' level and technical support to enterprising farmers will be provided by institutionalising them. Such resource centres will be supported for the transfer of technology to other farmers through such centres.
- District profile related to honey production will be collected. Technical services for marketing the honey will also be given. Bee-keeping farmers' groups will be involved in fixing prices, sale and distribution of honey. Export-oriented honey will be produced after establishing honey processing plant by producers themselves.

- Effective services will be given to the poorest of the poor and women bee-keeping farmers by forming their groups.
- For the sake of providing necessary services, bee-keeping development offices and the resource centres will be strengthened. Activities related to developing appropriate technology, programme execution, monitoring, supervision and evaluation will be effectively implemented. For this, attention will be given to producing necessary manpower.

Physical Target: During the Ninth Plan, total honey production is estimated to be 85 mt by adding up 25 mt to the present honey production level of approximately 60 mt.

- **Vegetable Development**

Comparatively vegetable farming is labour intensive. It also helps create employment opportunity and increase income especially to small farmers. It is the commodity that can channel urban income to rural area. It helps improve the nutritional level of Nepalese people. There is a great export potential of vegetable seeds. Hence it is necessary to promote this high value crop from the point of view of comparative advantage.

During the Eighth Plan a positive signal was seen in the export of some vegetables to India produced from the irrigated land of Kavre, Dhading, Bara, Sarlahi, Kaski, Sanyaja, Tanahu, Ilam, Palpa and Dhanusha districts. In this plan period 1350 thousand mt of vegetables and about 419 mt of vegetable seeds was estimated to have been produced from 146 thousand hectares. In order to promote the programmes of seasonal and off-season vegetable and vegetable seed production by extensive utilisation of ecological diversity, vegetable development programmes in the Ninth Plan will be launched as follows.

Commercial Vegetable Production Programme

- Off-season vegetables will be produced using economy of scale in pocket areas in order to help produce off-season vegetables for export after fulfilling the demand of local market. Such programme will be launched in Ilam, Panchthar, Dhankuta, Terathum, Makwanpur and Palpa districts.
- Technical services will be made available to the private sector to construct cold storage house in terai region and the natural storage house in mountain region wherever commercial farming is possible. Electricity will be made available in subsidised rate especially to cold storage house. Necessary credit facilities and technology will be provided to the private sector to transform cold storage house into proper shape. Minimum import tax will be levied on to new equipment.
- Seeds, saplings and agriculture inputs will be made available by easy means through the private sector to the commercial production sites.
- Special attention will be given to the judicious use of pesticide for protecting the vegetable crops from indiscriminate use of pesticide. Integrated plant protection system will be implemented by utilising bio-pesticide technology.

Off-season Vegetable Production Programme

This programme will be launched for the production of market oriented vegetable in the pocket areas in and around north-south highway of Taplejung, Ilam, Panchthar, Dhankuta, Tehrathum, Makwanpur, Palpa, Dhading, Kavre, Tanahu, Kaski, Nuwakot, Dolkha, Sindhupalchok, Syangja, Baglung, Rolpa, Pyuthan, Dang, Dhadeldhura and Baitadi districts. The programme will be given continuity in different irrigated pocket areas. This programme will help produce fresh vegetables according to the demand of small and the big markets and it will enhance their export potential. This programme will focus on the following:

- Priority will be given to build infrastructure such as agriculture roads, short distance ropeway, irrigation and collection centres in the off-season vegetable areas. Sprinklers will be given to small farmers with a subsidised rate for regular and proper irrigation in commercialised off-season vegetable farming.
- New technology for off-season vegetable farming from the neighbouring countries will be tested. Such technology will be experimented in the pocket areas in close collaboration with agriculture research.
- Potential site for off-season vegetable production will be developed as export oriented pocket areas in Lam, Panchthar, Dhankuta, Tehrathum, Makwanpur and Palpa districts. Continuous technical services will be provided to the farmers of such pocket areas for the increase in off-season vegetables. Horticulture trade promotion committee will be established in the wholesale market centre by including the representative of producers' groups, traders, processor and researchers. Such committee will adjust the production and market potential.
- Technical services will be provided to trained volunteers in order to increase women's skills in the export-oriented production sites.

Potato Seed Development

Potato is produced in all districts of the kingdom in commercial way. Potato is cultivated two times a year in the irrigated land. The potato development programme will help establish foundation seeds in the mountainous districts for the supply of potato seeds to the demand area. A special programme will be launched so as to support the potato seed production centres in the high mountain areas. Private entrepreneurs will be encouraged to produce potato seed. Staple potato production activities have been mentioned in section 9.1.

Vegetable Seed Production

- Vegetable seeds production programmes will be launched giving special priority. As income earning potentials have been proved both in hills and terai, winter vegetable seeds are produced in hilly and high mountainous districts and summer vegetable seeds in terai districts. In order to bring sustainability in seed supply, seed buffer stock will be maintained at the central level with the active

participation of the private sector. Hybrid seeds for off-season vegetable production will be imported and distributed with the consultation of Nepal Agriculture Research Council through private sector.

- Vegetable seed production will be focussed in Ilam, Terahthum. Dhankuta, Sankhuwasabha and Bhojpur of eastern region; Bhaktapur, Lalitpur, Nuwakot, Makawanpur, Sindhupalchok of central region, Mustang, Kaski, Baglung, Parbat, Myagdi, Gorkha of western region; Rukum, Rolpa, Salyan, Pyuthan, Dolpa of mid-western region, and Dadeldhura, Achham and Baitadi of far-western region.
- In general, foundation seeds, hybrid seed and breeder seeds will be produced in government farms and centres. Programme will be launched to produce certified seeds from the farmers. Seed marketing will be carried out by Agriculture Input Corporation, private seed traders and local farmers. Encouragement will be given to support seed transaction of producing and distributing agencies.
- Seed Act will be implemented in an effective way and updated as per need.

Table- 12
Farm / centres for foundation seed production

S.N.	Department of Agriculture		Agricultural Research	others
	Vegetable Development Division	Vegetable Development Division		
1.	VSPC Khumaltar	1. Sarlahi	1. Dhankuta	1. Lumle
2.	„ Rukum	2. Solu	2. Pokhara	2. Pakhribas
3.	„ Dadeldhura	3. Sindhuli	3. Sindhuli	3. Jumla
4.	„ Fikkal, Ilam	4. Daman	4. Dailekh	
5.	„ Nigale	5. Trishuli	5. Tarhara	
6.	„ Dolpa	6. Boch	6. Parwanipur	
		7. Panchkhal	7. Nepalgunj	
		8. Palpa		
		9. Marpha		

*VSPC: Vegetable Seed Production Centre

Other Programmes

Special Vegetable Production Programme: In the selected districts, onion, green chilly, asparagus, *parbal*, and tomato will be produced for import substitution. From this programme, onion farming is done in Dhanusha, Siraha, Saptari, Sarlahi, Rupandehi, Banke and Dang; asparagus farming in Kathmandu, Lalitpur and Bhaktapur; *parbal* farming in Banke, Mahottari, Sarlahi and Nawalparasi; tomato farming in Sarlahi, Makawanpur, Kavre, Dhanusha, and Mahottari and green chilli farming in other potential districts.

In this programme, spicy crops like cardamom and ginger are also included. Under this programme, cardamom is produced in Ilam, Panchthar, Taplejung and Terahthum; ginger in Salyan, Tanahu, Palpa, Pyuthan, Terhathum, and Ilam. Cardamom Development Centre, Ilam will make resource seeds available to private nursery owners. One resource centre will be established in each ginger producing districts, wherever possible.

Kitchen Gardening Programme: Vegetable production will be continued under kitchen gardening programme in order to improve nutritional status of rural people in the remote areas where there are no other programmes and marketing facilities.

Physical Target: During the Ninth Plan, vegetable production area will be increased to 160 thousand hectares from the present 145 thousand hectares and its productivity to 10.73 mt per hectares from 9.3 mt. Total production is estimated to be 1716 thousand mt. Vegetable seed production will be 700 mt from the present production level of 419 mt.

Table13
Projection of Vegetables and Potato Production in the Ninth Plan
Area: ha; Production: mt

Crop	Eighth Plan			Ninth Plan		
	Area	Production	Yield	Area	Production	Yield
Vegetables (Off Season Only)	145000 (10800)	1350000	9.30	160000	1716000 (2500)	10.725
Potato	109800	961490	8.76	140000	1300000	9.30

Sericulture Development: The climate of the country is suitable for sericulture. Through this, it is possible to use unproductive time thereby increase income and employment opportunities for rural women. There is also potential for exporting silk product. This programme needs to be initiated with priority to increase its coverage.

Although Commercial Entomology Development Programme has been established with the objective of sericulture development, it has not been able to take momentum. At present, there is some improvement even though there is lack of technical knowledge and supply of seed is problematic. Although it seems to be ordinary commercial farming, its farming technology is very sensitive to microenvironment of silkworms that is why its expansion is not enough in capacity building for institutional knowledge and skills.

During the Eighth Plan a 10-year sericulture development plan was prepared to develop this sector. Production of silkworm eggs was 1030 boxes by developing its internal production capacity. Sericulture development centres were set up in four different places. In addition to Khopasi Sericulture Centre for worm rearing, egg processing training centre has been established at Itahari mulberry plantation here extended to 988 ha farmers' fields. These have to be strengthened and expanded further. On this basis, it is necessary to give impetus to sericulture.

In the Ninth Plan, sericulture development will be launched as follows with the objectives of balancing the environment by creating green area of mulberry trees, contributing to food security for rural people by increasing their purchasing power through increasing high quality silk production which eventually helps alleviate poverty.

- Eggs supply will be guaranteed by focusing on the development of parent stock and technology according to climatic condition. Private entrepreneurs will be encouraged by providing technical services for the development of quality nurseries for the sake of supply of resources and the production of improved mulberry.
- Sericulture will be given priority to make it commercialised in Ilam, Sunsari, Dhankuta, Kavre, Dhading, Tanahu, Kaski, and Syangja districts. The programme will lead to include all local, national and international NGOs and private sector since it is not possible to supply basic services, extension services and necessary inputs only by government sector in the identified pocket areas.
- Silkworm eggs will be sold at the cost price at the end of the Ninth Plan beginning with low price tag. Appropriate steps will be taken to make commercial farming in view of its production and distribution except research and training.
- Collaborative research will be carried out with NARC for generating suitable technology for commercial silk farming.
- Programme will be launched to develop farmers' own management system by preparing the cluster of farmers group on the basis of the sectoral priority according to long-term sericulture development plan. 'Resham Chautari' (centres) will be developed at such clusters. Incubation arrangement for silkworms under trained farmers' management in such clusters will be made and hatched worms will be incubated to support the farmers' cocoon collection and preliminary processing.
- Sericulture farms/centres will be responsible to impart technical services in the command areas.
- Skill oriented training on silk worm farming will be given to leader farmers in at least two seasons in order to make their technical skill efficient and simple. In such training, interested farmers will be trained by providing them full course to cover lifecycle of silk worm. There will be mobile training in silk producing site for women capacity development with their active participation.
- Silkworm eggs will be imported only from the leading countries for sericulture. Focus will be given to maintain qualitative silkworms.

Priority

On the basis of experience obtained from the past years, silk farming programme will be as follows:

Silkworm egg production structure and physical facilities: Silkworm eggs production is a complicated and challenging job. For this, various steps and cycles have to be completed which include development, preservation and expansion of parental stocks, production of egg cocoon and commercial grainage. Emphasis will be given to develop structure and physical facilities to maintain such production cycles.

Human Resource Development: Every aspect in sericulture has its own specialities. Basic core manpower as well as mid-level technicians are necessary for the development of specialised manpower of different objective and nature. That is why, experienced and trained personnel have to be encouraged by timely promotion and higher training. Necessary steps will be taken to produce specialised graduates by providing proper training.

Development of Group System: Programme will not be launched in a haphazard manner. Pocket approach and package technology concept will be fully implemented in the high priority districts that will receive technical services on site so as to make effective silk production programme at the farmers' level.

Women Participation: Women participation has the vital role in sericulture. The programme will give priority to form women silk farming groups particularly to flow income to poor women.

Physical Target: During the Ninth Plan, priority will be given not only to increase the production area but also to the productivity. Sericulture will cover an additional 600 hectares where mulberry will be cultivated. Cocoon production will be 44 mt at the end of the Plan from the present level of 24.5 mt. Three thousand four hundred lead farmers will receive practical training. The programme will proceed with the objective of raising cocoon production level at 4,000 mt in the next 20 years.

Table14

Physical Target of Main Activities in Sericulture in the Ninth Plan

S.N	Job Description	Unit	Status of base year 1996/97	Target of the Ninth Plan					
				97/98	98/99	99/20	2000/01	01/02	Total
1	Cocoon Production	mt	24.5	26	30	33	37	44	170
2	Mulberry farming extension	ha	217	110	130	136	125	100	600
3	Caster farming extension	ha	24	10	5	5	5	5	30
4	Lead farmers training	Perso n	250	255	818	783	864	884	3604

Other High Value Crops:

Programmes in high value crops as envisaged by the APP have already been explained before. Therefore, the following regular programmes on other high value crops will be implemented with a view to maintaining and improving the present level of production.

- **Tea**

Tea farming is successful in eastern hills and terai region according to physio-climatic condition. It is estimated that only 40 percent of internal demand have been met by the present level of tea production. It is believed that the orthodox tea produced in hilly region should be promoted for export, and the terai tea for local consumption. Since the tea farming is labour intensive, it has an important role in generating employment especially for women. It supports soil conservation in environmentally friendly manner because of its shadowy shrubs.

During the Eighth Plan period, target of tea garden coverage was 4187 hectares and production level 2485 mt but the achievement was 3564 hectares and 2805 mt. National Tea and Coffee Development Board has been established for institutional development. But the Board was not able to function in effective manner. Due to minimum research activities for tea development, lack of quality parental stock, inadequate efficient technical manpower, minimum transportation and electrical

facilities, problems in quality and processing improvement and in transportation of green leaves, tea farming could not be expanded as desired.

Given such background, the following tea development programme will be launched with the objectives of export promotion, improvement of quality and productivity, and expanding tea garden coverage in the Ninth Plan.

- Focus will be given to provide basic infrastructure such as agriculture roads, rural electrification, and other services for the development of tea farming in a commercial way. Agriculture credit, technical back-stopping, training, short distance agriculture road and electrification infrastructure as a package programme will be focused if the private sector submits proposal to establish tea garden of at least 3000 ropanies with processing plant in any tea priority district or other potential districts.
- Research activities related to tea will be carried out in close co-ordination with NARC. NARC will co-ordinate with government to receive the help from proper country for the development of improved tea.
- Services will be rendered to interested entrepreneurs by providing minimum tax for the import of machinery equipment, raw material and the production inputs necessary for processing industry that needs to be operated by purchasing local green leaves. Royal Nepal Embassies and Trade Promotion Centre will be mobilised to collect market information, to reach overseas market and advertise Nepalese tea for its promotion.
- Farmers' and mid-level technicians' skill will be improved by providing practical training in the private farmer's garden as a training venue. There will be deputation of trained technicians in tea producing districts. Environment will be created for the promotion of working technicians in tea estates.
- Tea Development Corporation will be privatised by appropriate process. A separate working policy will be formulated for the promotion of tea farming and industry by setting clear cut role of Tea and Coffee Board in providing the import license of machinery equipment, credit recommendation, industry registration, manpower development, marketing, import-export of tea product.

Priority: Priority will be given to the production of orthodox tea for export and other tea for internal consumption especially in eastern region of the country. Programme will be focused to establish a processing unit to cover at least 3 thousand ropanies in those areas where orthodox tea has been successfully produced. Priority services will be provided to small farmers' groups, women's groups and co-operatives.

Physical Target: During the Ninth Plan, tea area is projected to be 4564 hectares with the addition of 1000 hectares. Total tea production is projected to be 4101 mt from 3156 hectares.

Table- 15
Projection of Tea Production and area in the Ninth Plan

S.N.	FY	Total Area	Additional Area	Total Production Area	Total Production
		Ha	Ha	Ha	mt
1	1997/98	3764	200	2407	3129
2	1998/99	3964	200	2571	3341
3	1999/00	4164	200	2709	3521
4	2000/01	4364	200	2908	3780
5	2001/02	4564	200	3156	4102

- **Coffee**

It is possible to develop coffee farming in different hilly areas of western and central regions due to geographical diversity. If coffee production is developed in effective manner, its production and productivity increase and import substitution can be achieved. At the same time, it can also contribute to improve farmers' income and employment opportunities.

During the Eighth Plan period, the target of coffee coverage was 350 hectares and the production target was 153 mt at the end of the Plan. Due to inefficient data collection, the proposed target of coverage expansion and production fell short. It is estimated that the production of coffee grain was 37 mt and coverage 300 hectares. Coffee development programme could not achieve the expected progress due to inadequate research and marketing facilities.

With the past experience of short fall in progress resulting from production focus without analysis of the taste of internal and external consumers, a number of factors need to be taken into consideration such as marketing system, internal processing capacity and its needs, technical capacity and liberal economic system. Coffee development programme will be carried out as follows in the Ninth Plan.

- In order to increase internal consumption of processed coffee using local technology, appropriate programmes will be identified and launched to develop the taste of consumers. Technical service will be made available for initial processing of coffee at farmer's level and for handling processing equipment.
- Nepal Agriculture Research Council (NARC) will co-ordinate for technology development of producing quality coffee grain, making the production competitive, increasing productivity and decreasing production cost. On the basis of coffee grain market and technology, emphasis will be given to conduct commercial farming by giving priority to the pocket areas of feasible districts. Arrangements will be made to provide necessary support services in the form of package to such pockets continuously.

- With the emphasis on manpower development concerned with coffee, arrangement will be made for study and training. Emphasis will be given for infrastructure development in commercial coffee production areas.

Priority: Priority will be given to provide support services in order to promote commercial coffee production along with the production for home consumption on the basis of demand. This will be carried out by co-ordinating with coffee processing industries and exporters.

Physical target: Coffee cultivation will be increased to 444 ha by cultivating additional 144 ha of land during the plan period. According to this, it has been projected that about 110 mt. of coffee will be produced from the total productive area of 252 ha. by the end of the Plan.

Table 16
Projection of Coffee Production in the Ninth Plan

S.N.	FY	Total Area	Additional Area	Total Production Area	Total Production of dried cherry	Total Production of Parchment bean
		ha	ha	ha	mt	mt
1	1997/98	324	24	130	171	57
2	1998/99	354	30	160	211	70
3	1999/2000	484	30	190	250	83
4	2000/01	414	30	212	280	93
5	2001/02	444	30	252	332	110

- **Other fruit-crops**

The prioritised fruit and vegetable programmes as guided by the agriculture perspective plan have been described above. Programme will be conducted to provide basic service to promote production programme of high value agricultural commodities like pear, walnut, peach, plum, persimmon, pomegranate, lemon, groundnut and grapes, among the temperate fruits; mango, banana, guava, papaya, jackfruit, lichi, nut, coconut among the tropical fruits; ginger, turmeric, garlic and chilly among the spices; and mushroom.

Priority: While conducting production programme of these crops, priority will be given to mobilise facilities like support service, training, credit on the basis of package in order to develop commercial orchard.

Physical target: The projection of area and production of fruits and spices crops as mentioned in the Ninth Plan are shown below. The services to be provided to develop commercial orchard along with other basic technical information for kitchen gardening will contribute to achieve these physical targets (Table 17). Fruit production projection, as a whole, is shown in table 18.

Table- 17
The Production target of other fruit and spices in the Ninth Plan

Programme	Estimation of FY 1996/97		Estimation of FY 2001/02	
	Area (ha)	Production (mt)	Area (ha)	Production (mt)
Other Fruit	42344	306636	45469	342603
Spices	11636	87208	12000	89800
Cardamom	9554	4456	10000	4700

Table- 18
The Projection of overall Production of Major fruit in the Ninth Plan
Area: ha; Production:mt ; Yield: mt /ha

Programme	Estimated Situation as of 2001/02				Target of the Ninth Plan (2001/02)			
	Total Area	Productive area	Yield	Production	Total Area	Productive Area	Yield	Production
Commercial								
Citrus Fruit	9236	5441	11	59525	14236	7200	11.50	82800
Apple	2352	1520	10.60	16112	4352	1650	10.80	17820
Others	11856	8385	10.40	87214	13775	10357	10.69	110748
Kitchen orchard								
Citrus Fruit	6688	3919	8.55	33469	7238	8400	9.00	43200
Apple	2300	1486	8.40	12483	2575	1614	8.40	13577
Others	30488	21563	10.17	219422	33724	25358	10.71	271721
<u>Total</u>	62920	42285	10.13	428225	73870	48079	10.40	500000
Citrus fruits	15924	9330	9.97	92994	21474	12000	10.50	126000
Apple	4652	3006	9.50	28595	6927	3264	9.62	31397
Others	42344	29949	10.24	306636	45469	32815	10.44	342603

Training and Manpower Development:

To conduct production programme of prioritised high value agricultural commodities, necessary additional manpower and training will be arranged in the plan period.

Available manpower will be mobilised in the prioritised areas providing the chances of career development.

Monitoring and Evaluation:

To implement the programme successfully and effectively, commodity-wise programmes will continuously monitor the planned programme and implementation situation, and make the reports available. On the whole, district offices will monitor service centres, and regional offices will monitor district offices and farm centres. On the basis of need, the central office will monitor regions, districts and farms. To make the monitoring effective, responsible personnel will be assigned to monitor and evaluate whether the high value agricultural commodity programme is conducted as directed by the central office according to agriculture perspective plan.

Livestock and Fisheries Development Programme:

- **Livestock Development**

In traditional agriculture production system, livestock raising is an income-generating enterprise. Livestock products like milk, egg and meat contribute about one-third to the agricultural gross domestic product. This enterprise has been playing important role to provide employment and income to the rural women and backward farm families. The APP has estimated that the growth rate of livestock product would be significant. To achieve this, commercialisation of livestock production is necessary.

As it was targeted to achieve the production of milk 1.03 million mt, meat 173 thousand mt., egg 480 million (numbers) and wool 814 mt at the end of the Eighth Plan, the achievement up to the final year of the Plan 1996/97 was: milk production 1.01 million mt, (98.5 percent), meat 174 thousand mt (100 percent), egg number 420 million (89 percent) and wool 633 mt (77 percent). In the fiscal year 1996/97, only about 9 percent of milk is collected by the organised sector as DDC has collected 58.5 thousand mt and private sector has collected 32 thousands. From this, 375 mt. of cheese has been produced. In the year 1996/97, powder milk valued Rs 302.2 million has been imported. Similarly, there is some improvement in import substitution with little decline in the import of buffaloes, goats and eggs. Export to Tibet has increased.

There are many reasons for not achieving the expected success in livestock development in the Eighth Plan period. These are the targets fixed by the Plan failed to be translated into actual programmes, the flow of service and facilities did not take place as desired, poor implementation, inappropriate mobilisation of skilled manpower to conduct the programme, lack of certain work management for regular study, monitoring and evaluation of programme implementation for solving the problem at field level, lack of authentic data system, lack of appropriate livestock products marketing, and so on. So, for the sound development of livestock sector by solving these problems, it is necessary to launch programme with special priority to strategic breeding arrangement for breed improvement, animal treatment and disease identification, pasture and animal feed, market facility and standard skill-oriented training based on farmers' need in the Ninth Plan. As guided by the APP, it is

necessary to promote private sector for the processing and marketing of livestock products, which is necessary for the industrialisation of livestock production.

Livestock development service programmes will be conducted in the Ninth Plan with the long-term goal of achieving the annual growth rate of 6.2 percent of the livestock products production from the present growth rate of 2.3 percent to achieve self-reliance in milk, meat and egg along with export promotion, achieving 43.2 percent contribution of livestock sector to agricultural gross domestic product from the present contribution in the coming 20 years. Besides, it is also envisaged to support poverty alleviation by increasing productivity of livestock, thereby increasing the production of milk, meat and egg and eventually increasing farmers' income.

Policy-oriented Programmes:

Programmes will be conducted in the strategic background like increasing productivity by breed improvement, increasing livestock products: milk, meat, egg, milk powder, cheese, *khuwa* (dried milk) and packed meat without affecting environment and substituting import and promoting export by improving the quality of products, providing credit facility and training to women farmers to provide them self-employment and to increase their income; developing national "quality standard" and implementing it to standardise the quality of livestock products, by-products and raw materials used in producing livestock and poultry, readymade feed, seed, vaccine and medicine; giving priority to prevention service among the animal health services and supporting the development of private veterinary services in the commercial areas; mobilising the national dairy development board to provide strategic recommendation to HMG for planning, implementation, monitoring and evaluation in the area of dairy development thereby increasing the participation of private sector and making arrangements for livestock products marketing.

Priority will be given to conduct programmes related to the production livestock products as identified and prioritised by APP such as dairy animal farming, goat, poultry and related nutritious animal feed and animal health Programmes will be conducted in the feasible pocket areas in order to develop these areas as the pocket of massive milk, meat and egg production. In this connection, programmes will be conducted focusing on the following points:

- In view of the demand of milk and milk products in the city market, commercial cattle and buffaloes will be raised in the village surrounding those cities where physical infrastructures have been developed and private sector will be encouraged to establish dairy industry in such areas. From this, there will be flow of income from the urban to rural area thereby supporting employment and income growth.
- Employment opportunities will be created by launching programmes like milk production, poultry farming, milk collection, improved fodder production commercially within the four hours walking distance along the highways and sub-highways.

- Emphasis will be given to raise goat, sheep, pig, rabbit and poultry in the rural areas where there is no transportation and electricity in order to increase employment utilising the local resources.
- Programme will be conducted by organising livestock and poultry raising farmers' group. Training will be provided to farmers groups, JT and JTAs for capability enhancement. Breed improvement, animal feed, animal health service, training, credit facility and market facility will be mobilised in the form of package through the group. District agricultural development committees and programme execution committees will be responsible for identifying and mobilising the pocket packages.
- By studying and monitoring the custom duty prevailing in the neighbouring countries such as sales tax, subsidy, quality standard, etc., timely improvement as needed by the country will be made on the duty imposed on raw materials used for livestock production and livestock products with a view to creating suitable environment for export and import according to the strategy of World Trade Organisation (WTO).
- Arrangement will be made to conduct animal health services by selecting feasible areas.
- National Dairy Development Board will be mobilised actively to formulate timely and appropriate policies and to advise HMG for their implementation. Such policies will be based on the aspects like milk production, collection, dairy industry development, quality development, export feasibility, investment capability and privatisation to support for achieving the economic growth rate as targeted by APP.

Priority Programme:

Group Development: To achieve the target of the Ninth Plan, additional 2 thousand 460 cattle- raising groups, 2 thousand 260 buffalo raising-groups, 13 thousand 100 goat raising groups, 820 poultry -raising groups will be formed. Each group will contain 10 farm-families (table 19). Commercial livestock production technology will be utilised by mobilising technology package through these groups. Improved livestock raising will be extended by creating qualitative effect through the successful management of these groups. To make livestock and poultry development and extension programme achievement-oriented, service will be provided to the livestock farmers jointly through 360 livestock service centres and 639 livestock service sub-centres.

Table- 19
Number of farmer groups conducting the package programme

Particulars	Farmer groups	97/98	98/99	99/2000	2000/01	2001/02	Total
Commercial Programmes							
<u>Priority</u>							
Cattle raising (Cow)	No.	260	300	360	440	600	1960
Cattle raising (buffalo)	No.	200	260	280	380	440	1560
Goat raising	No.	140	300	600	720	860	2620
Poultry	No.	30	40	45	50	55	220
<u>Others</u>							
Piggery	No.	30	40	50	60	70	250
Rabbit raising	No.	10	20	25	30	35	120
Women Development Programme		0	0	0	0	0	0
<u>Priority</u>							
Cattle raising (Cow)	No.	70	80	100	120	130	500
Cattle raising (buffalo)	No.	80	100	120	200	200	700
Goat raising	No.	280	600	1200	1440	1720	5240
Poultry	No.	50	55	60	65	70	300
<u>Others</u>							
Piggery	No.	20	30	40	50	60	200
Rabbit raising	No.	10	15	20	25	30	100
Poverty Alleviation Programme		0	0	0	0	0	0
<u>Priority</u>							
Goat raising	No.	280	600	1200	1440	1720	5240
Poultry	No.	50	55	60	65	70	300
<u>Others</u>							
Sheep raising	No.	30	40	50	60	70	250
Piggery	No.	20	30	40	50	60	200
Grand Total		1560	2565	4250	5195	6190	19760

Milk collection and processing: Dairy Development Corporation will support for extending milk collection in new dairy pocket areas by ascertaining trade area for the development of dairy industry. Milk will be used and consumed by encouraging the establishment of new dairy processing factories and extending the capacity of established factories. Environment will be created to establish cottage as well as big

cheese factory to produce high-quality cheese suitable for export. As 32 thousand mt of milk is being collected and processed by the private sector in the base year 1996/9, support will be provided to achieve the target of collecting and processing of 75 thousand mt of milk by the private sector at the end of the Ninth Plan.

Breed improvement: Breed of local cattle, buffalo, goat and sheep will be improved by both natural and artificial insemination. According to the demand of farmer groups, improved breed of 2 thousand five hundred buffalo bulls, 2 thousand 120 bulls, 15 thousand 500 bucks, 2 thousand 400 rams and 45 thousand cockerels will be distributed to the farmer groups. For breeding purpose, livestock and poultry will be distributed 75 percent of the pocket areas and 25 percent of other areas.

According to the demand of city area having infrastructure, 0.13 million buffaloes and 0.35 million cows will be artificially inseminated by privatising the artificial insemination service gradually. To bring sustainability in productivity by developing breed suitable to the climatic condition, programme will be conducted by following the breeding strategy of mixing murrh breed in 62.5percent of the hill buffaloes and 62.5 percent jersey breed of *terai* and hill cows.

Table- 20
Breed Improvement Programme

Particulars	Unit	1997/98	1998/99	1999/00	2000/01	2001/02	Total
<u>Artificial Insemination</u>							
In Cows	No.	30000	50000	70000	90000	110000	350000
In buffaloes	No.	10000	15000	25000	35000	45000	130000
Total	No.	40000	65000	95000	125000	155000	480000
Improved breed distribution for natural insemination							
Bulls	No.	350	360	410	480	520	2120
Buffalo bulls	No.	370	420	490	580	640	2500
He-goat	No.	800	1700	3500	4300	5200	15500
Yak sheep	No.	100	300	500	700	800	2400
Cockerel	No.	5000	10000	10000	10000	10000	45000

Animal Feed Development: To decrease the production cost of milk and meat, nutritious fodder based livestock production system will be followed. In the Ninth Plan period, 932 mt of summer and winter fodder seeds, 416 mt of perennial fodder seeds, 165 mt of pasture seed and 22.16 million fodder saplings will be produced and distributed along with the participation of the private sector. Emphasis will be given to develop agro-forestry in the mid-hills by co-ordinating with the lease-hold forestry programme. To minimise the production cost of milk, green fodder production in the *terai* (plain) region will be emphasised to feed animals in the winter season. A unit

will be established separately and programme will be conducted to standardise the quality of raw materials used in the livestock production system, readymade feed, medicine, feed supplement, fodder seed, milk, meat and other livestock products in order to make the livestock products market-oriented.

Table- 21
Pasture and Fodder Programme

Production / Distribution	Unit	1997/98	1998/99	1999/2000	2000/01	2001/02	Total
Summer and Winter grass seeds	mt.	128	149	183	221	251	932
Perennial grass seeds	mt.	34	53	90	109	130	416
Pasture land grass seed	mt.	8	20	36	45	56	165
Fodder trees	000 pieces	1327	2920	4783	5937	7194	22161

Animal Health: It is necessary to safeguard poultry from diseases as poultry farming is becoming big enterprise and for achieving 6.2 percent of the annual growth rate of egg production. As the causative elements of poultry diseases are different from that of other animal diseases, animal health service programme will be implemented effectively by establishing Central Avian Diagnostic Laboratory. Similarly, animal health regulation unit with laboratory facility will be established and conducted to standardise the quality of medicine and vaccine produced in the country and to examine the imported medicine. Arrangement will be made to provide additional health service through both government and private sector to improve the existing animal health service, which covers 10 percent of farm-families within the distance of 10 km from the livestock service centre and sub-service centre. Sixty-six animal health practice centres will be established in the private sector and conducted as pilot projects. The service of veterinarian will be made available through 50 service centres. During the outbreak of epidemic disease, preventive vaccination and disease-identification service will be provided free. In other time, vaccination and other service will be made available charging a fee. Priority will be given to launch these programmes in prioritised pockets.

Table 22
Animal Health Programme

Particulars	Unit	1997/98	1998/99	1999/20	2000/01	2001/02	Total
Vaccine For Cows/buffaloes							
Foot and mouth rot	No. of cattle/thousand	102	119	146	177	201	745
Black quarter	„	51	60	73	88	100	372
Haemorrhagic Septicimia	„	102	120	146	176	200	744
For Sheep and Goats							
Foot and mouth rot	„	205	418	842	1020	1220	3705
Haemorrhagic Septicimia	„	205	418	842	1020	1220	3705
Total Vaccination	„	665	1135	2049	2481	2941	9271

To provide the quality service to the increasing commercial livestock farming, disease identification laboratories will be conducted in 54 district livestock services offices, with 40 in the district level and 14 in the zonal level. Working capacity of all the five regional animal disease identification laboratories will be increased by strengthening them.

To fulfil the need of vaccine like swine fever, I.L.T., I.B., Marek's disease and I. B. D., vaccine production will be increased by strengthening the existing laboratory. Joint investment of private sector will be encouraged for vaccine production. Monovalent vaccine of FMD will be produced in the country by strengthening the existing laboratory.

To control rabies, a very important disease from the public health and export promotion point of view, sample vaccine will be produced using sheep brain at present, which is used in human also. To increase the quality of this vaccine, production of international-standard tissue culture vaccine will be initiated. For this purpose, the existing laboratory will be strengthened.

Training and Manpower Development: Livestock farmers will be mobilised as village animal health workers by providing them training on improved livestock and poultry farming technology, skill development and income generation after organising them into farmer group. Such programmes will be emphasised in prioritised pocket areas. Technicians involved in livestock development services will be provided with training on skill-oriented scientific livestock and poultry farming system, and health treatment in order to make them capable in their field of work. In

co-ordination with Institute of Agriculture and Animal Science, arrangement will be made for graduate and post-graduate studies to produce qualified technicians within the country in animal breeding, animal health, pasture and dairy technology. Possibility of higher studies and training will be found out and utilised through different scholarship programme and projects.

For the standardisation of skill-oriented training to be conducted in all regional training centres under the central livestock training division, necessary manpower, experimental equipment facility and hostels will be arranged gradually to strengthen the centres. Through this programme, 6 thousand 425 farmers will be trained at the village level; 4 thousand 510 farmers will be trained in health, breeding, pasture and fodder for one month at regional level; 4 thousand 356 mid - level technicians and 1 thousand 56 officer- level technician will be trained in the related subjects. Mobile training will be arranged to increase the participation of women in farmer level training. Priority will be given to conduct training programme so that these meet the need of prioritised pocket areas. Teaching materials will be made agriculture occupation oriented rather than production-oriented only. Arrangement will be made to provide JTA level training to 1000 people from 1000 selected VDCs based on the demand in order to fulfil the need of increasing animal health service at village level.

Table- 23
Animal Service Training Programme

Training level	Unit	1997/98	1998/99	1999/2000	2000/01	2001/02	Total
Officer level	person	217	212	179	204	244	1056
JT / JTA level	„	870	870	870	875	870	4355
Farmer level: Village level	„	1285	1285	1285	1285	1285	6425
Farmer level: One month	„	902	902	902	902	902	4510

Livestock Development Farm Management: Eleven livestock development farms under the Department of Livestock Services will be developed as the main resource centre of improved livestock and poultry breed, and improved seed. In the concept of “revolving fund” as followed by Pokhara Livestock Development Farm, the working capacity of other farms will be improved. Jiri-Khimti farm will be developed as the main resource centre of temperate fodder seeds. Bhuditola goat farm will be improved to develop as a main goat development centre while Panchsayakhola sheep farm and Solukhunmbu Yak (*Chaunri*) farm will be strengthened for the production of sheep and yak and nak respectively. Gaughat, Ranjitpur and Janakpur farms will be developed as main resource centres of tropical fodder seeds. Chitlang farm will be expanded for rabbit and goat production. Livestock and poultry produced in these farms will be made available for distribution.

Livestock Market Development: National Poultry Production and Marketing Centre will be established for the management of private sector to support the development of commercial poultry farming and market promotion. This centre will help government sector in policy formulation in the field of planning, implementation,

monitoring, market management and appropriate protection by participating in poultry and hatchery industry for the development of poultry enterprise. Besides, it will also promote the enterprise through monitoring and evaluation. Livestock market management programme will be initiated by establishing slaughtering house and cold storage in the private sector with the active role of municipalities and village development committees.

Other Livestock Development Programme:

Pasture Development: Five thousand ha of community pasture will be developed in the districts situated in the northern belt to support sheep, yak, nak and *chaunri* farming and cheese and *chhurpi* industry on the basis of people's participation. Technical package service will be provided after the formation of 250 sheep farming groups in order to conduct sheep farming programme effectively.

Women Focused Livestock Development Programme: Continuity will be given to poultry and pig development programme by distributing pig and multipurpose fowl cockerel to increase the income of backward women and farm-family by mobilising local resources. For this purpose, programme will be conducted involving 7000 families. Technology package service will be provided to pig farming programme after forming 650 farmer groups. For milk and meat production, young calves collecting and raising programme will be conducted through women's groups. Agricultural credit and technical service will be made available for this purpose.

To increase the participation of women group in goat and poultry farming enterprise, skill-oriented training will be provided to the groups supporting them in market management of produced commodities. Women's capability in income generation will be improved by commercialising the poultry and goat farming. Ten thousand families will benefit from this programme.

Marginal-Farmer Focused Livestock Development Programme:

Leasehold forestry and community fodder and pasture development programme will be conducted in areas where there is no infrastructure by co-ordinating with Ministry of Forest in order to increase the income of backward farmers. During the plan period, this programme will cover 7,112 families.

Animal quarantine:

Among 24 animal quarantines in the country, 6 quarantines situated at the main entry points will be strengthened by establishing appropriate laboratory along with necessary examination kit and animal holding facility.

Rabbit Farming:

Rabbit farming will be commercialised in the pocket area. Under this programme, 2200 farm-families will be covered. Technical service package will be mobilised after forming 220 rabbit farming groups. Emphasis will be given to promote angora rabbits.

Livestock Development Credit And Insurance:

Emphasis will be given to provide necessary credit to farmers for livestock development programme by co-ordinating with agriculture development bank and other financial institutions. Credit to be flowed under the programme has been mentioned under the heading of agricultural credit programme.

Livestock insurance programme will be carried out focusing on the protection of animals rather protecting the invested credit or loan only. This programme will be primarily implemented in the identified commercial pockets.

Major Physical Target:

Formulated policies and programmes will help achieve the envisaged targets on an average annual growth rates of milk (5.56 percent), meat (6.22 percent) and egg (7.22 percent) respectively at the end of the Ninth Plan. Special priority and consideration will be given to promote buffalo raising programme for meeting desire targets of increasing milk and meat. Similarly, emphasis will be given to increase the productivity of milk with the introduction of high-yielding cattle breed, and goat raising, the contributor of 20 percent of the total meat. Appropriate programme to increase the quality production of exportable products like cheese and ghee will be implemented during the Ninth Plan.

Table- 24
Projection of the Ninth Plan

Particulars	Unit	1997/98	1998/99	1999/2000	2000/01	2001/02	Total
Milk Production	mt.	1068	1128	1190	1257	1326	5.56
Meat Production	„	185	196	208	232	235	6.22
Egg Production (in million)		450	480	510	550	590	7.22

Monitoring and Evaluation:

Suitable tool for monitoring and evaluation will be applied to monitor the livestock development activities for ensuring whether they are executed as per the Agriculture Perspective Plan (APP); and other activities will also be monitored to ensure whether they are driven towards commercialisation or not. The findings from such monitoring will be used to make certain changes while formulating another plan.

A district profile will be prepared and updated by collecting and compiling the relevant information and data regarding livestock activities in each district. With the technical co-ordination of Central Bureau of Statistics (CBS), a network from the service centre to the central offices will be maintained to develop and collect those information regularly. Monitoring and evaluation methodology will be followed by appropriate indicators developed so far to verify and crosscheck the breeding, feeding, health and marketing services in order to achieve envisaged targets of milk, meat and egg by the APP.

Fisheries Development Programme

Fish farming is developing as an important enterprise today. Fish not only supplies human nutrition but also provides employment opportunities, which ultimately helps reducing poverty to some extent. Of the total water resources, 4,20,262 ha in the country, there are 6,262 ha ponds, 5,000 ha lakes, 12,500 ha swampy land, 1,500 ha reservoir and 3,95,000 ha rivers. Similarly, 3,98,000 ha irrigated paddy land is developed as a natural habitat for fish farming. Of the total water resources, only 2 percent has been utilised for fish farming and 23,207 mt of edible fish has been produced.

Fisheries has contributed 0.42 percent to the total agricultural gross domestic products. It is mentioned that 74,000 farm families are involved in fish farming.

Fish production and fingerlings distribution target has been fulfilled in the Eighth Plan. Its potentiality and interest of the farmers in fish farming have broadened its scope over the years. However, budgetary constraints, lack of trained manpower, lack of resource centres and laboratories have slowed down its pace.

It has been envisaged in the Ninth Plan that the present level of edible fish production will be raised to 75,000 mt in the coming 20 years from the present level of 23,000 mt. To achieve this target, programmes will be heavily focused on maximum utilisation of the natural river and the other water sources and construction of artificial fish ponds, which will help increase the production and productivity.

Policy-oriented Programme

For export promotion by increasing the production of cold water fish, creation of more employment opportunities by promoting fish production in most possible water resources, protection and conservation of economically important fish of river and water resources, following fisheries development Programmes will be implemented to promote the fish farming, specially in the ponds, in the Ninth Plan depending on the market demand and comparative advantages

- To study the potentiality and carrying capacity of different river to expand fish production programme in the long-term, necessary technical and managerial services will be carried out in a package concept to encourage the farmers and promote commercial fish farming.
- The programme will be designed to supply the 75 percent of the total fingerlings from the private resource centres and rest from the government machinery. Loan and technical services will be provided to encourage the private fish producers for enabling them to produce quality fingerlings. Private sector will be encouraged to duck farming by providing them technical services. Government farms will implement very few programmes. Farmers will be encouraged to organise for marketing, and post-harvest training will also be provided as per the need.
- Farmers accustomed to on fishing in river, swampy and communal ponds, will be supported by providing reservoirs and ponds on lease on a group basis. And they

will be trained on fishing technique, technical know-how and other topical issues in fish production. Unscientific fishing will be discouraged and fingerlings/fish fries will be released in the potential water areas. To support this activity, Aquatic Act will be passed and implemented.

- Fisheries Development Farms will be used and mobilised as resource centres for fingerlings production and distribution programme.
- Trained manpower for fisheries development will be attached with Agriculture Extension Programme to make extension activity more effective in the district.
- A fisheries laboratory will be established at the central level to diagnose diseases, find out control measures, test the quality of water and feed simultaneously. The fee for used water and electricity will be charged equally as that per other agricultural commodity/industry. Minimum custom duty will be imposed on the import equipment such as boring, pump, cage, net, medicine and so on.

Physical Target:

- Average productivity of a pond will be increased from 2.28 mt/ha to 2.5 mt/ha. In the case of intensive fish production, this rate of productivity will be increased from 3.4 mt /ha to 4.0 mt /ha. The area coverage by old and new fish ponds will be increased to 6,200 ha, cage culture to 30,000 cubic metres, fish culture in paddy field to 200 ha, fish culture in swampy land to 1,000 ha and enclosure to 100 ha. At the same time, fingerlings will be released in different potential water sources to help poor fishermen to uplift their living standard.
- A database for fisheries development plan will be prepared after surveying the Koshi, Gandaki, Karnali river and their tributaries followed by socio-economic study of the surrounding community.
- Fish production quantity will be increased from 2300 to 3500 mt by expanding the fisheries programme followed by improved technology and management practices. Ponds owned by the community, marshy land, river and rivulets ponds and lakes will be leased to the private entrepreneurs after passing the bills on water use law. Twenty five thousand fishermen and women will benefit from this.

Manpower:

The available manpower in this sector will be used at the best possible extent and new posts will be proposed for further manpower availability.

Monitoring and Evaluation:

In brief, Fisheries Development Division will be given responsibility for planning, monitoring and evaluation of fisheries programme.

Table- 25
Fisheries Programme in the Ninth Plan

S.N	Particulars	Unit	Base Year	Ninth Plan					Growth % in comparison to base year
				96/97	97/98	98/99	99/00	2000/01	
1	Area covered by programme (Ponds, reservoirs, paddy field, enclosure etc)	ha	5433	5600	5950	6750	7000	7500	38
2	fingerling production and distribution	000 unit	55344	60321	67290	71000	75000	80000	44.5
3	Fish Production	Mt	23207	23458	23730	28230	32500	35000	50.8
a)	From fisheries	„	11977	12228	12500	15000	16500	17100	42.7
b)	From natural source	„	11230	11230	13230	16700	17900	17900	59.4

9.4 Agricultural marketing, Industry and Export Promotion Programme:

The economy of the nation becomes stronger only when the agriculture develops as a lead sector. Agricultural programmes in the past mainly focused on supplying production inputs and technology simply to increase the level of production. But the efforts were very minimum to develop marketing infrastructure where products could be collected and marketed easily and that could have encouraged farmers to produce more. When the marketing infrastructure is very poor the farmers will be reluctant to produce more. If quality products in a large volume/scale are produced, there are opportunities for securing domestic and international markets. If production do not get markets and the subsistence structure of production is not reformed, agricultural productivity will not increase. In spite of the availability of technology, the agriculture sector has not been able to identify and take benefits from comparative advantage in the absence of efforts to enter markets. To overcome this situation, increasing production and establishing and managing a marketing network/system are the two primary factors to be considered very seriously. That is why the Ninth Plan

has foreseen an appropriate information system and cost benefit analysis of agricultural commodities in order to establish a systematic marketing channel and facilitate export promotion programme.

With regard to the review of the Eighth Plan, infrastructure for agricultural produce marketing stall and agricultural produce collection centre in some of the very few places have been made available. A market management committee has been formed and started in each of those marketing stalls. In the course of developing vegetables and fruit collection centres, there is a programme of strengthening Kalimati fruit and vegetable wholesale market to establish/develop linkage with 19 collection centres existing in different districts of the central development region. To make producers well-informed about the selling price of fruit and vegetables, the wholesale price is broadcast every day on Radio Nepal. Minimum support price has been fixed for paddy in the case of cereals, and sugarcane and tobacco in the case of cash crop. However, the procurement as per the support price is not functioning properly.

Milk being a perishable commodity, high attention has been given to provide reasonable price to the farmers and assist in marketing the milk. Establishment of milk powder plant in Biratnagar having three metric ton capacity per day is an example in this regard. Similarly, a new milk processing plant has been established in Butwal. Construction of a 100,000 litres -capacity cold storage in Kathmandu and establishment of a cheese factory in Ilam and Panchthar have been completed. Apart from these, 43 milk chilling centres established in the different parts of the country have been run. National Dairy Development Board (NDDDB) has been formed. Over the last few years, private sectors have been involving in marketing of milk and milk products. However, only nine percent of the total milk produced is collected and processed. It shows that there is still a long way to go further in marketing of milk and milk products. This has become a challenge for import substitution of milk and milk products in spite of its high potentiality. A significant progress in clean meat production and processing has not been achieved yet. Due to lack of slaughtering house, big hotels are still importing quality meat. Likewise, support to the production of quality hide and skin is still lacking.

Seventy-six private nurseries and dealers are involved in production and distribution of 50-60 million fingerlings in the country. Some of them are exported to India. At present, fish has been exported to neighbouring markets using drier. Standardisation and packaging of the products was not considered properly in the plan period.

Income generating activities like sericulture, bee-keeping and other high value crops which can be started with minimum investment have not grown well during the Eighth Plan. The progress of establishing commodity processing industry by involving the private sector strongly was not encouraging. There was no encouraging progress in the formation of farmers' groups, encouragement of private sector in storage and processing, and construction of marketing stall and its management for the management of commodity market.

It is necessary to develop self-operating system to enter the agricultural produces into market after absorbing these by industry for the transformation of subsistence farming to commercialisation to convert it into modern system.

Lack of entrepreneurship with majority of producers is a hurdle to commercialise the production in an economic scale. This situation is caused by passive role of private and co-operatives, lack of commitment in periodic and long-term plan to commercialise the production, programme activity confined mainly to technology dissemination and development, lack of timely flow of reliable information and lack of co-ordination with the affiliated organisations followed by insufficient infrastructure like agricultural road, electrification and other inputs are the challenging issues in this sector.

On the background of prevailing challenges in agri-business and market development as mentioned, agricultural marketing, industry and export promotion programme will be conducted in the Ninth Plan for economic growth and employment promotion. Enterprises that utilise the opportunities of internal and external markets will be promoted in order to develop agriculture into an enterprising occupation by commercialisation. Besides, with the vision of sustainable development, this programme will support poverty-alleviation by developing business-oriented production system with the active participation of private and government sectors.

Policy-oriented Programmes:

Agriculture development programme will provide new dynamism to agriculture sector by transforming agriculture into enterprising occupation; and emphasise the commercial production of crops, horticultural crops, livestock and poultry and fish and high value agricultural commodities. It will bring necessary improvement in the present import export trend along with economic and financial policies to promote economy of scale in production, processing industry and trade business in order to transform to agri-business. The sectoral policy and programme will emphasise economy of scale in production for export promotion by identifying appropriate commodity and pocket area; and participate agricultural commodity-wise associations in planning, implementation, monitoring and evaluation to make farmers industrious and entrepreneurs' participation effective in commercial agricultural development. It will also focus on the development of agricultural road for the transportation of products to market; and encourage private sector and commodity associations to play active role in the development of infrastructure like godowns, cold storage and market institutions. The policy and programme will also emphasise in the development of agricultural business and its implementation through its inclusion to the curriculum of skill development training programmes to be conducted in university and other agencies for the development of agri-business, education and trained manpower; and emphasise on the development of agricultural economic analysis and related statistics. In the above context, following policy-oriented programmes will be conducted in the Ninth Plan:

- With the emphasis on enterprise development and management, agricultural extension and implementation of training programme will be included. Agricultural extension workers will be made agricultural business promotion-oriented by providing them appropriate training. Agricultural occupation-related subjects will be included in the curriculum of agriculture educational institutions to develop future agricultural manpower.

- Programme will be conducted to increase the involvement of private sector, agricultural co-operatives, farmers' groups and non-governmental organisations in agro-processing, products marketing and distribution of agricultural produces at local level. Besides, co-operatives, industrious farmers and farmer groups will be encouraged to use modern technology along with management training and infrastructure development by mobilising their participation.
- Emphasis will be given to involve private and co-operative organisations in commercial production of identified commercial crops, livestock and high value crops by providing necessary help in the form of integrated package. Pocket area programme will be conducted with the active role of private sector through the promotion of certain commercial crops and livestock in economy scale and quality so that these can penetrate the national and international market.
- Agro-based industries to be established in certain areas with the objective of procuring, semi-processing and processing of commercial agricultural products will be encouraged by providing technical and credit support.
- Agricultural production and commercial programmes will be conducted to utilise the opportunity of World Trade Organisation (WTO), South Asian Preferential Trade Arrangement (SAPTA) and South Asian Free Trade Arrangement (SAFTA).
- Arrangement will be made to provide degraded forest area, fallow, uncultivated and uncultivable land available to the private sector on lease for the production of particular commercial agricultural commodities. For this purpose, forest and land management strategy will be reviewed, if necessary. If private sector targets to produce commercial agricultural commodity in large area and to increase employment opportunities, legislative arrangement will be made to take private land on lease to support the private sectors.
- Due to the lack of adequate knowledge on alternative use of foodstuffs, various agricultural commodities are not produced in appropriate amount. Therefore, alternative use of food produces will be publicised through central food laboratory for increasing production in commercial scale, diversification, value added and employment promotions.
- Agricultural studies and research will be focused to support agro-industries and enterprises. Recommendation of the research findings such as economic return, cost of production and comparative advantages will be made available on the basis of private sectors' capability to adapt. Conducive environment for agricultural research and development will be created. To this effect workable regulatory measures will be developed and made effective through NARC to provide back-stopping to private sector initiative in such research on their own expenses. Tea and milk processing plants will be gradually privatised. Policy of commercial banks on single borrower limit, under which loan is provided to private sector for procuring agricultural fertiliser, will be reviewed. Similarly, loan to promote market facilities will be gradually increased. Livestock insurance will be introduced to reduce high risk. Appropriate insurance policy will be

initiated in the beginning in seed promotion programme and gradually replicated in other sectors as well.

- A good co-ordination and conducive working environment among the central food research laboratory, quality control and measurement department and quarantine check-posts will be maintained with a view to making effective monitoring for internal distribution and quality import and export of agricultural commodities. Private entrepreneurs will be encouraged to establish their own quality test laboratory to facilitate the import and export of agricultural commodity.
- Agricultural collection centre and agricultural marketing centre established by the government will be gradually handed over to the farmers groups, co-operatives and private sectors. Such centres will be established with the involvement of private parties, as needed. The proposed centres will be involved from the stage of project identification along with their defined responsibility. Necessary laws will be formulated to run those collections and marketing centres by the private sectors.
- Local tax on internal transportation of agricultural products will be exempted to maintain competitive price in the market. In the situation where local government has to take urgent steps for regulating needed services and commodities. Working procedures will be arranged to take the permission of the Ministry of Agriculture in the case of agricultural commodities. A market information centre comprising the representatives from HMG, private sector and agricultural co-operatives will be established. Support to develop necessary infrastructure will be provided to establish such centres in the private sector.
- Implementation capacity of the agricultural co-operatives and concerned organisations will be improved by providing necessary technical support in production, processing and marketing management of agricultural products. To support these activities, the existing organisational structures of the Co-operative Development Board, National Co-operative Association and Co-operative Department and their scopes will be redefined and enforced. These agencies will be empowered to make necessary decisions in planning and implementation.
- Arrangement will be made for maintaining market intelligence and for getting information on production, prices and market strategies of other countries along with exploring the opportunity of prevailing local markets and their risk in order to direct production system, accordingly.
- A policy on customs exemption for the materials that can be used in packaging of industrial products will be made effective to maintain a competitive price of agricultural products. Encouragement will be given to import of the unprocessed raw materials necessary for agricultural industry for processing in the country in order to add value.
- Diplomatic missions abroad will be mobilised to identify potential markets of possible domestic products in foreign countries. Concerned domestic institutions

will also be mobilised to establish functional linkages with these foreign based institutions. Necessary facilities will be provided to the private sector in the search for international market for agricultural products and establishing relationship with them.

- Scientific methods will be applied to make agricultural statistics reasonable and reliable. An appropriate methodology will be prepared with the help of technical co-ordination of CBS and minimum physical infrastructure will be developed, as needed. Forecasting of agricultural statistics and pre-warning information will be published by the MOA and the estimation will be finalised by the CBS. An institutional arrangement will be made for collection, processing and publication of statistics on export and import of agricultural commodities on a regular basis. The programme of making food stock balance sheet will be made active and this information will be published regularly.
- Economic welfare and empowerment of women will be ensured through making arrangement for their participation in increasing agricultural production, developing agricultural inputs and agricultural enterprise by creating suitable environment for involving women groups and women co-operatives.
- While conducting programme for increasing agricultural production and promoting agricultural industry, environment conservation measures will be adopted.

Priority Programmes:

[Agricultural Occupation Promotion Service Programme](#)

As there is no possibility of increasing production and productivity and commercialisation without the promotion of agricultural enterprises, programme will be conducted to monitor and evaluate agricultural enterprises and strategies to liaise with the private sector and support in solving their problems, to help in expanding export market by exploring feasible national and international market for agricultural commodities. Agricultural enterprises promotion project will be conducted to make this endeavour effective. This project will provide effective support to the secretariat of proposed agricultural enterprise promotion committee.

[Agricultural Price and Marketing Service Programme](#)

Under this programme, strategic guidelines will be provided to concerned departments by conducting necessary studies and analysing the selection and implementation of projects for market infrastructure development in feasible area for commercially produced agricultural commodities with the participation of private sector, co-operatives, farmers' groups and other enterprise groups. But the supervision of market development construction, improvement and mobilisation will be carried out under the programme of related departments. Market information collection, analysis and extension projects will be conducted for collecting information and data on production quantity, price, production cost, profit, investment, *hat-bazaar* (weekly local market) and business, and providing these information to both producers and

consumers on a regular basis along with maintaining the record of these information and data.

Agricultural Statistics and Agricultural Economic Analysis Programme

Agricultural data collection and publication project will be launched to help Central Bureau of Statistics in collecting necessary data for formulation of each agricultural programme, implementation and timely analysis of policies, and to prepare other production data estimation which is not prepared by the CBS, to prepare report on agricultural commodity production situation as pre-estimation necessary for CBS to prepare annual production statistics and to prepare the situation analysis of crops, improved livestock and poultry and fish farming. Similarly, agricultural economic analysis project will be launched to prepare statistics necessary for economic analysis of agricultural sector like per unit production cost of agricultural commodity, per unit employment generation, cost analysis of agricultural production by studying per unit production and price situation and analysis of agricultural price, income growth and employment promotion situation. Under these programmes, information like estimation of winter and summer crops production statistics, data on livestock, poultry and fish farming and other production statistics which are not prepared by central statistics department, per unit cost, employment and benefit, investment, price of agricultural commodities and domestic production along with various statistics and information will be prepared.

Implementation Arrangement

The development of agricultural enterprises depends on supply of technology and capital, development of physical infrastructure and development of advanced management system. The following policies and programmes will be formulated and executed in these endeavours:

1. A high level agri-business promotion committee will be formed with the representation of private sector, co-operative sector, commodity specific producers' associations and related organisations of HMG. This committee will perform the following functions:
 - Help the MOA to identify commercial agricultural commodities and crops and help formulate policies for their commercial development,
 - Help to make the endeavour of private and government sector as complementary to each other for agricultural development,
 - Manage the facilities to be provided to the private sector by informing the government in time and include the provision of these in annual development programmes,
 - Prepare implementation plan of the programmes indicated by the Ninth Plan in the direction of commercialisation of agriculture and manage for the conduction of the Plan,
 - Provide appropriate and solid suggestions by monitoring, reviewing, evaluating and analysing all aspects of agri-enterprises,

- Take necessary steps to solve obstacles and problems in commercialising agriculture, and
 - Establish relationship between producers and agro-industries and conduct programme for their interaction.
2. An agri-business promotion division will be established in the MOA to support the promotion of agri-enterprises and establish agro-industries with great emphasis. A unit directly related to agri-enterprise under the Ministry and the Department of Agriculture such as market development division, economic analysis division and statistics division will be affiliated to this division. Following works will be carried out through this division for the promotion of agri-enterprises.
- Work as the medium for the implementation of concept and vision of agri-business through MOA, and its departments, divisions, offices and the grass-roots-level units.
 - Work as a government contact agency for private sector, organisations of agricultural commodities, non-governmental organisations, farmer groups, co-operatives that are related to agri-enterprises.
 - Work as the secretariat of agri-business promotion committee.

Other Programmes:

9.4.1 Co-operative Development:

It is very appropriate that from the social and economic view point co-operative sector contributes significantly to the national economy by utilising economically active manpower and business skill and scattered savings. For this, small entrepreneurs through co-operative services mobilise resources available to promote all-round development in agriculture, cottage and other industries. With this concept, co-operative has been given due importance in social and economic development in formulating the Ninth Plan.

In the Eighth Plan co-operative education and training, institutional and physical infrastructure development programmes were incorporated. Under co-operative education and training programme, 56017 Government. employee co-operative union members and women were given training. Training material production have been improved. There has been substantial increase in government investment in training. There has been the policy to encourage the formation of local, central and national level voluntary and autonomous co-operatives. Three thousand 771 primary co-operatives, 77 district co-operative unions, 3 central level associations and one national co-operative federation have been formed by the Fourth year of the Eighth Plan. These co-operatives and unions transacted Rs 1870 million within this period and took loans of Rs 577.4 million investing Rs 454.2 million. The recovery was Rs 491.2 million within that period. The programme to establish co-operative bank was not fulfilled. This sector could not contribute substantially to milk production, food processing and saving though there is a great possibility in these aspects.

Different studies have confirmed that co-operatives can be sustained if they are formed according to the needs of the people, and if they can encompass participants from production, processing industry and marketing. Co-operatives were given autonomy. But it is not clear that merely granting autonomy is no solution to smooth functioning of co-operatives. On the one hand, directed co-operatives did not function efficiently resulting in big loss to the organisation, while independent co-operatives have been facing many problems. During the last decades these organisations were fully dependent on government subsidy and it is still continuing. Co-operatives do not have its own production programme and are involved in non-co-operative business. It has not developed its marketing channels and has not been able to establish co-operative banks. This has resulted in lack of co-operation from government sector.

There is tremendous possibility of upliftment in economic prosperity of common people by involving economically active manpower and providing skills to co-operatives. It is timely to solve past problems and explore new possibility.

The main objectives of a co-operatives in the Ninth Plan are to contribute to the socio-economic development; to provide benefits of fair price to the farmers and consumers; to involve small producers who will help in finding out marketing outlet for the production produced by co-operative, unions, farmers group; and to enhance the capability of co-operatives and give satisfaction to the consumers.

Policy-oriented Programme:

To help increase entrepreneurship and competitiveness of co-operative business, to activate co-operatives for commercial and enterprising farmers in the establishment of industries based on food grains, fruits and vegetables, dairy products; processing, storage and marketing facilities; to help the establishment of integrated, strong and effective co-operative system specially in scattered rural areas where capital and skill can be utilised with maximum peoples participation; to activate co-operative movement by educating people about its importance, to increase economic activity by collaborating with NGOs, farmers groups and other industrial group, private sector and government corporations; to prioritise co-operative sector while privatising public co-operatives related to co-operatives, to conduct women, targeted programme in women co-operatives, women group in co-operative union and women farmers' group to increase the efficiency; to review the organisational chart of co-operative sector from centre to district-under the changing circumstances; to focus on the development of appropriate manpower, the followings programmes will be launched to realise these policy objectives.

Priority:

Because of the policy adopted in the past, most of the co-operatives are sick. To resolve the problems of such co-operatives, mainly the problems associated with ADB/N will be resolved and a conducive environment will be created for co-operatives to run in a commercial manner.

Other Programmes:

Co-operative Education and Training Programme

To make co-operative education and training and management development work effective, training methodology will be improved and made more professional.

Youth and women participation will be given priority to co-operatives and pre-co-operative women groups and other members in co-operative training, co-operative camp, study tour for providing theoretical and practical training on co-operatives. Workshops and study tours will also be arranged. Technical assistance will be given to co-operatives by undertaking training programme depending on co-operative programme such as services, bans, agricultural inputs, storage and processing of agricultural production, industry establishment of cold storage utility and security of processing equipment. Arrangement will be made to make available consulting service from co-operative training centres on the request from co-operatives relating to management.

Trainers' training will be arranged for local trainers to enhance their skills and efficiency. Also training and educational materials will be developed for the target group according to their needs.

As co-operative has been recognised as a separate professional body, training quality will have to be improved. The co-operative training centre will be gradually granted autonomy. Feasibility study will be carried out to transform this training centre into agro enterprise promotion centre. Special emphasis will be given to develop physical infrastructure and efficiency of the trainers in the country.

Co-operative and entrepreneurship training in private and co-operative sector will be conducted based on memorandum of understanding and affiliation among co-operative training centres and other training institutions.

Institutional Infrastructure Development and Strengthening Programme

Market-research activities will be carried out to promote co-operatives. Arrangement will also be made for co-operatives to study market opportunities and flow of information.

Emphasis will be given to training and field-visit activities to develop industry-oriented co-operative enterprise.

Arrangement will be made to buy and sell, process and establish cold storage for food grains, pulses, oilseeds, milk, tea, coffee, cardamom, ginger, fruits and vegetables through co-operatives. Arrangement will also be made to supply animal feeds, fertilisers, seeds, insecticides, etc.

Incentives will be given to export-oriented agricultural and non-agricultural items like cardamom, coffee, ginger, silk, woodcraft, handicraft through co-operative sector.

An action plan will be implemented to encourage co-operatives. For this, operational areas will be delineated by establishing co-operation among government, co-operatives and private sector.

Organisational reform will be made within the co-operatives. For this, the role of Co-operative Department, Co-operative Development Board and National Co-operative Federation will be clearly defined and improved. Institutional reforms will be made to make co-operative movement effective. Efforts will be made to mobilise co-operative development fund in a more useful way. Studies will be conducted for the establishment of one co-operative marketing centre in Kathmandu. Keeping in view the potential market in the capital, scattered producers will be encouraged to form co-operative groups. Co-operative marketing area will be established depending on the feasibility and will be replicated in other places.

Intensive Co-operative Development Programme

A detailed project, which will incorporate vision of co-operatives in production, processing and distribution, will be prepared and implemented. Under this project; skim milk powder plant will be established. Milk by-products, fruit and vegetables, food grains, pulses and oilseeds will be marketed through co-operatives.

Efforts will be made to establish co-operative banks by combining savings of saving and credit co-operatives. Three co-operative consumers' store will be established in the Kathmandu valley. For this, at least 10 women co-operatives will be involved. To conduct this programme, commercial relation will be maintained with private sector. While conducting co-operative development programme, co-operatives will be encouraged to compete in the market.

Expected Achievement:

From the above intensive co-operative development programme, 161,805 members from 483 co-operatives assuming 335 members from each will directly be benefited from production and processing activities. They will manage physical and other resources in order to increase their efficiencies, which will increase their capacity to involve in non-agricultural sector through income generation activity. Forty-two thousand co-operative members will be given training in co-operative management through co-operative education and training programme. Through this training, production is expected to rise as market is assured for the producers through co-operatives.

Monitoring and Evaluation:

National Co-operative Federation will monitor the activities of its members. Co-operative Department and Ministry of Agriculture will regularly monitor and evaluate the activities of co-operatives. Co-operatives development programme will give special emphasis on promotion of agri-enterprises as guided by the APP.

9.4.2 Food Technology, Nutrition and Quality Control Programme:

General people will be guaranteed on food security through proper storage, protection and processing of food, minimising the loss after production, increase in the consumption of nutritious foods like fruits, vegetables, fish, meat and milk. Food adulteration will be controlled and high quality food maintained. Quality crops will be increased to promote export potential. Appropriate technology will be developed to store and protect food grains. Less expensive nutritious food will be identified and

developed to improve the nutritional status of people. Quality control in food will be strictly maintained.

For food technology, nutrition and quality control, Food Act, 1966 has been revised during the Eighth Plan period. A regular programme on food, beverages, feed quality control, standardisation of food, processing and preservation and child nutrition technology has been carried out. Public awareness has been created to minimise the use of non-edible colour in food. Food processing technology has been transferred to agri-entrepreneurs through training. However, sufficient attempt has not been made to identify appropriate technology to be transferred to agro-entrepreneurs regarding food technology and nutrition programme. As agricultural production has not been commercialised, enough opportunities have not been created in agro-industries. As APP has given more importance to commercialisation by implementing this plan, there will be regular supply of raw materials and promotion of industry. In this context, food technology and nutrition programme will promote agri-enterprises.

The Ninth Plan will focus on appropriate technology development in food and processing, food quality control and protection of consumers' interest, increase income generation and employment opportunity by promoting agro-industrial enterprises, make agro-enterprises more market-oriented, increase credibility of the Nepalese products in local and international market by strict quality control in food production, processing and distribution, and increase the nutritional status of the people by making available cheap nutritious food.

Policy-oriented Programmes:

Appropriate technology for food industries in the areas of collecting, grading, processing and marketing of foods will be developed after several trials and findings. For this purpose, steps such as co-ordination between producers, entrepreneurs and agricultural researchers will be taken to make quality control system more effective by amending relevant laws; balancing nutrition, public health and environment, keeping in view of agro-industrial enterprises, consumers and market. Production of nutritious foods from local materials will be continued after identifying the requirement and the nutritional level of the people will be enhanced. Implementation programme will be made more effective by co-ordinating all the related agencies and food resource and development work will also be made more useful and fruitful, and agri-enterprises will be promoted by increasing the use of proven technology through extension and its feed back.

Other Programmes:

Quality Control and Strengthening Programmes

Quality control programme will be made more effective by establishing and supervising the equipment in close collaboration with municipality. Programmes will be launched to make quality control more effective by enacting Food Act in all districts.

Food industry and border areas (export-import point) will be supervised regularly, food samples will be collected and analysed under Food Act and technical services will also be provided.

The method and process of the entire classification of high value agricultural produces will be developed and support for price fixation will be provided on the basis of their quality. A simple method to test and analyse food will be developed and the test kit will be sold and distributed to consumers. Technical services will be provided to encourage industries for the production of high quality food of international standards.

Technical support will be provided to private entrepreneurs to conduct their own basic quality control work. Directory of private laboratories will also be prepared.

Quality control system will be timely revised and reformed in order to enhance reliability of quality of locally produced materials and their competitive capability in the international market. Quality control committee will be formed and the quality control programme will be made more effective.

Food Technology Research and Development Programme

Appropriate technology will be explored, developed and applied by collaborating with the Department of Agriculture and the NARC on the proper use and processing of fish, meat, milk, fruit, vegetables, and cash crops. A collaborative research work will be carried out with different agriculture-related agencies and industrial entrepreneurs for appropriate technology in agro business and food industry.

Priority will be given to the area of commercialisation while developing technology in food storage and preservation. Appropriate technical services will be provided for commercialisation based on market access. Similarly, promotional activities will be carried out to improve the existing indigenous technology applied in different geographical areas and communities.

Technical training will be given to entrepreneurs for the establishment and efficient functioning of food industry. Such training will be co-ordinated with small business training centre under the Ministry of Industry. Entrepreneurs who are interested in establishing food industry after accepting food industry scheme or those who are running food industry will be selected for training on the basis of scheme.

Physical facilities in laboratory will be upgraded so as to make food resource activity more effective. Promotional activity in agri-enterprise will be carried out by increasing the use of proven food technology, motivating people on food quality and the use of local nutritious food with the participation of private entrepreneurs.

Nutritional Development Programme

Know-how on nutrition will be given to pregnant, rural women and mothers to motivate in increasing the nutritional status of family members by utilising proportionately agricultural produces grown by the farmers themselves. By giving technical training on the use of biotechnology the private sector will be encouraged for its commercial uses with technological development. Training will be given at

local level by utilising locally available food. Methods to prepare variety of micronutrients and technical services will be provided and policies will be formulated to motivate food entrepreneurs to prepare such food on commercial scale.

Nutritional training will be given to agricultural officers working in the districts and through them, training will be further extended to village development committees and municipalities.

Nutritional research laboratory will be well facilitated with scientific equipment to make research programme more effective. Similarly, food research offices will be established in potential districts.

Training and Manpower Development

Medium to high level manpower is required for technological development and extension and quality control. By the end of the Ninth Plan, higher education and training opportunities will be provided, and additional manpower will be arranged.

Organisational Reform

Organisational structure of present central food research programme will be reviewed and systematised to make nutrition and quality control programme more effective and agri-business oriented.

Monitoring and Evaluation

Priority will be given to promote programmes in a business-like manner. Regular monitoring will be carried out to implement food technology and nutritional programme effectively for the promotion of agro-business. For this, interaction programme will be launched between industrialists and consumers for the utilisation of technology and promotional activities.

Achievement:

Food quality control services will be extended from the consumers of 36 districts at present to all the consumers of all the districts. The food quality control work will be made more effective with the enforcement of the Consumer Act. The quality certification system will be arranged to provide support to the export of food commodities. By providing skill-oriented training on the establishment and operation of industries, private entrepreneurs will be encouraged for the promotion of food industries. The consumption of balanced diet prepared from the locally produced food items will help to improve the malnutrition situation in the country.

9.5 Agricultural Research Programme:

As the majority of Nepalese people rely on agriculture, there is a need to conduct research studies for the development of appropriate technology in various aspects of agriculture in order to raise the living standard of the people through poverty alleviation. The APP has emphasised the technology development and its utilisation with the notion that sustainable development and continuity to agricultural economic growth is possible only through the proper utilisation of agricultural technologies. It

has become necessary to accord research priorities to the programmes that have been prioritised by the APP.

In the Eighth Plan, policy measures such as organisational reform for the systematic conduct of agricultural research works with prioritisation, decentralisation programme with the participation of farmers and agro-entrepreneurs in plan formulation process and the implementation of project subsidies have been completed as per the target. The physical targets under cereal crop research and the recommended number of varieties for terai, inner terai and hilly regions are: Paddy 3, Wheat 3, Potato 3, respectively. Similarly, Sugarcane 3, Mustard 2, Groundnut 2, Pulses 2, and Soybean 1 have also been recommended. Under horticultural research, 28 varieties of vegetables, which are suitable for *terai*, hills and mountains and that substitute imports have been recommended.

Agro-forestry preservation work has been started to maintain ecological balance. To mitigate the effects of animal husbandry on environment, management technique for stall feeding system has been developed. On nutrition and animal feed, research will be continued to support entrepreneurs involved in the production of balanced feed out from locally available agricultural by-products. On animal breeding, identification of technology for semen collection, freezing and utilisation for artificial insemination when needed has successfully been carried out. On animal health, to control major diseases on livestock, the development of technology for identifying causal factors for brucellosis, tuberculosis, sterility, gumboro, ranikhet, liverfluke, etc. is underway. In fishery research, biological and limnological studies on some rivers, ponds, natural lakes and reservoirs have been completed.

There is a need to implement research programme with priority in order to overcome the lack of location-specific appropriate technology, production loss, suitable cropping systems of comparative advantage and technology appropriate for farmers.

Continuity will be given to the development of location-specific appropriate technology on major food crops, horticulture, livestock and fisheries as per national requirement and the comparative advantage of agro-ecological zone to transform them into market-oriented agro-industries, and to the production and the supply of genetic resource materials. Based on the country's geo-climatic potentialities, development of cost effective, environmentally friendly and comparatively advantageous agricultural technological development will be emphasised.

In the Ninth Plan, agricultural research activities will be carried out with a view to conserving genetic resources based on socio-economic and geographical diversities, continuing production, maintenance and use of such genetic materials, supporting location-specific technologies with cost effectiveness, environment friendly, high yielding and comparatively advantageous and achieving the growth rate of the APP.

Policy-oriented Programmes:

Following will be the policy measures for the implementation of agricultural research programmes:

- In view of the available infrastructure and capability, agricultural research based on co-ordinated, supportive, participatory, and contract mechanisms will be conducted with the co-operation of government, non-government and private sectors.
- Research programmes will be carried out with priority in those sectors that have been accorded priority by the APP.
- Arrangement will be made to conduct research from private and non-government sectors with the approval of the NARC. Evaluation, certification will be carried out by the NARC for broadening the research base.
- Interrelationships through the co-ordination between agricultural research and high-level manpower production institution will be strengthened.
- Donor assistance for master and Ph D fellowships to research scientists and technicians involved in research works will be explored with the joint involvement of and signing of letter of understanding between Institute of Agricultural and Animal Sciences and donor agencies.
- Institutions under the NARC will be strengthened and developed for providing continuity to the conservation of genetic resource materials.
- Necessary arrangements will be made while developing agricultural technologies that are environmental friendly and are possible to be used by the women.
- Main emphasis will be accorded on high productivity and low cost of production while developing technology as production from recommended technology of agricultural research have to be competitive.
- Linkage with international organisations/agencies will be extended to explore and exchange new technologies.
- Indigenous agricultural knowledge, skills and technologies introduced by the farmers will be investigated, evaluated and recommended with modification.

In the light of the above-mentioned policy measures, agricultural research programmes will be implemented as follows:

- Technology will be developed with priority accorded by national as well as sub-regional location-specific needs and will be based on the farmer's production management. In this regard, research programme will be implemented to develop demand-led technologies with comparative advantage, cost effectiveness, environmentally friendly and specifically prioritised by the APP.
- For increasing the production and productivity of different agricultural commodities, programme for the identification of genetic resource materials, their promotion and continuity in the distribution will be implemented.
- Research institutions will be strengthened and supported for manpower development. In this process, physical facilities and manpower will be developed in the priority areas of the APP. Research panel will be activated and made

responsible for selecting agricultural research programme as time bound project, evaluating and recommending to the NARC in the light of national agricultural research policies and priorities.

- Periodic review and updating of research networks under the NARC will be performed. Mechanism will be developed for the evaluation and recommendation of the technologies that are in use among farmers and the research investment by the non-government and the private sector. Similarly, for creating an environment for private investment in agricultural research, mechanism for evaluation and certification as per the guidelines and approval of Agri-research Council for financing the project will be initiated. This will help to utilise tax-free privileges given to research investment.
- All the technologies as recommended by agricultural research will be identified and recommended so that woman farmer can easily accept.
- Integrated research system will be initiated to achieve long-term goal of poverty alleviation rather than unitary approach of agro-ecological zones for sustainable and reliable research.
- Since *terai* is the main region for food grain production, research proposals focused on increasing the production and productivity through high intensity production system will be given priority. In addition, research project will be selected for developing technology for commercial production of raw materials for agro-industry as *terai* region is suitable for location-specific production of sugarcane, jute, tobacco, pulses, spices, and oilseed crops.
- In order to have geographical advantage of hilly region, research projects will be implemented with priority to develop appropriate technology and ensure regular flow of such technology on potato, maize, citrus fruit, location specific sericulture, apiculture, animal husbandry, and to support production of export oriented crops. Similarly, research projects for increasing the productivity and production of cold water fisheries will receive priority in other programmes.
- Looking into the location specific feasibility in high hill regions, priority will be given to research projects related to the processing of fruit development of apple-based horticultural production, pasture development and management, livestock management and production of livestock products.
- To promote export-oriented commercial livestock production, citrus fruit, vegetables and decorative flower and export-oriented fishery-based industries, technology will be developed for increasing the productivity of raw materials and reducing the cost of production. Besides, studies on socio-economic aspect of farmer's problems will be conducted.
- Research programmes will be activated on priority areas as identified by the APP through the co-ordination of multidisciplinary research programme and the identification of responsible person for taking leadership.

- Research studies on post harvest technology, processing technology, conservation, storing technology and agri-equipment development for major industrial crops, food grains and location-specific crops will be conducted in collaboration with the programmes of Central Food Research Laboratory. Also, study programmes will be carried out for technology development in order to support agro-industries based on the potentiality of organised market for agricultural produce, their demand and supply in collaboration with Central Food Research Laboratory.
- Farm outreach programme will be implemented in close co-operation with farmers, agriculture and livestock extension personnel and researchers right from the beginning of the programme. Thus, the recommended technology will be appropriate for farmer's need. Specific arrangements will be made for ensuring regular flow of technology for agriculture and livestock extension services.

Research Programmes of Priority:

Following research programmes will be implemented with priority to support production promotion activities through technological development in the areas as prioritised by the Agricultural Perspective Plan.

- Development of location-specific technological packages for intensively irrigated production system to support economic growth rate by increasing the productivity of crops such as paddy, wheat, maize, potato, etc.
- Development of location-specific technological packages for improving the productivity of seasonal and off-season vegetable and vegetable seed production and vegetable crop management, seedlings production and orchard management technological package development for citrus and apple production, technological package development for apiculture.
- Technological package development programmes for mulberry farming, sericulture and high quality silk production and package programmes for export-oriented as well as high value crops for domestic market such as bouquet production and ornamental flower packaging.
- Location-specific technological package development on the proper use of fertiliser in the cropping system, management of water under irrigation system, soil fertility management for developing integrated nutrient management package and also development of technology package on integrated pest management for location-specific priority production of commodities.
- Development of appropriate livestock management technology packages for increasing productivity of milk from cattle and buffaloes through improved breeding, nutritious fodder and feed, animal health and programmes for development of technology packages for increasing productivity of meat and eggs through commercial poultry management and goat production management.

- Evaluation of technological packages developed right from the inception of the programme in terms of reducing cost of production, improving productivity thus making production competitive in the open market under prioritised programmes.
- Monitoring of environmental impact on technological development and inconvenience in the application of technologies by women will be conducted right from the beginning of the research Programmes.

Other Agricultural Research Programmes:

Besides the research programmes on priority areas of the APP, other useful research programmes to develop technology packages by linking it with market demand will be implemented. These research programmes will be carried out on pulses, oilseed, sugarcane, tea, jute, tobacco, spices, fruits such as mango, banana, pineapple, pears, peach, plum, walnut, vegetables, cold water fisheries in rivers, animal management technologies on sheep, angora rabbit, pigs, yak, *chaunries*, development of wool production technology and pasture development technologies.

Training and Manpower Development:

In order to derive concrete benefits from agricultural research, it is necessary to have high and medium level trained manpower. Since basic educational background for researchers will be bachelor's and master's degree in agriculture, existing research programmes will be reviewed and prioritised to develop high level and medium level manpower in areas of priority research programmes. In the present context, as there is a need to upgrade farmer's training level, arrangement will be made for providing quality training to agriculture/livestock development officers. To develop expertise and create suitable environment for research, structural and functional co-ordination for manpower production and technical capability building will be maintained among Kathmandu University, IAAS under Tribhuvan University, proposed Agricultural University, Nepal Agricultural Research Council, training institutions under Department of Agriculture and Livestock Services and the NARC.

Research Incentives:

For obtaining maximum benefits from agriculture research through the creation of suitable research environment, researchers and research assistants will be provided with incentives taking into account the resources at disposal. Research scientists and research associates will be honoured with prizes and letters of appreciation for creating competitive environment among researchers involved in developing new technologies. To recognise sincere contributions of research scientists, a system of patenting technology in researchers' name will be initiated. Efforts will be made to acquire patent right on typical Nepali technology and identification of such commodities. Donor assistance will be explored for conferring Master's and Ph D degree to researchers based on the MOU and affiliation among universities and research institutions both within and outside the country.

Environmental Management:

Due importance will be given to the studies that focus on the adverse environmental effects of agriculture such as residual effects of pesticide use, chemical fertiliser use, effect on productivity through the cultivation of marginal lands and effects of unsystematic livestock farming. To find out the solution to such environmental problems and also to scrutinise the technology, a multidisciplinary team consisting of experts from government ministries, departments, councils and private organisations will be formed. A communication link will be established right from the beginning of programme implementation until its completion.

Institutional Development:

In order to analyse the socio-economic aspects of agricultural technology, to adopt research policy, to mitigate weaknesses of the existing system and to focus on problems faced by farmers, a socio-economic research unit will be strengthened and institutionalised. Agricultural research will be mobilised through the unification of agricultural research policy focusing towards the attainment of long-term benefits.

In the Ninth Plan, food and agricultural research foundation will be strengthened and ongoing research programmes will be reviewed in the light of priorities accorded by the Agriculture Perspective Plan. Improved technology package will be tested at the farmer's field and will be recommended to farmers and agri-entrepreneurs. Priority will be given to outreach programme to priority pockets as identified by the district agriculture development committee.

Role of Government and Non-governmental Sector in Agricultural Research:

To fulfil the concrete objective from agricultural research, various governmental, non-governmental organisations and business enterprises have to play vital role. Therefore, research programmes will be implemented only after a clear and precise identification of the areas of co-operation.

Formulation, Implementation, Monitoring and Evaluation System for Research Project:

To meet the stipulated objectives of the Agriculture Perspective Plan, project formulation, selection of project proposals, implementation, monitoring and evaluation procedures for agricultural research will be strengthened.

The research project proposals from research groups will be developed based on national priorities, farmers' resources endowment, farmers' problems and availability of resources. Similarly, priorities will be given to the research proposals for donor assistance. Selection process of project proposal of same nature from various institutions will be improved to avoid duplication.

Research proposal will be implemented as per the suitability of crops for the locality, identification of need and in accordance with the priority of the project. In this process, local participatory discussions will be held among farmers. Improvement of existing system will be made to prepare time bound project proposals that are

compatible with the national/regional targets/objectives. Research proposals will be formulated taking into account necessary infrastructures such as laboratory, office buildings and quarters. To standardise project proposals, software will be developed and computerised. Agricultural research projects/programmes, which do not contribute to the APP's objectives/policies, will be discontinued. To ensure the proposed research project in line with APP, a committee with high level expertise will be formed for detail analysis and a mechanism for council approval before implementation will be made.

To make project formulation, monitoring and evaluation effective, an internal evaluation system will be initiated, and improvement programme for human and physical resource management will be carried out to ensure research programmes as per the set priority. In order to resolve the problems of the implemented project in time, impact study and project review mechanism will be made a part of the annual programme. Specialists will also be involved in impact assessment of central and regional projects.

Table- 26

Area	Percentage
1. <u>Crops</u>	47
Major food grain (Including fertiliser and irrigation technology)	37
Others	10
2. <u>Horticulture</u>	17.5
Citrus fruit	6
Apple	3
Vegetables and Vegetable seed	4
Bee keeping	0.5
Others	4
3. Silk	2
4. <u>Livestock Development</u>	27
Dairy development	4
Animal health	5
Animal nutrition	5
Cow/buffalo	4
Goat and sheep	2
Poultry	2
Others	5
5. Fisheries	6
6. Research, exploration contract and promotion	0.5
Total	100

Expected Outcomes:

After the successful implementation of integrated research programmes, technological packages for production pocket will be made available in time, which will help to raise productivity. Technologies for various crops and livestock

production will be developed. Environmental conservation of agriculture and utilisation of agro-bio-diversity will be improved. Orchard management technologies will be available for the development of sericulture and livestock farming business will be promoted through available technologies on balanced animal feed pasture/fodder and animal health. In totality, agricultural productivity will be improved, which contributes to the higher economic growth.

9.6 Chemical Fertiliser Supply Arrangement:

Agricultural Perspective Plan has identified chemical fertiliser as major contributing factor for accelerating agricultural growth. Similarly, irrigation, specifically tube-well irrigation has been identified as the other important factor. Balanced and intensive use of irrigation and chemical fertiliser through improved agricultural technology will increase production and productivity, and agro-enterprise promotion for its stability has equally been emphasised in the Plan. There is an increased demand for high value crops such as vegetables, fruit, silk, honey and livestock products due to increased income from the promotion of crops with comparative advantage. Taking into account of this, programmes for the supply of chemical fertiliser have to be implemented and mobilised effectively.

In the Eighth Plan, a programme was set to gradually phase out subsidy in chemical fertiliser during the plan period. However, subsidy in urea remained unchanged whereas subsidy in other fertilisers was removed. Transportation subsidy in chemical fertiliser still remains. The use of chemical fertiliser during the plan period remained below the targeted level. The supply of fertiliser on the last year of the Plan was targeted to reach 242 thousand mt, but it remained at 64.16 thousand mt.

The supply of chemical fertiliser was solely made from the government sector but the supply became restricted because of budgetary constraint and increased level of loss incurred by the Agricultural Inputs Corporation. Due to managerial problems, farmers could not get fertiliser both in time and in required amount. Therefore, per hectare consumption of fertiliser at the national level was found far below as compared to other countries (24kg/ha.). Low consumption level of fertiliser affected agricultural production and productivity. If the supply of fertiliser is increased, there is a scope for increasing production and productivity and there is a possibility to accelerate economic growth. To resolve this problem, HMG has recently accepted the private sector's involvement in the import and the distribution of fertiliser. The private sector is also entitled to get subsidy on the import of urea and they are free to fix selling price once the subsidy amount is readjusted. As a result, supply and sales of fertiliser will be increased. In the Ninth Plan, increase in production and productivity by maintaining a balance between utilisation of soil nutrients and requirements of the cropping system have been envisaged. The import and sales programme for chemical fertiliser will be launched with the objective of providing continuity to the supply of quality chemical fertiliser with the active involvement of the private sector. Proper use of chemical fertiliser will be encouraged and its regular supply will be ensured through market mechanism. The private sector will be involved in the import and the distribution of chemical fertiliser. A competitive environment will be created in the

long run in order to ensure continuity and effectiveness in the supply of chemical fertiliser for increasing agricultural production.

Policy-oriented Programmes:

In the Ninth Plan, the chemical fertiliser supply programme will be implemented with following policy measures and continuity will be given in the supply of chemical fertiliser through the private sector involvement in import and distribution. As long as there is price subsidy in chemical fertiliser, the Agriculture Inputs Corporation and the private sector will be treated on an equal footing. In the first half of the plan period, price and transportation subsidy will be removed and a mechanism will be initiated to sell chemical fertiliser at cost price. Soil management measures will be emphasised along with the increased use of chemical fertiliser.

- Create environment for private sector involvement in chemical fertiliser business from the first year of the Plan.
- Price subsidy on fertiliser except urea will be abandoned from the first year of the Plan. Amount of subsidy per ton of urea will be fixed and the Agriculture Input Corporation and the private party will be given equal treatment regarding subsidy amount. By the middle of the plan period, subsidy in urea will be phased out. Supply will be made competitive, mechanism for distribution and sale at cost price will be initiated, and regular supply will be ensured. To make the private sector competitive, transportation subsidy will also be removed and measures to distribute fertiliser on a cost basis will be followed during the plan period.
- Fertiliser demand will be projected in the month of *Magh* (January) each year based on fertiliser requirement of various seasonal crops. Fertiliser price in the international market will be reviewed from time to time in order to support importers by making such price public. Also, to ensure regular and steady supply of chemical fertiliser and to have operating stock for the current need, a reliable mechanism will be worked out.
- Based on the report of soil analysis, import and use of chemical fertiliser will be encouraged mainly for major nutrients such as nitrogen, phosphorous and potash. Agricultural research, extension and soil analysis services will be made more effective for increasing the proportion of fertiliser use for production.
- Chemical fertiliser unit will be established at the Ministry of Agriculture and gradually strengthened. The unit will help to develop measures for fair deal in chemical fertiliser trade, forecast demand projection based on seasonal requirements of fertiliser, monitor the supply arrangement for ensuring availability, perform quality control measures and chalk out relevant policy measures.

Import/Supply and Sales Arrangements:

- Since there is no commercial viability for chemical fertiliser production in the country at present, it is imported from foreign countries. The Agriculture Inputs Corporation imports chemical fertiliser and sells through various agencies. From

the beginning of the Ninth Plan, HMG has adopted a policy to involve the private sector in import, supply and sale/distribution of chemical fertiliser. Under this arrangement, there is no need to acquire import license, and foreign currency is made available easily on the basis of a letter of credit from the bank. Importers are allowed to fix retail price. From this arrangement, timely availability of chemical fertiliser at competitive price on a regular basis is ensured for the farmer. The fertiliser unit under the MOA will be established at the beginning of the Plan and will be made responsible for the projection of annual fertiliser demand for various winter and rainy season crops, regularly monitor the supply system to ensure import/supply and sales arrangements. Similarly, as long as there is subsidy on fertiliser, a subsidy distribution committee with the representation of the private sector will be formed at the Nepal Rastra Bank for the proper distribution of subsidy.

- The Agriculture Inputs Corporation, which remains in the government sector, possesses considerable experience in import and sales of chemical fertiliser. The Corporation has also created physical infrastructure throughout the country. Since the private sector will take some time to gain experience in fertiliser trade, construct godown and arrange sales system, a mechanism will be made for sharing such infrastructure for mutual understanding between the AIC and the private sector.
- Commercial banks will be encouraged to make fund available to the private sector on the basis of their capacity, transaction status, reliability and other banking provisions so that financial requirements of the private sector will be met once their involvement in fertiliser supply is initiated. If an individual importer wants to import huge amount of fertiliser, present bank loan limit may not be sufficient. Therefore, the limit will be revised during the plan period. Also the concept of consortium finance will be implemented in chemical fertiliser trade through the Nepal Rastra Bank, commercial banks and other financial institutions.
- Mechanism for providing short-term loan to dealers and agents in fertiliser distribution/sale will be made through banks and financial institutions in a simple and easy manner, as fertiliser importers may involve intermediaries such as dealers and agents in the distribution of fertiliser to the farmers at their doorstep.

Institutional Arrangement:

It is not possible to increase the consumption of fertiliser from the efforts of a single institution; therefore, there is a need to have equal participation from government, semi-government, banking and private sectors. A fertiliser promotion committee will be formed under the Ministry of Agriculture with the representation of concerned agencies for resolving the implementation problems related to import and sale/distribution of fertiliser. The committee will also monitor the roles and functions of concerned agencies. Fertiliser monitoring unit will act as secretariat for fertiliser promotion committee.

Soil Management:

A system of soil testing at farmers' level for the proper application of chemical fertiliser has not been in vogue in Nepal. Enough attention has not been given to the mixed use of organic manure and chemical fertiliser. Therefore, there is considerable loss in soil fertility. Similarly, proper attention to cope with the depletion of soil fertility has not been paid. With the implementation of the APP and considering the increased use of fertiliser, there is a need to have soil management programme to maintain soil quality and fertility. To establish co-ordination between fertiliser use and soil management programme, following measures will be taken under agricultural extension programme

- Soil testing programme will be tied up with agriculture extension activities and will be expanded on a mass scale. In every district, programmes supportive for soil fertility will be implemented as necessary programme.
- Intensive package production programmes will be implemented with priority, mechanism for compulsory soil testing and fertiliser recommendation based on soil test results will be followed.
- To improve the system of manure and fertiliser use based on the result of soil testing, the farmers, agriculture technicians and field workers will be trained. Special emphasis will be given for women participation in such training. Soil testing laboratories will be strengthened for capacity building as per the needs.
- Since chemical fertiliser is not substitute for organic manure rather a supplement for depleted nutrients, emphasis will be given on balanced use of manure and fertiliser through agriculture extension on a mass scale.
- Private sector will be encouraged to establish chemical fertiliser mixing and blending plant in order to improve and maintain soil quality by promoting the use of such blended chemical fertiliser.
- Fertiliser Act will be formulated and enacted in order to regulate the quality, import and distribution system. Chemical fertiliser will be included in the category of essential commodity.

Physical Target:

The projected figure for the supply of chemical fertiliser based on nutrient content will be 128,202 mt of nitrogen, 47,186 mt of phosphorous and 2,671 mt of potash. From this, fertiliser use will be increased from the existing rate of 24 kg per ha. to that of 68 kg/ ha.(see table 28 and 29)

Monitoring and Evaluation:

The fertiliser unit at the Ministry of Agriculture will be effectively mobilised for the regular supply of chemical fertiliser, along with the monitoring of supply situation and the quality of chemical fertiliser.

Table- 27
Description of chemical fertiliser sold during the Eighth Plan period
(In nutrients)

F.Y	Nitrogen	Phosphorus	Potash	Total
1992/93	60447	21595	1289	83331
1993/94	55385	17149	1278	73812
1994/95	64385	24300	1578	90263
1995/96	46448	21307	2400	70155
1996/97	43242	19283	1635	64160
Grand Total	269907	103634	8180	381721

Table- 28
Projection of Gross Consumption of Total Chemical Fertiliser in the Ninth Plan

FY	Urea	DAP	Murate of Potash	Total
1997/98	144142	61978	2690	208810
1998/99	163491	70298	3051	236840
1999/2000	185437	79734	3460	268631
2000/01	210329	90438	3925	304692
2001/02	238562	102577	4451	345590
Grand Total	941961	405025	17577	1364563

Table- 29
Projection of Nutrient Consumption in Total Chemical Fertiliser in the Ninth Plan
(in mt)

FY	Nitrogen	Phosphorus	Potash	Total
1997/98	77461	28510	1614	107585
1998/99	87859	32337	1830	122026
1999/2000	99653	36678	2076	138407
2000/01	113030	41601	2355	156986
2001/02	128202	47186	2671	178059
Grand Total	506205	16312	10546	703063

9.7 Agriculture Credit Disbursement Arrangement:

The agricultural perspective plan has identified chemical fertiliser as prime factor for accelerating agricultural growth. Similarly, irrigation, specifically tubewell irrigation has been identified as another factor. The Plan has given similar importance to the promotion of agro-enterprises for the promotion and stability of the increased production and productivity arising from improved technology, which utilises

irrigation and chemical fertiliser in an intensive and balanced manner. The increased income resulting from the promotion of crops with comparative advantage will lead to increased demand for high value crops like fruit, vegetables, silk, honey, livestock products, thereby creating pressure for the increasing production of these commodities. In order to create an environment for the diversification and commercialisation in agriculture, there is a need for massive investment in these sectors. Considering these needs in the Ninth Plan, agricultural loan disbursement programmes have to be implemented effectively.

While analysing the progress made in the Eighth Plan, policy arrangements were made for the additional mobilisation of local resources. In this line, some commercial banks expanded their branch offices and rural development banks were established in five development regions in order to incorporate the need of resources for poor people. Since commercial banks could not fully invest in the priority sector, other banks and non-governmental organisations were involved in this process. Emphasis was given on the establishment of co-operative financial institutions, and various such institutions were established. Financial institutions were made fully free to fix their interest rate from fiscal year 1996/97; mechanism for providing interest subsidy through banks was abolished. A system of providing passbook after the approval of package loan was introduced but found to be ineffective. Although agricultural credit training centre provided training facilities to other banks as well, but a concrete policy was lacking.

As far as the financial target is concerned, it was targeted to lend Rs 5476.8 million and recover Rs 4826.4 million from agricultural development. However, the achievement in terms of lending and recovery was found to be Rs 3852.7 million and Rs 2762.8 million, respectively. Similarly, loan disbursement by commercial banks under priority sector programme was targeted to be Rs 1251.5 million for lending and Rs 1041 million for recovery but was found to be Rs 1002.2 million and Rs 454.5 million in terms of lending and principal amount recovery, respectively.

The rural development banks established during the Eighth Plan period lent a total of Rs 914.7 million and recovered Rs 665 million in total, which was regarded as good result.

Performance of agriculture credit investment comes to the level of target at current prices but this cannot be treated as good performance at constant prices. It is observed that the farmers are not getting credit in simple and timely manner. The effective use of such credit is doubtful because of increased auction of collateral. Likewise, increasing outstanding loans and weak realisation status have aggravated this situation further. Thus, it has apparently been warranted to improve those weaknesses.

In the Ninth Plan, income and employment generation programme will be launched through a simple and easy flow of agricultural and rural credit to subsistence and commercial farmers, entrepreneurs with the ultimate objective of poverty alleviation. Credit discipline will be strongly maintained so as to increase the loan recovery rate, which ensures the sustainability in financial services. Such programme will certainly benefit women community and rural poor for income generation.

Policy-oriented Programmes:

Poverty alleviation is the main theme of the APP. Programmes to address this objective will be launched in such a way to increase in agriculture growth rate rapidly by substantially increasing production resources and necessary inputs. Priority will be given to increase the credit flow through institutions to the farmer/group, private entrepreneur and traders in close co-ordination with both government and non-government agencies for the promotion of credit investment. Internal and external resources will be mobilised for the investment required for uplifting the income status of poor farmers and women community. To improve the debt recovery system, and to strengthen monitoring and evaluation, following will be the programmes.

- Programmes on priority sectors as defined by the Agricultural Perspective Plan such as chemical fertiliser, shallow tubewell, livestock production, and high value crops like apple, fruit, fresh vegetable and vegetable seed production, apiculture and sericulture in hills and mountains, will be implemented in the pocket areas with necessary credit flow as part of the package.
- Principal financial institutions such as the Agricultural Development bank, the Nepal Bank Ltd, the National Commercial bank, rural banks will provide agriculture loans. To ensure effectiveness in and wide coverage of credit flow system, non-government organisations, informal sectors and co-operatives involved in rural services and loan transaction will also be encouraged.
- In order to bring an improvement in the present working capacity of financial institutions which are responsible for agriculture credit flow, suitable training programme will be launched. The training programme will envisage the main priority and implementation procedure of the APP. The Agricultural Credit Training Centre of the Agriculture Development Bank will be strengthened so as to impart training to personnel of different financial institutions.
- Present capacity of the Agriculture Development Bank in shallow tubewell programme will be made more effective. Considering the interest of other banks in this sector, additional capacity with proper monitoring will be developed in the mid-plan period.
- In order to achieve targeted credit investment under the APP, internal resource mobilisation will be taken as major source for the fund needed by financial institutions. Proper policies will be formulated to increase potentialities of using available resources of other financial institutions. Focus will be given on getting assistance from donor agencies for required resources through different projects and investment programmes.
- Access of poor farmers and women community to credit programmes will be enhanced. Regular monitoring will be carried out for ensuring timely credit payback to banks and providing credit to poor and marginal farmers on the basis of group as collateral.

- Activities on shallow tubewell installation, credit flow and rural electrification especially in *terai* region will be carried out in a co-ordinated way after identifying the potential pocket areas.
- There will be a provision of bearing 5 percent amount of total credit flow in the selected area as an overhead cost by HMG/N since the banks have to do non-banking activities such as hiring of efficient technicians to install shallow tubewell, providing training to farmers for the promotion of agricultural and rural credit flow. Such management will also be applied in rural development banks. Such banks will also be operated in hilly regions.
- The present policy that gives autonomy to banks to fix interest rate on a competitive basis will be maintained. There will be a provision of reasonable interest rate by reducing the pressure on interest rate caused by inefficient investment and overhead cost as a result of absence of banks in the rural areas. But publicity will be carried out to inform that the intention of getting credit at low interest rate for profitable business is also wrong.
- In order to make credit facilities less expensive and simple for farmers and to approve package credit for agro-business, step by step investment procedure will be launched on the basis of progress monitoring. From this, both investors and debtors will be benefited. Due to the lack of proper procedure for monitoring, credit utilisation by debtors is not satisfactory. As a result, debt recovery rate is not promising, which is resulted in the increase in collateral auction. Since low debt recovery may adversely affect the sustainable financial system, debt recovery will be made effective by adopting regular monitoring system to find out the status of credit utilisation. There will be a provision of information flow by adopting the process of receiving regular information about the credit recovery activities of different financial institutions in the priority sectors of the APP. For this purpose, monitoring and evaluation process will be strengthened through concerned financial institutions.
- A programme review will be carried out periodically by preparing a report after the analysis of implemented programmes in which the financial institutions have invested in the agriculture sector as prioritised by the APP. For this purpose, a monitoring committee will be formed, comprising representatives from different financial institutions. In this case, the Nepal Rastra Bank will play a vital role.

Major Items of Credit Flow Areas and Physical Target:

Physical targets of investment are fixed (Table 30) on the basis of credit flow in the past and programmes set in the Ninth Plan. The following credit investment programme will be launched in different commodity areas.

a) Priority

Chemical Fertiliser

In the Ninth Plan, special emphasis will be given to make the institutional credit available in a simple way for the increased use of chemical fertiliser. In the first year,

credit investment on chemical fertiliser will be increased at the rate of 20 percent and subsequently it will reach up to 40 percent at the end of the Plan.

Participating financial institutions should emphasise more on credit recovery since credit flow in chemical fertiliser is short-term depending on types of crops. District agriculture extension programme will be made active for the effective use of properly mixed chemical fertilisers.

A continuous monitoring will be carried out to control the shortage of resources in financial institutions because demand for credit will subsequently rise after present subsidies on urea fertiliser comes to an end or is maintained at a minimum level. The projection of Rs 6630 million credit for chemical fertiliser to be invested by financial institutions is given in Table 30. Total fertiliser quantity is given in Table 20 and 29.

Shallow Tube-well

In 20 terai districts, 32000 shallow tubewells will be installed within five years. For this, about Rs 1510 million of credit will be invested. There is a target of irrigation in 80 thousand hectares of land from shallow tubewell. The following issues will be considered in credit flow in shallow tubewell irrigation.

- During the Ninth Plan period, other financial institutions in addition to the Agriculture Development Bank will be encouraged to invest in shallow tubewell. After the involvement of other financial institutions in the investment in tubewell, the cost borne by the HMG will be made available on the basis of physical quantity.
- Since shallow tube-well credit flow to individual farmer by 95 percent is very expensive to install tube-well individually by small farmers, focus will be given to install shallow tubewell in farmers' group. Use of group tube-well will be developed through imparting necessary suggestion in water distribution and sale. Shallow tubewell with smaller capacity will be installed on the basis of technical feasibility. Since mostly pump set, boring pipe and nets are used in the installation of shallow tube-well, arrangement will be made to ensure their supply in the market. The private sector will be encouraged to establish additional plant for assembling the pump set.
- Shallow tube-well will be installed in the command area of surface irrigation project where there is a shortage of water in the winter in order to develop the pocket area of round the year irrigation facilities. Since the medium-term credit is of 3 to 5 years in shallow tubewell, intensive agriculture programme will be launched in the tubewell irrigated area and more attention will be given to timely credit recovery.

Livestock Farming

Priority on credit flow will be given to livestock and poultry farming, especially cattle, buffalo, goat and poultry. Credit flow will be focused more to small and poor farmers and also to women who are attracted to this profession. Due attention will be given to large private commercial livestock farms to flow credit. In order to support livestock farming and promotion, appropriate marketing facilities, veterinary services

and animal insurance facilities will be properly managed. In the Ninth Plan, a total of Rs 5890 million is projected as credit need for livestock development.

High Value Commodities

Special priority will be given to providing credit to high value crops such as apple, citrus, fruit fresh vegetable and vegetable seeds, sericulture and apiculture by establishing close co-ordination with high value commodity production and development programme.

Special focus will be given to provide medium and long-term credit in simple and easy terms to high value crops, except vegetable farming and vegetable seed production. Statistics showed that in the Eighth Plan, there was not enough credit flow to these commodities, which really had great potentialities for development. As more income can be generated from the production of such commodities, it is targeted to increase the annual credit flow to these commodities by 20 percent, which will be equivalent to Rs 384 million during the Ninth Plan period.

Agro-industry and Processing Enterprises Promotion

Agro-industry and Processing Enterprises have grown up steadily. To promote and develop such industries, which mostly utilise domestic raw materials, the private sector will be encouraged by providing them Rs 2736 million credit in the Ninth Plan period (Table 31).

b) Resource Management

The proposed financial investment will be fulfilled through mobilising internal and external resources.

Agriculture Credit Projection

During the Ninth Plan period, credit flow of Rs 17,152 million is projected in the APP priority sectors (chemical fertiliser, shallow tubewell, livestock and poultry, high value commodities, the operation and establishment of agro-business). For this, Agriculture Development Bank, Commercial Bank and five rural banks will share 75 percent, 15 percent and 10 percent respectively, which amounts to Rs 13,152 million, Rs 2346 million, and Rs 1564 million respectively. Since, only investment projection of Agriculture Development Bank in tubewell has been made available projections of other financial institutions have not been included.

Other Credit Programme

Total investment by the Agriculture Development Bank is projected to be Rs 18,104 million in other agriculture activities including fisheries except priority sectors. Thus, during the Ninth Plan, the total investment credit is projected to be around Rs 35,254 million. In proposed projection, credit flow percentage in total sale price of chemical fertiliser is targeted to be 20 percent, 25 percent, 30 percent, 35 percent and 40 percent respectively. As credit remains in the form of cash in case of fertiliser on an average, 35 to 40 percent of credit in food crops, cash crops, and special crop will be utilised in fertiliser purchase.

c) Monitoring and Evaluation

In the Ninth Plan, regular monitoring and evaluation will be carried out to ensure whether progress has been made according to the set target through systematic information flow from the financial institutions in order to meet the ultimate objective of poverty alleviation set by the APP. One monitoring committee representing financial institutions and non-government organisations responsible for the investment in agriculture and rural areas will be established in Nepal Rastra Bank.

Table- 30
The estimation of Overhead expenses in Corporate loans

(Rs in million)

Year	1997/98	1998/99	1999/2000	2000/018	2001/02	Total
Loan for shallow tubewell	109	200	300	400	500	1509
Reimbursement of the cost to Agri.Dev. Bank at a rate of 5% on the above loan	5	10	15	20	25	75
Training:						
Shallow tubewell in high value crops	9	9	9	9	9	45
In high value crop	1	2	2	3	3	11
Local institutions for loan and saving programme	14	14	14	15	15	72
Total cost	29	35	40	47	52	203

Table- 31
Projection of the loan flow in the Ninth Plan

(Rs in million)

Objective	1997/98	98/99	99/2000	2000/01	2001/02	Total	Agri. Dev. Bank	Com-mercial Bank	Rural Banks
Chemical fertiliser	517	860	1300	1721	2231	6629	4972	994	663
Shallow tubewell	109	200	300	400	500	1509	-	-	-
Livestock	962	1144	1201	1262	1324	5893	4420	884	589
High value crops	52	61	75	89	107	384	288	58	38
Agro-industry and processing	448	493	542	597	657	2736	2052	410	274
Total	2088	2758	3418	4069	4819	17152	13241	2346	1564

9.8 Irrigation, Agriculture Road and Rural Electrification:

Priority Programme:

In order to achieve the agriculture growth, increase in agriculture production and productivity is the major need for which irrigation and fertiliser are indispensable inputs. Driving force of production increase is the proper marketing network, which links the producers and consumers. It is also well-known fact that production in the market will not be competitive and investment will not be attracted unless the cost of production is reduced. Therefore, it is a must to link production site and marketing place by agriculture roads so that low cost produce will be available in the market. Similarly, farmers will be able manage tubewell and pump irrigation systems themselves to get the year-round irrigation. Rural electrification is equally important for the promotion of employment opportunities through small scale processing industries in the rural areas. Such infrastructure-based production pockets will be given priority in the APP. In the Ninth Plan, this programme will be launched with priority in the area of infrastructure development. During the Ninth Plan period, following target will be included in the total target under infrastructure building.

Prioritised Irrigation Programme

(ha)

programme	Terai	Hills	High Mountains	Total target
1. Renovation of farmer management system	38000	18000	5000	61000
2. Shallow tubewell	80000			80000
3. Deep tubewell	10000			10000
4. New small irrigation		3000	1000	4000
5. Total	128000	21000	6000	155000

Agriculture Roads

(in Km)

<u>Programme</u>	<u>Target</u>
1. Terai (20 districts)	1577
2. Hills (29 districts)	530
3. High Mountain (4 districts)	131
4. Dailekh - Jumla ropeway	45
5. Maintenance	--
Total	2283

Rural Electrification

Priority will be given to the regular rural electrification programme in the cluster of tubewell installation area in terai. The programme will be launched by the concerned agency to support production pockets of hills and high hills.

10. Women Farmer Development

In reality, women involvement in agriculture development is far more than that of men. But their involvement in getting agriculture credit, agriculture inputs and training for improving the skills on improved technology is far below than it should be. That is why, programme will be focused to increase their participation.

In the Eighth Plan, in order to increase the women involvement in the agriculture development the set target was to involve 35 women in training programmes, and to include 30 percent woman members in farmers' groups. But the achievement fell short of expectation mainly due to low information flow. Programmes were being initiated by Women Farmers Development Division in few districts by conducting some studies on the contribution of women in agricultural activities, basic conceptual plan was formulated for women farmer development; regional workshops to create awareness among programme implementers were conducted; and the revolving fund programmes were implemented for the promotion of women's income and employment opportunities. Directives have been given to include women farmer

development related activities in regional workshops. Actual achievement in this respect has not been ascertained due to the inability to fix quantitative target in the mainstream of information flow related to women development while formulating the programme. Such information has not been systematised in the main agriculture programme as well.

Due to lack of inclusion of clear-cut target and activities streamlining women involvement in the annual programmes, inadequate access to rural women in the training programme which is itself centre-oriented, women's participation in agriculture development has not been achieved as expected. Special focus will be given to resolve these shortcomings in the Ninth Plan.

In the Ninth Plan, women farmer development programme will be launched with a long-term vision to create an environment for equal participation of man and women in family decision making process regarding agriculture development. This will help increase women participation in different agriculture activities for the sake of enhancing women's income and employment opportunities, which eventually boost the agriculture production and productivity by enhancing their capabilities to apply modern technology in agriculture.

Women involvement will be increased in the mainstream of different production and post-harvest activities implemented in different pocket areas for agriculture development. Women will be encouraged to get the agriculture training programmes, improved technology, technical services, agriculture inputs and agriculture credit. In the formation of farmers' groups, women will be encouraged to be members. And special women farmers' groups will be formed on priority basis. Special services will be rendered to marginal women farmers group for income generation. There will be continuous information flow and data system for indicating the achievements. Following women farmer development programmes will be launched by establishing co-ordination among different related sectors.

- Production programme of agriculture crops, horticulture, livestock, fisheries, apiculture and sericulture and post-harvest activities of grading, storage, processing, marketing and preparation of food variety will be backed up by providing agriculture inputs, agriculture credit, technical services through farmers' groups and innovative farmers in which there will be at least 35 percent women participation.
- In order to improve women's capacity building, training activities will be launched at the production site, if possible, by mobile trainer teams. In such training, women participation will reach up to one-third of total participants. In such training programme, the number of man participants will also substantially increase.
- To increase women's involvement in the agricultural activities, women related targets will be set right from the project formulation stage. Such targets will be reflected clearly in the annual programme implementation. Women involvement programme will be focused specially on seed production activities, small rural

agricultural processing enterprises, women co-operatives and rural marketing for generating income and employment opportunities.

- Special attention will be given to increase women participation in the farmers' groups and, if necessary, a separate women group will be formed. For this purpose, women awareness programme will also be launched.
- In order to gain momentum in poverty alleviation, marginal women farmers' groups will be encouraged to formulate and implement site-based income generating activities in specific locations.
- Information collection and its flow about different programmes/activities right from its formulation to implementation is necessary for effective monitoring and evaluation. In this process, women related information will also be collected and disseminated.
- Women Farmer Development Division will be strengthened to study and analyse problems arising while implementing the programmes with respect to increasing the participation of women in agriculture development and to monitor and co-ordinate the policy and programmes related to women involvement in agriculture.

11. Environment and Agriculture:

The Agriculture Perspective Plan has set the target of achieving high economic growth in agriculture sector. In order to achieve this target, the Plan has adopted the long-term vision to bring necessary improvement in policy, programme and institutional sectors for effective implementation of its certain priorities. Special focus will be given to programmes which contribute to environment conservation and preservation. Based on this vision, following will be launched with priority to support the environment protection while implementing the agriculture development activities in the Ninth Plan.

- Crop productivity is reduced due to degraded soil fertility caused by the cropping intensity and of loss of soil nutrients. Consequently, soil structure will be degraded that adversely affects environment. In this condition, integrated plant nutrients management, agriculture research and extension activities will be launched with special priority to improve and maintain soil fertility by the balanced use of fertiliser.
- Special focus will be given to reverse environmental degradation by the scientific use of pesticides in the crops. In this process, integrated pest management programme will be launched extensively.
- Due to the lack of concrete land-use plan, fertile agricultural land is being used for non-agriculture purpose. The long-term land-use plan will be formulated and implemented in order to check the environmental problem so that scarce agricultural land resource is optimally utilised.
- Agriculture Perspective Plan has given special focus on tube-well irrigation. Special emphasis will be given to the conservation of *Siwalik* region in order to improve the environment and conservation of ground water resources.

- The problem of soil erosion is increasing day-by-day in mid hill areas due to encroachment on the existing forest area to collect firewood and fodder to fulfil local people's daily needs. Such activities have adverse effect on environment. In order to solve this problem, farmer participatory programmes such as community forest, leasehold forestry and pasture development will be strengthened and expanded.
- Special focus will be given to bio-engineering sector in and around agriculture roads as envisaged in the APP for the prevention of landslide and soil erosion. Extension programme will be launched to publicise and follow appropriate technology for constructing the environment friendly roads as per directives prepared with the help of forestry sector.
- According to geographical condition, special focus will be placed on fruit and perennial high value crops to make them commercial in high and mid-hills of the kingdom. This will help conserve soil and preserve the environment.

12. Implementation Arrangement

In the Ninth Plan, implementation of agriculture development programme will be based on the APP concept. Following activities will be launched for the effective formulation and implementation of programmes.

- District Agriculture Committees will be made responsible for identifying pocket areas for the development of food-grain, livestock, high value crops like fruit, vegetable, vegetable seeds, sericulture and apiculture by developing programmes for implementation and the making arrangements for the availability of services such as technology dissemination, agriculture credit and marketing services in a co-ordinated manner. This DDAC will be responsible to monitor and evaluate such programmes. In addition, programme execution committee will be responsible to resolve implementation issues at the field level. Monitoring arrangement will be carried out by the regional level agencies.
- Special attention will be given to strengthening and development of resource centre in the production site. Because of such resource centre development, there will be sustainable supply of production inputs to production pocket areas.
- Agriculture and livestock extension services programme will be launched to make commercialisation of agriculture as per APP concept.
- In order to bring rapid momentum in shallow tubewell installation to support the irrigation facilities expansion, concerned institutions will be strengthened. Similarly, there will be certain institutional set up to monitor policy based programmes for the supply of fertiliser such that farmers will be able to purchase fertiliser when they need it.
- A separate institution has been established to proceed the construction activities of agricultural roads in order to make agricultural produce competitive in open market by launching programmes which will help reduce the production cost and marketing expenses. This institution will make site selection in co-ordination with

the related organisations and effectively implement the agricultural road construction programme.

- Agricultural research programme will be launched in such a way that technology will be generated focusing on sectors identified by the Ninth Plan.
- The plan has a concrete policy about agricultural credit that should be invested in the priority sectors that is accessible and available in time.
- There is a provision of agro-business promotion committee for timely monitoring and implementation of the programme and policy for the promotion of agro-industries and entrepreneurs in order to bridge the agricultural produces with the marketing network.
- Apart from above mentioned provisions, there is also a provision for institutional capacity building by restructuring the existing institutions.
- There is also a provision to gather additional resources for arrangement of necessary manpower and budget in order to gain momentum in programme implementation by restructuring the available resources and means in priority sector.
- The concerned ministries and departments will play a vital role with due responsibility to implement the programmes in effective manner.
- A high level National Supporting Committee will be established in National Planning Commission to provide guidelines for formulation, implementation and monitoring of agriculture development plan as envisaged by the APP. Ministerial Development Action Committee (MDAC) headed by the concerned minister will further expedite the programme implementation.

13. Plan, Implementation, Monitoring and Evaluation

According to the concept of the APP, the prioritised package programmes will be formulated and implemented by identifying, co-ordinating and interacting among related institutions. A regular monitoring and evaluation will be carried out at ministry, departmental, regional, district and service centre levels.

There is a provision of data collection by simple procedure for the programme evaluation after the plan formulation and implementation. At the project level, a system will be developed for data collection as a consolidated programme. There will be a provision of regular data collection and analysis in close co-ordination with Central Bureau of Statistics to collect the relevant data in a simple way by using the existing manpower and organisational structure up to the service centre level. A special focus will be given to data collection activities in the prioritised pocket areas of the APP.

The District Agriculture Development Committee and Implementation Subcommittee will be activated for identification and prioritisation of potential production pocket areas and for implementation and evaluation of programme in these pocket areas at the district level. A workgroup consisting of allied agencies will

be established for programme implementation. Problems that emerge during programme implementation will be resolved on the spot by this work group while inspecting and monitoring. Regional Director and Director General of the concerned departments will be responsible for the effective implementation and monitoring of the assigned programmes.

The implementation condition of agriculture programme will be reviewed by regular information and data flow as a result of monitoring. The review report will be sent to National Planning Commission on a regular basis. For this purpose, a contact person will be identified at the ministry level. Agriculture Development Officer will be the contact person at the district level.

Regular supervision, direction, progress and data collection and analysis procedure of all programmes under the ministry will be strengthened. The APP implementation will be given momentum by arranging regular MDAC meetings.

14. Expected Achievement

In the Ninth Plan, agriculture development programmes are formulated recognising the agriculture sector as lead sector. There will be rapid economic growth in agriculture sector through the increase in agriculture production and productivity through the successful implementation of programmes. Such programmes will impart special contribution to alleviate poverty through the increase of income and employment opportunities for the people. In totality, it is estimated to alleviate poverty by 5 percent on the basis of the development of agricultural sector. In addition, the balance between the production inputs and natural resources will be ensured while implementing the programmes, which will support the environmental conservation. And commercial activities in agriculture production and agro-business will have brought a positive impact on women participation. Programmes related to poverty alleviation, employment promotion, women participation and environment management will bring following fruitful contributions.

Major Expected Achievements through Implementation of the Agriculture Development Programme at the End of the Ninth Plan.

Programme	Production Growth	Contribution in poverty alleviation	Employment Promotion	Growth in Women involvement	Environment Conservation
1	2	3	4	5	6
Cropping intensity and productivity enhancement programme (Food grain and cash crop production)	<p>Cropping intensity will increase from 160 percent to 172 percent through the improvement of irrigation facilities. The annual growth rate of food grain and cash crop will be 5.18 percent and 6.5 percent respectively.</p> <p>The improved seed will cover 75 percent of the area covered by the major crops with wide extension of improved seed use. In this area, the chemical fertilizer use will increase from current 18 kg. to 50 kg.</p> <p>The yield will increase by 21 percent due to the irrigation, technically improved seed and the extension of chemical fertilizer use. Food grain (including potato and pulses) production will increase from 7580000 MT. to 9842000 MT. Per capita food grain availability will increase from 354 kg to 450 kg (in gross)</p>	Transforming subsistence crop production system to commercial system by maintaining relation with agro-based industries, will contribute to increase income of the farm ers.	Additional employment opportunities will increase through seed multiplication, seed supply, irrigation and extension of cropping intensity.	Besides the activities of commercial crop production, the activities like agriculture extension, agriculture training, agriculture communication and seed production will see outstanding increase in women involvement.	Encouraging perennial crops instead of growing food crop in marginalised and sloppy land, will assist in environmental conservation.

Major Expected Achievements through the Implementation of Agriculture Development Programme at the End of the Ninth Plan

Programme	Production Growth	Contribution in Poverty alleviation	Employment Generation	Growth in women involvement	Environment conservation
1	2	3	4	5	6
Livestock and Fisheries Development	Annual growth rate of livestock based products will be 5.55 percent in milk, 6.22 percent in meat and 7.03 percent in egg.	In the context of livestock business which is also main basis of living for 80 percent people through the commercialization of it will contribute commendably in the income growth of the common people. Besides, it will contribute to poverty alleviation as income level of women and low income families will increase due to the women specific livestock development programme and marginalized farmer specific livestock development programme	As milk, meat and egg production will be oriented towards commercialization, additional self employment and full employment opportunities will be created in this area . Besides, 26 thousand additional families will get direct employment opportunities through the targeted programme for poor community and women.	In the various aspects of livestock business, women involvement will increase . Besides these, livestock development programme will organize women in 7000 group in order to involve them in livestock business .	In northern bordering districts pasture will be developed in 5000 ha through people's participation . In addition, the contribution in environment improvement will be seen by the distribution of about 1513 m.t. grass seed and 22.2 million fodder trees .
	Fish production will increase from 23,000 m.t. to 35,000 m.t.	As it supports the marginalized merchants who release fingerlings in river and catch fish in public pools and ponds, it will support poverty alleviation.	Additional employment opportunity will increase due in fisheries business.	The opportunity for employment of women fisherman community will increase due to the fingerling raising programme .	Through the fisheries in natural source and waste ditches, ponds will not be polluted and germs will also decrease .

Major Expected Achievements through the Implementation of Agriculture Development Programme the End of the Ninth Plan

Programme	Production growth	Contribution in poverty alleviation	Employment Promotion	Growth in Women involvement	Environment conservation
1	2	3	4	5	6
Production of high value agricultural commodities 1. Citrus fruit	In the plan period, additional 5000 ha. of the land will be cultivated and additional 33006 m.t. will be produced.	Through this, additional 20,000 employments will be generated at a rate of 4 person per hectare. This will contribute in poverty alleviation with the increase of income generating opportunities.	By developing commercial and kitchen garden established in 5,000 ha, would generate employment for 20,000 people and full employment for one person per hectare after fruiting stage.	Special growth in women involvement will be increased in extension, training, nursery production and garden programme.	Through the promotion of perennial crops in marginal and sloppy land of mid hills, the condition of soil erosion and landslide will improve.
2. Apple farming	Apple farming will be done in additional 2275 ha. Additional production of 2802 m.t. will be seen in the plan period.	Through this, peasant families will be benefited as income will rise from Rs.4400/- per Ropani to Rs.8000/- per Ropani. The available employment in grove development will enhance poverty alleviation.	Through the apple orchards to be established in 2275 ha, 5200 people per year in the initial phase and once fruit bears, 1600 people will get full time employment.	More than 50 percent women will be directly involved in total employment generation by this programme.	Apple farming in high mountain sloppy and marginal land will give positive impact on environment conservation.
3. Vegetable	Vegetable farming will increase from 145000 ha to 160000 ha at the end of the plan. Through this, additional 3,66,000 m.t. will be produced.	As vegetable farming is comparatively more employment generating and income raising, this will contribute to the income growth of small farmers and will enhance poverty alleviation.	Additional 28,170 people will be fully employed by vegetable farming in 160000 ha at the end of the plan.	As 57 percent women will be involved in vegetable farming, additional 16057 women will be involved under this programme.	As the use of pesticide which affects public health, will be systematised, it will help in the environment conservation.

Expected Achievements through the Implementation of Agriculture Development Programme at the End of the Ninth Plan

4. Bee Keeping	From 60 m.t. of base year, honey production level will rise to 85 m.t. in the last year of the plan.	Through the proper use of marginal farmer and spare labour force of women, this business will directly contribute to their income growth.	Through this, 2085 people will get partial employment.	In this programme women involvement will be higher.	Bee-keeping would enhance productivity through pollination and maintain greenery environment.
5. Silk	Mulberry farming will be done in 600 ha and castor farming in 30 ha. Current production of cocoon will rise from 25 m.t. to 44 m.t.	Through this programme, women's income growth will get support as they get profit of Rs.150/- per kg. from the cocoon.	Through this, 2928 people will get direct employment. Later on 3708 people will be indirectly employed in the cocoon industry business.	In this programme women will be mostly involved.	Soil erosion in the hilly area will be controlled by the mulberry plantation.
6. Tea farming	Additional 2,000 ha tea garden will be cultivated at the end of the Ninth Plan and manufactured tea will rise to a total of 4101 m.t. as productive area rises to 3718 ha.	Through additional 2000 ha tea production, average 8000 peasant families will get profit if each family cultivate 0.25 ha, this will enhance poverty alleviation.	From this programme 4100 person/year will be employed at the end of the plan. Employment equal to 89000 labour day will be generated from the plucking of tea in old cultivated areas.	As women involvement increase in the tea plucking and domestic and modern refining activities, labour day equals to 7128000 direct involvement of women will be ensured.	Perennial cropping like tea in sloppy land will control soil-erosion and ecological balance will get big support.
7. Coffee farming	In the plan period, 444 ha. will be cultivated by coffee and production level will be 110 m.t. from 252 ha	Through commercial coffee farming per 5 Ropani, annual Rs.10,000/- income will be generated at full production	Once production starts in additional area, 418 people will get full employment through	Mostly women involvement will be raised in this programme.	As coffee is a perennial crop, it will assist in conserving environment in hilly areas.

	productive area.	condition and additional 576 families income will raise by this programme which will help in poverty alleviation.	this programme.		
8. Other high value crops	As improvement will be made in other fruit and high value cropping programme which are not specified in the Agriculture Perspective Plan but carried out by the peasants, will give additional support to income generation for peasants and to generate employment opportunities.				

15. Allocation of Development Expenditure

In the Ninth Plan period, the budget allocation to agricultural sector development expenditure is estimated as follows:

S.N	Programme	Amount (Rs in 10 million)	Percentage
1.	Cropping intensity and productivity enhancement programme	500	23.23
2.	High value agriculture crops development	250	11.62
3.	Animal husbandry and fisheries development	400	18.59
4.	Agriculture market, industry, commerce and export promotion	50	2.32
5.	Agriculture research	300	13.94
6.	Chemical fertiliser supply management	150	6.97
7.	Agriculture credit overhead	25	1.16
8.	Women farmer development co-ordination	2	0.10
9.	Project implementation, monitoring and evaluation	75	3.48
10.	Small infrastructure development support in pocket areas*	400	18.59
Total		2152	100.00

* The facilitating programmes such as short distance farm roads, culvert, bridges, community transportation system, study of small tools and refining equipment, training and consultancy services in respect to the locality specific need in prioritised goods development pockets as per the Agriculture Perspective Plan.

Note:

1. The total programme and budget, which are related to the agriculture perspective plan such as the tube well and small irrigation, community forest and soil conservation, land management improvement, rural electrification (agriculture), farm roads have been mentioned in the respective chapters, so these are not included here.
2. The organisational arrangements for high value agriculture crops and the organisational arrangements for training, extension and technical services under the cropping intensity and productivity growth programme are complementary to each other, therefore, development expenses are projected accordingly.
3. As it is not practical to separate organisational arrangement and their mobilisation according to the priority of the APP, projected expenses and the resources will be mobilised keeping in mind to make 75 percent expenditure in totality will be oriented towards the priorities of APP at the end of the plan period.

Chapter 11

Industry, Commerce and Tourism

11.1 Industry

1. Background

As it is not possible to expand economic activities expeditiously only through the existing agro-based economic structure, there is a need to enhance the industrial sector in parallel with other sectors of the economy. Although it was realised three decades back that the industrial sector should lead the economic development efforts and accordingly necessary policy amendments were made, the industrial sector could not still make desired impact on the economy. The contribution of productive industrial sector in gross domestic product remained around ten percent. Owing to the import substitution policy adopted in the past: (a) local industries itself could not expand and become competitive by reducing cost/output ratio due to the limited internal market; (b) there was no need for the domestic industries to be competitive due to high protection; and (c) there was almost no attraction to make the industrial sector competitive by adopting modern technology.

The Eighth Plan attempted to correct the policy level problems for the last two and half decades. In order to make the industrial sector competitive, (a) the policy of making domestic industries competitive by liberalising import was adopted (but the policy of giving effective protection to the domestic industries was retained). (b) an emphasis was laid on export (c) the concept of private sector development and the private sector leadership in the industrial sector was accepted, and the policy of moving forward the process of privatisation of government corporations was adopted (d) industrial administration was made liberal and investment friendly and (e) foreign investment as complementary to domestic investment was accepted as an important aspect of industrial development. These policy improvements have created some positive impacts. The volume of domestic and foreign investment increased during the Eighth Plan period. An attempt was made to take the membership of Multilateral Investment Guarantee Agency (MIGA), and thereby enhance the confidence for investment promotion. A Process was initiated for the amendment and refinement of law relating to the industrial property for the purpose of increasing the export of goods including software. Attaining the membership of World Intellectual Property Organisation (WIPO) for providing recognition to domestic industrial property was one of the notable achievements of the Eighth Plan. For raising export, the efforts to increase the facilities and promotional activities were made but the export could not be increased to the desirable extent. Production could not rise keeping in view the markets (especially Indian market) of the neighbouring countries. In the mean time, a new trade treaty between Nepal and India was concluded. Since various provisions of the treaty have provided an encouragement to free, equal and impartial trade, the provision for Nepalese goods to enter the Indian market without any domestic content obligations has made the industrial policy more effective and result-oriented.

Due to the reforms brought about by the Industrial Policy and Foreign Investment and Technology Transfer Policy in 1992, some positive results appeared during the last three years. Amendment in the provisions of industry registration, licensing process and facilities made market entry easier for investors. However, it was not possible to maintain this pace during the last two years of the Plan period. Factors like unstable policy, frequent changes in government, high interest rate and lack of easy availability of capital posed hindrances in maintaining that pace. Some grievances such as the strengthening of policy matters, the enhancement of capability, capacity building and transparency in working procedure still existed.

While maintaining the achievements and the policies of the Eighth Plan, the Ninth Plan is tied to the following context:

- As the process of industrial development is a multidimensional and multi-institutional phenomenon, the availability of raw materials, accessibility of capital, risk-taking capacity of entrepreneurs and easy availability of manpower are not the only factors affecting it. Rather, Industrial development is directly related with revenue, including tax and strong macroeconomic management. In this perspective, it is essential to maintain and review industrial development process within the expected periphery of revenue and monetary policy.
- Industrial sector can play a decisive role in an economy characterised by recession due to increasing unemployment and rural poverty. Therefore, it is necessary to create non-agricultural employment by associating agro-enterprises and available human resources with industrial occupation in order to develop rural-urban linkages. It is equally necessary to develop micro-enterprises and informal sector at the grassroots level; produce intermediate goods as their forwarded linkages; and link them to medium and large-scale industries with comparative advantages. If such a policy is adopted, it is possible to achieve the defined objective of poverty alleviation; create multiple effects in the economy by developing areas of comparative advantage; and accordingly maintain national identity in domestic trade. Moreover, it is also necessary to develop extensively micro enterprises at low cost, to transfer appropriate technology based on available raw material, and to enhance the skill of local manpower in concerned areas. In such areas, priority should be given to develop women entrepreneurship and the potential entrepreneurship of vulnerable economic class.
- To prepare an integrated programme for fulfilling local need by creating micro-enterprises with necessary skill, entrepreneurship, investment and technology, and by linking them with market.
- To associate skill development programme with industry in order to enhance competitiveness in areas of comparative advantage and develop local manpower as main development inputs.
- To promote particularly the comparatively advantageous areas like water resources, tourism and software.

- To give special facilities to backward linkages of the industry based on local raw materials.
- To identify new areas of export and link bilateral and multilateral export trade with local production.
- To initiate industrial restructuring and make it timely relevant.

2. Review of the Eighth Plan

Policy and institutional infrastructure necessary for making the industrial sector more competitive in a liberal economy were prepared during the Eighth Plan period. Basically, the following Acts and policies contributing to industrial development were formulated:

- * Industrial Policy, 1992
- * Industrial Enterprise Act, 1992
- * Foreign Investment Policy, 1992
- * Foreign Investment and Technology Transfer Act, 1992
- * Company Act, 1996

Supportive policies for industrial development such as Trade Policy and Privatisation Act were also brought out during the Eighth Plan period.

With the objective of providing facilities to investors without any hindrance through legal provisions, the need for some new institutions was felt and, consequently, such institutions were created. Institutional infrastructures adopted for making industrial sector more competitive are as follows:

- With the objective of giving facility and assessing duty draw back from one spot, one-window committee secretariat has been set up. Though this institution is unable to be fully effective, the availability of physical facilities (water, electricity, road, telephone/communication) from the same single spot has been added in the function of this institution as well.
- National productivity council has also been established for raising productivity awareness and conducting programmes by linking human resources and technology with productivity.
- This institution has started to perform the function of technology development and transfer project to provide information of technology necessary for industry and entrepreneur and offer necessary advice to facilitate technology transfer.
- Industrial Enterprise Development Institute has taken the responsibility of conducting entrepreneurship development, small business promotion, market study and trainer's training, and of playing the role of a centre for excellence in the field of industrial human resource development.
- Company Registrar Office has been established as a centre for providing services of company registration, monitoring and necessary advice from a single spot

regarding the institutional structure of business, industry registration and the entire company business.

With such the policy and institutional arrangements, a preliminary work for the development of private sector has been begun. This has made investors feel that administrative difficulties have been reduced, and has made the situation of market entry easier.

Industrial Production

Industrial production in the Eighth Plan was estimated to increase at an annual average rate of 12.4 percent; however, the increase was 5.23 percent at the constant price. While the value added of industrial product at constant prices was estimated at an average rate of 10.8 percent in the Eight Plan, it was increased by 6.8 percent. Industrial production and its annual growth rate have been shown in the table below:

Table 1
Industrial Production Index in the Eighth Plan

	F/Y 1986/87	FY 1991/92	FY 1992/93	FY 1993/94	FY 1994/95	FY 1995/96	FY 1996/97	Av. Annual Growth Rate(%)
Industrial Index	100	141.7	143.68	150.25	164.07	179.97	182.86	5.23
Growth Rate (%)			(1.40)	(4.57)	(9.20)	(9.69)	(1.60)	

The contribution of industrial sector in FY 1991/92 in gross domestic product was 8.4 percent. Similarly, the contribution of industrial sector in gross domestic product was estimated to increase at an annual rate of 4.8 percent and at the end of the Eighth Plan period, it was estimated to reach at 8.5 percent. Based on the projected estimate, the value added of manufacturing industry at FY 1991/92 prices was estimated to be Rs 12170 million at the end of the Plan. The contribution of industry and mines sector in GDP has reached at 9.22 percent. The contribution and annual growth rate of industry and mines sector during the Eighth Plan period have been given in the following table:

Table 2
Contribution and Annual Growth Rate of Industry and Mines Sector in the Eighth Plan
(At 1984/85 constant prices)

S.No	Description	Target of Annual Growth Rate in Eighth Plan	Fiscal Year						Annual Growth Rate
			91/92	92/93	93/94	94/95	95/96	96/97	
1	Industry and Mines Sector	124	5251	5566	6233	6360	6671	7446	-
2	Annual Growth rate	108	-	60.0	119.8	20.4	88.2	56.6	6.8
3	Contribution of Industry Sector to Domestic Production (%)	85	84.0	86.2	89.4	88.7	91.0	92.2	9.8

(Rs in million)

In comparison to the base year FY 1991/92 of the Eight Plan, the industrial production of sugar, flour, noodles, stainless steel utensils, synthetic clothes and paper (except news print) has increased substantially in the final year of the Eighth Plan. In the same period, the production of vegetable ghee, edible oil, pasteurised milk, tea, animal food, soft drink, beer, alcohol (rectified), cigarette, cotton clothes, jute goods, ready-made garments, timber, tooth paste, powder, matches, soap, slippers, plastic goods, polyphane pipes, bricks, cement, iron rods, billet, GIHB wire, zinc footing, electric wire and battery has nominally increased. But the production of biscuits, bidi, woollen carpet, woollen thread, leather shoes and processed leather has decreased.

Employment Generation

While it was estimated that the total number of employment in industry and mines sector would reach 395000 with the additional increase of 128000 employment opportunities by the final year of the Eight Plan, the number of employment generation in 1345 medium and large scale industries registered at the Department of Industry would be 115000 with the assumption that seventy percent of the registered industries would be operated; industrial schemes registered at the Department of Cottage and Small Scale Industry would generate 120,000 employment opportunities, assuming that thirty percent of registered 34439 schemes will come into operation. Thus, a total of 235000 additional employment opportunities were estimated to create by the fourth year of the Plan.

Investment

During the Eighth Plan period, it was estimated that the investment in the industry and Mines sector FY 1991/92 at constant and current prices would be made about Rs 15000 million and Rs 22000 million, respectively. It is estimated that medium and large scale and cottage and small-scale industries registered during the plan period will make the investment as follows:

Table 3
Proposed Investment and Registration of Industries in the Eighth Plan

(Rs in million)

Description	FY 1992/93		FY 1993/94		FY 1994/95		FY 1995/96		FY 1996/97		Total	
	Numbers of Registrati on	Invest-ment on Fixed Capital	Numbers of Registrati on	Invest-ment on Fixed capital	Numbers of Registrati on	Invest-ment on Fixed capital	Numbers of Registrati on	Invest-ment on Fixed capital	Numbers of Registrati on	Invest ment on Fixed capital	Numbers of Registrati on	Invest ment on Fixed capital
1.Cottage and Small Scale Industry	6781	3150	9489	5720	8519	5370	9650	7220	6358	4810	40790	26270
2.Medium and Large Scale Industries	614	4470	146	15850	213	10700	372	15720	98	8150	1443	54890

The above estimated amount of fixed capital investment constitutes just the proposed investment made at the time of registration. However, it has not been confirmed yet as to how many industries have been established and operated and how much investment has been made in such industries. Similarly, the Office of Company Registrar has registered 7013 private limited and 665 public limited companies during the Eighth Plan period.

During the Eighth Plan period, it was estimated that almost 200 enterprises would be promoted in joint venture or foreign investment and an equivalent of Rs 2430 million of foreign investment would be made in these projects; however, 238 enterprises had been promoted and a total foreign investment of Rs 9699 million would be realised during the Eight Plan period. Investment Forum has already been organised in FY 1992/93. Details of the number of foreign investment projects have been shown in table 4.

Table 4
Number of Foreign Investment Projects Promoted in the Eighth Plan and their Proposed Investment

Fiscal Year	Number of Projects	Total cost of Project	Total Fixed Investment	Foreign Investment
1992/93	62	17873	16200	3731
1993/94	38	3323	2735	909
1994/95	80	1517	1208	477
1995/96	45	9715	9108	2205
1996/97	75	6114	5819	2377
Total	238	38596	35070	9699

During the Eighth Plan period, the number of approved foreign investment projects under operation has crossed 300 and the total amount of investment in these projects has reached to Rs 42000 million. Among these projects, sixty percent are in manufacturing industry, twenty one percent in tourism thirte en percent in the service sector. The number of countries investing in these projects has reached to forty-eight.

During the Eighth Plan period, a total of Rs 24703.4 million from commercial banks have been flowed to the industrial sector while Nepal Industrial Development Corporation has made an investment of Rs 1890 million.

Progress of Development Programme

The leather industry co-ordination unit running under the Department of Cottage and Small Scale Industry has trained sixty-five persons for leather profession. Similarly, foreign investment information brochure and the directory and industrial statistics have been published regularly. The Ministry of Industry has created an industrial pollution control unit and has published a directory on industrial pollution. During the Eighth Plan period, small business promotion projects have given training to 1240 people on entrepreneurship and management development and have provided consultancy services to 1121 industries. Similarly, a project has been initiated with

the assistance of the World Bank for energy management and the efficient use of energy management. During that period, an impact study of industrial policy has been completed and industrial information system has been established. Works for establishing Information Technology Park have been started and the preliminary works for setting up Technology Development and Transfer Centre under Industrial Enterprise Development Institute have also been initiated.

Standard and Metrology Programme

In order to make quality standard activities strong and effective, the set target of constructing laboratories, implementing metric system in 36 districts and collecting and analysing 1780 production samples has been completed during the Eighth Plan period.

Mines and Geology

During the Eighth Plan period, the exploration of metal and non-metal mineral in an area of 6000 sq. km. was targeted. Out of this area, the exploration in 5902 sq. km. was completed. The target of extensive survey of gas reserve in Kathmandu valley for commercial use was completed. Geo-scientific study of 17450 sq. km. in different regions of the Kingdom was targeted and study works in an area of 19500 sq. km was completed. The target of establishing 12 seismic stations (seismological centre) was achieved and all these stations came into operation. The capacity of using remote sensing and Geographic Information System (GIS), which was essential for preparing qualitative geological mapping was developed. Geo-scientific study for petroleum exploration was completed in an area of 31,000 sq. km. and its data package has been sold. The target of conductive ricknesans seismic survey, drilling and aso magnetic survey for exploring petroleum with foreign assistance was not achieved due to the failure in getting foreign assistance. The target of preparing and publishing in sheets in a scale of 1:50,000 the qualitative geological map of 9000 sq. km. area in western development region could not be achieved. Due to the lack of budget, technical manpower like cartographer and adequate printing facility, only two sheets could be published even though drafting of 6 sheets was completed. For the same reason, it was not possible to publish remaining 12 maps. The attempt is being made to promote cement industries utilising the quarry deposits in Surkhet, Arghakhanchi and Dhankuta. Similarly, Mineral Act, 1985 has been amended and Mineral Regulation, 1995 has been drafted.

Cottage and Small Scale Industry

Cottage and small-scale industry development programme (27 districts of terai).

The target of registering 25000 cottage industries and 1000 small scale industries was mentioned in this programme in the Eighth Plan; however, a total of 43250 cottage and small scale industries were registered during that period. It was estimated that almost 400,000 people would obtain alternative employment from those registered industries.

During the Plan period, the Department of Cottage and Small Scale Industry provided skill development training to 25219 people. While it was mentioned in the Eight Plan

that Training for Rural Gainful activities (TRUGA) project, cottage industry for women and ceramic promotion project would be kept in operation under foreign assistance. Instead of TRUGA, Training for Rural Employment (TRE) Project with the assistance of UNDP and Ceramic Promotion Project with the German assistance are being operated. During the Plan period, training on pottery decoration, glaze model design and painting have been provided to 407 people under the ceramic promotion project. Similarly TRE project has provided skill development training to 4659 people. In the same period, training under the ready-made garment and handmade paper project has been provided to 1633 people in ready-made garment and 432 people in hand-made paper production. Thus, a positive progress has been made in cottage industry registration, training, generation of employment opportunities and expansion of district office.

Cottage and Small Scale Industry Programme (remaining 48 districts)

Under this programme, target was set to establish 48 district offices and provide skill development and entrepreneurship training to 14,550 people; to provide technical support to 3000 industries; and to prepare 4,500 project schemes. However, during this period, 48 district offices were established and skill development and entrepreneurship training were provided to 26,521 people.

The contribution of industry and mines sector in gross domestic product has gone up as expected. In the Eighth Plan, employment creation, investment promotion and foreign investment in the industrial sectoral have increased. The industrial policy and Industrial Enterprise Act can be taken as positive steps. Similarly, new Foreign Investment and Technology Transfer Act in promoting foreign investment and the One Window system have also played a positive role. The volume of investment and the number of new industries being established in the process have improved. The amendment in Foreign Investment Act and Company Act has already been made in creating investment friendly environment by ensuring timely improvement in foreign investment and company laws.

Various institutional efforts for the development of industrial sector, the establishment of the Industrial Enterprise Development Centre and the constitution of the National Productivity Council, Skilful training conducted under different projects, industrial survey study and researches have made a positive contribution in enhancing the industrial sector. A high level Industrial Development Council has been constituted for industrial promotion and co-ordination.

With the objective of attracting foreign investors in Nepal, an extensive Investment Forum was organised in FY 1991/92 and one hundred and fifteen potential industrial projects were presented in that Forum. Similarly, during the first four years of the Plan, eight public enterprises were fully privatised; guidelines for environment impact assessment for pollution control have already been published; study of the sick jute mills was conducted; Rajbiraj Industrial district was established; and the feasibility study for establishing industrial estates in six different districts was conducted. The impact study on mining industries is being studied. During the Plan period, Nepal Orind Magnesite industry has completed all the necessary works for commercial production.

The role of industrial sector in the national economy has increased; however, the increased in production as targeted by the Plan has not been achieved. The industrial production index has not been increased at an expected level. Though Nepal India trade and transit problem has already been resolved at the beginning of the Eighth Plan, the industrial production has negatively been affected by the interruption of the supply of electricity. Similarly, since existing industrial enterprises have to be run in a competitive environment as created by the economic liberalisation adopted by the country, industries in the new policy environment do not seem to have been able to increase production, enthusiastically.

Though much emphasis was laid on the mines sector in the Eighth Plan, the progress was not satisfactory due to the lack of investment. In the context of industrial development, particularly of regional development, the lack of physical infrastructures was acutely felt. In particular, the production of exportable items was limited only in some places of the country as there was lack of infrastructures like electricity, road, transport and communications in other parts of the country. Since industrial policy treated all types of industry on an equal footing in terms of industrial classification, income tax and other tax rebates, it could not make an expected contribution to the development of export oriented and priority industries that could have comparative advantage by utilising indigenous labour and resources.

The increase in the competitive capability of industry could not be achieved due to the lack of development in productive labour force, industrial discipline in labour force and linkage between wage and productivity. The development of entrepreneurship has been affected adversely due to the procedural problems created by the arrangement of Labour Act and other regulations relating to entry and exit of labourers in financial enterprises, the tendency of giving priority to foreign labourers in indigenous enterprises has failed to make an encouraging contribution to the development of domestic employment. Similarly, labour and business transparency in the private sector enterprises have not come up in line with competitive business environment.

Due to the lack of identification, promotion, production and supply of other raw materials, including mineral deposits, which can be produced in the country, and the lack of promotional programmes for local skill, industrial development can not be geared towards the areas having comparative advantage. Similarly, in order to enhance the quality of manufactured goods and make an improvement in the product development and design, technology transfer, research and development, expansion of laboratories and their accompanying manpower development in the private sector have not been taken place.

As the capital base of financial institutions could not be increased in the proportion to the expansion in the demand for industrial capital, financial institutions could neither fulfil the demand for capital in the industrial sector nor reduce the cost of capital. This has made a direct impact on the industrialisation process and the investment expansion of the private sector.

While considering the above-mentioned problems industrialisation process in the Ninth Plan needs to give a definite direction by developing complementarily physical

infrastructure, investment and other economic infrastructure, manpower development, legal and policy frame work, foreign trade and regional development in a co-ordinated manner.

Problems confronted in the Eighth Plan

- Effectiveness of the institutions responsible for industrial investment promotion and guaranteeing of facility was low.
- Revenue policy consistent with the industrial investment was inadequate.
- Fiscal, monetary and economic policy favourable to industrial investment could not be developed. A long-term policy perspective was not undertaken in the industrial sector.
- Policy instability and uncertain situation prevailed.
- Inter-linkages among skill development, entrepreneurship, technology, market and availability of capital were not developed.
- Co-ordination between manpower and industrial investment was absent.
- Labour Act was not investment oriented.
- Mutual trust between the government and the private sector was not created.
- Information between the mineral resource and industrial investment was lacking.

3. Long-term Perspective

The long-term concept would be to utilise long-term policy for sustainable industrial development in an integrated manner by ensuring policy consistency to mobilise necessary resources; to establish a greater role of private sector; and to enhance competitiveness in the areas of comparative advantage; and to double the contribution of manufacturing sector (from 10 percent to 20 percent) in gross domestic production by 2015.

4. Target

- To make the industrial sector competitive, self operative, and market oriented by mobilising the resources in the development of the private sector and making market, capital and technology as a part of investment.
- To increase the local contribution in the industrial value added by linking local raw material and manpower to industry.
- To transfer local skill and entrepreneurship into micro-enterprises with a view to transforming local resources in to market demand.
- To create industrial environment based on the concept of sustainable industrial development by linking productivity enhancement and environment together.

5. Strategies

Labour Market Development

HMG will review various aspects of the labour sector for systematic labour market and easy employment for skilled labourers in order to supply disciplined and skilled manpower in an open and competitive economy led by the private sector, develop labour market, and determine the price of labour based on work efficiency. Likewise, HMF will implement policies in a way to ensure socio-economic justice to labourers and facilitate the investment of entrepreneurs and the entry of labourers into industrial enterprises for smooth industrial operation.

Similarly, the policy of establishing technical institutions in the government sector and the private sector for re-training the displaced manpower will be implemented.

Manpower Development

Skill development training will be conducted according to the demand and need of the industrial sector. All the manpower training programmes of HMG will be integrated with employment. Facilities will be provided to the private sector for investing in skill development and management training.

Necessary Legal Infrastructure

His Majesty's Government will continue the policy of protecting the domestically important industry, industry expanding production base and product diversification and industry processing raw material and mineral deposits. Similarly, HMG will provide appropriate incentive and facilities to industrial enterprises that contribute to the development of infrastructure and the reduction of regional disparity. Similarly, anti dumping law and anti trust law will be formulated and enforced to protect domestic industry, consumers' welfare, and ensure business competition. Accordingly, Labour Act, Contract Act, Company Act, Foreign Exchange Act, Revenue and taxation policy will be made relevant and pragmatic.

Transparency

HMG has adopted open and competitive market system with the lead role of the private sector. In such a situation, it is necessary for the private sector to bear responsibility with a minimum transparency in economic activities and the operation of industrial enterprises; therefore, a legal provision will be made to the company with limited liability to submit mandatory their report on economic activities, employment, profit and loss to the HMG. Industrial licensing, registration and other existing arrangements of industrial administration will be made simple and flexible.

Environment and Pollution Control

Standard and assessment procedures will be prepared with the participation of the private sector in order to maintain and monitor security and cleanliness in industrial enterprises and control pollution in industrial environment; working policies for testing and monitoring from impartial laboratories will be implemented. Necessary programmes will also be implemented to encourage clean production technology. The

provision of pollution charge will be enforced and programmes contributing to clean environment will be initiated.

Cottage and Small Industry Promotion

The integrated programme for economic and technical assistance will be implemented in the areas where the attraction of private sector in cottage and small industry is lacking. The policy of tax incentive will be provided to those industries which promotes cottage and small scale industry by involving in their production process. Special arrangement will be made for providing management skill, entrepreneurship development training, and loan facilities to micro-enterprises for generating self-employment. In order to expand the activities of Cottage and Small Scale Industry Development Bank, re-investment at a subsidised rate will be arrange.

Mineral Exploration and Development

Foreign investment and advanced technology will be encouraged to carry out the development works of mineral exploration, geological study and necessary mineral deposits in a planned and organised manner. For this purpose, HMG will participate in the process of developing necessary infrastructures. Logistic service and laboratories required for developing potential industry with the utilisation of mineral deposits will be systematised gradually. Special policy will be formulated to explore and utilise underground gas well and petroleum on cost-benefit basis with the assistance of foreign multinational companies.

Productivity and Technology Transfer

Tax incentive will be provided to the investment made in effective technology transfer and to the increase in productivity; economic and technical assistance will be provided to pre-planned study and research on domestic productivity and technology development. In this regard, joint programme between the government and private sector will be implemented.

Similarly, for the expansion of research institutes and laboratories, priorities will be given to joint co-operation between HMG and industrial associations. HMG will provide economic and technical co-operation to such institutes and laboratories on the basis of evaluation of their standard and reliability. Particular emphasis will be laid on their affiliation with foreign institutes.

HMG will establish Technology Park and Technology Transfer and Development Centre with the collaboration of the private sector for technology transfer and the development of local technology, particularly the development of computer software and communication technology.

Quality standard

Legal provisions will be made to implement strictly the international standards of food item and industrial products related to public health. Proper incentive will be given to the export of high value and high standard product. Similarly, an

arrangement will be made to show compulsorily the essential quality description in the packages of the goods produced and distributed domestically.

Industries to be promoted

For the development of industry and mines sectors during the long-term plan period, the following industries will be given support and emphasis for their expansion and promotion:

- Hydropower generation
- Industries based on tourism
- Energy based industry
- Computer Software
- Industry based on domestic non-metal minerals.
- Agro-based Industry
- Commercialisation of forest sector
- Industry based on leather
- Financial service
- Sericulture, Floriculture

Ninth Plan

Ever since the earlier plans, the development of the industrial sector has been given a high priority for creating employment opportunity, and developing sustainability in the export sector in a way to contribute to the domestic economy. However, it has not been able to make the expected contribution to the economy. The industrial sector has not been able to create the expected multiplier effects in the national economy through the maximum utilisation of available local resources and the diversification of production and market. Due to the geo-political situation, geological structure, lack of productive resources and unskilled manpower, there is no expected development in the productivity demand the competitive capability of industries in the country.

In order to provide policy level support to open and liberal economic structure, industrial and foreign investment and technology transfer policies were implemented. However, the progress was not satisfactory as per the target due to the ineffectiveness of institutions designated for implementation, lack of co-ordination among the inter-organisation, lack of consistency between the priority and the investment of the Plan, and lack of continuity with strong commitment. Even the sound policies were ineffective due to the inherent weaknesses in the implementation process. Similarly, other sectors that would make favourable impact on industrial investment were not able to open. With the lack of effective co-ordination between the industrial policy and the revenue policy, some difficulties appeared in encouraging the private sector investment with due guarantee. Since the private sector is instrumental in the economic development of the nation, it is not possible to enhance the avenues for investment without involving the private sector. Therefore, focus on the private sector development while consolidating the past achievements and enhancing the policy level and institutional capacity and efficiency constitutes the pre-requisite for the development of the industrial sector in the Ninth Plan. It has already been realised that the Ministry of Industry has to play a leading role in assisting the private sector in

industrial development, facility and incentive, and the various aspects of industrial administration.

In order to make the industrial sector free from administrative complexities, the simplification of licensing and registration procedures, the facilitation of the import of industrial raw materials and the transfer of technology were made in line with the open and liberal economic structure. As a result, the investors felt comfortable and the volume of domestic and foreign investment increased, which were the notable achievements of the Eighth Plan. However, the industrial sector failed to increase the targeted employment; improve the trade balance by increasing the volume of exports and the investment in export-oriented industries; and enhance its substantial contribution in the gross domestic product. Therefore, it has become highly essential that these lacuna and weaknesses of the industrial sector should be removed and employment opportunities should be increased from the investment to be made in the industrial sector.

In the Ninth Plan, His Majesty's Government will play the role of strong promoter and facilitator in enhancing the contribution of industry and mines sector in the development of domestic economy while promoting domestic and foreign investment and accepting the private sector as an instrument for economic development. Similarly, an emphasis will be laid in creating low cost economic structure by developing necessary infrastructure like transport, electricity, communication, etc., for industrial promotion.

5. Objective

- To increase contribution of industrial sector in domestic production by increasing the industrial production, and diversifying and expanding the internal and external market through the medium of necessary encouragement to and co-operation of the private sector.
- To increase the earnings and reserves of foreign exchanges by identifying commodities of comparative advantage and other commodities of competitive capability, and increasing the production of export-oriented and import substituting commodities.
- To increase the production of processed commodities by arranging necessary infrastructure and providing essential co-operation for enhancing the processing of domestic raw materials and mineral deposits.
- To increase the income and purchasing power of rural people by creating non-agricultural employment in rural areas through cottage and small scale industries.

6. Target

It is necessary to have a sustainable rate of 11 to 15 percent growth of industrial production in order to achieve an annual economic growth rate of 6 percent. For this purpose, it is necessary to increase savings rate by 17 percent and investment by 25 percent of gross domestic product. It is estimated that with the annual investment rate of Rs 7,000 million, which comprises Rs 2,000 million of domestic industrial

investment and Rs 5,000 million of foreign investment, a total investment of Rs 35,000 million will be made during the Ninth Plan period. It is estimated that this will create an additional employment opportunities for 350,000 people.

The contribution of industrial sector in gross domestic product is set to achieve a target of 14 percent at the end of the Ninth Plan with an annual estimated average industrial growth rate of 13 percent.

7. Policy and Implementation Strategy

- Industrial production will be extended and diversified to commercialise other economic sectors such as agriculture, forest, mines, etc.; and to expand and diversify industrial production by linking the industrial sector with these sectors.
- To encourage foreign investment in the areas of comparative advantage.
- To make the existing provisions of industrial administration, Labour Act, Contract Act, Company Act and Foreign Exchange Act practical and time relevant in order to enhance the leading role of the private sector in industry; and to make ambiguous provisions of Industrial Enterprise Act clear and transparent.
- To privatise industries, financial and research institutions in the government sector through a due process. To strengthen public enterprises supportive of private sector promotion and expand their scope of work.
- To make One Window system more active and strong, and to direct the service of this system towards providing infrastructure facilities to the private sector.
- To expand and develop cottage and small-scale industries through integrated programme for providing essential assistance and technical support.
- To declare special industrial zone to those areas of the nation, which have already had an access to physical infrastructure facilities; and to encourage industrial activities by extending additional infrastructure facilities with the help of private sector.
- To increase the capital base of domestic financial institutions by allowing capital inflows from foreign financial institutions in order to facilitate the availability of capital in industries; and to orient the investment of financial institutions towards industry.
- To produce high quality export oriented goods through the policy arrangements of commodity centred industrial village, Technology Park and export processing zone.
- To provide essential assistance, facilities and incentives to training institutes in the private sector in order to develop priority manpower by classifying the manpower based on the demand for technical efficiency and skill.
- To formulate and implement acts and policies like anti-dumping, anti trust/monopoly and restrictive trade practices, fair trading policy, debt settlement

tribunal, etc., in order to protect the interest of domestic industry, small industries and consumers.

- To encourage clean production technology for minimising the negative impact of industrialisation on the environment.

8. Programme

Most of the projects being operated under the industrial sector at present will be continued. The following programmes will be in operation during the Ninth Plan period to achieve the objective of the Plan.

Industrial Plan Statistics and Monitoring Programme

Industrial feasibility study and market study, production, productivity, quality standard promotion and project profile preparation will be completed. Sales promotion strategy will be prepared following the study of the demand of six cities of neighbouring countries and ten main cities of the country. During the Plan period, potential industrial area will be identified in 20 districts based on their available resources. A brochure for the promotion of foreign investment and a profile of 100 projects will be prepared and distributed to domestic and foreign investors. Industrial statistics will be collected and monitored; and industrial statistics and trademark directory will be published.

Technology Transfer and Development Project

Providing technical training to entrepreneurs, identifying and transferring appropriate technology and establishing technology shops in various districts of the country have been targeted.

Technology Park Project

Infrastructure will be developed following the study of the need for information technology. The target is set to assist in producing and exporting software by working jointly with the private sector for the development of information technology. For this purpose, infrastructures like establishment and distribution of VSAT and drafting of industrial property rights will be developed.

Cottage and Small Scale Industry Programme

For the promotion and enhancement of micro-enterprises and cottage and small-scale industry, market-oriented skilled development programme on various income-generating areas will be implemented for 100,000 people. A market study will be conducted to make the skill development training programme market-oriented and entrepreneurship and management subjects will be included in such a programme. An integrated rural entrepreneurship development programme will be launched in order to encourage 12,000 people in rural areas for creating and developing industry. An additional employment opportunity will be provided to 12,000 people; the contribution of cottage and small scale industry in gross domestic product will be increased proportionately; and necessary extension services will be arranged in a way to provide support services to cottage and small scale enterprises.

Mines and Geological Programme

Under the Department of Mines and Geology, mineral exploration and development, geo-scientific survey and exploration project, domestic seismological centre, and petroleum exploration project will be launched.

Petroleum Exploration Project

Considering the existing oil crisis in the country, an attempt will be made on exploring and promoting oil and gas reserves with foreign assistance. Additional geological and geo-physical activities will be systematically carried out for petroleum exploration and promotion in various places of the *chure* and terai region of the country. In this process of petroleum exploration, geological section measurement and pet-geo-chemical sampling will be continued for source, seal and reservoir study. Gravity survey for exploring possible reserves of petroleum products and study on geological structure of underground rocks will be conducted.

Nepal Standard and Metrology Programme

An amendment will be made in prescribed standard and standard determination of various goods and services. The private sector will be encouraged to maintain quality standardisation of goods and services produced as per Nepal standard. Monitoring and supervision in the production, sales and distribution of goods and services will be made. Physical facilities for meteorological laboratories will be arranged. Arrangement will be made for pre-inspection of export and import. Necessary research and development will be conducted to enhance the standard and productivity level of ten industries. Industrial engineering and chemical meteorological activities will be carried out; activities on promotion of standard will be carried out; database on standard will be prepared; lot certification, laboratory expansion and the concept of establishing joint laboratories will be forwarded and technical assistance will be provided to small scale entrepreneurs.

Productivity Promotion Project

To encourage productivity development, arrangement of productivity award, productivity awareness programme, consultancy service, seminar, training, publicity, publication, and liaisoning functions of Asian Productivity Organisation (APO) and National Productivity Council Secretariat will be conducted.

Industrial Enterprise Development Institute (Small Business Promotion Project):

Targets have been set for carrying out entrepreneurship development training, trainer's training, management improvement training, and disseminating technological information and research on entrepreneurship.

Industrial Pollution Control Project

In order to minimise the negative impact of industrialisation on environment, effluent standards of pollution discharging industry will be developed at sub-sectoral level. Arrangement will be made to minimise pollution in newly proposed industries by adopting environment impact assessment (EIA). Industries currently under operation and to be established in future will be issued pollution certificate and directives for

pollution control; pollution standards terms will be made binding; and clean production process will be promoted to minimise negative effect on environment and increase competitive capacity of industries.

Micro Enterprise Development Programme

Micro enterprise development programme will be initiated in ten districts of the country (five from terai and five from the hills) and a total of 7,000 new micro enterprises will be created. This programme will be launched with the assistance of the UNDP.

Industrial Perspective Plan Formulation Programme:

Industrial perspective plan for next 25 years will be formulated and accordingly strategies for industrial development will be designed. This programme will be launched with the assistance of the UNDP.

Energy Efficiency and Management Project

In the context of industrial energy efficiency management, programmes for designing hotel lighting and retrofit improvement in industrial load management and furnace and kiln efficiency boiler and steam system efficiency improvement and establishment of Nepal Energy Conservation Centre will be launched.

11.2 Commerce and Foreign Trade

1. Background

The commerce sector has made a significant contribution to the economic development of Nepal. In order to accelerate the growth of foreign trade, different policies and programmes were implemented following the inception of planned economic development. Basically, new trade policy was formulated in 1992 in accordance with the objective of making the commerce sector liberal, competitive and market-oriented. The renewal and comprehensive amendments of Nepal-India Trade Treaty and Agreement on Controlling Unauthorised Trade were carried out in the initial years of the Eighth Plan. With the objectives of enhancing the efficiency of agencies involved in foreign trade, facilitating effective movement of goods, reducing transportation cost and simplifying foreign trade and transit procedures, an agreement with the International Development Association (IDA) was made at the final year of the Eighth Plan in order to implement Nepal Multi-Modal Transit and Trade Facilitation Project. Despite these efforts, export trade could not be improved much in particular. Although the volume of total trade has increased during the Eighth Plan period, export, as a ratio of GDP, has not been improved. Statistics reveal that import as a ratio of GDP has been increasing and terms of trade has not been in Nepal's favour. The export intensity of Nepal is lower than that of South Asian countries except India.

Lack of diversification in the production of exportable products is one of the problems faced by the commerce sector during the Eighth Plan period. Ninety percent of total foreign exchange earnings have been contributed by exporting just seven products such as carpet, garments, handkerchiefs, handicrafts, wool and woollen products, silver products and paper products. The quality of many of these products has not been improved, and even the export trend of ready-made garments has not been robust. Lack of market diversification has posed another major challenge to Nepalese exports.

Eighty percent of the total foreign exchange earnings of the export sector are received from exports to the United States of America, Germany and Switzerland. Exports have not been made sustainable owing to the lack of product-wise and country-wise diversification. The export of traditionally exported agricultural products has been declining because of the decrease in the production of exportable agricultural products, lack of quality inspection, small quantity and inability to produce high value products. Increasing exports by substituting the import of agricultural products is an additional challenge to Nepal.

2. Review of the Eighth Plan

New commerce policy was formulated and implemented in 1992 in accordance with the policy of making the commerce sector liberal, competitive and market-oriented during the Eighth Plan period. The main objectives of this policy were to increase domestic and international trade through the creation of open and liberal environment

in the economy with the growing participation of the private sector; to diversify trade by identifying, developing and producing new export products; to make export trade competitive and sustainable by establishing backward linkages; to expand trade on a sustainable basis by gradually reducing trade deficit; and to establish co-ordination with other sectors for employment-oriented trade expansion. Policies with regard to trade export, import, foreign exchange arrangement and domestic trade were formulated to achieve these objectives. In addition, a commerce council with private sector majority was established for ensuring co-ordination among different agencies involved in export trade.

Convertible foreign exchange earned from the export of goods and services under the monetary and foreign exchange arrangement was made fully convertible in current account during the Eighth Plan period. The income earned from export was exempted from tax; and steps were taken to make the duty drawback system effective, under which duty levied on the import of raw materials necessary for the production of exportable goods was refunded on the basis of actual exports. Following the introduction of full convertibility of Nepalese currency in the current account, imports were made open with the removal of prevailing auction system.

With a view to promoting exports by removing existing trade anomalies, an Export Promotion Fund was established to formulate, monitor and evaluate export promotion programmes; an Export Promotion Council having private sector majority was constituted; and programmes for product development, market diversification, export encouragement and quality improvement were implemented. In the process of taking immediate actions for export growth, stalls were provided for participating in trade fairs organised in the friendly countries. GSP facility was not provided to carpet producers for using disposed wool called “Jhindoo” (low quality wool) in carpet production and only 0.5 percent of export income was charged as export service duty.

The trade between Nepal and India, which dates back to the ancient times, has an important place in the Nepalese economy. Nepal - India Trade Treaty and Agreement on Controlling Unauthorised Trade expired in 1991 was renewed during the Plan period with comprehensive amendments. Under the new arrangement, the trade treaty is valid up to 5 December 2001 and there is provision for its automatic renewal in every five year. The condition that Nepalese exports to India should contain 50 percent Nepalese raw material has been replaced by the provision of preferential access of Nepalese exports to India on the basis of certificate of origin. The previous restriction on seven goods has been reduced to liquor, perfume, cosmetics, cigarettes and tobacco products only; and there has been new arrangement for the removal of extra levy on Nepalese exports to India and Nepalese products exported to India have the same exemption as that of Indian products.

As per the additional arrangement under the Nepal-India Transit Treaty, Indian custom official shall allow goods, arriving in Indian ports and imported from overseas, without any inspection provided that the one-tie lock of the container sealed by shipper is not broken. This arrangement will remain in effect even after the construction of Inland Container Depots in Nepal and its provisions can be amended

as needed. With this arrangement, it is possible that Nepalese products can be freely exported and imported from third countries.

The provision that Nepal shall not export Nepalese products that are produced using more than 50 percent Indian imports to third country and the provision that Nepal shall not export any goods to India which are produced using more than 50 percent third country imports have been removed. It is expected that this new treaty between Nepal and India will not only help in reducing Nepal's trade deficit with India, but it will also make favourable impact on Nepal's trade with third countries.

3. Long-term Concept

Concept

That the commerce sector has highly significant role in achieving high and sustainable economic growth rate is indisputable. There is no dispute on the fact that industrialisation policy can be successfully implemented only through the increase in exports. Following the restoration of democracy, Nepal like other countries has also adopted the outward-looking industrial strategy. Accordingly, programmes are envisaged to implement in pursuance of the long-term objective of enhancing the trade through minimising negative trends in the Nepalese economy and creating a competitive and market-oriented economy to which the country is firmly committed.

Target

During this period, the commerce sector will be made fully competitive and market-oriented, and will be linked to the globalisation process. Given Nepal's very insignificant share in world trade, it is targeted to raise Nepal's share to one percent during this period. Considering the emerging trend of a competitive and market-oriented economy in the world, Nepal in coming days should make efforts to increase its exports by expanding the production base and specialising in products that have comparative advantage. For this purpose, programmes will be formulated and implemented in co-ordination with the agencies involved in production in forthcoming years. Export programmes will be implemented with the objective of taking advantages of open global market by producing low-weight-and-high-value products and by implementing expeditiously perspective plans on agriculture, industry and forestry.

It is targeted to make terms of trade in Nepal's favour by 2015 while reducing existing trade deficit. Nepal's trade has to be operated on a competitive basis following the SAARC countries' implementation of free trade arrangement by 2015 and when Nepal obtains membership of the World Trade Organisation. In the process of carrying out preparatory works, adequate attention will be given to the construction and expansion of infrastructures and accordingly programmes will be implemented to increase export trade.

Trade with neighbouring India occupies a significant share in Nepal's foreign trade. Nepal can increase its share in huge Indian market if Nepalese products are capable of competing with Indian products. Emphasis will be given to establishing and expanding agro-based industries and industries based on domestic raw materials

whereas possible and programmes to this effect will be implemented in a co-ordinated manner.

Strategy

The commerce sector will be made fully liberal, competitive and market oriented during this period in the light of the increased role of this sector in accelerating and sustaining the economic development.

In order to promote export and arrange the supply of quality products, linkages among industry, agriculture and other economic sectors will be established; and policies will be adopted for the smooth inflow of modern technology and management in Nepal.

With the objective of raising export trade, exporters will be provided with the information about international market situation and they will be made competent and efficient by providing necessary institutional support and improving information system.

Nepalese currency will be made fully convertible and necessary reform in monetary and exchange policies will be made.

Construction of necessary infrastructures will be completed for taking maximum benefits from the developments that Nepal will obtain the membership of the World Trade Organisation (WTO) in coming days and South Asian countries will implement South Asia Free Trade Arrangement (SAFTA) by 2001.

Ninth Plan

On the one hand, there is a need for resolving emerging challenges to achieving high and sustainable economic growth rate and, on the other, it is equally essential to make efforts at obtaining high returns by identifying areas that have comparative advantage. With the objective of taking maximum benefits from the world trade, the commerce sector will be developed and industrialisation process has to be accelerated for the wide diversification of exportable products and reversing the past trend of depending on the export of few commodities. Programmes relating to trade will be formulated with ensuring co-ordination and establishing a close relationship with other productive sectors such as industry, agriculture, and forestry. The commerce policy and related programmes will be formulated and implemented with the active involvement of the private sector so as to accelerate the growth of foreign trade by making it more open, transparent and simpler and encouraging export-oriented industries.

4. Objective

- The main objective of the commerce sector will be to make maximum utilisation of commerce sector for the overall economic development of the country and to expand the benefits of foreign trade to the rural areas.
- International trade will be diversified and backward linkages will be strengthened in order to make export trade stable.

5. Target

- Export trade will be increased through the identification and development of export products that have comparative advantage. Trade deficit will be gradually reduced by emphasising production and export based on locally available resources and materials. Emphasis will be given to the production and export of products with low weight and high value for earning the foreign exchanges.
- With a view to making the export trade reliable and sustainable, exports will be diversified product-wise and country-wise; backward and forward linkages of export trade will be enhanced; and quantitative and qualitative improvement on the production of exportable products will be increased.
- The domestic supply of goods will be made reliable and qualitative by systematising rising imports.
- Employment opportunities will be increased and benefits of foreign trade will be extended to rural areas in a way to make a contribution to poverty alleviation.
- Given the land locked geographical situation of the country, transit facility will be expanded and it will be made reliable, simple and cost effective by exploring alternative transit and port facilitation so as to make transport of goods more accessible and efficient.

7. Strategy

- Necessary arrangement will be made for the full convertibility of Nepalese currency during the Ninth Plan. All foreign exchange transactions will be conducted through the market system following the introduction of full convertibility.
- No tax will be levied on export goods except export service duty. However, export of essential commodities will be regulated through tax mechanism.
- The import duty on raw materials and auxiliary materials required for producing export products will be based on the effective implementation of duty drawback scheme. The existing arrangement of bonded warehouse will be improved and expanded.
- Tax free export zones will be set up in places where transport and communication facilities are available and nearer to locations where inland container depots have been established; all the required facilities will be provided to export-based industries situated at such places.

8. Policy and Implementation Strategy

- The interrelationship among agriculture, industry and trade will be strengthened in order to increase the production of exportable products; attain sustainable export growth; and meet the internal demand.
- The exportable goods that have comparative advantage will be identified and their production and quality will be improved so as to raise their competitiveness.

- Production of export products with low weight and high value will be expanded for earning foreign exchange and for reducing the trade deficit through their exports.
- In addition to existing exportable products, new products will be identified; and efforts will be made to increase exports through product-wise and country-wise diversification of foreign trade.
- In addition to mobilisation of local resources, foreign investment and technology transfer will be encouraged for increasing investment in export sector and developing technology.
- A separate foreign trade act will be enacted for making foreign trade systematic by reviewing and consolidating existing acts and regulations.
- For the purpose of developing export trade sector, domestic marketing system will be strengthened so as to make the supply of raw materials and distribution of goods competitive, simple and systematic.
- Given the landlocked position of the country, transit facility will be expanded and made efficient, reliable and simple. In addition to existing ports, an attempt will be made to identify and use additional ports.
- In order to provide an additional impetus to the commerce sector, reforms in insurance and financial services sector will be made in accordance with the open and market-oriented economic policy.
- In view of continuing the leading role of the private sector and expanding the role of government as a facilitator, regular flow of business information will be emphasised and its monitoring and evaluation will be vigorously pursued.
- Trade treaties and agreements signed with different countries and international and regional agencies will be implemented effectively. Furthermore, new treaties and agreements will be initiated as needed for enhancing trade.
- The policy of levying no custom duty except some service charge on the export of goods will be continued and new motivation and additional encouragement will be provided to exporters.
- Nepalese diplomatic mission abroad will be mobilised for promoting exports, and commerce units will be established as needed.

Export Policy

- Exports will be made sustainable by identifying new export products other than the existing ones; and by increasing production through the co-ordination with institutions of agriculture and industry sectors that are involved in the production and development of these products.
- Taking into consideration the present trend of importing even fruits, vegetables, raw wool and other agricultural goods into the country, co-ordinated programme

will be launched for ensuring the production of such goods in adequate quantity so as to meet the domestic demand and make them available for export as well.

- In the context of rising competitiveness in the international market, high quality standard of export products needs to be made; therefore, a system of compulsory quality inspection will be introduced, through which each export product has to pass.
- In addition to ensuring the market for existing export products, new market for potential products will be explored. Both the government and the private sector will make joint initiatives in this direction, paying special attention to the flow of information.
- Maximum foreign investment and technology will be attracted in export-based industries and products of such industries will be exported to international market.
- The duty drawback system, under which import duty on raw materials and intermediate goods for export-based industries is refunded, will be implemented effectively.
- Export Promotion Fund will be effectively mobilised for product development and market promotion activities. A long-term export promotion plan will be formulated and programmes will be implemented accordingly utilising this fund.
- In order to reduce the production cost of exportable products and integrate goods produced at small sizes for making them exportable, export processing zones and export villages will be developed and physical infrastructure development programmes will be implemented rapidly to facilitate industries and businesses established in these areas.
- Nepalese diplomatic missions abroad will be mobilised for export promotion activities and the performance of these missions will be evaluated on the basis of export growth and foreign investment promotion. A commerce unit will be set up in these missions, considering their workloads and export potentialities.
- A separate export-import bank will be established with a view to providing facility for export promotion and channelling business credits.
- All export-related services will be provided in one roof in order to make export process and document shorter and simpler.
- Monetary, exchange and financial policies will be reviewed and formulated so as to enhance export promotion. The administrative process will be improved as needed.
- Export promotion will be emphasised by participating in international trade fairs and exhibitions; by exchanging business delegations; by arranging interactions between exporters and importers; and by organising exhibitions of domestic products.

Import Policy

- Imports will be linked with exports; locally available resources will be properly utilised for the production of exportable goods; imports of direct and indirect raw materials will be encouraged; and the supply of essential goods will be made simple.
- The existing open import policy will be continued and the import procedures and documents will be made simpler and more systematic. An effective monitoring system will be set up in order to prevent anomalies of imported goods.
- The custom duty on imports will be adjusted as per the requirements and concept of South Asian Free Trade Association (SAFTA) and the World Trade Organisation.
- Imports will be made completely open; however, imports against the interest of common people will be fully prohibited.

Policy Relating to Transit, Warehouse and Transportation

- Considering Nepal's land-locked situation and her dependence on India for foreign trade with third countries, necessary procedures for the availability of additional routes from India will be completed. All the works required for full utilisation of Kakarbhitta - Phulbari - Banglaband transit route will be completed.
- In order to increase trade with foreign countries, necessary infrastructures will be developed in ports other than the existing ones that have been agreed upon for their full utilisation.
- Necessary study for reducing demurrage charge and transit costs will be carried out and activities will be implemented accordingly.
- Warehousing and other essential facilities will be constructed and strengthened in border customs offices for transit facilitation.
- In order to increase overseas foreign trade, efforts will be made for the immediate completion of construction of broad gauge railway line between Calcutta port and Sirsia from the Indian side. Inland container depots will be constructed inside the Nepalese territory and transit facility will be simplified and made systematic.
- In addition to existing land route, a feasibility study of alternative waterway and airway routes will be carried out and feasible route will be utilised.
- Clearing, forwarding and undertaking services will be made more reliable and effective in order to minimise transit cost.

9. Programme

If Nepal does not restructure its economy in tune with the changes in the field of world trade, it will be marginalised from the benefits of globalisation process. Considering this fact, it is necessary that the private sector play a leading role in the commerce sector during the Ninth Plan period. With the objectives of establishing co-ordination among different agencies for making foreign trade sustainable and for

assisting private sector to encourage export; creating basic infrastructures in which the private sector cannot venture; and giving special priority to monitoring and evaluation, the following programmes will be implemented in the coming years.

Product Development Programme:

Agricultural Products

Considering the investment in agriculture sector as the Nepalese economy is predominantly agro-based, its achievements have to be used for export trade in future. The production of agricultural products that have already been established as exportable goods in foreign markets will be increased both qualitatively and quantitatively on a massive scale. For this purpose, a programme for exporting three agricultural products each year on a massive scale will be implemented in co-ordination with the agriculture sector. As the studies so far have shown that there is a high potentiality of producing and exporting some agricultural products to foreign markets, exports of such products will be increased by improving quality, modernising packaging and providing facilities at production locations and collecting such goods through co-operatives. Main products in these categories include pulses (*musuro* variety), niger seeds, tea and coffee, ginger, dry ginger, large cardamom, vegetable seeds, flowers and their seedlings, silk and silk products, mushroom, saffron, fruits, medicinal plants and herbs. Study and research on other exportable agricultural products will be conducted in preceding year and programmes based on the findings if such study will be implemented in subsequent year.

Industrial Product

Woollen carpets and ready-made garments have an important place in the export trade of Nepal. If the production and export of these products are sustained through the domestic production of raw materials, they can make positive impact on the life style of people at the lower stratum of society. At least one programme in one district will be implemented in co-ordination with the agriculture sector in areas where climatic and soil conditions are suitable for qualitative production of these two products. These programmes will not only increase the export of ready-made garments and woollen carpets, but also make favourable impact on the export possibility of leather and leather products, other cotton products, woollen sweater and woollen mufflers and scarves. Therefore, the districts and villages which play a leading role in the production and processing of agriculture-based export products, will be declared export-oriented districts or villages and required facilities will be provided, accordingly.

Traditional Product

Emphasis will be provided for the production of traditional export of Nepali handicrafts; and a system will be developed to produce these goods in accordance with international demand and preference. For this purpose, training programmes will be conducted for developing traditional Nepali-featured products and modern designed products. Likewise, the cost of production will be reduced and, in order to produce qualitative products based on international preferences and wants, programmes will be implemented for providing required information flow.

Small and Cottage Industry Products

There will be a favourable impact on the economic condition of rural deprived groups if small and cottage industrial products are produced and exported to international markets by utilising labour, skills, and raw materials scattered in different geographical areas. In this context, there is a high potentiality of exporting bamboo products, different types of artefacts, Nepali canvas shoes and slippers, traditional cotton clothes with a unique print '*lhaka*'. As some exports of these products have already been made, it is likely that export can be increased through implementing programmes for encouraging production. In order to export these products to targeted markets, an integrated package programme will be carried out. The programme will be implemented with the active participation of institutions concerned with cottage industries. While implementing this programme, large-scale production of the products with high export potentiality will be encouraged.

Other Products

Private sector will be encouraged to develop and export computer software programmes as it can be produced in Nepal and there is better foreign market prospect. Financial assistance with simple procedure will be made available. In addition, programme for other products will be initiated following the completion of their studies.

Market Development and Expansion Programme:

A review of market situation of existing Nepalese export products shows that Nepalese exports are limited only to one product in one market. At present, Nepalese exports are mainly concentrated only in the United States of America and Germany. Due to the limited market of major exportable products, unexpected event in future may have an adverse effect on export trade; therefore, market diversification programmes will be implemented by considering the high possibility of expanding markets to Canada, Japan, newly developed countries and economically prosperous countries.

Exhibitions and trade fairs will be organised in the markets of commercial importance such as major markets of European Community, United States of America, Japan, Canada and Australia. Sample display and sales counters will be set up in the departmental stores of the major markets in these countries on the basis of export potentiality. An arrangement of appropriate publicity in these exhibitions and sales

counters will be made. At least one sample display and sales counter will be set up at one place each year during the Ninth Plan period.

A separate unit will be established in the Royal Nepalese embassies abroad for the effective execution of business diplomacy; and officials who are skilled, experienced and familiar with *modus operandi* of export promotion techniques will be appointed. Training facilities will be provided to officials working in such units and exhibition counters of major Nepalese export products will also be established. Furthermore, information exchange programme will be implemented for promoting exports. These programmes will be carried out at least in three places during the Plan period and it will be expanded in other places on the basis of their impact assessment.

As the exchange of business delegations between major markets plays a vital role in the promotion, development and expansion of international market, meetings and interactions between buyers and sellers of the main markets will be arranged from time to time.

Quality Standardisation and Improvement of Export Product:

In the light of the growing concern of consumers in the international markets for quality standard and the likely adverse impact of low quality Nepalese export products on their reliability and the consequent deterioration in the competitiveness, Quality Standardisation and Improvement Programmes will be undertaken in order to maintain the quality of export products. A supervision system necessary for strict implementation of quality standard will be set up with the partnership of the government and the private sector. Consumers of developed countries seem to be more concerned with the use of harmful colour or prohibited chemicals in products. Therefore, the existing standardisation laboratory will be strengthened in the form of a modern laboratory in a way to enforce strictly the system of exporting goods only after completing their proper test so that no harmful colour or chemicals have been used in such goods. Research studies will be conducted for exploring the possibility of using locally available raw materials, instead of using synthetic raw materials for packaging export products.

Special Export Promotion Programme:

An arrangement will be made for utilising the revolving fund instead of making it available to any agency or association as a subsidy. A prize will be awarded each year for encouraging leading producers and exporters. In addition, the fund will be utilised in export promotion activities by the private sector if the private sector shows interest in facilitating basic infrastructures for export promotion.

Import Management and Simplification Programme:

Despite the simplification of import trade in accordance with open market policy, the share of import in total trade still remains high. Import of raw materials to be used for producing export products will be encouraged; policy of import without license will be continued; and study programmes will be carried out for identifying the areas that need simplification. The programmes will be undertaken to study the import policies of the neighbouring countries such as India and Tibet Autonomous Region of China,

SAARC countries, major overseas countries and newly industrialised countries. Import management programmes will be initiated on the basis of the findings of these studies.

Infrastructure Building:

In order to make the commerce sector more developed and competitive, programmes implemented in the past will be continued, and new supportive programmes for providing more facilities to import and export business will be undertaken during the Plan period. Taking into account the lack of port facility, inland container depots will be constructed; transit facility will be made accessible and reliable; and warehousing will be made more facilitating.

Transit Facilitation and Warehousing Programme

Taking into account the crucial role of transit and warehousing facilities in foreign trade, a detail study will be conducted with a view to making transit facilitation more reliable and cost effective. Infrastructure development programmes will be implemented in the ports that are available at present to Nepal as a landlocked country. Considering the maximum pressure exerted on Calcutta port of India, which has been mainly utilised for Nepal's foreign trade operations at present, construction works for necessary infrastructure in accordance with the treaty with India and Bangladesh will be completed for developing and utilising Banglabandh port of Bangladesh as an alternative to Calcutta port.

A study will be undertaken with the involvement of the private sector to explore the ways of reducing transit costs and demurrage; and on the basis of the study findings programme will be formulated and implemented expeditiously.

Additional warehouses will be built and existing warehouses adjacent to border custom offices will be strengthened and improved for the purpose of making warehousing service more accessible and facilitating. Fully equipped modern warehouses with 1000 mt capacity each will be constructed in Siddharthanagar, Tatopani and Nepalganj in custom areas of these places. Taking into consideration the growing volume of exported and imported goods using airways through Tribhuvan International Airport and realising the inadequacy of available warehousing facility at the Department of Customs, a 2500 mt capacity air cargo complex will be built and operationalised.

Nepal Multi-Modal Transit and Trade Facilitation Project

With the objectives of enhancing the efficiency of agencies involved in foreign trade, simplifying and expediting trade and transit procedures, facilitating effective management and operation of foreign trade, and reducing the transportation cost, the project has been implemented since 1996/1997 with the assistance of the International Development Association (IDA). Its targets include construction of inland container depots at Birgunj, Biratnagar and Bhairahwa, installation of necessary equipment in these depots and providing trade facilitation, installation of automated system for custom data (ASYCUDA) in consultation with UNCTAD and installation of advanced cargo installation system (ACIS).

Cold Storage Construction at Tribhuvan International Airport Programme:

Considering the high possibility of exporting products that are fresh but quickly spoiling, such as fresh vegetables and fruits, flowers and their seedlings, a cold storage with 1,000 mt capacity will be constructed at Tribhuvan International Airport, and it will be operationalised by the private sector with a view to increasing the export of such products.

Establishment of Tax Free Export Zone

Impetus for increasing export will be provided by establishing tax free export zones in the localities of commercial importance. While establishing such zones, priorities will be given to those places where transportation and communication facilities are available and where inland container depots have been established. All physical facilities will be provided to these industries in the zone at their production site; programmes will be launched in a way to provide additional special encouragement. Private sector institutions relating to the commerce sector will be involved in these programmes.

Organisational Arrangement:

Existing institutional set up will be encouraged to play a more effective role in the implementation of proposed policies and programmes in the Ninth Plan. The agencies and institutions in the commerce sector will be geared towards self-reliance.

11.3 Tourism and Civil Aviation

1. Background

Unlimited potentials of tourism development exist in Nepal on account of her natural beauty, geographical diversity, cultural and artistic heritage. The presence of Mt. Everest, world-renowned peak, rare animals like one-horned rhino, the Pashupatinath temple, the birthplace of Lord Buddha and innumerable rivers and lakes lure tourists.

Tourism industry has an important position in the Nepalese economy because of its comparative advantage. Tourism promotion has contributed to employment generation, income generation and improvement of the balance of payments in a meaningful way. The development of tourism is likely to contribute to the improvement of historic and religious places and environmental conservation.

In view of competitive situation brought about by increasing number of newer tourist destinations, quality tourism has become extremely important for Nepal. It has been high time to pay increased attention to the improvement of physical infrastructure and service quality of tourism products. Policy pertaining to physical infrastructure improvement, environment conservation, development of newer attractions, raising service quality and pricing mechanism need to be addressed immediately. Investment promotion - both domestic and international-need to be emphasised with a view to exploiting the potentials to the optimum level. On the other hand, tourism development and its expansion have been challenged by unmanaged urbanisation, environmental degradation and pollution. The airway services which plays pivotal role in bringing tourists into Nepal, will be strengthened and standardised.

2. Review of the Eighth Plan

The Eighth plan incorporated the policies of maximising the foreign currency earning from tourism, diversifying tourism to other parts of the kingdom and using tourism for poverty alleviation. It has emphasised launching various promotional campaigns for tourism promotion, encouraging international airlines to fly into Nepal and raising the quality of tourism, among others.

Nepal took part in various tourism fairs and promotional events in East Asia, South East Asia, Australia, Western Europe and North America for promotion and publicity of the kingdom in these markets and increasing the number of visitors to Nepal. Destination promotion was done through various media like broadcasting tourism programme on Radio Nepal, information on Internet, publication and distribution of various brochures. Advertisements were given in papers, on radio, television, particularly in the STAR TV. Lumbini and Pokhara festivals were held to expand tourism activities. Preparatory works for visit Nepal '98, which aims at qualitative development of the tourism industry were ongoing.

Under the policy of developing tourism products, a study of the Indian tourist market was carried out. Improvement of tourist sites in Sunsari and Myagdi were carried out. Nepal's adventure tourism added two new products in the form of hot air ballooning

in Kathmandu and a power glider in Pokhara. Under the Tourism Infrastructure Development Project, Pokhara airport was upgraded and the Gorkha palace area was improved environmentally.

With a view to specifying the respective roles of the government and the private sector, Tourism Policy 1995 was brought out by the government.

The Eighth plan sought to encourage the private sector in the tourism industry. Accordingly the private sector was encouraged to operate air service in the domestic routes. An open and liberal sky policy was adopted in the international civil aviation. Under the new policy initiative, 14 air operators including sports and ballooning were permitted to fly in the domestic sector. Many of them have already started their operations. Helicopter services have been offering their services in remote areas of the kingdom.

In the Eighth Plan period under the institutional improvement scheme, statutes pertaining to Tourism Development Board, 1996 and Civil Aviation Authority of Nepal, 1996 were brought out. Civil Aviation Act, 1996 took effect during the Plan period. Necessary amendments in the National Civil Aviation Policy 2050 have been made, giving due consideration to issues like competitive development and the safety of domestic airlines.

The Royal Nepal Airlines has been operating to 11 places of 9 countries under its service expansion policy. Among the international airlines, those of Singapore, Thailand, Qatar, Pakistan, India, Bangladesh, China, Bhutan, Russian Federation etc. are operating in Nepal.

The Tribhuvan International Airport (TIA) has been upgraded as a focal point of national aviation in accordance with the Plan objective. A green channel has been established at the TIA to facilitate the smooth check-in and check-out of tourists. Preparatory work for opening the airport round the clock is being implemented.

A policy has been adopted to ensure emergency airlift of people including tourists during times of natural calamity and other emergency situations. The fleet of RNAC, private airlines and Royal Nepal Army and police force were massively utilised during such situations in to save the lives properties of tourists and general public.

Compared with the estimated, number of 1907745 tourists to visits Nepal, a total of 17,64,739 tourists visited Nepal during the 8th plan, which is 92.5 percent of the target set for the Plan period. Similarly, US \$ 374.6 million was realised in terms of tourism receipts as against the set target of US \$ 375.4 million.

Table 1
Targets and Achievements of Tourists Arrivals and Foreign Currency Earning

Year	Total Tourist Arrival		Annual Growth Rate	Foreign Currency Receipts (US \$ in million)	
	Target	Achievement		Target	Achievement
1992/93	324,109	306,286	-5.56	72.4	67.7
1993/94	350,974	316,972	3.49	85.2	69.3
1994/95	380,448	346,180	9.21	100.5	118.5
1995/95	410,000	380,301	9.86	117.3	119.0
1996.97	442,214	415,000	9.12	137.0	-
Total	19,07,745	17,64,739			

The achievements of tourism programmes carried out in the Eighth Plan are like follows:

Tourism Infrastructure Development Project

The Tourism Infrastructure Development Project (TIDP) launched in the Eighth plan with the Asian Development Bank funding carried out Pokhara-Sarangkot road improvement, Pokhara conservation area improvement, Ghalegaon-Sikles eco-tourism development, Pokhara airport runway improvement and terminal building and so on. One tourism service centre each in Kathmandu and Pokhara have been built and improvements made in Gorkha palace conservation area.

Mountain Tourism Development

Activities pertaining to Himalayan Rescue Association, Sagarmatha Pollution Control Project (SPCC) and Annapurna Conservation Area Project (ACAP) were carried out under this programme. Work to build an international mountain museum was started in Pokhara. The SPCC has carried carrying out various activities like environmental management, cleanup of mountain areas in Khumbu, awareness campaign, running of an information centre, community development and cultural preservation. Under the Annapurna conservation, some of the noteworthy achievements have been in natural resource management, heritage conservation, alternative energy development, community development and so on.

International Publicity and Marketing: Under this programme, tourism awareness as a corollary of World Tourism Day was promoted, Royal Nepalese Embassies abroad were mobilised for tourism promotion and some market studies were carried out.

Hotel Management and Tourism Training Centre (HMTTC)

HMTTC targeted to provide basic and medium level hotel and tourism related training with a view to making available trained manpower for the travel and tourism industry and raising the sector's productivity. During the 8th plan, HMTTC provided a number of hotel and travel training as well as mobile tourism training in outlying

destinations. A new building with modern facilities has been built and a year long high level training have been started.

[Tourism Promotion Programme](#)

Under this programme, advertisements on destination Nepal were given in various international papers and magazines as well as on STAR TV. Familiarisation trips were organised for tour operators, travel agents and writers from India, South Korea, Japan, Australia and USA with a view to apprising them of the attractions of destination Nepal. Nepal participated in travel trade events organised in Mumbai of India, Lhasa of Tibet, Berlin of Germany, London of UK, Madrid of Spain. Similarly USA, SAARC region and Asian-Pacific regions were also represented for promotion of the Nepalese tourism. Festivals were organised in Lumbini and other tourist areas to heighten their attractions. Publicity materials like posters, booklets, stickers, batches, Nepali caps, bags, calendars were prepared and distributed. Feature films, videos and slides were also prepared for distribution.

[Air Service](#)

The 8th plan kept the objective of making air service efficient, safe, reliable and comfortable in view of the importance of this sector for promotion of tourism in landlocked Nepal. The total number of airports in Nepal is 44. STOL airports are under construction in remote districts such as Mugu, Kalikot, Achham, Khotang and Dolpa. Improvement works on Tribhuvan International Airport are going on as per its Master Plan with a view to improving standard, facilities and capacity. Test landings of helicopters have been carried out successfully in 125 places of remote areas. A pre-feasibility study was carried out for the selection of the site for a second international airport. Nepal Civil Aviation Authority Act, 1996 was brought out with a view to rendering civil aviation more effective. Necessary legal and other provisions for setting up of Civil Aviation Authority of Nepal (CAAN) are underway.

[Tribhuvan International Airport Improvement Project](#)

A number of activities have been carried out under this project launched with the loan assistance of Asian Development Bank. Apron expansion in 29,953 sq m area, construction of domestic apron in 25,500 sq m area, expansion of the breadth of the runway by 15 m. to make it 60 m. wide, laying 40 mm thick bitumen on the entire runway, construction of a deep well to ensure water supply at the airport until 2000, expansion of domestic terminal by 2216 sq m along with improvement in 1200 sqm and laying of a 2700 m chain-link fence in the newly acquired land of the airport were the achievements.

[Fire Control and Rescue Service Expansion](#)

During the Eighth Plan, a number of activities were carried out for fire control. As per the standard laid out by International Civil Aviation Organisation(ICAO), a service of '7 Category' was installed at the Tribhuvan International Airport(TIA). Other hub airports like Biratnagar, Nepalgunj, Pokhara and Bhairahawa have been equipped with 5 Category service and fire vehicle ambulances.

Technical Manpower

Altogether 601 persons got training in ATC, radio, fire control, aviation security and so on during the 8th plan under the policy of producing basic and medium level manpower within the country for the development of civil aviation.

Upgrading of Domestic Airports

A cross fire access road was completed at Biratnagar airport and a parallel taxi way and fire station at Nepalgunj airport. Improvement of airports at Chandragadhi, Simara and Phaplu are underway. Terminal buildings, staff quarters, piped water supply, runway improvement, chain-link fencing, were completed at various airports. A new terminal building and runway improvements were completed at the existing Pokhara airport. The proposed Pokhara second airport witnessed some preliminary works like fencing and land development.

Communication and Navigational Aids

Installation and improvement of communication and navigational aids are necessary for secure aviation. Airports in Kathmandu, Nepalgunj, Simara, Bhairahawa, Biratnagar, Rukum Salle and others witnessed either installation or improvement and repair of communication and navigational aids during the 8th plan.

Aerodrome Flight Information Service Expansion

Among the operating airports, 8 of them including TIA are equipped with trained personnel to control flights and 241 airports have aerodrome flight information service.

New satellite based communication system, navigation surveillance, air traffic management are installed in a phase-wise manner. Under the Australian assistance VOR/DME have been installed at Kathmandu, Pokhara, Simara and Bhairahawa. Similar facilities have been installed at Biratnagar under the French co-operation.

3. Existing Challenges

Despite these achievements, the following problems were observed in the tourism sector during the Eighth plan:

- Limited international seat capacity, which is a crucial link between Nepal and the outside world.
- Inadequate provision of physical facilities and modern communication and navigational aids equipment at the domestic airports to make domestic civil aviation safe and qualitative.
- The effect of seasonality has not been minimised with a view to expanding year-round attractions.
- Tourism destinations, services and facilities have not come up to the demand of modern tourists.
- Nepal has not been publicised in the international market on a competitive basis.

- Inadequate tourism activities to extend the duration of stay.
- Tourism infrastructure is limited only to a few geographical areas.
- Inadequate retention of tourism receipts.
- Per day tourist expenditure is very low as compared to other destinations.
- The tourism sector has very poor forward and backward linkages with other economic sectors.
- No effective land use plan and pollution control measures to maintain the attraction features of the destinations.
- Inadequate and poorly developed institutional mechanism in the government and the private sector for qualitative improvement of tourism.

4. Long-term Concept

In view of the achievements, problems and the potentialities of the tourism sector observed during the 8th plan, a long-term perspective in the policy and programme is essential. The following objectives and strategies are adopted for long-term tourism development.

Long-term Objective

- To develop tourism sector as an important part of the overall economic development.
- To establish Nepal as a premium destination on the world tourism map.
- To expand the benefits of tourism down to the village level.

Long-term Strategy

- Strong and efficient civil aviation - both on the domestic and international fronts - plays a crucial role in tourism development in Nepal. Some of the domestic airports will be selected on a priority basis for development into regional airports with capacity of handling short haul international flights. Requisite physical facilities such as navigational aids, physical construction and management improvement will be made available to these airports. Shuttle services will be operated to other domestic airports from these regional hubs. Remote areas will eventually be connected by helicopter services, thereby establishing full national network of air routes.
- Necessary understanding and negotiation will be established with neighbouring countries to achieve growth in overland tourist transport.
- Physical development in tourist cities and rural areas will be carried out on the basis of zoning.
- Indigenous, value-based and endemic tourism activities will be promoted with a view to diversifying tourism products and establishing Nepal as a premium destination.

- Local communities will be mobilised in the conservation and management of tourist resources. Rural tourism will be established as a viable alternative to the local economy by seeking active participation of the local people.
- Tourist services will be standardised by amalgamating them with traditional hospitality.
- Natural, cultural and historical resources will be conserved and consolidated through co-ordinated efforts of local government bodies, tourism entrepreneurs and bodies responsible for cultural promotion.

Long-term Projection of Tourism Sector

Based on the above policies and programmes, the following targets are projected for a period of 20 years

Table 2
Twenty Year Projection

S.No.	Particulars	FY1997	FY2002	FY2015
1	Tourist Arrivals	4,20,000	6,76,414	12,47,830
2	Duration of Stay	11.27	13	15
3	Per Tourist Expenditure US \$ per day	45	60	133.3
4	Foreign Currency Earning US \$ Million	213.0	527.6	1663.6
5	Employment (Direct)	75,000	1,11,329	2,05,227
6	Employment (Partial)	1,07,700	1,62,029	2,98,688
7	Employment Total (Direct/Indirect)	2,57,000	,3,71,598	6,85,013

Ninth Plan

The tourism industry can be developed as an important sector of the national economy on account of its comparative advantage engendered by existing attraction features and special geographic location of the nation.

Tourism activities based on social, natural, religious and cultural environment of the nation will be developed and diversified during the 9th plan.

5. Objective

- To establish backward and forward linkages of the tourism sector with the national economy so as to develop it as an important sector for the overall economic development.
- To establish Nepal as a premium destination in the world tourism market through effective publicity and promotion.

- To enhance employment opportunities, income generation and foreign currency earning from the tourism sector and external these benefits down to the village level.

6. Target

Tourist arrival is expected to increase by an annual rate of 10 per cent and the tourism receipt by 20 percent during the Ninth Plan period. In the first year of the Ninth Plan, an estimated 4,20,000 tourists are expected to visit the country. The number is expected to reach 6,76,414 by the final year of the Plan period. Similarly an estimated US \$ 213 million is expected in terms of receipts in the first year and US \$ 527.6 in the final year.

7. Policy and Implementation Strategy

- The following policies and programmes will be adopted in the 9th plan to achieve the objectives and targets:
- Additional destinations will be developed and diversified on the basis of feasibility study.
- Historical, religious and cultural sites, temples and monasteries scattered throughout the country will be registered in the form of national heritage sites; they will be conserved and used for tourism purpose.
- An inventory of lakes, caves, waterfalls and historical facts will be prepared so as to develop them into tourist destinations.
- Indigenous culture, traditional hospitality and tribal traditions will be preserved and promoted to enhance tourist attractions.
- New trekking routes and climbing peaks will be opened up in a methodical manner.
- Local bodies in each development region will be encouraged to develop a model tourist village.
- Quality of the tourism products and services available in the central region will be upgraded. Special interest tourism spots will be expanded in the eastern and mid and far-western regions.
- A survey will be carried out into Kathmandu valley's cultural heritage, festivals, cultural and religious traditions. Festival tourism will be promoted in the valley.
- Periodic studies and evaluation will be carried out into the inputs, outputs and effects of the tourism investments.
- Rafting will be operated on the major river systems wherever it is feasible

Tourism Infrastructure Development

- Local people in tourist areas will be encouraged to develop infrastructure facilities to the best of their abilities.

- Communication system will be modernised and made easily accessible in tourist areas.
- Minimum standard of infrastructure quality will be set for tourist areas with a provision of proper guidance and supervision.
- The trails and roads of tourism importance constructed by local people's participation will be upgraded on a priority basis.
- The private sector, local government bodies and non-governmental organisations will be mobilised in the development, conservation and operation of physical infrastructure.
- Air-conditioned transport service will be encouraged in tourist areas.
- Local government bodies will be mobilised for zoning purpose and land use planning will be prepared.
- Some of the highways will be developed as sightseeing highways. Separate codes will be developed for these categories of highways.

Expansion and Diversification of Tourist Attractions

- Emphasis will be given to produce local goods and handicrafts for tourist consumption.
- Tourism products, goods and services will be categorised and quality standards specified for each category.
- A number of feasible activities such as hot air ballooning, hot spring, honey hunting, butterfly/bird watching, anthropological tours, rhododendron tours and, so on will be encouraged.
- Eco-tourism, medical tourism, conference and convention tourism (MICE tourism), cultural tourism, festival tourism, scientific tourism, village tourism, adventure tourism, holiday tourism, endemic tourism, sports tourism and other value based tourism activities will be promoted.
- Details of various cultural and religious festivals of various ethnic people will be collected and special package tours developed out of them.
- Duty free shopping and casino activities will be allowed to operate with proper safeguards. Tours will be promoted in cultural, archaeological, historical areas as well as parks, museums and zoos.
- Camping sites and other facilities on the trekking trails will be maintained and conserved and the private sector encouraged to get involved in operation. NGOs and local communities will be mobilised to monitor activities in the newly opened trekking trails.
- Rivers will be kept free from pollution for rafting purpose.
- Environmental impact assessment will be made a part and parcel for the operation of tourism activities in conserved areas and their vicinities.

Tourism Marketing and Promotion

- Market segments in Europe, North America, Asia and Pacific regions will be identified on the basis of market study. A joint promotion campaign involving the private sector will be launched for enhanced publicity and promotion of the kingdom. Indian and domestic tourists will be attracted to render tourism industry viable all the year round.
- Tourism promotion will be carried out on the basis of market study only.
- Domestic tourism will be promoted to achieve socio-economic balance among various development regions.
- The private sector will be encouraged to play a leading role in market promotion. In this context, visit Nepal '98 campaign is going to be launched with a view to enhancing quality in the tourism industry and maximising tourism receipts.
- Nepal will be more effectively promoted in the traditional markets of Western Europe and North America. The newly emerging markets of Asia-Pacific will be given special consideration in marketing.
- Target markets and customer needs and demands will be considered on the basis of market segmentation.
- Royal Nepalese embassies abroad, Honorary Consul Generals, friendship associations, airlines, travel/tour agents and Nepalese associations abroad will be activated for market promotion.
- Cyberspace such as internet and e-mail will be extensively used for market promotion.
- Publication and distribution of publicity materials will be made more effective.
- Special familiarisation tours of Nepal will be arranged for foreign journalists, travel writers, TV producers.
- Tourist information centres and immigration offices will be opened at all entry points. These offices will be developed as 'Welcome Gates'.

Air Transport Development

- Tribhuvan International Airport will be expanded and upgraded into a modern and fully equipped international airport.
- Regional and domestic airports will be upgraded and expanded.
- The private sector will be encouraged to operate domestic and international flights.
- Rescue and fire control services will be upgraded up to the ICAO standards.
- Technical manpower related to civil aviation will be developed to meet the challenge of the time.

- Fair competition will be encouraged in domestic and international flights to ensure high standard service.
- Domestic and foreign investment including joint ventures will be promoted in domestic and international airline operation.
- The private sector will be encouraged to operate airports and airport facilities/services.
- The Nepalese sky will be utilised to a maximum extent for sky routes by promoting cross Himalayan and east-west international flights.
- Aviation related activities such as flying club, ballooning, gliding will be encouraged.
- A civilian search and rescue operation service will be developed so as to make it effective and reliable in times of natural calamities and emergency. Particular attention will be paid to the safety of the tourist.

Environment Protection

- Local government bodies and private entrepreneurs will be mobilised to maintain environmental quality conducive to tourism. They will co-ordinate with concerned government agency to monitor tourism activities.
- A multiple co-ordination mechanism involving the central government, local governments, social organisations and the private sector will be developed for the conservation of environment in sensitive areas.
- Local government bodies will be activated to keep tourist areas beautiful and free from pollution.
- Local bodies and the private sector will be encouraged to set up rest houses in tourist areas. on a fee charging basis.
- An environment code of conduct will be formulated and the private sector will be required to adopt it.
- Pollution control measures will be developed and specially monitored in eco-sensitive activities such as trekking and mountaineering.
- The inner parts of the Kathmandu valley which are the sites of historical and religious importance will be designated as pedestrian only zones, restricting the entry of vehicles.

Mobilisation of the Private Sector

- Additional facilities will be provided to encourage private investments in the tourism industry, and expansion of tourism activities.
- Various incentives and concessions will be provided to the private sector investments in the tourism industry.

- Incentive holidays and facilities will be tried to promote domestic tourism in co-operation with the private sector.
- The participation of local government bodies, municipalities, VDCs and NGOs will be sought to conserve and develop religious, cultural and historical heritage sites in the Kathmandu valley and outside.
- Guidelines and performance standards will be developed in collaboration with the private sector to enhance the quality and efficiency of the hotel and tourism industry.
- Loan facilities will be extended to new areas for the expansion of tourism activities.
- A fixed percentage of foreign currency earned from the tourism industry will be allowed for discretionary expenditure by the industry.
- The tourism industry will be recognised as a priority sector and investments will be mobilised accordingly.

8. Programme

HMG role in tourism during the 9th plan will be focussed on construction and improvement of physical infrastructure as well as institutional and policy adjustments. Marketing and promotion of tourism will be the role of Nepal Tourism Board and the private sector. Emphasis will be given to development of newer destinations along with provision of infrastructure to relieve the pressure of traditional destinations. Tourism that promotes rural economy will be encouraged.

Tourism Site Development

New destinations will be developed on the basis of study, survey and other necessary activities. The Tourism Development Fund will be utilised along with the mobilisation of the private sector and local bodies develop tourism sites.

Tourism Infrastructure Development

Various programmes that directly contribute to the development of tourist areas will be launched. These may include roads, airports, foot-trails, sanitation programme, heritage site conservation, environmental conservation, and so on. Various tourism infrastructure related activities will be carried out in Pokhara, Lumbini, Gorkha. Airport improvements in Jumla, Mustang and Lukla will ensure increased mobility of tourists.

Model Tourist Village

Rural-based tourism will be promoted so as to expand tourism down to the village level. Rural tourism destinations will be developed in all appropriate representative geographical areas of Nepal, targeting domestic and foreign tourists.

Mountain Tourism Development

The high Himalayan areas of Nepal including the famous Mt. Everest area are getting polluted on account of increased tourism activities. To mitigate this trend, activities

designed at environmental conservation and employment generation will be launched in these areas by actively involving the local people. This scheme will mobilise local NGOs like Sagarmatha Pollution Control Committee, Annapurna Conservation Area Project and other tourism-related associations and organisations for clean-up of their respective areas. Information on mountaineering will be broadcast on the radio, inventory of mountain peaks published including statistics in mountaineering activities and the mountain museum completed. Modern information system will be developed on mountain tourism and administrative system of trekking activities will be strengthened and professionalised.

Tourism Promotion Programme

The Nepal Tourism Board will actively involve the private sector in tourism promotion and publicity. Information on Nepal will be updated on internet, ads broadcast on television channels, publicity materials produced and distributed, travel trade fairs participated, familiarisation tours organised, domestic tourism promoted, awareness generated and festivals of tourism importance will be organised, among other activities.

International Contact

Government responsibility in tourism promotion will be carried out under this programme. World Tourism Day activities will be observed in a co-ordinated way, SAARC feature films production will be co-ordinated, World Tourism Organisation(WTO) meetings will be participated, Royal Nepalese embassies abroad will be mobilised for tourism promotion, foreign direct investment in tourism will be channelled in proper direction, aids will be mobilised for tourism promotion.

Tourism Human Resources Development

The Hotel Management and Tourism Training Centre (HMTTC) will be made more capable and effective. It will carry out long and short term training programmes on hotel and restaurant management as well as travel and tourism. Co-ordination will be maintained in training programmes of the government and private sector to maintain uniform standards.

Civil Aviation Programme

Tribhuvan International Airport will be upgraded into safe, reliable and modern airport. The TIA improvement Project run under the Asian Development Bank loan finance will carry out international terminal building construction, operational service expansion, airport and hanger development, airport road construction, airport fire control and maintenance building construction, air cargo complex and apron expansion, civil engineering equipment purchase and land acquisition. Necessary provision will be made to systematise the radar service installed at TIA.

Biratnagar, Bhairahawa and Nepalgunj airports will be upgraded into hub airports for operation of short haul services to various Indian cities across the border.

The 44 operating airports in the kingdom will be upgraded. Modern equipment will be installed, rescue and fire control services installed, terminal buildings constructed

or updated, chain-link fencing and personnel and security quarters constructed, for example. During the Plan period, the airports in Kalikot and Kamalbazar (Achham) will be completed.

Helipads will be built in remote areas deprived of roads and airports.

Survey of potential sites for 2nd international airport will be carried out during the Ninth Plan.

11.4 Labour and Workers' Welfare

1. Background

It is estimated that the labour force has increased at the rate of three hundred thousand per annum. It is noted that industrialisation plays a vital role in increasing national production. The three sides, government, management and labours, as a social partnership, have their own prominent roles in their respective areas. Therefore, it is essential that the roles of these three sides should be oriented towards maintaining industrial peace in the country.

Industrial sector occupies an important place after agriculture in the gross national production. So, it is essential to mobilise skilful and efficient labour force in the industrial sector. In addition, it is required to focus on the alleviation of poverty by reducing unemployment. In an effort to maintain industrial peace for industrial development, it is indispensable to produce skilful, efficient labour force and to create self-employment opportunities for the sake of reducing the unemployment problem.

2. Review of the Eighth Plan

Various programmes have been implemented during the Eighth Plan in the field of labour and workers welfare. These are as follows:

- Various vocational and skill-oriented training programmes, conducted by skill development centres and two vocational training centres, have provided training to 22,973 person.
- A skill oriented residential training at Women Welfare Home in Kathmandu was provided to 125 women who hailed from different districts and who would have engaged in immoral occupations due to illiteracy and poverty. Each of these women was given a hand operated sewing machine.
- Employment information centres have been established in a few labour offices.
- Skill Development Training Programme for bonded labour women has been conducted since FY 052/53 for eliminating the bonded labour (Kamaiya) system, a practice continuing for centuries in Dang, Bardiya, Kailali and Kanchanpur districts. Under this programme 396 bonded labour (Kamaiya) women were provided skill oriented training, and each of them was given a hand operated sewing machine.
- A laboratory with modern equipment and machinery and office building for occupational safety and health project have been constructed in order to examine the smoke, dust, light and noise in the work places of industrial enterprises and for raising awareness about the safety measures to be adopted to prevent industrial accidents. Posters, pamphlets, calendars and so forth have been distributed and seminars have been conducted to raise public awareness in this respect.

- To facilitate the re-habitation of growing child labour used in woollen carpet industries, steps have been taken after the regular inspection and follow-up actions against the carpet factories where child labour have been used.
- Industrial Relation Seminars have been conducted in different 12 places of industrial areas of the kingdom to maintain harmonious industrial relations between management and labours.
- Publicity through different communication media has been carried out and foreign employment seminars have been conducted in five places with the aim that no one would be cheated by falling in foreign employment lure (temptation). In addition foreign employment market study teams have been sent to some East Asia and Middle-East countries to obtained additional foreign employment market.

The Eighth Plan (1992-97) Progress Table

Programme	Target (in persons)	Progress (in persons)
From vocational and skill development training centres	11775	22,973
Woman labour skill development training programme (held in 5 districts of each 5 development regions)	750	746
The districts where the women can be involved in dishonourable profession due to the lack of education and poverty, women are trained and given residential facilities at women welfare centre	125	125
Kamaiya women skill development training programme (Bardia, Dang, Kanchanpur and Kailali)	400	396

3. Existing Problems

- On the one hand, skilled labour force has not been produced in the field of agriculture, industry, tourism etc. and on the other hand some part of labour force is underemployed.
- There is a lack of effective implementation of acts, rules and regulations that have been enacted after the restoration of democracy.
- The training programmes and other labour administration activities have not succeeded to trend labour force imparting skills required for employment in accordance with the market demand.
- No improvement has been made in the structure of training as per the labour market demand.

- Local level labour administration have not been strengthened.
- Mutual relationship between training and employment has not been maintained so far. There is no factual information about to what extent the trained and efficient labours have got the jobs. Training relating to labour has not been integrated with other sectors like electricity, transportation, agriculture, industry, education and health.
- The present Labour Act cannot cover the labour force of informal sectors. For this reason, unemployment pressure is increasing.
- There is no cordial industrial relationship maintained between management and workers.
- The authorised trade unions have not been aware of the responsibilities they have to perform.
- Training arrangement for effective skill development has not been made for the purpose of orienting the child labour towards education and self-employment.
- The attempts of non-government organisation (NGO) for the development of skill and education of child labour are not transparent. In addition, there has not been provision for effective inspection and monitoring from the side of the government.
- The rights mentioned in labour Acts concerning the labour are not even taken positively from management side.
- The basic necessities of workers that are required for their dignified living as human beings have not been guaranteed.
- Nothing has been done to launch and to follow up education, security, health and production oriented skill development programmes for the labours working in the field of carpet, ready-made garments and transportation and so on. Even the rights provisioned in the Acts have not been implemented.
- The programmes concerning the increase in productivity of labour force have not been effective.

4. Long-term Concept

There is no doubt that national productivity is minimum due to the lack of modern technicality and skill in present labour force in the country. On the one hand, the number of unemployment is increasing day by day and on the other hand domestic man power is unable to compete with the foreign labours in the labour market in Nepal. As a result a huge part of employment opportunities has been occupied by the citizens of other countries. Nepalese labours are displaced by them. The competitive capacity of the domestic labours in the international labour market is nominal except in some specific areas. Thus to remove the drawbacks underlying in this field the government has to take a leading role in order to develop labour force as. In addition to this, the long-term concept is visualised to develop qualified, competitive man power in order to face challenges and take opportunities of the present era of

globalisation and liberalisation and to develop the labour force which will be able to adapt to the changing technology and take the benefit comparative advantage.

To maintain industrial peace, to improve labours' social status by creating healthy and safer working environment, to develop the qualified, creative, multi-skilful, adaptive labour force having the ability to take the challenge of the 21st century and to bear positive value attitude and to increase national productivity using the above qualities are the basic elements of the long-term concept with regard to labour sector..

The proper environment will be created to attract the domestic and foreign investors in order to solve the growing unemployment problem of the nation. As per the perspective agriculture plan, policies will be directed towards implementing educational and training programmes in order to create self-employment job opportunities in agriculture. Moreover, policies and strategies will be adopted to end racial discrimination, to provide job opportunities on the basis of gender and geographical equality, to emphasise labour-oriented technology in production and to control the inflow of non-Nepalese citizens into the labour force. In addition, policies and strategies will be formed to manage education and training, which will assist in the balanced development of rural and urban areas.

Strategies will be taken to prepare required manpower in the field of domestic and cottage and tourism industry as labour-oriented technology is much used in this field. In addition, the policy will be adopted to give priority to Nepalese labours in various development and constructive works implemented in the country.

Ninth Plan:

5. Objective

- To increase national production by providing job opportunities to the labour force in the country and abroad, to preserve justifiable rights and social safety of the labours, to make their skills technology oriented and to end exploitation over them are the objectives in this regard.
- The unemployment number will be reduced maintaining balance on the basis of demand and supply of labour.
- Skilful labour force will be produced by imparting skill-oriented training. Poverty alleviation will be facilitated creating the opportunities of self-employment.
- Foreign employment will be competitively developed and made reliable creating the situation for the Nepalese labours to get opportunities in foreign labour market.
- Education opportunity will be imparted in order to eliminate the child labour and rehabilitation will also be facilitated.
- Productivity will be increased maintaining industrial peace by raising public awareness for the development of industrial relation.

6. Policy and Implementation Strategy

- Steps will be taken for skill development, encouraging to set up organisations, ensuring the minimum wages in order to improve the living standard of agricultural labour.
- Essential legal and administrative provision will be made to end exploitable labour systems and relations like bonded labour '*Kamaiya*' and household workers '*Haligothala*' tradition which are prevailing in agriculture and rural areas. Welfare programmes will be accordingly conducted targeting such labours.
- The programmes, which increase the productivity of manpower involved in self-employment, will be implemented.
- Self-employment and self-employment opportunities will be created for such labours through providing basic and vocational training as per the demand of labour market in organised and other areas.
- Employment exchange and information collection programmes about labour market will be made more systematic and they will be strengthened in order to keep balance between domestic and external demand and supply of labours. Essential legal provision will be made for this respect.
- Attention will be paid in order to create the favourable situation to develop economic sectors like industry and tourism in the nation so that the labour force get more employment opportunities in the country.
- Labour administration and trade union provision will be consolidated in order to improve harmonious industrial relation. Amendments will be made in the present Acts and rules according to the need in order to emphasise the bilateral policy.
- Self-employment opportunities will be provided in agricultural and non-agricultural sector by imparting skill-oriented training for the rural and underprivileged women labour.
- Special programmes on child welfare will be launched in order to eliminate child labour.
- The opportunities for using traditional Nepalese skills will be increased by promoting such skills.
- The employers who enhance the skill of the workers will be given tax free incentive for encouraging them.
- Necessary steps will be taken to establish an autonomous institution for promoting foreign employment and making it reliable. Nepalese diplomatic missions situated in the countries with employment potentials and other government agencies will be mobilises for expanding the scope of foreign employment market, for enhancing its reliability and for protecting the rights, welfare and the safety of Nepalese workers abroad
- Necessary institutional arrangement for conducting useful research on labour will be made by preparing required man power. This agency will formulated policies

and programmes in co-operation with national and international agencies for employment promotion and labour welfare.

- Programmes for increasing participation of labourers in production will be effectively implemented.
- Amendments shall be made in Labour Act and trade union act so that they are in favour of labours and helpful in maintaining cordial relationship between labourers and management.
- Improvements will be made in the provision of insurance, pension, and social safety and so on in order to make living of labourers easy and facilitating.
- Self-employment will be expanded as a campaign. For this, the skill for the labourers will be used in productive tasks through providing loan without collateral with nominal rate of interest.
- The policy of displacing foreign labourers will be adopted by preparing domestic skilful manpower as per demand of the economy. For this purpose improvement will be made in skill development training centres intending to increase in wage employment and self-employment opportunities.
- It is possible to end gender discrimination in employment only through legal provision. Emphasis will be laid to increase access of women in skill development training by conducting programmes to make them educated.
- Labourers working in non-organised sector will be provided an environment to be organised. Policies to consolidate legal processes will be adopted as well.
- Programmes will be conducted for increasing their understanding of policy issues of national importance, for raising their awareness about their rights and duties and for making them conscious through the massive extension of labourers education through registered trade union associations.
- Training programmes, which enable to cope the competition, will be conducted improving the labour quality and productivity. Policies will be adopted to conduct the programmes in order to implement incentive scheme and maintain cordial relationships with the management.
- Amendments will be made in labour act in order to make labour sector effective and skill oriented.

7. Programmes

Training

Training in different vocational subjects will be imparted to 37,438 persons through 16 skill development and vocational training centers of the kingdom in order to create the opportunities of wage employment and self-employment opportunities.

Skill development training to 985 women will be imparted through labour-oriented women's skill development training programme in 5 places of each development region i.e. 25 places in the kingdom.

In view of the fact that poverty alleviation is the main objective of the Ninth Plan, a mobile training programme for rural poor will be conducted with the purpose of making the target group employable and self employable after identifying the people below poverty line and targeting them. Such training will be provided to 20 persons in each constituency, which sums up to 4100 persons each year and a total of 12,300 persons within 3 years beginning FY 056/57.

The control of the population growth in the nation will be enhanced by imparting education about population control, family planning, AIDS and sexual diseases, control of polluted environment, importance and need of education by providing training a total 10,000 person including 2,500 labourers working in the industrial institution and 7,500 trainees of skill development training centers and Vocational Training Centers.

If industrial dispute is resolved at the industry itself it will increase mutual understanding between management and labour and speed up such resolution. For this the policy of involving the labour and management will be stressed, which reduces the involvement of third party or the government. But the involvement of government of the government will be made mandatory for the resolution of industrial dispute of serious nature and the effect of which can spread to other areas.

Considering the reality that the establishment of good industrial relation can be made only through the implementation of law, such situation will be created so as to involve labourers in the ownership of the industrial enterprises, to share them the dividend and to encourage them to behave as corporate citizens.

Internal and external training programmes will be launched to make the authorised representatives who are involved in group bargaining, skilled in the discussion negotiation activities.

An environment in which industrial disputes will be prevented and labour laws will be fully enforced will be created by strengthening labour administration and making it pro-active.

Timely amendments will be made reviewing the provisions like social safety, insurance, pension and so on in order to facilitate and make the labourers living easy.

The present on going national level trade unions will be involved in programmes, preserving the rights of labourers and maintaining industrial peace.

Child Labour

As it has been realised the necessity to initiate programme for eliminating the child labour. So, a separate national policy, work plan and strategy about child labour will be launched. By adopting multipurpose strategies like awareness enhancement, identification of the income growth of the parents, direct interference, rehabilitation programme, education and vocational training, a substantial improvement in child labour situation will be made.

Child labour will be eliminated in woollen carpet factories tea garden and brick furnace. Child labour will be rehabilitated in the family and provided non-formal education through children development and rehabilitation fund.

Foreign Employment

Arrangements to strictly enforce legal provisions. widen the use of foreign labour market, impart training and to enhance public awareness will be made in order to promote foreign employment regular and make it systematic.

Communication channels will be used, seminars will be conducted in 15 affected places if the kingdom and peoples awareness will be raised for the purpose of informing and advising people not to for foreign employment through the unauthorised agencies and individuals.

Identifying the probable countries for foreign employment, arrangements will be made to send Nepali labourers through diplomatic channel. For this private sector will be made systematic and reliable. Institutional arrangements will be made to impart skill-oriented training for the labourers.

Institutional Arrangement

A high level national labour institution will be formed in order to provide counselling and carry out research studies on labour force and familiarise personnel, who are involved in labour administration, members of trade union and workers involved in industrial enterprises, about changing modern technology.

Information, Follow up and Training Management

Different institutions are involved on the different under different ministries for a long-time in imparting vocational and skill-oriented training. In such a climate, there have been overlapping in the objectives and functioning of the different ministries because different institutions are involved in conducting training which are of the same nature. To stop such practice a separate policy about training will be formulated. Under the policy, institutions will be made to impart basic, medium and high level training required for various service sectors and institutions. Arrangements for a single institution will be made to determine the standard of the training.

National labour council will be formed involving private sectors. With the recommendations of the council, research on employment will be improved and training programmes will be guided by the demand.

Competitive environment will be created between governmental and non-government institutions to impart training and provisions will be made to choose the training institutions themselves displacing the training to the target groups provided by the government through voucher system in order to improve the standard of the training. In addition, emphasis will be laid on curriculum reform, research and result oriented evaluation in order to improve the present training systems and training subjects taking into consideration the changing technology and demand pattern.

Training in different subjects will be conducted in accordance with the recommendations of National Labour council to be formed with the involvement of

private sectors in the Plan period for personnel and workers working in different institutions and fees will be charged to them.

Information regarding labour related programmes activities and reports will be collected from the concerned agencies in the Kingdom for smooth flow of such information.

Seminars on Industrial Relation will be conducted in different 20 places of the kingdom in order to develop cordial industrial relationship among personnel, workers and management of industrial institutions.

Steps will be taken in order to prevent from probable industrial accidents likely to happen in industrial institutions. Necessary inspection of industrial institutions will be carried out in order to maintain standard with the norm of dust, fog, light and noise levels in the industrial institutions and test and analysis of collected samples will also be made after gathering such factors.

Concerned authority will be informed to raise public awareness about to keep industrial environment healthy and clean through publicity and extension activities to raise public awareness.

Employment exchange service will be made effective by providing essential information and counselling to employee and unemployed people through employment information centres situated in different districts of the kingdom.

Information system about labour force will be established in the labour ministry. Arrangement will be made to equipped with modern essential equipment and avail manpower. Follow -up actions will be regularly taken on the interrelationship between training and employment through this system.

11.5 Supply

1. Background

The arrangement needs to be made for the supply of development related construction materials, production materials and essential consumer goods in an accessible, regular and fairly priced manner. In this regard the supply of essential consumer goods to the common people required for sustaining their daily living and raising the living standard of the is especially important. Even though it is challenging task it is absolutely essential that the supply arrangement has to be geared towards providing relief to the community with low income and living in remote and backward areas. The supply of essential goods necessary for the daily living of the community who are below the poverty line and living in remote areas and also for the community who are relatively better off has to be systematised and widened. In view of the fact that the supply management of the country has yet to be strengthened so as to make it reliable and systematic with the objective of meeting the immediate and long-term need of the country after drawing lessons from the past experience, attention should be given to identifying type and quantity of goods to be included in the supply arrangement, enhancing the capability of supply system, making it transparent and efficient, establishing the storage for food and essential consumer goods for emergency situation, protecting consumers' welfare. In the meantime, the patient and disciplined participation of private sector in the supply management should be encouraged. In this context, national supply management and its related programmes have to be initiated in accordance with the concept, objective and policies of the Ninth Plan and long-term vision of the country.

2. Review of the Eighth Plan

In the Eighth Plan, programmes on the areas such as food supply, transportation of food production to food deficit areas, operation of food depots, co-operative based crop development, purchase of food production, building and conduct of storage facility were implemented in this regard. Likewise, supply of petroleum products, timber and fuel wood, construction and production materials and machinery and equipment were carried out by the respective institutions as their on-going activities. Transport subsidy, import servicing and market arrangement were provided for the supply of goods to remote areas by the private sector. In addition, activities like quality inspection of consumer goods, fixing of minimum support price of food and cash crops and establishment of institutional framework for protecting consumers' welfare were completed.

In the Eighth Plan, a total of 238107 mt food was purchased, 35458 mt of food sold, 17 warehouses with 110000 mt capacity constructed and 65189 MY of food supplied to 38 remote districts. During the Plan period, arrangement was made for the subsidy of Rs 733.6 million for transporting food to deficit areas and an interest subsidy of Rs 207 million was provided. The target of storing 78000 mt foods as buffer stock by Nepal Food Corporation could not be achieved compared with the set target. In the Plan period a total of 2561 kilo litres of petroleum products was imported and out of

this 2454 kilo litres was actually supplied to the market. Likewise, National Trading Limited purchased consumers goods and construction materials worth Rs 3038.3 million. In the Eighth Plan the supply of timber, fuel wood and coal remained far below the set target due to the various problems related to institutional management.

3. Existing Challenges

- The means of transporting food to remote districts have not been reliable.
- The traditional means of transportation that contribute to poverty alleviation and employment creation have not been developed from the business point of view.
- The storage facility for petroleum products has not been constructed in keeping with the need.
- The supply arrangement of fuel wood and timber needed for construction has not been effective.
- The supply of food items and essential goods to remote and rural areas has not been adequate and sustainable.
- The organisation structure of the Ministry of Supply has not been strengthened and consequently the supply system has not been well organised, regular and as per the people's need.

4. Long-term Concept

- To create an environment for the regular, adequate and accessible supply of essential goods.
- To monitor the quality, availability and price of essential goods for protecting the consumers' rights.
- To make arrangement for food security through maintaining the buffer stock of food at the regional level.
- To prevent the black marketing, creation of artificial shortage and profiteering of consumers goods in general and essential goods in particular.
- To facilitate the expansion of production capacity of agricultural and manufacturing goods in accordance with the supply need.
- To implement the co-operative sponsored export oriented crop development programme in the mountain and remote areas.
- To arrange for establishing the SAARC food storage system.
- To minimise the harmful effect on the economy caused by the supply and price fluctuations.
- To privatise gradually the public enterprises relating to supply sector.

The Ninth Plan

5. Objectives

- To ensure the regular, adequate and accessible supply of essential goods.
- To monitor the availability and cost of essential goods for protecting consumers' welfare.
- To make arrangement for maintaining the buffer stock of food at the regional level in order to provide food security.
- To play the role of facilitator by the government in order to encourage the private sector to be involved in the supply management.
- To control the artificial shortage and black marketing of essential goods.

6. Policies and Implementation Strategy

- Attention will be paid to systematise infrastructure facilities for the regular, adequate and easier availability of essential goods.
- Consumer co-operatives will be mobilised to supply the essential goods and to control the artificial price increase.
- Private sector will be encouraged to play an active role in making the supply management effective.
- Market discipline will be maintained by monitoring the availability and price of goods in order to protect consumers' interest.
- Arrangement will be made for systematising and monitoring the supply situation by the office of the supply commissioner at the regional level and by the supply inspection branch office at the district level.
- With the purpose of alleviating poverty and protecting the consumers' rights, necessary arrangement will be made to determine the minimum support price of food production.
- The buffer stock of food will be preserved by purchasing paddy from the local farmers.
- Arrangement for the SAARC Food Store and the food security will be made.
- The storage system of essential goods such as food and petroleum products will be set up and expanded for ensuring the supply of such goods in a situation of natural calamity and emergency.
- The policy of exporting food by the private sector will be resumed if there is food surplus in the country.
- Supply data bank in the Ministry of Supply will be established. For this purpose, the interaction and co-ordination among Ministry of Agriculture, Ministry of

Industry, Ministry of Commerce and General Association of Nepal Chamber of Commerce will be achieved by involving these agencies actively in this task.

- Special attention will be paid to supply the food production to food scarce areas and underprivileged group of the society.
- Studies, research and training will be conducted in order to make the supply of essential goods effective.
- The policy of purchasing food production through levy system for supplying the food items to remote areas will be adopted.
- Necessary steps will be taken to arrange the import of goods by the private sector and the government sector if domestic demand does not meet the demand as projected and supply monitoring will be undertaken for this purpose.
- National Food Purchasing Committee under Consumers' Protection Council will be formed with representatives from various sectors in each development region for purchasing food production.
- With the objective of providing relief and food security to the common people an arrangement for storing food will be made so as to stabilise the market of essential goods, achieve food security and establish SAARC food store.
- Co-operatives will be encouraged to conduct effective programme for arranging the supply of essential goods and food storage in order to stabilise remote area market and price of essential goods and food.
- Private sector and co-operatives will be encouraged to arrange the supply and storage of essential goods before the start of rainy season in the remote areas.
- Private sector and co-operatives will be motivated to establish and operationalise Cold Store and Warehouse for facilitating the storage of essential goods.
- The price determination of goods on the basis of free market operation will be further continued. In a situation when His Majesty's Government is required to determine the price, Consumer's Protection Council will do so as per the recommendation of the Price Determination Advisory Committee. While doing so the welfare of producers, consumers and sellers will be harmonised and market survey and research will be conducted. Department of Consumers' Protection will function as the secretariat of the above mentioned council.
- The system of fixing minimum support price of main crops such as paddy, wheat and maize will be set up.
- The price of essential goods will be fixed after considering the fact that the price fluctuation such goods in the neighbouring country's market very much affects the domestic price.
- Market development programmes in rural and urban areas will be implemented with the purpose of protecting consumers' interests and making the supply of essential goods smooth, easier and regular.

- Co-operatives and private sectors will be encouraged to develop and expand retail and whole sale market of essential goods.
- Co-operative Food Stores will be established as a whole sale market in major urban areas.
- Encouragement will be given to strengthening the supply system through the establishment and expansion of the wholesale markets and their expansion in the various potential areas of the country.
- In order to protect consumers' welfare and create a disciplined market environment, the monitoring of supply situation, price, quality, weight and cost of goods will be undertaken by the Department of Consumers' Protection, Department of Standard and Measurement, Central Food Laboratory, Office of the Supply Commissioner and district level supply offices in a co-ordinated manner.
- A district wise supply monitoring system will be established for making the supply system effective.
- An inspection and monitoring system will be operationalised to discourage the practice of misusing, i.e., diverting the goods and raw materials imported from third country to other location while in transit instead of bringing into the country. Industries that use imported raw materials will be inspected to ensure that they are properly using the import facility to produce the essential goods in the country.
- A system of developing cost monitoring of essential goods will be set up.
- In order to control undesirable practices like monopoly, creation of artificial shortage and profiteering, which hinder the supply process, appropriate monitoring and control mechanism will be adopted in this respect.
- Programmes on raising public awareness, soliciting suggestions, and extension will be carried out for protecting consumers' interests.
- Studies, research and training on consumers' welfare related areas will be conducted. In addition, studies on supply mechanism, price monitoring policy and programmes will be initiated.
- The flow of information on the production, import, export and selling price of essential consumers goods and construction materials will be developed to ensure accessible, smooth and regular supply of these goods.

7. Programmes

[Nepal Food Corporation](#)

- Nepal Food Corporation will be developed as an institution responsible for providing food security and storage facility.

- Co-operatives will be mobilised as selling and distribution channels for supplying food production to the people living in the remote areas of the Kingdom in accessible and fairly priced manner.
- Land routes will be used to transport food to remote areas for contributing to poverty alleviation and increasing employment, and the use of air transport will be minimised in this regard.
- Under national food reserve programme a total of 30,000 mt of food will be stored for providing food security in the country.
- An arrangement for providing necessary food subsidy to transport up to 48, 714 mt of food to highly remote areas will be made.

Nepal Oil Corporation

- The storage capacity of Nepal Oil Corporation will be increased from 30,000 kilo litres to 100,000 kilo litres.
- The supply of kerosene oil will not be confined to accessible areas only and instead it will be expanded to remote areas as well.
- Activities like research, studies, training, publicity and awareness raising will be conducted for economising the energy consumption.
- Monitoring will be conducted for controlling environmental pollution through Petroleum Product Quality Research and Test Centre.
- Nepal Oil Corporation will pay attention to the feasibility of establishing joint venture gas industries

Timber Corporation

- In order to expand the supply of timber and fuel wood, Nepal Timber Corporation will arrange their supply. For the smooth supply of these products afforestation, conservation of forest, forest management activities will be carried out in the lease forests.
- Nepal Timber Corporation will assist the forest management groups for making the market arrangement of timber of fuel wood that are grown in community forests, lease forest, private and national forests.

Institutional Provision

Supply commissioner offices will be established under the Ministry of Supply in all the five development regions for co-ordinating accessible, smooth, systematic and fairly priced supply and distribution of essential consumer goods to the common people living in rural area arrangement. Under this process, five supply commissioner offices in Biratnagar, Kathmandu, Siddharthnagar, Nepalganj, Dhangadi and 12 supply inspection offices in Chandragadhi, Malangawa, Rajbiraj, Janakpurdham, Pokhara, Krishnanagar, Tulsipur, Birendranagar, Musikot (Jumla), Dipayal, and Mahendranagar will be established. Efforts will be made to develop public corporations such as National Trading Limited and Salt Trading Limited as

responsible and result oriented institutions and to make them effective by the availability of skilled manpower and other resources and equipment.

Part 12

Development of Infrastructure

12.1 Electricity Development

1. Background

Electric energy has an important role to play in the economic development of a nation. On the one hand, the availability of electricity is a basis of overall development, and on the other, the consumption of electricity is regarded as an indicator of economic situation in the country. Hence, for the supply of electricity that plays an important role in the overall development of the nation, it has become necessary to change existing immense quality of water resource into electricity.

Although, there is an immense quantity of water resources available in the country, in comparison to its theoretical hydropower potential, only a negligible amount of it has been generated. Theoretical hydropower potential of Nepal is 83000 MW. However the total installed capacity of present hydroelectric projects is only 253 MW, which is only 0.3 percent of the potential capacity. This suggests that there is an ample opportunity and potentiality for hydropower development in Nepal. Since energy plays an important role in the balanced development of agriculture, industry, and other sectors, it is essential to supply energy in affordable price and utilise it effectively. Undoubtedly, energy development is an impetus for balanced development of the nation. Since large amount of financial investment is needed for the development of energy sector, maximum utilisation of available financial resources is essential.

At present, most of the electricity supply is consumed in urban areas. But a majority of the population lives in rural areas where most of the agro-industries, irrigation schemes and cottage industries are located. As rural development is the basis for overall development of the nation, balanced development is only possible when the equal opportunity of electricity consumption is provided to the rural and urban populations. National production can be increased and a significant benefit can be derived from export of electricity by implementing comparatively less expensive hydropower projects. In addition, non - polluting natural fuel (hydropower) can replace other polluting fuel (petroleum, gas, coal) and helps to save foreign currencies and reduce the level of air pollution.

Considering inadequate government funding for electricity development, in the Eighth Plan, Plans were initiated to bring the private sector in this field. In the Ninth Plan, the policy will be continuing, so that government investment can be increased in other social as well as rural development sectors. All these considerations clearly suggest that energy sector, that plays an important role in overall development of a nation, should be accorded high priority in the Ninth Plan.

2. Review of the Eighth Plan

Legal Provision and Institutional Development

In the Eighth Plan energy development was considered as an industry and subsequent changes were made in strategies to attract the private sector to this sector. For this purpose, Hydropower Development Policy-1992, Water Resources Act 1992, Electricity Act 1992, Electricity Rules 1993, and Electricity Tariff Control Rules 1993 came into existence. In these legal provisions, establishment and operation procedures

of power industry were made standard, timebond and transparent, and the facilities, subsidies and cooperation to be provided to the private sector were made legal. A single door policy has been adopted for those types of procedures and facilities. For generation, transmission and distribution of electricity that is more than 1000 KW license is required for both private and public sector.

In 1992, the Electricity Development Centre was established to develop hydropower and to attract private investors in this sector. Moreover, with a view to making the procedure of making electricity tariff systematic and transparent by keeping out of government. control, Electricity Tariff Commission was formed in 1993.

In the area of institutional strengthening of Nepal Electricity authority (NEA), activities such as timely reforms in management, inservice training to personnel, improvements in provision of physical facilities, implementation of computerised billing system, leakage of electricity control, conservation of electricity, publicity for the use of required machineries were carried out. NEA was granted more autonomy by reforming NEA Act and A study was initiated to operate the NEA do commercial line.

Efforts made by public and private sector

In the process of development, construction and study of hydropower projects in the Eighth Plan period, medium projects such as Arun 3 (402 MW) and Kali Gandaki 'A' (144MW), and small projects such as Puwa(6MW) Chilime (20 MW) and Modi (14MW) were initiated. Out of these, Arun-3 could not be implemented because the donor agencies withdrew from the project while arrangements were in the final stage. However, in other projects, initiated in the Eighth Plan period, the maximum utilisation of national technical manpower and increase in the capacity of power generation have been achieved.

The efforts made by the Govt. sector alone is not sufficient in power development. Therefore, the Eighth Plan had adopted the policy that enhanced the participation of private sector. Subsequently, the interest shown by the private sector is encouraging. In a short period, Khimti (60MW) and Bhotekoshi (36MW) projects were implemented by the private sector whole Indrawati (5MW) has reached the implementation stage. Likewise, through the involvement of the private sector, West Seti (750MW) which is an export-oriented type hydro-electricity project has also been on implementation stage.

The agreement on 'Mahakali River Integrated Development' between Nepal and India has paved the way for foreign investment in multipurpose large hydropower projects such as Pancheshwor. Similarly, the agreement on for trading electricity between these two countries has cleared the way for private and public sector to export or import power to each other. It has yielded a new dimension in the field of electricity development.

Achievements:

Electricity Export

Agreement on power and trade between Nepal and India has been completed with the purpose of exporting electricity to India. This treaty allows government, semi-govt. or private party of one countries to make an agreement on power trade with government, semi-government. or private parties of another country. The terms and conditions, the quantity and the price will be fixed by the parties involved. In accordance the prevailing statutory provision of each other country, each other parties will get facilities for power trade in their countries and respective governments will assist them. This agreement has opened the door for private parties involved in export-

oriented West Seti Hydroelectric project and for NEA to directly consult with Indian parties about export and import of electricity.

Power Generation, Rehabilitation and supply system

In the extension of hydropower generation capacity the target was to complete medium hydropower projects of 12.5 MW and small hydropower of 5MW, and to initiate Kali Gandaki A (100MW) and Arun -3 (201MW). Although Arun-3 could not be implemented, Jhimruk hydropower project of 12.5 MW has been completed and construction of Kali Gandaki A(144MW) has been initiated. By upgrading and strengthening of Trishuli Devighat hydropower project it was targeted to add 12.2MW of power, and after completion of this project 11 MW of power has been added.

Construction, Extension, and Rehabilitation Transmission Lines

In the construction and strengthening of transmission line the targets were to complete the remaining work of Kohalpur- Mahendranagar 132KV transmission line, to complete 105KM of Ataria- Dadeldhura-Dipayal 66KV transmission line and to complete 100 KM of 33 KV transmission line in different parts. Out of these, the remaining work of Kohalpur- Mahendranagar 132 KV transmission line, Ataria - Dadeldhura - Dipayal 66 KV transmission line and 54 km of 33 KV transmission line have been completed. In the power grid inter connection between Nepal and India, the targets were to complete the works of 42 km of Duhabi - Katariya 132 KV transmission line and construction of a high - voltage grid substations. Of these, addition of the second circuit in the 27 km long Duhabi - Kushaha segment of Hetauda - Biratnagar 132 KV transmission line, construction of a single circuit in 14 km long Kushaha - Bhantabari segment of the same transmission line, 1.5 km double circuit transmission line in Kushaha and construction of 56 MVA high voltage sub-stations have been completed.

Strengthening of Distribution System

The targets were to prepare plans for systematic strengthening of distribution system of Kathmandu valley, and implement it, to complete the strengthening work of distribution system of Biratnagar, Janakpur, Pokhara and Nepalgunj and to complete the strengthening and extension of distribution system of Dharan, Hetauda, Parwanipur, Birgunj, Butwal and Bhairahawa. However, only the first and second phases of strengthening of distribution system of Kathmandu valley have been completed.

Rural Electrification

Under the Sixth and Seventh Power Project the targets were to complete the electrification of nearly 1200 villages of 20 districts. In development of small hydro, the target was to complete Namche (600 KW), Achham (400KW) and Tatopani II (1000KW) are to initiate Khotang (500KW), Kalikot (600 KW) and Dolpa (160KW) projects. The Sixth Power Project has been completed and under the Seventh Power Project, 513 villages and 5 city areas have been electrified. Similarly, under the seventh power project construction of 12 new substations of 33KV, the capacity extension of substations of 171 MVA have been achieved by completing reconstruction of nine substations of 132 KV, 66 KV & 33 KV. Another 1510 km of 11 KV transmission line and 2487 km of 400 volt distribution line have been completed. Towards small hydro, Namche, Achham and Tatopani II projects have been completed and Kalikot and Dolpa projects were started. Moreover, construction work of 33 KV transmission line of Gaihat-Khotang and Sindhuli-Ramechhap has been initiated.

Survey, Feasibility Study and Engineering Design

Under this heading the target was to complete the detailed engineering design of Sapt Gandaki as a multipurpose (including irrigation) project (225MW) and West Seti (360MW) as a power project detailed engineering study of Upper Karnali (240MW), Bagmati (140 MW), Kamala and Budhi Gandaki (600 MW), and feasibility study of Bhotekoshi, Khimti, Naumure and Lower Arun. By considering its export potential West Seti (750MW) has been put forward as a project to be implemented by private sector. The feasibility study of upper Karnali (300MW) has been completed and for feasibility study of Bhotekoshi (36 MW) and Khimti (60MW) has been completed. Towards small hydro, the target was to prepare a master plan, and carryout additional studies as needed. The master plan has been prepared, and 57 projects were identified. Of these, 28 projects can be linked with national grid, and 29 projects would have to be developed as a isolated projects. Among these projects, detailed engineering design of 3 projects have been completed and detailed engineering design of 2 projects are being completed. Designing of other 3 projects is in progress. Similarly, feasibility study of 7 small hydro projects has been completed and feasibility study of another small hydro project is being continuing.

Cumulative Achievement:

Compared to the target of hydropower generation of 347 MW by the end of Eighth Plan, 300 MW have been generated (253 MW of hydro and 47 MW of Thermal). Similarly, compared to the target of electricity supply of 1,522 Million units, 1335.9 million units have been supplied. Transmission lines of 2902 KM (Single & double circuit) with different voltage capacities have been completed and the capacity of sub stations has reached 602 MVA.

By the end of Eighth Plan the number of consumers reached 5,25,000, which is about 14 percent of total population. Of total energy available, 26.5 percent is consumed by the domestic sector, 30 percent by the industrial sector, 5 percent by the commercial sector and 13.5 percent is export and other sector. Similarly, 75 percent of the total power supply is being used and remaining 25 percent goes to technical and non-technical leakage. Since the government resource alone is not sufficient to meet the energy demand, power has been purchased from the private sector, and it has also been imported from India to meet the demand for peak hours.

The comparative details of demand for and supply of energy, installed capacity, length of transmission lines in the beginning and in the end of the Eighth Plan is presented in Table 1.

In Eighth Plan period it was aimed to spend Rs.79079.6 million in power generation by public sector, however only Rs. 8412.5 million has been actually spent. This is mainly because Arun III could not be implemented and implementation of Kaligandaki A was delayed. In extension of transmission line, it was estimated to spend Rs. 1614 million, however, the actual spending was only Rs. 462.2 million. In systems strengthening, compared to the estimate of Rs. 1090 million, Rs. 2500.5 million was actually spent. In distribution and rural electrification the estimate was to spend Rs. 1800 million, while actual spending was only Rs. 229.3 million, and in survey and feasibility study, the estimate was to spend Rs. 2,000 million, while only Rs. 100.5 million was actually spent. (Table 2)

Cost of Power Supply and Electricity Tariff:

While evaluating the Eighth Plan the changes in cost of power supply and power tariff needs to be reviewed. It shows the direction of financial aspect of power sector. A comparative description of power-supply expenditure and power tariff at the end of Seventh Plan and at the end of Eighth Plan is shown on Table 3 and 4 respectively. In this period, 36.2 percent increase in power supply and 35.7 percent increase in power

sales is recorded, which implies that there is an increase in power leakage by nearly 1 percent (Table 1). In the same period 59 percent increase in the cost of power supply, and 148 percent increase in power tariff has also been noticed. Excluding the electricity that was sold to India, the increase in internal power tariff is increased by 166 per cent.

Analysing the comparative chart of power supply expenditure it is clear that operations and maintenance cost have increased tremendously and it has questioned the efficiency improvement in power sector. According to the power Act 1991, power sector has to pay royalty. This will affect the adopting tariff. If we look at the ratio of depreciation cost to total cost of power supply, it is time to rethink on the system of annual reevaluation of fixed capital of power sector using existing inflation rate. There is not much change in the capital structure of power sector because there is no substantial change in the interest rate. The increase in fuel cost is due to the external causes, while the increase in the cost of power purchase is mainly due to the increase in price of electricity that we import from India.

In the Eighth Plan period, a new trend has emerged, that is industrial and commercial activities have consumed more electricity than the domestic and non-commercial sector. However, there is a decrease in consumption of energy by the drinking water and irrigation sector and increase in unproductive street lights. Commercial and non commercial sector continues to provide cross subsidy in power tariff to other sectors. Only its quantity has become less. The cross subsidy has become less for domestic, drinking water and irrigation sector, while the industrial sector is getting some amount of cross subsidy. Now it can be seen that street light sector has also started getting cross subsidy. The price of electricity that is being exported to India is less than the domestic price of electricity. In this plan period, the domestic price of electricity was reviewed three times that is in 1991, 1993 and 1997)

From this analysis, it has become clear that financially the power sector was in loss at the end of the Seventh Plan, while by the end of Eighth Plan it was in profit. The sole reason behind this is the raise in price of electricity, with no improvement in efficiency of power sector.

3. Existing Challenges

The development of power sector will be accelerated when we formulate appropriate policies and strategies and implement programmes properly. To do so, the issues that are emerged and problems that are being faced in the process of development of water resources projects needs to be identified. The prominent issues and major problems of hydropower development that were identified in the past are discussed below.

- Although the existing legal provisions have attracted and encouraged the participation of the private sector in hydropower development, some inherent shortcomings in the provisions are also noticed. Revaluation of royalty that has to be paid to His Majesty Government has become necessary. There is no clear provision of export tax on power export. While developing multipurpose project by the private sector, the process and mechanism to provide the down-stream benefit has not been mentioned. There is no provision of competition among the private parties for hydropower development. Based on this experience, necessary revision in the Act is required on these issues.
- Private investors are interested in getting all facilities including licenses, and fulfilling all requirements from one single government agency. It saves time and projects can be implemented expeditiously. The government has established the Power Development Board aiming to provide all facilities from a single door,

however, because of difficulty in coordinating with concerned agencies and delay in internal decision making process the single door system has yet to become effective. It has adversely affected the private sector.

- Some anomalies have been observed between existing policies and legal provisions related to power sector, and the policies and legal provision of other government agencies. It has obstructed the smooth development of power sector.
- Foreign private investors do not favour double tax system. However, Nepal has made agreements only with few countries for single tax system. Similarly foreign private investor do not come forward to invest without protection, and they prefer bilateral agreements that guarantee the protection. However, Nepal has made such agreements only with India, Norway and Thailand for single tax system and an agreement with Germany, France and UK for protection of bilateral investment.
- In order to generate electricity and to sell or export it to a big consumer or a distributor, private investors need to construct either a separate transmission line or using existing national grid system. Because wheeling charge has not been fixed and the coding system of the grid not developed, there is difficulty in using the grid system.
- There are varieties of risks involved in the implementation of hydropower projects, such as commercial, legal, political, natural calamities and so on. Since there is no clear policy on what types of risks to be borne by private sector and what types of risks to be borne by government sector, it is getting difficult to reach an agreement with the private investors.
- In existing power system, in comparison to run-off -river hydropower projects, the capacity of storage- hydropower projects is small, and all of the hydropower projects that are under construction are run-off- river projects. Therefore, it is sure that the seasonal imbalance in the demand and supply of electricity will continuous to grow. In other words, the situation of over supply of electricity in the wet season will remain for near future.
- On the available amount of loan for the development of power sector run by the government, the risks of foreign currency exchange has to be borne by the government sector, while such type of risks goes to consumers if the power projects are developed by the private sector.
- In the present power system, the leakage is about 25 percent , of which a small percentage is due to the technical reason, the rest is due to the illegal misuse of electricity. The effort to minimise the leakage has not produced the expected result.
- In a situation where there is lack of reliable power supply system, the demand forecast for electricity that is based on the consumption of electricity in the past, can not represent the real situation. Therefore it has become difficult to formulate a plan of power supply and to bring balance between the demand and supply of electricity.
- Government offices, corporations and municipalities are not paying their dues in time.
- In the process of developing the existing power system, the emphasis is given to rural electrification. However, such electrification programmes could not benefit agriculture and industries in those areas and we are unable to get outcome compared to the investment. Because of the lack of coordination between the

rural electrification and the tubewell irrigation scheme, the contribution of power sector to the development of the agricultural sector is not sufficient.

- Compared to the investment made by public and private sector in power generation, the investment in the extension of transmission and distribution line is insufficient.
- In the process of development of power sector by private sector, even if a some percentage of capital investment is made available through local resources, capital less repatriation of foreign currencies. However, a conducive environment for such an investment from local capital market has not been created.
- Considering the involvement of public and private sectors in hydro power generation from the Eighth Plan period, while formulating system planing for hydropower projects for meeting existing demand due consideration has not been paid to select least cost projects that make available cheaper electricity.

4. Long-term Concept

The main source of energy in Nepal is hydropower. However only about 1 percent of the total energy consumption comes from the hydropower. In addition, 68 percent from fuel wood, 15 percent from agricultural residues, 8 percent from cowdung cakes, and 8 percent from imported petroleum products and coils are being supplied. In this situation in order to mitigate its adverse impact on environment and to improve the situation of balance of payment, development of hydropower must be accelerated for maximising its share in meeting energy demand.

In India there is a lot of land, but in the dry season there is no water. There is a high potentiality for water transportation in Bangladesh , but due to the lack of sufficient water that potentiality has not been utilised. In Nepal, there is not much land, but plenty of water resources is available. Considering these facts, if we develop water resources properly in Nepal, irrigation facility in India and water transportation facility in Bangladesh can be made available. Moreover, Keeping in view the rising demand for electricity in Northern India due to rapid industrialisation there, if we generate enough hydropower the demand for electricity in this region can be met.

Considering these facts and by adopting appropriate policies and strategies, implementation will be made effective and private investment (national and international) on hydropower will be made attractive. Moreover by maintaining cooperation and coordination with neighbouring countries and by providing incentives for private investment, multipurpose water resources projects will be initiated.

To meet the demand from productive sector (agriculture and non- agriculture) and from consumption sector (domestic and export) hydropower development for next 20 years will take the following direction.

- The hydropower will be developed by considering its raising domestic demand and its export potential. Hence the share of electricity in total energy consumption will be increased from about 1 percent to 3.5 percent in next 20 years. In addition, by developing export-oriented large multipurpose projects such as Pancheshwor Karnali, Saptakoshi, about 22,000MW electricity will be generated. Necessary steps will be taken to extract economic benefits through the export of power and the availability of irrigation and navigation facilities to India and Bangladesh.
- To make power supply reliable, a balance between the dam-based projects and run-off-river hydropower projects will be maintained.
- The policy will be to give emphasis to implement small hydro projects with the help of peoples participation and through the NGO's in local level.

- The involvement of private sector will be encouraged in power generation, distribution and in management. For this NEA will be divided into three segments that is in power generation, national grid system and in distribution system and each segment will be privatised gradually.
- Measures will be taken to attract private investment in power development. Reforms in legal provision and policy reforms will be introduced to create a favorable environment for private investors.
- Policy reforms and institutional system will be developed to provide facilities to private sector without any administrative delay or obstacles. The one door system will be made effective.
- The participation of national investment with foreign investment will be encouraged. For this, a favorable environment will be created for making investment in energy sector from domestic market.
- The process of private sector's participation in power development will be made competitive and transparent.

Ninth Plan

5. Objectives

In the Ninth Plan, the energy sector has the following objectives:

- To develop hydropower in a least effective way so as to meet the energy demand from agriculture, industry, transportation, domestic, commercial and other sectors.
- To supply electricity at affordable price internally and to export electricity at competitive price by developing reliable and quality hydropower.
- To tie up rural electrification with the economic activities in order to develop the rural economy.
- To maintain regional as well as rural-urban balance in power supply.
- To develop hydropower with minimum adverse impact on the environment.

6. Target

In the Ninth Plan, in order to develop hydropower, various programmes such as generation and supply of electricity, power transmission, system strengthening, rural electrification, and feasibility study and design will be implemented. In this process total installed capacity of hydropower projects that are linked with the central grid, will be raised to 546 MW from the existing 253 MW. Out of this, 4 projects 172 MW will be implemented from govt. sector and 4 projects (121 MW) will be implemented from private sector. The total capacity of thermal power stations will be raised to 60 MW from the existing 47 MW.

Based on the policy of attracting private sector in the field of energy development, to meet the demand for electricity in years after the Ninth Plan period, 8 hydropower projects (1718 MW) ranging from 20 MW to 750 MW will be started with the cooperation of public and private sectors. In addition, total installed capacity of the small hydro projects will be raised to 14 MW.

As regards the extension of transmission lines, it will be expanded to 3926 km from existing 2902 km. Similarly, 6067 km of distribution line will also be added. The number of consumers that was 5,25,000 at the end of the Eighth Plan will increase to 8,28,000 by the end of the Ninth Plan. Two remaining districts will also be electrified to cover all the 75 districts by the end of Ninth Plan. At the end of the Ninth Plan 20 percent of the total population will get the facility of electricity supply. Of this in urban

areas the percentage will be 12 from existing 10 and in rural areas it will go up to 8 percent from existing 4 percent. Therefore, in the Ninth Plan, the emphasis will be given to the expansion on electrification in rural areas.

7. Policy and Strategy

In order to fulfill the objectives stated above the following policies and strategies will be adopted.

Institutional Reforms

Required institutional reforms will be introduced in the power sector for maximum utilisation of existing power system, for repayment of investment from power tariff for maximum utilisation of local resources, materials and indigenous talent, to attract private investors, to supply electricity internally and to improve the national economy by exporting electricity. Necessary steps will be taken to minimise power leakage by privatising distribution centres. Power Development Board will be made more effective to adopt system planning of projects run by govt. and private sector and to evaluate and monitor them. By delegating more authority, and by providing rewards and punishment, the branches of NEA will be developed as a responsible centre and it will help to control power leakage and to minimise maintenance cost. While selecting private investment competitive process will be adopted to reduce generation cost of electricity. By installing time-of-day meter, separate fee for peak and off-peak period will be charged to reduce peak load and to charge less fee for consumers who use more electricity in high-voltage off peak period.

Power Export

In order to export electricity at a competitive price as required by the export market, comparatively profitable large multipurpose projects will be put forward. The opportunity that comes from the 'Mahakali River Integrated Development' treaty and Power Trade Agreement between Nepal and India will be utilised in Nepal's interest. The export and import situation of electricity between Nepal and India will be reviewed and it will be made more effective. To reduce the burden of foreign currency repatriation, export-oriented power projects will be implemented through private sector and while implementing such projects, power importing country will be made responsible for foreign currency repatriation guarantee.

Promoting Private Sector

In the context of promoting private investment in power development, to attract personal saving capital that could not be capitalised due to the lack of new area for investment, a system will be developed to issue bonds and securities from the private sector. It will help to promote internal investment in power projects by extending domestic capital market and also to reduce the load of foreign currency repatriation. Moreover, a Power Development Fund will be established in government level to promote investment in power sector.

For introducing appropriate royalty system reforms in existing hydropower development policy and in Electricity Act and rules will be carried out. The provisions of export tax and downstream benefit from large scale multipurpose projects will be introduced. These concrete measures will help to make hydropower more effective and promote private sector in different aspects of power development. In order to attract foreign investment in power sector, necessary steps will be taken to make bilateral agreements with developed countries on guarantees of investment and avoiding double tax system. Single door policy will be made effective to provide license, approval and other facilities to private investors through single government agency. With a view to encouraging private investment in power sector the risks

associated with the implementation of hydropower projects such as commercial, legal, political, and natural calamities will be analysed and the provision will be made what type of risks will be borne by government sector and what type of risks to be born by private sector. If a private investor wants to use existing national transmission to export electricity generated by the Private. sector or to sell it to a big consumer or distributor transmission charge will be fixed to allow the use of national grid according to approved grid code. Necessary steps will be taken to run a project jointly (HMG / Private sector) to overcome the administrative and other problems encountered while implementing the hydropower projects by the private sector. This provision will not only help to provide financial resources for the project but also to reduce total cost by speedy implementation of the project. In order to attract private sector, the process of fixing power tariff must be transparent. Therefore in order to make such process transparent, necessary steps will be taken by Electricity Tariff Commission.

Rural Electrification

To make rural electrification financially more attractive, projects will be designed and implemented accordingly to utilise electricity for the cottage industry, ground water irrigation, drinking water and other commercial purposes. User-groups will be involved in planning, implementation and maintenance with a view to making electrification more effective. Emphasis will be given to implement small and micro-hydro projects in remote hill areas. Such projects will be implemented with the help of peoples participation and NGO's in local level and the grant system will be reformed to make them financially sound. Steps will be taken to establish a local grid and supply electricity through it in some hilly areas, if found feasible.

Electricity Supply

With a view to achieving balance between demand for and supply of electricity and to maintaining regional balance in power supply, study, design and implementation of hydro power projects will be carried out by public and private sectors. It will be tried to develop and implement dam hydropower projects in order to avoid seasonal imbalance between the demand for and supply of electricity. The emphasis will be given to strengthen and extend existing transmission line to make power supply reliable.

Extension of Power Transmission

Private sector will be involved in developing transmission lines to increase in power consumption in line with the increase in production in view of the progress to be achieved in power generation as a result of joint effort of public and private sectors.

Watershed Management

Special attention will be paid to preservation and management of watershed, to maintain power supply generated from hydropower projects reliable. Water resources development programmes will be implemented with watershed management to minimise adverse impact on the environment.

Utilisation of Local Resources, Talent and Materials

Steps will be taken to utilise local resources, materials and indigenous talent in the process of generation, transmission and distribution of electricity to reduce its cost, so that electricity can be supplied at an affordable price. Emphases will be given to extend opportunities of employment, human resources development and development of construction industry while implementing hydropower projects.

Adjustments in Legal Provisions

Some adjustments will be made to avoid anomalies that exist between the policies of power sector and policies of other government agencies related to power sector development.

Control of Power Leakage

Efforts will be concentrated to reduce power leakage to 20 percent from existing 25 percent to get maximum benefit from investment made in the power sector. To achieve this, programme such as energy auditing, strengthening of national transmission system, installation of good quality meters, control of misuse of electricity and provision of rewards prizes and punishment will be carried out. In addition, on a pilot basis , private sector be involved in the running of a distribution system.

Control of Power Tariff

Considering the high price of electricity, with the purpose of providing some relief to consumers, programmes such as making competition among private parties for project implementation, provision of time-of-day tariff, tax concessions in import of electrical appliances that consumes less electricity, control in power leakage, minimising payment over dues, reduction in stored goods of NEA, increase of internal resources of NEA by utilising local capital market, reduction in administrative and fuel expenditure will be implemented.

8. Programme

The following programmes will be implemented through HMG, NEA and private sector to achieve the objectives and polices stated in the Ninth Plan.

Survey, Feasibility Study and Engineering Design

The feasibility study of 7 most attractive medium scale hydropower projects will be completed in the early years of the Ninth Plan. The feasibility study of other 8 hydropower projects that was started in the Eighth Plan will also be completed, and the feasibility study of other 12 projects will be started and completed in the Ninth Plan period. These include the projects that meet the internal demand for electricity and export-oriented. The Detailed Project Report of Pancheshwor Multipurpose Project (6,480 MW) will be prepared jointly with India in accordance with the agreement on Mahakali River Integrated Development. The cost benefit analysis of Karnali multipurpose project (10,800 MW) will be updated and an economic study of the project will also be repeated. To prepare a Detailed Project Report of Saptakoshi Multipurpose Project (3400 MW) that also includes the Sunkoshi Kamala diversion (1,300 MW) survey will be started jointly with India.

Power Generation and Supply System

A total of 293 MW electricity will be generated from the hydropower projects. These include Kali Gandaki A (144 MW), Puwa Khola (6 MW) and Modi Khola (14 MW) in the public sector and in pvt. sector Chilime (20 MW) Khimti (60 MW) Bhote Koshi (36 MW) and Indrawati (5 MW) and Tanakpur (8MW). Among the total 3775 KW small hydro projects, Kalikot (500 KW) and Dolpu (160 KW) will be completed and Dailekh (300 KW) Lomanthang (65 KW) Khotang (2300 KW) Gamgadhi (200 KW) and Heldung (250 KW) will be initiated.

Additional 13 MW of electricity will be generated from thermal power projects. Taking into consideration the necessity of selecting hydroelectric projects to meet the projected electricity demand in the years after the Ninth Plan. Construction work of 8 hydropower projects will be initiated in government sector as well as in private sector. Such projects will be chosen after the completion of feasibility studies.

In case of export-oriented projects, West Seti (750 MW) Project will be put forward for implementation from the private sector. Arun-3 (402 MW) that has already completed detailed engineering design, will be tried to initiate from the private sector. Similarly, attention will be paid to initiate other export-oriented projects. To initiate the construction of Pancheswor Multipurpose Project, necessary arrangements will be made jointly with India, after completing its DPR. Necessary arrangements for starting the construction phase Karnali Multipurpose Projects will be made.

Transmission and Extension of Electricity

Considering the existing gap in the availability of electricity in urban and rural areas of the Kingdom, special attention will be paid to the extension power lines to rural areas. In addition, strengthening of transmission lines has become necessary to meet the demand for electricity in urban areas. Extension of electricity in rural areas will be carried out to support to Agricultural Perspective Plan, tube well irrigation, cottage industries, drinking water, and other commercial applications.

To meet the above stated objectives a total of 1024 KM of high voltage transmission line will be constructed. This will involve, 140 KM of 220 KV, 814 KM of 132 KV and 70 KM of 66 KV. Similarly, construction of 260 MVA high voltage substations and 350 MVA capacity substations of 33 KV and 11 KV will be completed. Extension of transmission line and construction of substations will be completed to facilitate electricity supply from Tanakpur power house in accordance with treaty on Mahakali River Integrated Development with India.

The strengthening work of Central Load Dispatch Centre will be completed. Regarding the strengthening of the distribution system, the third phase of Strengthening of Kathmandu Valley Power Transmission and Distribution Project will be completed.

The availability of electricity in some parts of almost all districts will be guaranteed in order to extend electricity in rural areas, by implementing. Power development project, rural electrification and distribution project, seventh power project, Devighat- Dhading and Sindhuwa-Khandbari power projects will be implemented. From these projects about 1.1 million people will get electricity through 6067 KM of distribution line. In the Ninth Plan Rs. 7833 million will be spent to implement these projects.

Miscellaneous

Under this heading, Kulekhani Conservation project will be completed. Institutional strengthening of NEA will be continued. Studies will be continued on ways to attract private sector towards hydropower development. In the Ninth Plan it is estimated Rs. 6729.3 million will be spent these projects.

Table 1.
Achievement in the Eighth Plan

Details	FY 1991/923	1996/97	Increment in Figures (%)
1. Total installed capacity (KW)			
A. Hydro power stations	238563	252418	13855 (5.8%)
B. Diesel or multi fuel	683	47266	46583 (13.5%)
C. Solar power	130	130	-
Total	239376	299814	60438 (25.2%)
2. Length of transmission line (KM)			
132 KV single circuit	1191	1178	13 (1.09%)
132 KV double circuit	-	43	43
66 KV single circuit	64	179	115 (179.7%)
66 KV double circuit	158	153	5 (3.20%)
33 KV single circuit	1096	1349	253 (23.1%)
Total	2509	2902	393 (15.7%)
3. Capacity of substations (MVA)			
132/11 KV	28	28	-
132/33 KV	145	175	30 (20.76%)
132/66 KV	103	103	
132/11 KV	194	274	80 (41.20%)
66/11 KV	12	12	-
132/66/11 KV	10	10	-
Total	492	602	110 (22.4%)
4. Number of consumers			
A. Domestic	337715	500070	162355 (48.1%)
B. Industrial	9757	14142	4385 (44.9%)
C. Commercial	1378	2430	1052 (76.3%)
D. Others	7103	8358	1255 (17.7%)
Total	355953	525000	169047 (17.7%)
5. Peak demand (KW)	216000	300110	84110 (38.9%)
6. Electricity supply (Unit in thousand)			
A. Hydro power	869980	1085110	215130 (24.7%)
B. Diesel power	31540	39300	7760 (24.60%)
C. Imported from India	54998	129400	74402 (135.30%)
D. Purchased from Butwal Power Company	24647	82050	57403 (232.9%)
Total	981165	1335860	354755 (36.20%)
7. Power less (Unit in thousand)	243735	335290	91555 (37.6%)
(Percentage)	24.84%	25.10%	1.05%
8. Electric energy (Unit in thousand)			
A. Domestic	275248	354613	79365 (28.8%)
B. Industrial	275585	397313	121728 (44.2%)
C. Commercial	45200	67180	21980 (48.6%)
D. Others	141319	181454	40135 (28.4%)
Total	737352	1000560	263208 (35.7%)
9. No. of districts with electricity	68	73	5 (7%)
10. Benefited Population (%)	10	14	4 (40%)

Table 2.

Comparison of estimated and Actual expenditure of the Eighth Plan
(Public sector)

(Rs. in million)

Physical target	Physical progress	Estimated expenditure	Actual expenditure
<u>A. Power generation,</u>			
<u>Rehabilitation and supply system</u>			
To complete the construction of medium hydro power projects 12.5 MW and small hydro power projects 5000 KW.	Jhimruk power station (12.5 MW) has been completed by Butwal Power Company. Puwa Khola (Ilam) 6.2 MW and Modi Khola (Parwat) 14 MW in Public sector and Chilime (20 MW) in private sector are under construction.	16830	4098.4
To initiate Arun-3 first phase (201 MW) and Kali Gandaki 'A' (100 MW)	Construction of Arun -3 has been post-poned, because the World Bank did not approve the project, and Kali Gandaki 'A' 144 MW has been initiated.	60909.6	289.62
To generate additional 12.2 MW power by rehabilitation of Trishuli and Devghat power stations.	Rehabilitation of Trishuli and Devghat power stations completed and thereby capable to generate 95.3 million units of electricity (Firm power 11 MW) annually. Construction of Duhabi multi fuel plant II 13 MW phase has been started.	1340	1417.9
<u>B. Construction , extension, and Rehabilitation of transmission lines</u>			
To complete the remaining work of Kohalpur - Mahendranagar 132 KV transmission line, 105 KM of Attariya-Dadeldhura 66 KV and 100 KM of 33 KV transmission line in different places.	The remaining works of Kohalpur-Mahendranagar 132 KV transmission line have been completed, and construction of 105 Km of Attariya -Dadeldhura -Dipayal 66 KV transmission line and 54 KM of 33 KV transmission line have also been completed.	1614	462.2
To complete 42 KM of 132 KV transmission line of Nepal - India interconnection and construction of high voltage substations.	42 KM of 132 KV transmission line of Nepal -India interconnection and construction of high voltage substations of 56 MVA have been completed.		
<u>C. Rehabilitation of the distribution system</u>			

<p>To design and start implementing the Kathmandu valley distribution system. rehabilitation</p> <p>To complete the rehabilitation and extension work of distribution system of Biratnagar, Janakpur, Pokhara, Nepalgunj, Dharan, Hetaunda, Parwanipur, Birgunj, Butwal, Bhairahawa</p>	<p>The I and II phase of Kathmandu valley power distribution system. rehabilitation have been completed.</p> <p>Under the seventh power project, rehabilitation and extension of distribution system of Biratnagar, Janakpur, Pokhara, Nepalgunj, Dharan, Hetaunda, Parwanipur, Birgunj, Butwal and Bhairahawa is always complete.</p>	1090	2500.5
<p><u>D. Distribution and rural electrification</u></p>			
<p>To complete electrification in about 1,200 villages of 20 districts.</p> <p>Under the seventh power project, to construct 132 kv, 66 kv, and 33 kv capacity substations, and reconstruction and capacity extension of existing substations.</p> <p>Construction of Gaighat-Khotang 33 KV and Sindhuli-Ramechhap 33 KV transmission lines.</p> <p>To complete the small hydro projects of Namche 600 KW, Achham 400 KW, and Tatopani II 1,000 KW, and to start Khotang 500 KW, Kalikot 600 KW, and Dolpa 160 KW.</p>	<p>Under the seventh power project, extension of electrification in 513 villages and 5 urban areas has been completed.</p> <p>Construction of 12 substations with 33KV capacity and reconstruction and extension of 9 substations of 132 KV, 66 KV and 33 KV substation have been completed.</p> <p>Construction of Gaighat -Khotang 33 KV and Sindhuli-Ramechhap 33 KV transmission line has been initiated.</p> <p>Construction of Namche 600 KW, Achham 400 KW and Tatopani II 1000 KW has been completed, and Kalikot 600 KW and Dolpa 160 KW are under construction.</p>	1800	229.3

<p>Detailed engineering design of Sapta Gandaki (225 MW) multi purpose project and West Seti (360 MW) hydro power project.</p> <p>The detailed engineering study of upper Karnali (240 MW), Bagmati (140 MW) Kamala, and Budhi Gandaki (600 MW), and to complete the feasibility study of Bhotekoshi, Khimti, Noumure, and lower Arun hydro power projects.</p> <p>To complete a master plan for small hydro power projects and additional studies conduct.</p>	<p>By considering its export potential West Seti (750 MW) is being developed by private sector.</p> <p>Feasibility study of upper Karnali (300 MW) has been completed, and Bhotekoshi (36 MW) and Khimti (60 MW) hydro power projects are being implemented by private sector.</p> <p>Master plan of small hydro power development is prepared, and detailed engineering design of 3 small hydro projects has also been completed. Moreover, designing of 5 projects is in progress, feasibility study of 7 small hydro projects is completed, and feasibility study of 1 project is under progress.</p>	<p>2000</p>	<p>100.5</p>
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Table 3.
Comparison description of power supply expenditure

Details	Percentage	FY 1991/92 Expenditure Rs./Unit	FY 1996/97 Increase in expenditure, (Rs./Unit)
Personnel expenditure*	33	0.30	0.40
Maintenance cost*	142	0.12	0.29
Fuel**	37	2.69	3.68
Power purchase***	71	1.40	2.39
Royalty****			0.21
Depreciation cost*	20	0.97	1.16
Interest*	3	0.64	0.66
Total	59	2.22	3.52

*Per unit power supply (Power supply =Hydro power generation +Thermal power generation +power purchase).

** Per unit Thermal power generation *** Per unit power purchase**** Per unit hydro power generation

Table 4.
Comparison Description of Electricity Tariff

Types of consumers	F.Y 1991/92			F.Y 1996/97			
	Electricity % sales	Tariff Rs./Unit	Cross Subsidy %	electricity % sales	Tariff Rs./Unit	Cross subsidy %	Increase in Tariff %
Domestic	42.2	1.78	11	39.4	4.99	2	180
Industrial	37.8	1.92	4	40.8	4.89	4	155
Commercial	6.9	3.02	(52)	7.4	6.66	(30)	121
Non- commercial	7.2	3.02	(52)	6.5	6.62	(29)	119
Drinking water and irrigation	4.2	1.13	43	3.1	3.49	32	209
Street lamps	1.2	2.00	0	2.3	3.89	24	94
Others	0.5	2.34	(18)	0.5	5.03	2	115
Internal	100.0	1.99		100	5.11		166
Export to India	-	1.71		-	2.42		42
Total	-	1.95		-	4.84		148

Table 5.
Physical Target of Electricity Development in the Ninth Plan

Details	Total	1997/98	1998/99	1999/2000	2000/01	2001/02
1. Electricity generation and supply system						
A. Large and medium hydro power projects (MW)	293	-	6	104	183	-

B. Small hydro power projects (KW)	660	160	500	-	-	-
C. Extension of multi fuel power house (MW)	13	13	-	-	-	-
2. Construction and extension of transmission line (KM)	1024	-	-	286	267	471
3. Rural electrification (KM)	6067	1220	597	1620	1650	980
4. Survey feasibility study and detailed engineering design (No.)	31	7	5	8	7	4

Table 6.
Power Development in Ninth Plan
Financial Target of Public Sector

(Rs. in

million)

Details	Total	1997/98	1998/99	1999/20	2000/01	2001/02
1. Electricity generation and supply system						
A. Large and medium hydro power projects	38437.2	7613.6	8380.7	7346.8	8214	6882.1
B. Small hydro power projects	990.7	35.4	201.8	376.8	282.6	94.1
C. Multi-fuel power house extension	231	231	-	-	-	-
Total	39658.9	7880	8582.5	7723.6	8496.6	6976.2
2. Construction & extension of electricity transmission lines	4694.5	459.6	1388.4	991.9	838.2	1016.4
3. Rural electrification	7833	695.2	383.8	2674	2735	1345
4. Rehabilitation works	1212.5	309.8	601.8	300.9		-
A. Transmission and distribution lines						
B. Load shading centre	734.2	98.7	104.6	295.8	235.1	-
Total	1946.7	408.5	706.4	596.7	235.1	-
5. Survey, feasibility study and detailed engineering design	660	256.2	143.8	130	130	-
6. Miscellaneous						
A. Kulekhani Conservation project	3081.7	1030	1040	1011.7	-	-
B. Various studies and others	54.5	10.5	10.8	10.7	11	11.5

C. Promoting private sector in power development	3593.1	700	710	710	720	753.1
Total	6729.3	1740.5	1760.8	1732.4	731	764.6
Grand Total	61522.4	11440	12965.7	13848.6	13165.9	10102.2

Table 7.
Ninth Plan Powers Development
Expected Financial Target of of Private Sector
(Rs. in million)

Details	Total	1997/98	1998/99	1999/2000	2000/01	2001/02
1. Electricity generation and supply system						
A. Projects to be completed in 9 th plan	11279.3	2805	4073	4225.7	175.6	
B. Projects to be initiated in 9 th plan and to be continued	50800			13200	16950	20650
Total	62079.3	2805	4073	17425.7	17125.6	20650

Table 8.
Survey and Feasibility Study Programme

Hydro power projects	Capacity (MW)	Sector
1.Kulekhani III	13	Public
2.Upper Modi	14	Public
3. Lower Modi khola	20	Private
4. Budhi Ganga	22	Public
5. Rahu Ghaat Khola	24	Public
6. Thulo Dhunga	25	Private
7. Khimti II	25	Private
8. Chamelia	30	Public
9. Likhu-IV	34	Public
10. Kaweli- 'A'	35	Public
11. Upper Marsyangdi- 'A'	43	Private
12. Simbuwa Khola	53	Private
13. Kankai	60	-
14. Mid-Marsyangdi	61	Public
15. Tamor	72	Public
16. Sharada	75	Public
17. Bheri-Babai	82	Public
18. Seti-III	107	Private
19. Mid Bhotekoshi	120	Private
20. Upper Marsyangdi-III	121	Private
21. Aandhi Khola	154	Public
22. Tama Koshi-II	287	Public
23. Upper Trishuli-II	300	Private
24. Upper Karnali	300	Public
25. Dudh Koshi	300	Public
26. Budhi Gandaki	600	Private
27. Kali Gandaki-II	660	Private
28. West Seti	750	Private
29. Sapta Koshi	4700	Public
30. Pancheshwar	6480	Public
31. Karnali	10800	-

Table 9
Power Generation Programme

Hydro power projects	Capacity (MW)	Completing Year of completion	Sector
Medium projects To be completed in the Ninth Plan			
1. Indrawati III	5	2058 BS	Private
2. Puwa Khola	6	2056 BS	Public
3. Modi Khola	14	2058 BS	„
4. Chilime	20	2058 BS	Private
5. Upper Bhotekoshi	36	2057 BS	Private
6. Khimti-1	60	2056 BS	Private
7. Kali Gandaki 'A'	144	2058 BS	public
8. Tanakpur	8	2057 BS	„
Total	293		
Projects to be initiated in 9 th plan and to be continued (for internal supply and for export)			
1. Kulekhani III	14	To be contd.	
2. Khimti-2	27	„	
3. Likhu-4	44	To be contd.	
4. Mid-Marsyangdi	61	"	
5. Mid-Bhotekoshi	120	"	
6. Upper Karnali	300	"	
7. Arun III	402	"	
8. West Seti	750	"	
Total	1718		
Small hydropower projects			
1. Kalikot	500	2056 BS	Public
2. Dolpa	160	2055 BS	„
3. Dailekh	300	-	„
4. Lomanthang	65	-	„
5. Khotang	2300	-	„
6. Gamgadhi	200	-	„
7. Heldung	250	-	„
Total	3775		

Table 10
Electricity Transmission Line projects

S.No.	Projects	Length (km)	Years of Completion	Sector
	220 KV			Public

1.	Hetaunda -Dumkibas 220 KV (Public)	140	2059 BS	„
	132 KV (Govt. Sector)			„
1.	Kusaha- Dhalkewar	120	2056 "	„
2.	Dhalkewar-Hetaunda	137	2058 "	„
3.	Dumkibas-Butwal	43	" "	„
4.	Khimti-Bhaktapur-Balaju	47	2056 "	„
5.	Modi-Pokhara	40-	2057 "	„
6.	Kali Gandaki 'A'-Pokhara	58	2058 "	„
7.	Kali Gandaki "A"-Butwal	48	" "	„
8.	Pokhara-Marsyangdi	85	" "	„
9.	Bhaktapur-Syuchatar	20	" "	„
10.	Pathlaiya -Parwanipur	15	2056 "	„
11.	Dhalkewwar-Sitamadhi (India)	30	2058 "	„
12.	Butwal-Sunouli (India)	30	" "	„
13.	Mahendranagar-Tanakpur (India)	11	" "	„
14.	Khimti-Dhalkewaer	80	" "	„
15.	Mid-Marsyangdi-Dumre	25	" "	„
	Private Sector			„
16.	Bhotekoshi-Sunkoshi	25	2057 "	Private
	Total	814		
	66 KV			
1.	Chilime-Trishuli-Devighat	39	2057	Public
2.	Indrawati-Panchkhal	31	2058	Private
	Total	70		
	Grand Total	1024		

Table 11
Electricity Distribution and Rural Electrification

Details	Expenditure (in Rs. million)	Benefited districts	Construction	No. of consumers	Benefited population
1. Power Development Project	2957.5	21*	33/11 KV-1000 km 400 volt-1700 km	68,300	412,000
2. Rural electrification rehabilitation project	3250	21**	33/11 KV- 1150 km 400 Volt-1800 km	75,100	452,000
3. Other rural electrification project	760	All districts	33/11 KV- 380 km 400 Volt-820 km	17,600	108,000
4. Investment by NEA	120	13***	33/11 KV- 120 km 400 Volt-360 km	2,800	18,000
5. seventh power project	669.2	25****	33/11 KV- 1193 km 400 Volt-1311 km	15,500	94,000
6. Devighat-Dhading project	37.5	Dhading	33/11 KV- 30 km 400 Volt- 36 km	800	6,000
7. Sindhuwa-Khandabari project	38.8	Bhojpur, Sankhuw-asabha	33/11 KV- 32 km 400 Volt-40 km	900	7,000

*Darchula, Baitadi, Dadeldhura, Doti, Achham, Dailekh, Surkhet, Bardiya, Banke, Salyan, Rolpa, Dang, Pyuthan, Kailali, Kanchanpur, Baglung, Syangja, Lalitpur, Bhaktapur, Kabhre.

** Ilam, Panchthar, Terhathum, Sankhuwasabha, Dhankuta, Saptari, Udayapur, Sindhuli, Khotang, Jhapa, Morang, Sunsari, Ramechhap, Bara, Dhanusha, Mahottari, Sarlahi, Rautahat, Parsa, Chitwan, Parbat.

***Kathmandu, Nuwakot, Sindhupalchok, Makawanpur, Gorkha, Tanhu, Parasi, Syanja, Dhankuta, Surkhet, Parbat, Rasuwa, Ilam.

**** Ilam, Jhapa, Sunsari, Siraha, Sarlahi, Rautahat, Chitwan, Parasi, Gulmi, Arghakhanchi, Morang, Udayapur, Dhanusha, Mahottari, Bara, Parsa, Dhading, Nuwakot, Tanahun, Palpa, Kapilwastu, Surkhet, Rupandehi, Banke, Sindhupalchok.

12.2 Irrigation

1. Background

The importance of irrigation for the overall development of farmers and increase in the national agricultural production was identified from the very start of the periodic plan. Therefore a huge amount of investment has been made in this sector for the last forty years. The method of investment shows that most of our past endeavors were specially centered on the extension of complementary irrigation suitable for the rainy season. It is justified from the fact that up to now out of total irrigation infrastructure developed area, only 37 percent get irrigation facility throughout the whole year. The pressure of growing population and the interest shown by farmers for crop diversification make it imperative to develop those techniques that can yield irrigation facility throughout the year. At the same time it is the need of the day to utilise the existing structures to the maximum extent.

On the one hand, the activities of irrigation development need to be integrated with the long-term development strategy of hydropower and on the other agricultural production needs to be increased by implementing those projects which are less expensive and less time consuming and users themselves are able to operate. For this, by utilising ground water resource of *Terai*, tube-well irrigation programme, which are less expensive and less time consuming and are under the control of farmers themselves, need to be mobilised with giving due implemented on priority basis.

To get maximum benefit from the irrigation development project, all the agro-related programmes should be coordinated through water user groups and implemented in an integrated way. It is necessary to follow the policy of gradually handing over the responsibility of operation and management of irrigation system to user farmers themselves by initiating farmers' participation in identifying, feasibility study, selection and implementation of irrigation systems.

As the data show, out of total 26,41,000 ha. of cultivated land in the country only 17,66,00 ha. is irrigable of the country. Although it is shown that the irrigation infrastructure was developed to 6,03,940 ha. of land at the start of the eight plan, many projects were damaged due to flood and landslide and were included twice in the data as they were reconstructed. Moreover the data assume that all the installed shallow tubewells are providing irrigation. That's why after deducing double counted area of irrigation development and area under non performing shallow tubewells, the total area facilitated by the development of the infrastructure of irrigation under government level through various surface irrigation project and ground water irrigation project, has reached to 4,6,7,402 ha. of land. The table below shows the land where infrastructure of irrigation has been developed by the end of the seventh plan.

Table 1
Irrigation Information Developed Area By the End of the Seventh Plan (in ha)

1.	Department of irrigation	395857
a.	Surface irrigation	(346444)
b.	Ground irrigation	49413)
2.	Agricultural Development Bank	71545
a.	Surface irrigation	(11860)
b.	Ground irrigation	59685)
c.	Other programmes of ADB/N*	19289
d.	Lift pump of ADB/N*	5777

	Total	467402
3.	Irrigated land developed by farmers	3,81,814
a.	Surface irrigation	(357098)
b.	Ground irrigation	(24,716)
	Grand Total	8,49,216

Note: The data of farmers developed irrigation is taken from the district profile prepared by the Water and Energy Commission in which modified data of surface irrigation system is deduced and the rest is shown. In the above mentioned data description of 1(a) the data of irrigation projects made under Local Development Ministry, Agricultural Ministry is included while in description of 1(b) the irrigation facility provided by the tube-well under Janakpur Agricultural Development Project is also included.

2. Review of the Eighth Plan

Physical Target and Achievement

In the Eighth Plan period, the physical target was set to provide irrigation facility to an additional 2,93,895 ha. of land through various new and under construction irrigation projects.

Of that target irrigation facility has been provided as according to the table no. 2 by developing infrastructures in additional irrigation land.

Table 2
Physical Target and Achievement of the Eighth Plan(in ha.)*

	Description	Target	Achievement	Percentage
A.	Dept. of irrigation	1,61,132	1,38,245	85.8
1.	Surface irrigation	(1,44,042)	(1,30,484)	90.6
2.	Ground irrigation	(17,090)	(7,761)	63.6
B.	ADB/N	1,19,700	76098	63.6
1.	Surface irrigation	(49,000)	(15,694)	74.2
2.	Ground irrigation	(70,700)	(52,462)	74.2
3.	Other various programmers**		7,942	
4.	Lift pump**		22,727	
C.	Non government sector	13,063		
	Grand total	2,93,895	206,401	72.9

Out of 1,30,484 ha. of infrastructure developed in surface irrigated land by the department of irrigation, farmer systems have been improved in 93,853 ha. While out of 15,694 ha. of infrastructure developed in surface irrigated land under Agricultural Development Bank, irrigation facility has been systematically provided by improving agriculture systems in 11,093 ha. in the Eighth Plan period. Infrastructure for additional irrigation has been constructed in the remaining area only by implementing new irrigation project.

Fiscal Target and Achievement

Out of expected expenditure of Rs 11966 million for the implementation of irrigation projects and other irrigation related developmental activities Rs. 122097 million has been spent on different programmes under the department of irrigation. Similarly on different programmes implemented under Agricultural Development Bank Rs. 1004 million has been spent thus making the total expenditure on irrigation development to be Rs. 13214 million.

Situation up to the Eighth Plan

Existing situation of irrigation development up to the Eighth Plan is shown in Table 3.

Table 3
Situation up to the Eighth Plan (in ha.)*

S.No.	Programme/project	Up to the Seventh Plan	Achievement of the Eighth Plan	Unto the Eighth Plan
1.	Department of irrigation	3,95,857	1,38,24.5	5,34,102
a.	Surface irrigation	(3,46,444)	(1,30,484)	(4,76,928)
b.	Ground irrigation	(49,413)	(7,761)	(57,174)
2.	Agricultural Development Bank.	71,545	68,156	1,39,701
a.	Surface irrigation	(11,860)	(15,694)	(27,554)
b.	Ground irrigation	(59,685)	(52,462)	(1,12,147)
c.	Other various programmers *	19,289	7,942	27,231
d.	Lift pump programme **	5777	22727	28504
	Total	4,67,402	206,401	6,73,803
3	Irrigated land developed by farmers	3,81,814		3,81,814
1	Surface	3,57,098		(3,57,098)
2	Ground	(24,716)		(24,716)
	Grand total	8,49,216	206,401	10,55,617.

3. Existing Challenges

Existing problems of irrigation sector are as follows.

- Public participation is poor in the construction, operation and repair maintenance of the irrigation projects.
- Non reliability of the irrigation service due to inefficiency in the repair maintenance, operation and management of the established irrigation projects.
- Inaccessibility of irrigation service to the targeted command sector by surface and ground irrigation projects due to relatively lower efficiency in water utilisation.
- Failure in achieving the expected benefits from the irrigation projects due to shortcomings in the identification, design and quality of these projects.
- Problems in irrigation management since the land to be irrigated are divided into smaller parts and are in the ownership of different people.
- Increase in the construction cost of the irrigation projects.
- Inability in getting Nepal's part of water and benefit accruing from irrigation as per the provision of international treaty / agreement.
- Inability in getting foreign economic aid for irrigation projects to be constructed in medium and big rivers.
- Adverse impact upon the source of irrigation projects and reserve of ground water resource due to deforestation in the water shed area of rivers and recharge zone of water resource.
- Non availability of foreign economic aid for the feasibility study of Trans basin and big multipurpose projects.
- Lack of execution of adequate number of training programmes for the development of irrigation institutions.

4. Long-term Concept

For the green revolution, the cultivation of those crops, which are less risky and more productive, is a prerequisite where even irrigation should be under perfect control of farmers. This mode of irrigation facility can be taken as a necessary infrastructure for increasing the production. Since there is no possibility of acquiring additional land to enhance the production what is required is to provide controlled and adequate irrigation facility throughout the year enabling to cultivate more crops in per unit land which may be only reliable and easy way to increase agricultural production. Therefore well-systematised water flow throughout the year becomes a prerequisite for beneficial cultivation. In the present context of Nepal, farmers will be encouraged to cultivate cash crop and increase crop intensification so as to enhance agricultural income by providing irrigation facility throughout the year. Existing systems developed by farmers will be strengthened and their efficiency will be enhanced.

- According to the long-term agricultural perspective plan, area of such land, which can be controlled by farmers and where year round irrigation is available, will be increased.
- The policy of providing irrigation facility throughout the year utilising the ground water resource available in the Terai will be adopted to increase agricultural production and income of the farmers. Tubewells will be developed in cluster and rural electrification will be integrated with the cluster of tube-well while operating ground irrigation programme.
- Women farmers will be encouraged and given preference while forming water user group. Similarly their participation will be encouraged by providing them training in the management of irrigation and watershed area.
- Efforts will be made to maintain quality of water resource at the satisfactory level
- By the help of incentive mechanism of user group ,water management and water conservation, as per demand and supply, will be done whenever water for irrigation becomes inadequate due to weather factor in river
- Scientific system of determining and collecting irrigation duty will be effectively implemented.
- Programmes will be made for involving local leadership and participation while developing irrigation.
- According to the target of 20 years long-term plan an additional 17-thousand ha of land will be irrigated by new projects under surface irrigation while an additional 1,55,000 ha. of land will be irrigated by improving the farmers' field channels thus making the total to an additional 1,72,000 ha of land to be irrigated round the year by executing these programmes. Programme is made to provide irrigation facility to an additional 4,71,000 ha. of land through ground irrigation round the year. According to this target, irrigation facility will be provided to a total of an additional 6,43,000 ha. of land throughout the year by the end of the twelfth plan.

Ninth Plan

5. Objective

- To assist in raising agricultural production by improving the rainfall-based agricultural system with the help of providing irrigation facility as per the need of crops.
- To raise water utilisation efficiency of surface and ground projects.
- To reduce the government liability in repair, maintenance and operation of irrigation projects by encouraging the user farmers participation in those works

and transferring responsibility of the management of irrigation system to user organisations.

6. Policy and Implementation Strategy

Ground irrigation development

According to the long-term agricultural perspective plan, preference will be given to mobilise those tube-well irrigation programme, by utilising the existing ground water resource of Terai, which can be constructed in short period of time with minimum expenses and are under the control of farmers themselves. Agricultural road and rural electrification will be integrated with cluster upon which tube well programmes depend. Since tube well provides controlled water throughout the year, cash crops will be developed along with paddy crops in these areas.

- Subsidies of HMG/N, in programmes where loans are provided for the operation of shallow tube well, dug well, sprinkler, drip and tanker pond, will be reduced gradually. In the site of shallow tube well construction, farmers group will be formed and other incentives along with loans will be provided to them. For this both non- governmental and community organisation will be mobilised.
- The department of irrigation will identify the proper drilling technique and it will also arrange training for drillers and farmers to help in the technical aspect of aforementioned programmes along with taking initiation in group wise or all other works about tube-well construction. The departments of Irrigation and Agriculture and concerned bank will monitor this programme in a coordinated way.
- Tubewells will be constructed in existing and proposed irrigation projects of Terai where surface irrigation source is inadequate thus utilising surface and ground water resource as complementary to one another.

Surface Irrigation Development

- Study and construction of small and medium irrigation projects will be carried out as per the demand of user farmers by encouraging their own participation. User groups will themselves repair, maintain and operate these projects once they are completed.
- Irrigation projects that are non-operated due to lack of repair and maintenance will be improved in accordance with the demand of farmers through their participation
- Special preference will be given to the hills while operating small and medium irrigation project under Nepal Irrigation sector and Second irrigation sector programme. These programmes will be executed following established procedures.
- Emphasis will be given to overall development of water resources as per the holistic river basin approach. For this, existing large multipurpose water resource projects and large reservoir-based irrigation projects will be operated to provide sustainable irrigation facility round the year. Irrigation, electricity, flood-control, water transport and other utilities will be also included in multipurpose projects according to their viability. Participation of local users will be mobilised in these large irrigation projects according to the Irrigation policy 1992 (with amendment 1993)
- The capacity of the irrigation systems under government's management will be utilised to the maximum extent. For this, these systems will be renewed and modernised and preference will be given to the construction of small field channels. User farmers will be given decisive role in bringing regularity in water distribution system by organising them into user groups as per the Irrigation policy.

- Water harvesting technique will be used as a pilot project. It will be applied for irrigation at those places where surface and ground water resource is unavailable. In the beginning this programme will be operated in small region.
- Concerned bank will implement the projects after required study that provide irrigation facility using the techniques like sprinkler and drip in the hill and remote region where cash crops are to be developed.
- Small and medium irrigation systems under government's management will be gradually transferred to Users' group after renewing and improving. For this proper training will be given to user groups to enhance their efficiency. Similarly, user groups will be involved in the management of large irrigation systems so as to operate them jointly.
- Participation of user farmers will be gradually increased in the identification, construction, repair and maintenance of irrigation projects. While selecting and operating irrigation projects preference will be given to those where more public participation is possible and which is less expensive and more beneficial. Similarly, women's working efficiency in irrigation management will be enhanced by providing them training in irrigation projects. Their working efficiency will be used in geophysical and water management of watershed area and project operation.
- Regular monitoring of related environmental, technical, economical and social aspect will be made compulsory to maintain sustainability in irrigation project. For this comprehensive information system will be developed after collecting required data.

Collection of Irrigation Service Duty

Emphasis will be given to realise duty after making required amendments in the system of collecting irrigation service duty. Consumers will be informed about the opportunity cost of per unit water for irrigation and water as economic goods. They will be encouraged to use water rationally. To make irrigation service sustainable and reliable consumers will be informed about the importance and need of paying required yearly repairing, maintenance and operation cost in the form of irrigation service duty.

According to irrigation policy water users groups will be given responsibility to collect irrigation service charge in the irrigated area facilitated by the projects that are jointly managed by HMG and user's groups

The decision about the demand of required water for different crops will be made after mutual discussions between department of irrigation, local unit of department of agriculture and water user groups. Concerned body of department of irrigation will provide water at the source of block as per the agreement made with water user groups. The responsibility of distributing water within the block will be given to water user group. Water will be measured at the source of irrigation system and block. The responsibility of collecting irrigation duty within the block will be of user groups. User groups will get its share of this irrigation duty as per the existing irrigation policy. User groups will be given responsibility of maintenance and operation of canal system of which it has taken the charge.

Every user group will do management of equitable distribution of water received in canal system, taken charge by water user groups, itself. To enhance the working efficiency of water user group, department of irrigation will provide training to those recommended by the group in the field of measurement of irrigation and proper distribution and demand management, preparation of cartogram of irrigated region, updating data of beneficiary farmers and preparing the data of irrigated land,

developing share system etc. Department of irrigation will provide required skilled manpower to user group until they are capable to do so.

Irrigation user groups will be involved in policy making, decision procedure, planning operation, management, monitoring and feed back. User groups will be encouraged to establish unions in district and national level to protect their rights and welfare.

Cost reduction system

After reexamining the design manual prepared by the department of irrigation and standard approved by HMG, required improvements will be made in the size, type and other aspects of projects based on experience.

For the development of less expensive techniques suitable to the sensitive geographical environment of mountainous and hilly region, emphasis will be given to the development of proper techniques which are local environment friendly and favorable to the operational efficiency of users. Emphasis will be given to use local construction materials and local labour in that technique.

Since lack of data also increases the cost of the project, the system of collecting data, for the identification and designing of irrigation project, will be made more improved. To collect these data proper information system will be developed and it will be made available to the district and regional bodies in time. In the case of large and multipurpose project, long-term data of water resource and climate will be collected and on the basis of this data, along with others, feasibility study will be carried out.

Project Planning, design evaluation and monitoring division of central and regional offices of department of irrigation will be made more effective. The system of compulsory participation of the units of departments of agriculture, soil conservation, climate and Meteorological and user groups in the project preparatory phase will be gradually established.

To enhance efficiency of local consultancy groups, participation with foreign consultancy groups and bodies of HMG in planning design of multipurpose and other large project, will be increased. Similarly more emphasis will be given to involve local construction companies with the foreign construction companies to gradually increase their efficiency.

As improving plan preparation, design, research, training and system management can reduce cost; incentive mechanism for persons will be developed. Emphasis will be given to establish relationship between national or international educational institution and research for the research of technological development.

To prevent delay in project competition period due to lack of counter part fund for foreign aided projects fund will be made available by determining the priority of the projects.

Incentive will be given to the production of required construction materials to construct shallow tube -well in the country Nepal and to establish workshop in private sector for repairing and maintaining them.

Special care will be given to the implementation of small and medium surface irrigation project by adopting labour-oriented technique.

Mechanisation will be encouraged in large and medium irrigation projects to complete the repairing and maintenance in the allotted short period of time since canal operation closure period is short for repairing and maintenance.

Increase in the Utilisation Capacity of Irrigation Water

In order to increase irrigation water utilisation efficiency required improvement would be done for stopping the leakage in canal system. As the sediments deposited in the main canal deteriorate water carrying capacity of canal, proper step will be taken in time to take out those sediments so as to stop deterioration in water bearing capacity. Small canals and field channels will be repaired regularly. Un-authorized use of attitude of taking water from canal will be discouraged. Leveling and land consolidation of irrigated land will be encouraged.

System of relating water provided for irrigation with the increase in agricultural production and group wise agricultural development programme carried out by department of agriculture through water user union will be developed. For this irrigation fees according to the quantity will be initiated. Farmers will be given training to use water according to the need of crops.

For increasing the agricultural production and water utilisation capacity in irrigated land, research will be carried out by Agriculture Research Centre in coordination with Nepal Agriculture Research Council (NARC).

7. Target

Physical target:

A Total 2,49,400 ha. of land will receive irrigation in an organised way from under construction projects included in the Ninth Plan and proposed new projects. This includes providing systematic irrigation by upgrading farmers' field channels and additional land irrigated by the construction of new projects. The target is to provide well managed irrigation through surface, and ground irrigation and import farmers field channels (table no. 4).

Table 4
Target of the Ninth Plan Period

S.No.	Unit	Additional new land (in ha.)	Improvement of farmers field channels (in ha.)	Grand Total (in ha.)
1.	Department of irrigation			
(a)	Surface Irrigation	52400	81500	133900
(b)	Ground Irrigation	30000	500	30500
	(1) Deep Tube-well	(11650)		(11650)
	(2) Shallow Tube-well	(18350)		(18350)
	Total	82400	82000	164400
(2)	Agricultural Development Bank			
(a)	Surface		15000	15000
(b)	Ground	60000		60000
(3)	Irrigation of NGO		10000	10000
	Grand total	142400	107000	249400

Apart from this target, management of various 11 irrigation projects (68000ha.) under department of irrigation will be transferred to user farmer unions while repair maintenance and operation of about 3,00,000 ha. of now operating irrigation project will be carried out. Command area development work will be done in 15,000 ha under third phase of Sunsari-Morang irrigation. Besides, tube-well in 500 ha. constructed under irrigation line of credit, will be improved and other 5000 ha of land under various projects will be transferred to user farmers.

Irrigation Development Programme:

On-going Projects

Siddarthanagar Lumbini Ground Water Project (Third Phase): It is expected to provide irrigation to 1900 ha in the third phase in the Eighth Plan period as against to the target set to provide irrigation through ground water to 8600 ha of land of Rupandehi district under this project. An additional 6700 ha of land will get irrigation facility in the Ninth Plan period by completing remaining works.

Bagmati Irrigation Project: To provide irrigation facility to 37000ha. of land of Rautahat (23000 ha) and Sarlahi (14000 ha) districts, construction operation is underway with loan assistance of Saudi Development Fund in this project which was launched in 1981 by HMG resource. Now it is possible to provide irrigation facility to about 12000 ha in the Eighth Plan by executing proper rehabilitation work in barrage destroyed by unexpected flood of 1994. Systematic irrigation facility will be provided to an additional 25000 ha. of land by completing construction of remaining canal system in the Ninth Plan period. Apart from this, command sector development work will be initiated in 20,000 ha of land.

Eastern Rapti Irrigation Project: Project construction work has been initiated, keeping it in view, to provide irrigation in 1800 ha of land by building 900 shallow tubewells along with providing systematic irrigation in 6200 ha of land by strengthening existing 86 farmer systems. out of 72-farmer system strengthening programme under this project, currently underway, 39 have been completed. Apart from this, along with Eastern Rapti river control, construction work of various infrastructures in 60 km rural road is underway. Systematic irrigation has been provided in about 6060 ha of land in the Eighth Plan period. An additional 15000 ha of land will get systematic irrigation by strengthening 33 different farmer system in the Ninth Plan period.

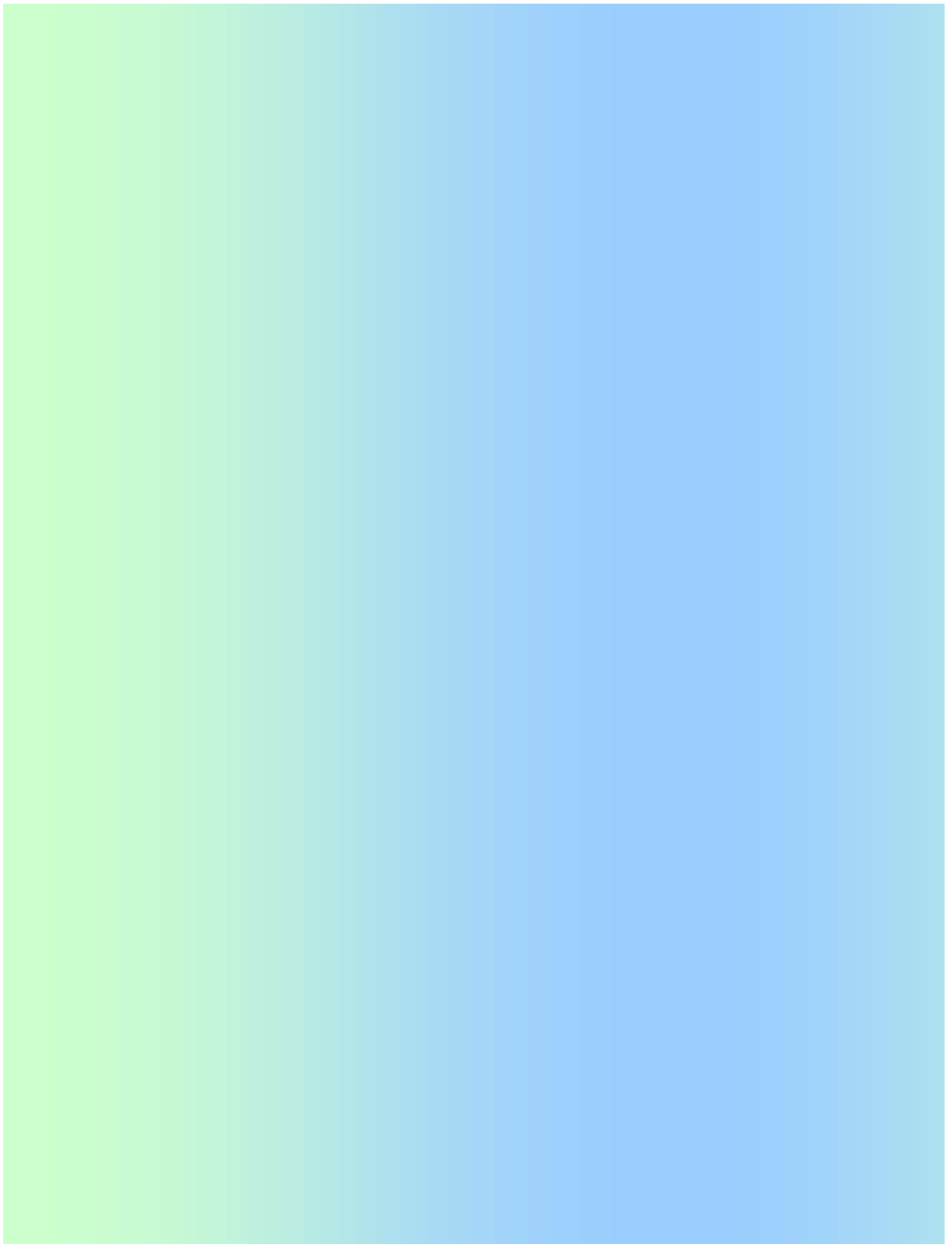


Table 5
Description of Total Investment in Irrigation Projects

Rs in million

S.No	Description of loan planning	Total		Remarks
		Expected expenditure	Irrigated area (ha)	Types of irrigated area
1.	On-going projects			
2.	Siddarthanagar Lumbini ground water project (third)	440	670	New
3.	Bagmati irrigation project	2,055	2,500	New
4.	Eastern Rapti irrigation project	187	150	Improving farmers field channel
5.	Mahakali irrigation project (second)	230	390	New
6.	Marchwar irrigation project (second)	20		Command sector development
7.	Rajapur irrigation project	1,120	1,300	New + improving field channel
8.	Babai irrigation project	800	1,710	New + improving field channel
9.	Chandra Mohana irrigation project	180	180	improving field channel
10.	Second irrigation sector project	2,000	3,870	New + improving field channel
11.	Sunsari Morang head works	120		Head work construction
12.	Community shallow nalkoop irrigation project	313	380	New
13.	Irrigation management transfer project	850	6,800	Transfer
14.	River control programme	978		
15.	Banganga river control programme (Tilaurakot)	20.5		
16.	Bagmati dam construction	200		
17.	Mechanical workshop	75		
18.	Bakraha river control project	400		
19.	Water induced Hazard Control technical centre (first)	160		
20.	System management & training programme	43		
21.	Management information & monitoring & evaluation	30		
22.	Operation & repair maintenance	1,000	30,000	
23.	Groundwater research programme	87		
24.	New projects			
25.	Sunsari Morang irrigation projects (third)	1,600	1,510	Command sector development
26.	Nepal irrigation sector project	2,400	3,950	New + improving field channels
27.	Ground water irrigation sector	815	1,160	
28.	Mid-western region irrigation development project	200	180	New

29.	Feasibility study	193		
30.	Water induced Hazard Control technical centre (second)	340		
31.	Mahakali irrigation (Third)	750		
32.	Trishuli irrigation	170		
33.	Praganna kulo	297		
34.	Birgunj ground water irrigation	540		
35.	Lal Bakkaiya dam construction project	60		
36.	Kamala dam construction project	220		
37.	Khando dam construction project	50		
38.	Kankai dam construction project	50		
39.	Berring dam construction project	40		
40.	River control long-term planning study	167		
41.	Irrigation organisational development	400		
42.	Manpower development training centre			Fund to be provided by different plans
43.	Irrigation development grant	937.5		
44.	ADB/N (loan flow)	636.6	7,500	
45.	Administration	196.7		
46.	Training	196.7		
47.	Non-governmental organisations	250	1,000	New + improving field channels
48.	Other works			
49.	Contingency	1,002.4		
50.	Administrative & managerial expenses	1985		
	Grand total	24,805.4	24,940	

Note: Since command sector development is repair maintenance & transfer programme, it is not added in grand total.

Mahakali Irrigation Project (Second Phase): Construction work of this project is at the last phase, which is operated to provide irrigation facility to 6800 ha of land of Kanchapur district. Irrigation facility to 2900 ha. in the Eighth Plan period and rest 3,900 ha. in the Ninth Plan period will be provided.

Marchuwar Irrigation Project (Second Phase): Initiated in the sixth plan period as according to the revised target to provide irrigation to 3,600 ha. of land of Rupandehi district by pump system from Tinau river this project, operated under the grant assistance of capital development fund of UNO, provides systematic irrigation facility to 2,900 ha. of land. Under this project programme for repair and maintenance has been included in accordance with the agreement reached between His majesty Government and United Nations capital Development Fund under which the pump under construction has to be operationalised and repaired within 30 months by the project.

Rajapur Irrigation Projects: This project is operated to strengthen the farmers field channels of Rajapur area of Bardiya district and to safeguard the command sector from the flood of Karnali river along with controlling the river by the loan assistance of Asian Development Bank. Systematic irrigation facility will be provided to 12,000 ha. of land by improved existing farmer field channels under this project during the Ninth Plan period along with providing an additional irrigation to 1,000 ha. of land.

Babai Irrigation Project (First Phase): With the aim of providing irrigation facility to 13,200 ha. of eastern part of Babai river of Bardiya district, construction works of weir cum bridge along with 23 km main canal have been completed in the first phase of the project thus providing irrigation facility to 41,00 of land. Along with developing irrigation system in remaining 9,100 ha. of land, construction of siphon and intakes in Babai river will be completed in this project period to supply systematically water in farming system from the constructed dam for irrigation to 9,000 ha. of land west of Babai river.

Chandra Mohana Irrigation Project: The construction work of this project, aimed at providing irrigation facility to 1,800 ha. of land of Sunsari district and conducted by the loan assistance of OPEC, will be completed in this project period.

Second Irrigation Sector Project: Systematic irrigation facility in total 41,000 ha. of land will be made available under this project [in 32,000 ha. of land by renewed improvement in different small and medium farm irrigation systems of all the districts of eastern and central development region and in 9,000 ha. of land by some new system]. Initiated in the last year of the Eighth Plan, this project will be completed in the Ninth Plan period. By strengthening farmer's field channels of different region and completing the construction work of new projects, irrigation facility will be made available to 38,700 ha. of land under this project. Programmes for strengthening water user committee and district irrigation office and making available agriculture expansion service will be included in this project.

Sunsari Morang Headwork: The construction works of this project has been initiated sine fiscal year 1993|94. Under this project, construction of powerhouse with 3.5 MW electricity, the construction of 1,000m culvert, desilting basin & operation of Dredger have been completed. Remaining work will be completed in the first year of the Ninth Plan.

Community Shallow Nalkoop Irrigation Project: This project has been launched since fiscal year 1994|1995 with the help of IFAD to provide irrigation facility to about 4,800 ha. of land of Sunsari, Siraha, Saptari, Sarlahi and Rautahat districts through community shallow Nalkoop. It will provide irrigation facility to about 900 ha. of land in the Eighth Plan period whereas works of remaining 3,800 ha will be completed in the Ninth Plan.

Irrigation Management Transfer Project: This project has been launched since fiscal year 1995|96 with the loan assistance of ADB and technical assistance of American aid agency in order to form and strengthen efficient, strong and active water user organisation in various 11 irrigation systems of the kingdom, to reconstruct and improve very necessary structures in those canal system, to transfer small and medium projects to the user organisations and mobilise required resources for the institutional development of these projects. Programmes of the first phase of this project will be completed in the first year of this project period and thereafter programmes under second phase will be implemented. From this programme 6,800 ha. land of Khageri, Panchkanya, Nepal Gandak western canal, Kamala, Banganga, Pathraiya, Mohana, Chaurjahari and so on will be benefited.

River Control Programme: Through district irrigation offices material assistance like GI wire are made available so long as the resource allows for river control works conducted by mobilising the local public participation. Such programmes will be continued in this project period as well. Similarly, to make such programmes more effective, emphasis will be given on the application of proper technique along with making arrangement to provide proper training to the employees. External resources will be mobilised for the material assistance. Emergency flood control work will be carried out using the available resource and means.

Master Plan will be formulated by studying through internal and external resource of various rivers of the kingdom which cause maximum loss annually and with the assistance of friendly nations and internal resource, programmes of river control will be launched according the prepared projects as.

River control work will be conducted in a planned way with the grant assistance received in kind from the friendly nations. People's participation and environments conservation policy will be compulsorily implemented in the river control work.

Banganga River Control, Tilaurakot (Kapilvastu): This river control work has been launched after preparing a long-term master plan to prevent historical place of Tilaurakot in the Kapilvastu district from the damage done by Banganga river. The target set to complete this work is within the fiscal year 1998/99.

Bagmati Embankment Construction Project: Construction of embankments in both sides of Bagmati river will be done with the Indian assistance according to the project prepared by the mutual agreement of the technicians of both the countries to minimise the loss of lives and property by the Bagmati river in Sarlahi and Rautahat districts of Nepal along with Indian territory every year. Due to delay in getting the Indian assistance, HMG has gradually conducted the construction of embankments in Rautahat district according to the report of the technicians of both the countries to stop the damage done by Bagmati river in Rautahat district as demanded by the local people. Programme will be conducted by reaching an understanding with India in case Indian assistance is delayed for long.

Mechanical Workshop: Central Mechanical Workshop is established in Birgunj to bring in effective operation by systematically repairing and maintaining the heavy equipment of department of irrigation and offices under it. In the Ninth Plan period, programme to strengthen it and establish additional mechanical workshops in Biratnagar, and Siddharthnagar is included.

Bakraha River Control Project: This project has been implemented since fiscal year 1995/96 with the loan assistance of OPEC fund with the objective of conducting construction works after the preparation of master Plan for the control Bakraha river in Morang district.

Technical Centre for Water Induced Hazard Control: The centre is established to provide proper training to enhance efficiency of governmental and non-governmental institutions involved in the field of developing proper technique for study and research on controlling and minimising water induced natural hazards like flood, landslide and soil erosion etc. Centre for Control of Water Induced Hazard, operating until now as periodic development project will be given permanence and continuity so that more comprehensive and effective programmes will be conducted as geophysical structure of our country is water hazard prone and the centre is well equipped with its own building, technical development laboratory and machines and so forth.

System Management and Training Programme: This programme is conducted to gradually strengthen the management of operating farmers irrigation field channels after completing the construction work, large irrigation project under joint management and small and medium irrigation system already transferred to users or to be transferred in the future. This programme was undertaken in total 10,000 hector covered by irrigation system in the Eighth Plan. During this plan period this programme will be undertaken in additional 90,000 hector of land covered by irrigation system. Institutional strengthening of manpower development and training branch, currently under irrigation management division, will be done in the form of Manpower development and training centre to carry out irrigation-training programmes through

one window system for enhancing the efficiency. By the end of this plan, efforts will be made to develop Irrigation training centre as an autonomous institution.

Management Information System, and Monitoring and Evaluation: Programmes will be launched with the objective of strengthening management information system related with irrigation development, expansion, management and management transfer, and strengthening monitoring and evaluation branch and updating the data base. Apart from this, regular monitoring of all related aspects like environment technology, economic and social will be made compulsory to maintain sustainability of irrigation project. For this proper data collection and comprehensive information system will be executed.

Operation and Repair Maintenance Projects: To maintain the usefulness of the completed projects it is necessary to repair maintain and improve them every year. So maintenance of the structure and management of various projects of the kingdom, not transferred to the farmers group, will be continued.

Ground Water Research Programme: It is necessary to conduct monitoring and research works regularly to eliminate shortcomings of the available data for the ground water resource irrigation development of the districts of Terai. For this, programme will be launched mobilising required resource and means.

New Projects:

Groundwater irrigation programme: Groundwater irrigation development programme will be conducted in a comprehensive scale according as the target set by the long-term agricultural planning by building shallow tube-well and deep tube-well in the Terai. Similarly agricultural road construction and rural electrification programmes will be affiliated with ground water irrigation programme for conducting it in an integrated way. Target of the long-term agricultural plan is mentioned in table no 6.

Table 6

Proposed additional irrigated land (in thousand ha.) under 20 year agricultural plan

Geographical region	Land irrigated round the year through surface water resource (additional land)			Land irrigated round the year through ground water resource (additional land)			Total Area
	by new project	by renewed project	Total	by new project	by renewed project	Total	
Higher mountain	1	5	6				6
Mountain	3	18	21				21
Terai	0	38	38	90		90	128
Total Tenth plan	4	61	65	90	0	90	155
Higher mountain	1	1	2				2
Mountain	4	18	22				22
Terai	0	29	29	139		139	168
Total	5	48	53	139		139	192
Eleventh plan							
Higher mountain	1	1	2				2
Mountain	3	19	22				22
Terai	0	5	5	136		136	141
Total	4	25	29	136		136	113
Twelfth plan							
Higher mountain	1	1	2				2
Mountain	3	13	16				16
Terai	3	13	16				16
Total	4	21	25	106		106	131
Grand total	17	155	172	471		471	643

Sunsari Morang Irrigation Project (Third Phase): Systematic irrigation facility is provided to 27,000 hector only through the development of command sector under first and second phase programme though the target was to provide irrigation facility to 66,000 ha. land Morang and Sunsari districts. At present, remaining sector gets only partial irrigation as system is built in only 200 ha. of consolidated land. Systematic irrigation will be made available to an additional 15,100 ha. by building system for land consolidation unto 4 ha. under the programme of third phase.

Nepal Irrigation Sector Project: This project will be launched in the very beginning of this plan period by the loan assistance of the World Bank to provide irrigation facility in the 40 districts of three development region of the west. Under this, renewal and improving of farmers field channels covering 31500 hectors of land along with development of new ground water irrigation system to 7,500 hector of land and rehabilitation work in 500 hectors will be done. Similarly joint management and transfer work (about 5,000 ha) of operating projects under HMG will be competed. Apart form this, strengthening of department of meteorology to collect and manage data about water resource and climate of small rivers, and providing proper means and resources to the department of agriculture for the agriculture expansion and promotion

in the irrigated land under this project. In the Ninth Plan period irrigation will be made available to 31500 ha. by strengthening farmer systems and to 4100 ha. by ground irrigation.

Ground Water Irrigation Sector Project: This project is arranged to provide irrigation facility to about 60,000 ha. land in Terai districts of eastern and central development regions through shallow and medium Nalkoop under loan assistance of Asian Development Bank. The target is set at providing irrigation facility to 11,600 ha. through shallow tube-well in this plan period.

Mid-western Irrigation Development Project: This project is arranged by the assistance of European Union to provide irrigation facility to 1,800 ha. of land in Dailakh, Kalikot, Surkhet and Banke district along with implementing other poverty alleviation programme. Its construction work will be completed in the Ninth Plan period itself.

Feasibility Study: Feasibility study of various projects will be carried out to utilise the optimum level of surface and ground water resource scattered round the kingdom. Feasibility study of large multi purpose projects e.g. Pancheswor and Sunkoshi, Kamala diversion and Bheri, Babai diversion etc. will be done under the leadership of Electricity Development Centre and in co-operation with the department of irrigation.

Technical Centre for Water Induced Hazards Control (Second Phase): Proper training will be given for required research, development of proper technique and efficiency enhancing of governmental bodies to control and minimise water induced natural hazards like flood, landslide, soil erosion etc. Programmes will be launched, by mobilising foreign resource, to conduct second phase of this project on the bases of experiences gained from the existing programme.

Mahakali Irrigation Project (Third Phase): Implementation of Mahakali Irrigation Project (third phase) will be carried out by completing its detailed study. The project is provide irrigation facility to about 28000 ha. of land at the utmost so as to utilise the water-received from Tanakpur and Sharada Barrage as per the provision of Mahakali treaty. Groundwater resource will also be utilised to provide irrigation facility in this area round the year.

Trishuli Irrigation Project: Although the target to provide irrigation facility by Battar lift irrigation project is certain ha., only 20 to 30 ha. of land receive irrigation facility due to high cost in repair and maintenance. Recently feasibility study has been initiated to provide irrigation facility from the power channel of Trishuli hydro electricity project without adversely affecting the electricity project in 1000 ha. of land of Bidur and Battar in order to convert this lift project into surface project. Construction work will be initiated in this plan period if the study shows the project viable.

Pragana Kulo Strengthening Project: To provide systematic irrigation facility from Rapti river by constructing permanent source and improving canals along with establishing structures at various places, 5,000 ha. of irrigated land will receive reliable irrigation facility. The construction work of the project will be carried out with the assistance of Kuwait fund.

Birgunj ground water irrigation Project: 7,500 ha. land of Bara and Parsa district will receive irrigation facility through shallow and deep Nalkoop from this project. The project will be implemented in this plan period.

Lal Bakaiya Embankment Construction Project: Since Lal Bakaiya river of Rautahat district has been inflicting heavy damage every year in the Indo Nepalese border side, embankment construction work in this river with the grant assistance of Indian government to sort out this problem will be completed as per the agreement reached

after holding discussion and study in different levels between the governments. of Nepal and India.

Kamala Dam Construction Project: The Project to build both embankment of Kamala river has been formulated to minimise the loss of lives and property due to heavy damage done every year by this river in the Siraha and Dhanusha district of Nepal and in the Indian border as per the technical agreement between both the countries. Construction of embankment has been done with the help of local people, organisation, dept. of irrigation and German cooperation council along with the involvement of ministry of Local Development according to the Indo-Nepalese technical study due to delay by the Indian govt. in operating the programme and a heavy loss carried by Kamala river in Siraha district. Construction work of dam will be done in accordance with an understanding reached with Indian side if the possibility of delay in Indian grant occurs.

Khando Dam Construction Project: Khando river is changing its edge frequently in Saptari district due to the construction of Koshi Barrage by India. The programme to construct dam with an Indian assistance to train this river flow along determined path, is included after holding discussion and study in the different levels between the government of Nepal and India.

Kankai Dam Construction Project: Kankai river has been endangering a great deal in various village development committees of Jhapa district by eroding the bank. Therefore cultivated land of thousands of Bigha has been converted into river bed and densely populated villages are in danger. Embankment construction work will be continued in the Ninth Plan by formulating a river control master plan.

Beering Dam Construction Project: Dam construction work will be launched by preparing long-term control plan as the flood of Beering river has been frequently endangering a large number of village development committees including Sanishchare of Jhapa district.

River Control Long-term Plan Study: The need of master plan to use available limited resource and means in flood control and management in a planned way has been realised. Some achievement has been made in the process of mobilising foreign resource due to inadequacy of resources at the end of the Eighth Plan period. In this planning period some projects will be implemented by selecting river master projects after completing study of river control long-term plan. Programme will be launched in a planned way to solve the border issue resulting from the bank erosion in the Mechi river of eastern border and Mahakali river of western border of Nepal by preparing a master plan of those rivers.

Irrigation Institutional Development: This programme will be launched with the aim of strengthening the management of the department of Irrigation and the offices under it. Under this programme works like construction of the buildings of irrigation office of different districts, making available required materials to those offices and providing training for manpower development will be conducted.

Manpower Development and Training Programme: Training programme will be conducted as project until irrigation training college is established to mobilise technology, resource material and manpower through one window system for maintaining uniformity, quality, economy and commitments in the training programme of projects and programme under the department of irrigation.

Irrigation Development Grant (Agricultural Development Bank and Grameen Bank): Grant assistance will be provided to irrigation projects being implemented from shallow Nalkoop, small private irrigation project and non-governmental sectors under the

provision of Irrigation policy, 1992 (with first amendment 1996). Required loan to conduct activities according to the target will be provided from commercial banks as per the policy of gradually eliminating the amount of grant.

Small Irrigation Projects Supported by Agricultural Development Bank: Irrigation facility will be provided to 7,500 ha. by ADB in this planning period through Nalkoop, surface and sprinkler systems, keeping in view the fact that ADB has been efficiently conducting small irrigation projects.

Irrigation Programmes to be Conducted by NGO and Private Sector: NGO and private sector involved in providing irrigation facility along with raising income generation of economically deprived backward communities living in remote areas will be encouraged. Irrigation facility will be provided through Sprinkler, Drip, Hydraulic Dam etc. according as the geophysical and geographical condition. About 10,000 ha. of land will receive irrigation facility through these programmes.

8. Expected Achievements by the End of the Plan

In the Ninth Plan period, irrigation facility will be provided to an additional land by completing irrigation infrastructure in 52,400 ha. of land under surface irrigation. Similarly existing irrigation system will receive systematic irrigation by strengthening 1,07,000 ha. of land under farmer systems; command sector in 15,100 ha. and 30,000 ha. of land will receive irrigation through deep tube-well and shallow tube-well under ground irrigation from the department of irrigation 60,000 ha. from ADB/N thus providing as well as total irrigation to an additional 90,000 ha. of land. Table no. 7 shows the total possible irrigated land from surface and ground water irrigation by completing the infrastructure for additional irrigation by the end of the Ninth Plan period if the programme is completed according to the target.

Table 7
Irrigated land by the end of the Ninth Plan

		By the end of the Eighth Plan	Target of the Ninth Plan	By the end of the Ninth Plan
1.	Department of irrigation	534102	82400	616502
a.	Surface Irrigation	(476928)	(52400)	(529328)
b.	Ground Irrigation	(57174)	(30000)	(87174)
2.	Agricultural Development Bank	139701	60000	199701
a.	Surface Irrigation	(27554)		(27554)
b.	Ground Irrigation	(112147)	(60000)	(172147)
c.	Other different programmes **	27231		27231
d.	Lift pump programme **	28504		28504
3.	Irrigated land developed by the farmers	381814		381814
a.	Surface Irrigation	(357098)		(24716)
b.	Ground Irrigation	(24716)		(24716)
	Grand Total	1055617	142400	1198017

Irrigation developed by other various programmes and lift pump is not included in the grand total.

The target of the Ninth Plan will be to provide additional irrigation facility only to 1,42,400 ha. of land out of 2,64,500 ha. Command sector development work will be done in 15,100 ha. and systematic irrigation facility will be provided to 1,07,000 ha. by

improving the farmer system. Area under other various programmes of ADB/N and lift pump is not added in the grand total.

12.3 Transport

1. Background

Transport sector, particularly road sub-sector is not only an inseparable component of physical infrastructure but also plays an important role even in the development of other sectors. The development of transport sector directly influences the development of both productive and social sector such as agriculture, industry, commerce, education and health sectors. Much achievement have been made towards the development of transport sector due to topmost priority accorded to it from the very beginning of planned development of Nepal. Yet, 14 districts are still deprived of roadways. Similarly, 18 district headquarters of the country are not connected with the road network. Economic development has not been realised even in some of the remote hilly districts, connected with road network. The problem of raising funds for repair and maintenance of existing roads is becoming more difficult. Roadways construction being highly expensive and construction period being very long its benefit reaches the people very late and even situation of not achieving return as compared to investment is seen. Due to remote and difficult hill settlements and the problem of soil erosion and landslides, resource mobilisation, infrastructure development and upliftment of living standard of people in remote hilly areas have emerged as a great challenge.

Therefore, it is essential to pay attention to the development of heavy means of transport easily operable on narrow hill roads and less risky together with the development of infrastructure that is and road construction technology terrain specific, long-lasting, less expensive and that can be constructed and maintained locally,.

It is felt necessary to provide relief to the remote hilly regions, ever suffering from food deficit and deprived of roadways, through air transport. The road transport has to be developed gradually supporting for tourism activities in these regions there by assisting in local economic activities.

Since the Ninth Plan has set to expedite the pace of development of the country by giving priority to agriculture sector as national goal and to alleviate poverty as overall objective, it is necessary to formulate plan of transport sector by organising these principal goals. In addition, attention should be paid to obtain maximum return from the investments made in the past to be made in the future. The implementation has to be done in the Ninth Plan paying attention to the lessons learnt from past experiences so as to have clear tuning among objectives, strategies, policies, programmes and monitoring and evaluation.

Existing Situation of the National Transport system: Roads of different categories/grades, rope-ways, railways and airways are main organs of the national transport system which also includes bridges, suspension bridges, twin-way and cable way. Under national road transport system, classification of roads have been done and brought into effect. Road transport has lead role among various organs of the national transport system. It can be observed by analysing statistics of motor vehicle from Chaitra, 2048 to Asar 2054. In this period, bus increased by 11.5 percent, motor cycle by 118.5 percent and total number of vehicles increased by 93.4 percent (Appendix - 1). Analysing the progress scenario of road transport in Nepal, the length of roads has increased by 32.3 percent in total black topped by 15.5 percent, graveled by 34.2 percent, earthen roads by 46.6 percent during the Eighth Plan period. (Appendix-2) Ownership of roads (Length of roads as compared to population) and density of roads

have increased by 16.2 percent and 32.3 percent respectively. Situation of region-wise development of roads in different planned periods has been shown in Appendix-3. Regarding other means of transport, rope-ways, railways and trolley bus are 42.6 km, 51km and 13km respectively. Air transport has played important role in national transport system together with road transport. With respect to domestic air transport movement of 11,811 aeroplanes, 326 tonne cargo and 215,957 passengers took place in 2046/47 and that of 33,851 airplanes, 11849 tonne cargo and 576,973 passengers took place in 2052/53. Air transport has no alternative towards transportation of food and disaster relief at time of natural disaster.

2. Review of the Eighth Plan

Physical Progress

In the Eighth Plan physical target of construction of roads is 1778 km in total which includes 763km highways, 915km feeder roads, and 100km urban roads according to classification and 187 km black-topped, 379 km graveled and 1212km earthen according to different grades. Physical progress is 1092km (61.4 percent) in total which includes 471km (61.7 percent) highways, 487km (53.2 percent) feeder roads and 134 km (134 percent) urban roads according to classification and according to grades, 119km (63.6 percent) black-topped, 231km (60.9 percent) graveled, 742km (61.2 percent) earthen roads have been constructed (Appendices 4 and 5). Besides, a total of 1771km roads not mentioned in the Eighth Plan (372km black topped, 537km graveled and 862 km earthen) has been constructed thereby the total progress of the Eighth Plan has been 491 km (262.6 percent) black topped, 768km (202.6 percent)graveled, 1604km (132.3 percent) earthen and 2863km (161 percent) in grand total.

In air transport sector, agreements have been signed with 22 nations in total for the gradual improvement of Tribhuvan International Airport. Under domestic air transport, number of airports has totaled 43, 4 airports are under construction and 120 certified helipads are there in total whereas air service is in operation connecting 30 domestic airports. It has become urgent to identify and execute firmly the measures to reform the trend of not providing minimum air service by aeroplane companies of private sector in airports of remote areas where the tourists do not go. An act for the establishment of civil aviation authority has been enacted.

Against the construction of 25 motorable bridges targeted in the Eighth Plan 50 (200 percent) bridges have been constructed. Against the construction of a total of 500 suspension bridges, including 100 along main tracks and 400 along local tracks, targeted 114 (114 percent) and 24(6 percent) have been constructed respectively by Suspension Bridge Division and Ministry of Local Development.

Financial Progress

- Against the financial target of Rs 12 billion, 329 million, Rs. 7 billion 872.8 million from HMG fund and Rs. 4 billion 4.5 million from donors' fund) for the construction and maintenance of roads and bridges in the Eighth Plan, Rs 12 billion 179.7 million 67 thousand (98.78 percent) has been spent in various programmes under Department of Roads
- With regard to other means of transport, 13km stretch of Kathmandu-Hetauda rope-way has been repaired and strengthened. Damaged portion of Jaynagar-Janakpur-Bijlapura railway has been repaired and maintained, and 4 new diesel locomotive engines and 18 bogies (Special type of truck) have been procured. Ten new trolley buses have been included in Kathmandu-Bhaktapur trolley bus service. Regarding domestic waterways, work is in progress for the preparation of profiles and influence areas of the river having completed detailed engineering

study in Narayanghat-Bhainsalotan portion of the Narayani river. Regarding containerised transport, arrangement of multi modal transport, having constructed domestic container depots at Birgunj, Bhairahawa and Biratnagar, and detailed engineering study for the extension of broad-gauge railway from Raxaul have been completed. In connection with traffic pollution control, pollution test of vehicles and use of pollution free vehicles have been started. Policies have been formulated for the systematic development of transport sector based on the report of National transport policy task force constituted in April 1997.

3. Existing Challenges

From the first Plan till the end of the Eighth Plan the length of roads has increased seven folds as compared to the population whereas the density of roads has increased about 18 folds. Thus with increase in road transport movement has increased tremendously whereas on the other hand road accidents and pressure of vehicular pollution have increased likewise. Lack of attention toward, traffic and transport management is weakness of implementation.

Arrangement In addition, other main problems seen in transport sector are as follows:

Lack of maser Plan and programme outlining inter-relationship among different means of transport including road transport means of transport including road transport, development of coordinated and integrated transport system so as to achieve maximum transport facility and economic development from minimum transport expenditure in 15/20 years long-term plan period.

- Lack of measures that can expand economic activities in a way that provide immediate relief to remote areas through air transport and tourism activities and for expansion of environment friendly too.
- Absence of institutional structure, oriented towards the development of transport system and subsystems so as to have clear tuning among objectives, investments, returns and monitoring and evaluation.
- Traffic in road transport not increased as expected; terrain specific and environmentally suitable design not adopted; increase in the burden of repair and maintenance unbearably and increase in loss of property; institutional development of repair and maintenance capability at local level not achieved; road rehabilitation and reconstruction increasing; vehicular pollution and accidents increasing, and proportional improvement and extension of urban roads not done; encroachment of road limits increasing, contract claims increasing; life of roads and bridges shortene d; research and training towards development of appropriate technology not sufficient.
- Regarding air transport, liability to provide reliable air service in remote areas.
- Lack of attention towards saving in transport expenditure from long-term perspective and towards transport and other economic progress through increased tourism movements and activities.

4. Long-term Concept

It is urgent to pay attention to the development of vehicles ad means of transport easily operable on narrow hill roads and less risky together with the development of infrastructures and road construction technology that are terrain specific, long-lasting, less expensive, and that can be constructed and maintained locally. In this context, to achieve balanced and overall development of nation through sustainable and reliable transport system.

Ninth Plan

5. Objectives

- To develop national transport system through appropriate construction, repair and maintenance and protection to minimise national transport expenditure.
- To develop agricultural road network as complimentary network necessary to assist agriculture sector.
- To construct roads of remote areas assisting alleviation of poverty and reducing regional imbalance.
- To identify transport structures indispensable for hydro electric, tourism and industry sectors and to develop them in a coordinated manner.
- To make air service reliable in the districts not connected with road network and not likely to be connected in near future.
- To initiate the concept of multimodal transport network so as to have minimum national transport expenditures for import and export.
- To carry out suitable classification in order to construct, maintain and operate transport structures and services in a sustainable and reliable manner and to implement suitable institutional management/structure by identifying institutional jurisdiction structure and autonomy.

6. Policy and Implementation Strategy

Road Transport

- Repair, maintenance and rehabilitation of highways and feeder roads with high traffic density and of direct assistance to the distribution of agricultural inputs and in agricultural production to increase the service quality and thereby decrease the user cost of roads.
- Increase in service quality of high traffic density roads and important roads.
- Completion of remaining portion of East-West Highway.
- Construction of roads excluding those included in separate programmes of agriculture sector, and which provide major contribution to agriculture sector based on evaluation and priority of agriculture sector and linking these roads with agricultural productivity to make arrangement for their repair and maintenance.
- Prepare bases for construction and maintenance of roads having direct link to the important hydro-electric projects, tourist places and irrigation projects.
- To carryout less expensive, with maximum utilisation of local materials and labour, construction and maintenance of low traffic density portions of North-South Highways and link roads connecting district head quarters.
- To carry out labour-oriented, less expensive and maximum local participation-oriented construction and maintenance, Identifying social roads those assist poverty alleviation and prioritising on certain bases.
- To protect low traffic density existing roads with minimum maintenance and repair.
- To develop suitable transport system, less expensive and favorable to environmental conservation for hilly region and to give continuity to research work, pilot and demonstration projects and human resource development work through training.
- Daily traffic volume will be taken as basis while formulating programmes for upgrading earthen roads to graveled roads and graveled roads to black-topped road. In general, according to existing standard norms hill roads having 50 daily traffic and terai roads having 150 daily traffic will be upgraded from earthen road to graveled road. Similarly, hill roads having 100 daily traffic and terai roads having 250 daily traffic will be upgraded from graveled road to black topped road.
- After the construction of earthen roads, having used suitable design and gravel-mixed stiff soil in its maintenance, roads with minimum traffic pressure will be gradually improved.
- Prioritisation will be done in repair and maintenance works of roads and bridges. In roads with high traffic pressure minimum service standard for transportation will be decided and under arrangement of toll tax involvement of road users in repair and maintenance of roads and bridges will be increased.
- Regular and occasional repair and maintenance of roads will be done based on fixed cycle. Policy of periodic reseal work, generally after every 5 years in hill roads and every 6 years in terai roads, will be adopted.
- While constructing roads having low traffic volume in hilly region, construction standard in accordance with standard norms will be adopted considering the availability of transportation services with minimum initial investment. The risk to investment due to various reasons such as soil erosion, flood, landslides, rising

trend of migration/immigration etc, will be minimised and feasibility study, design and economic analysis will be carried out for an analysis period of 10 years in general.

- Sectoral responsibility and accountability for preparing 20 years long-term transport plan so as to develop integrated transport system and institutional autonomy will be clarified.
- To control loads on highways and other roads and systematise traffic according to management systems.
- To explore the Possibilities of using vehicles easy to drive and less risky along narrow hill roads.
- To develop traffic management system so as to control accidents and environmental pollution on urban roads.
- To systematise construction works of new roads in urban area, construction works will be directed after preparing manual and making provision in act and rules.
- To solve the problems of land acquisition and acquisition of additional houses constructed in different stages of Urban Roads Development Master plan the works such as land acquisition and track excavation will be started.
- After studying the possible effect on trade and tourism of northern trade and transport development in neighbouring Tibet region, convenient transport will be arranged in northern remote region.

Air Transport

- Extension of tourism activities through air transport and creation of awareness towards environmental protection will be coordinated with development of road transport.
- Arrangement will to use airships if feasible, in order to provide reliable air service up to road heads and airports in difficult and remote areas.
- Study will be made for the utilisation of airships to minimise users' cost in domestic air service and to if it is found useful arrangement for their gradual utilisation will be made.

Other Means of Transport

- Efforts to link the Nepalese border customs with Indian broad-gauge railway will be continued.
- Feasibility study of East-West railway will be carried out.
- Development of containerised transport system in order to increase safety and effectiveness in foreign trade will be continued. After carrying out feasibility study domestic container depots will be constructed at suitable places.
- Efforts to develop technically feasible waterways along the important rivers will be continued. Besides, feasibility study of East-west water ways also will be carried out.
- Private sector will be encouraged in the development of cable car for development of tourism.
- Efforts will be made to operationalise express and extensive transport systems.
- Trolley bus service will extended on feasible routes.

Traffic and Transport System

- To consolidate traffic and transport system, twenty years transport management master plan will be formulated after detailed study and accordingly programmes will be formulated and implemented.
- Special arrangement will be made for the prevention of road accidents and for roads and transport safety.
- Suitable programmes will be conducted for the use and development of pollution free vehicles. Pollution creating vehicles will be gradually discouraged.

Miscellaneous

- As far as possible transport related programmes will be prepared so as to integrate the development of transport sector with that of agriculture sector.
- Old means of transport will be developed in remote and difficult places, after studying their importance.
- After studying the conditions of entrances joining Tibetan region, facilities will be arranged in these entrances.
- A 20 years National Transport Master Plan will be formulated and gradually implemented so as to include roads of different categories, rope-way, trolley way, cable way, water ways, railways and airways.
- Special attention will be paid to minimise environmental loss in design, construction, maintenance and repair, rehabilitation etc. Works related to transport system and to maximise the use of cheap technology local resources, means and human resources.
- Improvements will be made in the existing system of construction and maintenance contracts. Policy will be adopted to award a single contract, remaining within the limitations of the annual budget, for important and priority principal projects within five-years programme depending on three to five year's work volume instead of awarding contracts based on annual budget.
- Arrangement will be made to attract private investments in transport sector.
- Special priority will be given to the construction of link roads joining the agriculture production centres with market centres. While constructing such roads, construction works will be carried out developing the concept of coordinated working system and prioritising based on the involvement of local agencies and local needs. Preconditions of community participation and raising toll-tax for construction and maintenance works will also be kept in mind. People's participation will be encouraged to execute, coordinate and monitor survey, design, estimates, construction and maintenance works of such agriculture roads. To do so a central agency will be established to conduct training programmes with coordination among different agencies.
- Priority will be given to the construction of service tracks in hilly and terai regions with people's participation in accordance with the concept of rural infrastructure development.
- Projects of national importance will be kept at central level and that of local importance will be kept at district level.

Priority

- Repair and maintenance of high traffic density highways, North South highways.
- Completion of remaining portion of East-West Highway.

- Extension of agriculture roads and rural roads.
- Construction of roads linking important projects.
- Arrangement of domestic container depots.
- Consolidation of traffic management system.
- Institutional strengthening of Department of Transport Management.
- Controlling vehicle induced pollution.
- Improvement in contract system and construction business.
- Arrangement of feasible means of transport as infrastructures for development of tourism.

7. Programmes

Road Transport:

Rehabilitation of roads: Keeping in view the situation of traffic and transport existing in the country, priority has been given to rehabilitation programme of highways, feeder roads and other roads in operation. A total of 758 km roads will be rehabilitated during the plan period, which includes 418km black-topped of 6 highways, 175 km black topped of eight feeder roads and other roads and 165km graveled of three feeder roads and other roads thereby 593 km black topped and 165 km of graveled roads in total (Table-1)

Upgrading of Roads: In the process of upgrading of highways feeder roads and other roads in operation, a total of 997 km roads will be upgraded, during the plan period, which includes 205 km black topped of four highways, 158 km graveled of four highways, 386km blacktop of 16 feeder roads and other roads, 248 km graveled of four feeder roads and other roads thereby 591 km black topped and 406 km graveled roads in total (Table -1).

Periodic Maintenance of Roads: Periodic maintenance of total of 2954 km roads will be done during the plan period, which includes 1606 km black topped of 11 highways, 202 km graveled of 3 highway 523 km black topped of 21 feeder road, and other roads and 623 km of 16 feeder roads and other roads there by 2129 km blacktop and 825 km graveled roads in total.

Construction and Maintenance of Roads: A total of 2983 km roads will be constructed which includes 1290 km of Link roads connecting district headquarters and other roads and 1693 km of local village roads (including tractor roads). In addition, a total of 733 km roads linking district head quarters will be constructed, which includes 516 km earthen of eight highways, 2 km graveled of a feeder road and 215 km earthen roads of seven feeder roads.

Following district headquarters will be connected to road transport network by the end of the Ninth Plan:

1. Achham-Mangalsen (Sanfebagar-Mangalsen)
2. Rukum-Musikot (Rapti Highway)
3. Jumla - Jumla (Karnali Highway)
4. Bajura - Martadi (Sanfebagar-Martadi)
5. Darchula - Darchula (Mahakali Highway)
6. Jajarkot - Chhinchu-Jajarkot Highway)
7. Sankhuwasabha - Khandbari (Basantpur-Chainpur-Khandbari)

8. Bhojpur-Bhojpur (Nadarmuni-Thulung marg)
9. Okhaldhunga - Okhaldhunga (Okhaldhunga -Katari)
10. Bajhang - Chainpur (Khodpe-Bajhang)
11. Ramechhap- Manthali (Khimti-Manthali-Ramechhap,, Pushpalal Marg)
12. Kalikot - Kalikot (Karnali Highway)

Thus by the end of the Ninth Plan, highly remote districts Humla, Mugu, Manang, Dolpa, Solukhumbu, Khotang and Mustang, all together only 7 districts will remain unconnected with road transport network.

A total of 557 km roads will be constructed during the plan period. A total of 819 km roads has been proposed for upgrading (Table 2)

Construction and Protection of Bridge: 87 motor-bridges will be constructed during the plan period. (Table 3)

Suspension bridge (Main route): Emphasis will be given to the construction of suspension bridges to consolidate rural transportation during the plan period. High-tech suspension bridges will be constructed centrally on main routes under national road transport network.

Construction of Rural Roads: Emphasis will be given to the construction of local roads (tractor roads) necessary to provide transportation facility to rural people and for the development of agriculture sector. Survey design, construction and maintenance of a total of 470 km of such roads under 25 projects will be done during the plan period (Table 4).

Development of roads being very necessary for the development of rural areas, a total of 1530 km other rural roads under 157 projects will be constructed during the plan period.

A total of 700 km horse trail survey, construction and repair under 70 projects and 400 suspension bridges over the local trails will be constructed in the Ninth Plan period.(Table 5)

Survey, design, construction and maintenance of a total of 700km mule-tracks of 70 projects will be done during the Ninth Plan period. In addition, 400 suspension bridges will be constructed on local tracks. (Table 5).

Construction of Other New Roads: Additional roads to be constructed new with the cooperation of World Bank include Baitadi-Darchula (60km), Sanfebagar-Martadi (41km), Sanfebagar - Mangalsen (27km), Surkhet - Jumla (100 km), and Baglung-Beni-Jomsom (70km). Similarly, with the cooperation of Asian Development Bank construction of new road projects will be started which include Basantpur-Chainpur-Khandbari (65km), Hile-Bhojpur (60km) and Okhaldhunga - Diktel (120km) (Table 6 & 7).

Miscellaneous:

- Survey, design and study.
- Mechanical equipment management and maintenance.
- Integrated Transport system and Institutional Improvement Study.
- Study of Kathmandu-Terai High speed road and New International Airport development.
- Hill road development technology and training.
- Suitable arrangement for encouraging private sector in road transport.
- Arrangement of toll in some additional highways having high traffic density.

- Institutional Development (Training, Quality Control, Repair management system development, computer networking, record centre).
- Research and Development.
- Formulation of policies, rules and regulations related to construction and maintenance of roads and bridges.
- Protection of roads and bridges from natural disasters and advance preparation for the same.
- Promotion of domestic construction industry.
- Arrangement of paying special attention to Traffic Engineering.
- Study of Contract system.
- Establishment of Construction Management and Development centre.
- Study of private sector investment in transport sector.

Other Means of Transport:

Rope-way: Work will be started toward improvement and privatisation of 42 km long Kathmandu-Hetauda rope-way, the only rope-way of Nepal. After identifying hilly and remote tourist places, lead projects based on feasibility for the development of rope-way will be implemented to encourage private sector in the development of rope-way for promotion of tourism.

Railway: After improving an extended 51 km long Jaynagar-Janakpur-Bijulpara railway, the only railway of Nepal, it will be made more reliable, affordable and effective. In addition, feasibility study of East-West- railway and Janakpur-Bardibas railway will be done. After constructing Raxaul-Birgunj broad-gauge railway, highly significant from transport point of view, it will be connected with dryport to be constructed in Birgunj.

Trolley Bus Service: 13 km long Kathmandu-Bhaktapur trolley bus service, the only trolley bus service of Nepal, will be extended to Kathmandu-Ringroad during the Ninth Plan period. Initiation of its privatisation will be done. Detailed study will be done in order to extend the trolley bus service to Tripureshwor-Kirtipur, Thapathali-Patandhoka-Pulchowk and Tripureshwor-Maharajgunj-Ringroad junction in Kathmandu valley and necessary infrastructure will be constructed gradually to operate its services. Feasibility study will be done to operate trolley bus service in Biratnagar-Itahari-Dharan sector in the Eastern region and Bhairahawa-Butwal sector in Western region and necessary infrastructures will be constructed.

Internal waterways: The river profile preparation work continued during the Eighth Plan (2049-2054), after the detailed engineering survey in Narayanghat -Bhainsalotan portion of the river Narayani, will be completed during the Ninth Plan period. After identifying the factual profile and situation of water ways in the Gandak river stretch of Bhainsalotan down to the river Ganga, study will be done to begin water way transport service connecting it to National waterway network of India. In addition, feasibility study will be done to develop water ways in other major rivers viz. the Kosi, the Karnali, The Mahakali etc. of Nepal also and to connect them with water ways of India.

Containerised Transportation: Based on the detailed engineering survey of multimodal transportation system completed in the Eighth Plan (2049-54) period, multimodal containerisation project will be conducted after constructing physical infrastructures necessary for domestic container depots in Birgunj, Bhairahawa and Biratnagar and extending the broad-gauge railway between Raxaul and Birgunj in the Ninth Plan period,. In addition, Nepal multipurpose Transport Authority will be established to formulate necessary policies and rules-regulations, control, and monitoring and evaluation to control and monitor and to implement programmes in order to upgrade the standard of transport.

Traffic and Transport Management:

Institutional Development of Department of Transport Management: Institutional development of Department of Transport Management, established to systematise and consolidate traffic and transport management thereby rendering qualitative increase of services by making transport services reliable, safer, pollution free and people service oriented, will be undertaken in order to make its administrative and technical components capable, resourceful and more effective. For this purpose following projects will be implemented:

Physical facilities for Department of Transport Management: Office buildings with required facilities will be constructed for the Department of Transport Management and Transport Management offices under it in order to create conducive atmosphere to work. Necessary means will be provided to undertake the functions such as inspection, supervision, surprise inspection of these offices in a proper and systematic manner.

Computerisation Department of Transport Management: Computers will be provided to Department of Transport Management and Transport Management offices underneath and networking will be done to execute all the functions to be accomplished by them such as vehicle registration, vehicle inspection, route license, and renewal, transfer of ownership, driving license issue, and pollution test etc through computer methods. It will help the stake holders related to transport to ensure regularities in providing facilities, to control leakage in revenue collection and to undertake transparent and clean technical and administrative works. In addition it will help in systematic record keeping of vehicle registration, route license, vehicle License issue, and revenue collection, to inspect and control using computers the activities related to transport management by Department of Transport Management, and in traffic and transport planning, transportation system planning etc.

Establishment of Traffic Engineering Unit: Traffic Engineering unit will be established within Department of Transport Management to undertake functions such as finding remedial measures through regular study- research of existing traffic engineering problems and traffic norms, regular study of axle load, transverse distribution etc., construction and maintenance of road symbols and signals, following the basic principles of traffic engineering, training drivers, traffic police and road users. It will function in coordination with traffic engineering and safety unit of Department of Roads.

Traffic and Transport Study and Implementation: In order to consolidate traffic and transport management throughout the country including Kathmandu valley and other urban areas, detailed study will be done and a 20 years transport management master plan for road transport and accordingly short-term plan will be formulated and implemented. In addition, a master plan for the construction of infrastructure of urban transport will be formulated. In such a master plan, role of municipalities in construction, maintenance and repair of urban roads, construction of roads to be improved under urban development programme, footpath, bicycle lane, bus-stop, parking area, subway, fly over and over bridge, and the development of public transportation system reducing environmental pollution will be included. Remedial measures for problems of passengers, transport professionals, transport labour and pedestrians will be found out. For this purpose, following projects will be implemented:

Countrywide detailed traffic and transport study and implementation: In this programme bus route and passenger movement study, goods transportation study etc will be included.

- Detailed traffic and transport study of Katmandu valley and other urban areas, and implementation.
- In this programme detailed traffic and transport management study of Kathmandu valley and other urban areas, research, planning, design and construction work etc will be included.

Vehicular Accident Prevention and rescue, Safety and Transport Safety: Scientific research of safety, accident, study of blackspots, execution of measures of vehicular accident prevention after preparing map of accident spot will be carried out Under Department of Transport Management, Accident Rescue Centre will be set up at 6 places. For this purpose, arrangement of necessary ambulances will be made under Department of Transport Management Transport safety centres will be established at 36 places. This centre will take care of safety of transport owners, transport labours and passengers. For this purpose arrangement of necessary patrolling vehicles will be made. In addition, these centres will be connected with each other and with Department of Transport Management through means of telecommunication (walky-talky). Arrangement will made for road safety audit of different roads.

Vehicular Pollution Control: Regular vehicle emission test and on spot vehicular pollution monitoring and evaluation will be carried out by Transport Management offices in Kathmandu Valley and other important places of Nepal. Advertisement, extension, conduct of training and workshops related to vehicular pollution will be done by Department of Transport Management and surprise inspection will also be done to control vehicular pollution. Production, development and service operation of zero emission vehicles will be encouraged. Regarding pollution control, activities will be carried out in coordination with Ministry of Population and Environment, Traffic police and institutions related to users.

Miscellaneous: Publication of transport statistics, publication of Journal of Traffic and Transportation magazine and time to time interaction among transport owners, transport labours and users, and conduction of workshops will be done by Department of Transport Management. After registering the Department of Transport Management as member of professional institutions related to traffic and transport, training will be arranged for human resource development. Department of Transport Management will be strengthened through maintenance of documentation centre and library and conducting technology transfer work.

Table -1
Reconstruction, Upgrading and Periodic Maintenance Programmes of Highways and Feeder
Roads during the Ninth Plan (2097-2002)

S.No	Name of Road	Total	Detail of Work (km)						
			Length (km)	Reconstruction		Upgrading		Periodic Maintenance	
				Black Topped	Gravelled	Black Topped	Gravelled	Black Topped	Gravelled
1.	<u>Highways</u>								
	Mahendra (East-West) Highway	48	48						
	1. Kakarbhitta-Damak	320					320		
	2. Damak-Pathlaiya	74					74		
	3. Hetauda-Narayangadh	114					114		
	4. Narayangarh-Butwal	236					236		
	5. Butwal-Kohalpur	76					76		
	6. Kohalpur-Karnali	70					70		
	7. Karnali-Atariya	25							
	8. Atariya-Chaudhar	12	12						
9. Chaudhar-Gaddachauki									
2.	Tribhuvan Rajpath								
	1. Thankot-Naubise	16	16						
	2. Naubise-Bhainse	97	97						
	3. Bhainse-Hetauda	10	10						
	4. Hetauda-Birgunj Sirsiya Border	57							
3	Arniko Highway								
	1. Kathmandu - Dhulikhel	30	16				30		
	2. Dhulikhel-Dolalghat	27							
	3. Dolalghat-Barhbise	30	30						
	4. Barhbise-Miterisangu	26			13			13	
4	Prithvi Highway								
	1. Naubise-Munling-	99					99		
	Marsyangdi	44	44						
	2. Marsyangdi-Kharenitar	31					31		
3. Kharenilar-Pokhara									
5	Naranyangarh-Mugling Road	36	36						
6.	Bhittamod-Khalkebar Road	43					43		
7	Bardibas -Sindhuli Road	37						37	

8	Mechi Highway							
	1. Kechna-Charali	39						39
	2. CharAli- Maikhola	65					65	
	3. Maikhola-Ilam	15			15			
	4. Ilam-Phidim	67			17	50		
	5. Phidim - Taplejung	85				25		67
9	Koshi Highway							
	Rani-Hile	111					111	
10	Sugarmatha Highway							
	Kadmaha - Gaighat	28					28	
11	Siddkartha Highway							
	1. Belahiya-Butwal	24					24	
	2. Butwal-Tansen	41	41					
	3. Tansen-Syangja	84	84					
	4. Syangja-Pokhara	36					36	
12	Rapti Highway							
	1. Ameliya-Tulsipur	27					27	
	2. Tulsipur - Salyan	56				30	26	
13	Ratna Highway							
	1. Jamuniya-Kohalpur - chisapani	35 78			78	35		
	2. Chisapani-Birendramagar							
14	Mahakali Highway							
	1. Dhangadhi-Atariya	23					23	
	2. Godavari-Sahajpur	45					45	
	3. Sahajpur-Dadeldhura	70			70			
	4. Dadeldhura-Patan	50			12	38		
	5. Patan-Bhatkanda	15				15		
15	Seti Highway							
	Syaule Bazar-Dipayal	64					64	
	Total Highways		418		205	158	1606	202

16	Birtamod-Bhadrapur Road	13	13					
17	Damak-Gaurigun Road	22			10			12
18	Bhardah-Rajbiraj Road	18	18					
19	Rupani-Rajbiraj-Mauaniya	23					23	
20	Choharwa-siraha-Madar Road	26			23		3	
21	Nawalpur-Malangwa Road	25			16		9	
22	Chandra Nigahpur-Gaur Road	42			8		34	
23	Bardghat-Harkpur Border Road	23					8	15
24	Sunwal -Parasi Road	9					9	
25	Jeetpur -Taulihawa-Khunwa	33					11	22
26	Gorusinge-Sandhikhark Road	69				57		12
27	Chandrauta-Krishna Nagar	20					20	
28	Road	108				50		58
29	Bhalubana -Chakchake-Rolpa	23			47	23		
30	Road Chakchoke-pauthan Lamahi-Ghorahi-Tulsipur Road	47						
31	Bhurigaon-gulariya Road	32						32
32	Jhunga -Rajappur Road	28						28
33	Birgunj-Kalaiya Road	12						
34	Bhaise-Bhimphedi Road	12					21	
35	Palung-Kulekhani Road	21						21
36	1. Kathmandu-Kakani 2. Kakani-Trishuli 3. Trishuli-Dhunche	17 46 54	46				17	54
37	Balkhu-Dakshinkali	16						
38	Satdobato-Tikabhaurav	12					9	13
39	Satdobato-Phulchoki	22					5	
40	Maharajgunj-Budhanilkanth	5						
41	Gokarn-Sankhu Road	8	8					
42	Jorpati-Sundarijal	7					7	
43	Bhaktapur-Nagarkot Road	23					23	
44	Banepa-Khopasi Road	10						
45	Panchkhal -Melamchi Road	26						26
46	Dolalghat-Chautara	25			15			10
47	Lamosangu-Jiri Road	110					110	
48	Nayapur-Kirne Road	20			20			
49	Malekhu-Dhading Road	20			20			
50	Abu Khaireni-Gorkha Road	25						
51	Dumre-BesiShahar Road	42			14	18		
52	Bharatpur-Byepass Road	5					5	
53	Phikkal-Pashupatinagar Road	11					11	
54	Biratnagar -Rangeli Road	22	22					
55	Hile -Basentpur Road	35			10			25
56	Pokhara-Saranpur Road	5					5	

57	Pokhara-Baglung Road	73					73	
58	Tansen -Tamghas Road	76		65				11
59	Bhariahawa-Lumbini Road	20					20	
60	Lumbini -Taulihawa Road	22			22			
61	Nepalgunj-Gulariya Road	35			26		9	
62	Silgadhi-Sanfebagar Road	67						67
63	Duhabi -Inaruwa Road	15			15			
64	Nepalgunj-Baghauda Road	50	50					
65	Mirchaiya -Katari Road	27			17			17
66	Bhairahawa-Parasi Road	23			23			
67	Hulaki Road			50	50			
68	Other Roads		25	50	50	100	100	200
	Feeder way Total		175	165	386	248	523	623
	Highway and Feeder Way Total		593	165	591	406	2129	825
	Grand Total		758		997		2954	

Table 2
Construction and Maintenance Programme of Link Roads to District Headquarters and
Other Roads (1997-2002)

S.No.	Name of Road	Length km	Length of Construction to date km	Construction Target in Ninth Plan (km)			Increase in Length of Road km
				Black Topped	Gravelled	Earthen	
	Link Road to District Head Quarter						
1	Gaighat-Diktel	131	15			68	68
2	Salyan-Musikot	106	33		33	73	73
3	Surkhet-Jumla	210	90		69	120	120
4	Katari-Okhaldhunga	96	47		47	49	49
5	Basantpur - \terhathum	26	26		26		
6	Baglung-Beni	16	16		16		
7	Beni-Jomsom	70				35	35
8	Okhaldhunga-Salleri	43				60	20
9	Baitadi-Darchula	120	60		60	60	60
10	Basantpur - Chainpur-Khadbari	96	5		10	91	91
	Total				261	516	516
11	Manma-Link Road	20				20	20
12	Hile-Bjojjpur	70	7			28	28
13	Khimti-Manthali	14	12		14		2
14	Chhinchu-Jajarkot	107	77		45	30	30
15	Surkhet-Ranimatta- Dailekh	66	66		30	30	
16	Khodpe-Bajhang	110	75		50	35	35
17	Sanfebagar- Mangalsen	32	10		10	22	22
18	Sanfebagar-Martadi	58	8			50	50
19	Besi Shahaar-chama					30	30
	Total				179	215	217
	Total Headquarter Roads				440	731	733
	Other roads/Highways						
20	Banepa-Sindhuli- Bardibas	159	37		122		122
21	Ringroad- Bhidhunga-Dharke	26		26			

22	Mahendranagar- brahmdevmadi (Mahakali)	15		15			
	Total Feeder Roads			41	122	122	
23	Bardibas- Jaleswor- Janakpur- Dhanushadham	4216		58			58
24	Bhedetar- Dandabazar-Ravi	25	25		10	33	33
25	Galchhi-Devighat	18	18		18		
26	chhahare-Tokha	17	17		17		
27	Saljhundi- Juthapauwa- Sundardhunga	25	10			15	15
28	Tulsipur- Purandhara-Surkhet	50	50		25		
29	Sahajpur-Dipayal	112	30			30	30
30	Mahendrapur-Daiji- Jogbudha- Budarsatbhaj- Baitadi-Jhulaghat	68	68		35		
31	Chatra- Chakarghati-Birpur	42	35		20	7	7
32	Ilam-Maipokhari	31			31		31
33	Phikkal-Shree Antudada	15	15		15		
34	Ugratara-Melauli	11	11		11		
35	Other roads	48	12			36	36
36	Others			50	75	100	225
	Total			108	257	221	435
	Total Other Roads			149	379	221	557
	Grand Total			149	819	952	1290

Table 3
Bridge Construction Programme

S.No.	Name of Rivers for Bridge Construction
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1	Samari Bridge (Bhainse-Hetauda Road)
2.	Seti River Bridge (Kaski)
3	Babai Bridge (Dang)
4	Kohalpur-Mahakali Sector - 22 Bridges
5	Syali river Birdge (Kanchanpur)
6	Manahara Birdge (Bode-Mulpani, Bhaktapur)
7	Sharda River Bridge (Salyan)
8	Budhikhola Birdge -Kesaliya (Harinagara-BNiratnagar Road)
9	Kajrar River Birdge (Rupandehi)
10	Bataha River Birdge (Siraha)
11	Manusmara - Sirseriya Bridge (Sarlahi)
12	Bakraha Bridge, Jhapartal Ner (Morang)
13	Singyahi Birdge (Morang)
14	Kulariya bridge (Lamki-Titapur-Kailali)
15	Jogiyara Bridge (Dhanusha)
16	Jangha River bridge (Mahottari)
17	Jhim river bridge (Sarlahi)
18	Naurangiya bridge (Parsa)
19	Sikta bridge (Parsa)
20	Takkhola, Dobilla bridge (Parsa)
21	Phusrekhola bridge (Kaski)
22	Dudhuwa Birdge (Banke)
23	Singiya Birdge (Bara)
24	Kalyandehi Bridge (Siraha)
25	Ghinaghat Briedge (Morang)
26	Seti River Bridge (Dulegaunda, Dhorphirdi, Tanahn)
27	Lachhminiya Bridge (Banke)
28	Khajura Bridge (Nawalparasi)
29	Jalad Birdge (Janakpur -Kharihani, Dhanusha)
30	Danda Brifdge (Belahiya-Paklihawa and Bhairahawa- Parasi)
31	Sisai Bridge (Kapilbaatu)
32	Hanumante Khole Bridge (Bhaktapur)
33	Katahi Bridge (Sarlahi)
34	Kerunga Ghol Bridge (Chitwan)
35	Takhhudol Bridge-Bhaisepati Tikhedeval
36	Telar Bridge (Lumbini-Kakarhawa) Rupandehi)
37	Trijuga River Bridge (Udapur)
38	Badharawa Bridge (Chandranigahpur-Gaur Road)
39	Khimti Bridge
40	Telar Biridge (Lumbini -Bauddhasthal way)
41	Sunsari Khola Bridge (Singhiya -Ramdhumi-Prakashpur Road)
42	Budhikhola Bridge (Sahebgunj-Biratnagar)
43	Sunsari Khola Bridge (Pakali-bharaul Road)
44	Rohini Bridge (Rupandehi)
45	Lakhandehi Bridge (Sarlahi)
46	Gagan Bridge (Siraha)
47	Other 20 Bridges

Table 4
Survey, Construction and Maintenance Programmes of
Local Level

Village Roads during the Ninth Plan

S.No	Name of Project	District	Target (km)	Increase in Length of Road (km)
1	Phikkal Gupti Naya Bazar Road	Ilam	35	
2	Basantpur -Gufa road	Terhthum	22	
3	Jayaramghat-Halesi Road	Khotang	35	35
4	Kalikasthan Shramthali road	Rasuwa	15	
5	Bageshwari Urleni Road	Nuwakot	12	
6	Trishuli-Samari Road	Nuwakot	5	
7	Chuniya Namtar Kalitar Road	Makwanpur	15	
8	Hatiya-Raigaon Road	Makwanpur	34	
9	Kanti Raj path	Lalitpur	20	
10	Thankot - Chitlang Road	Kathmandu	18	18
11	Sakhu Palubari Nagarkot Road	Kathamndu	12	
12	Lagh Dhijure Road	uwakot	23	
13	Kharidhung - Barhbise Road	Sindhupulchok	25	25
14	Chorni Solakhpur Harpatganj Ghumaune road	Parsa	25	
15	Damauli Keshavtar Gharampani Ghumaune Road	Tanahun	25	
16	Begnas Bhorletar Road	Kaki	3	
17	Bhorletar Neta Padini School Satrasay Road	Lamjung	20	20
18	Ridi Kharjyang Balkot Road	Arghakhanchi	13	
19	Gaindakot Kaligandaki Rampur Road	Nawalparasi	15	
20	Maldhunga Beni Darbang Road	Myagdi	13	
21	B.P. Mrg	Dang	20	
22	Goltakuri Managulapur Beltar Road	Dang	25	25
23	Cheda Dhungeel Road	Jajarkot	20	20

24	Chisapani Jangalghat Mangalsen Road	Kailali	15	
25	Joljivi Gakuleshwar Topaban Road	Darchula	8	
26	Gajri-Dhunggadh Road	Darchula	20	20
	Total		493	163
	Other various Projects		1507	1530
	Grand Total		2000	1693

Table 5
Suspension Bridge (Local track) Construction Programmes

S.No	Name of Project	No. of Project
1	Follow up Projects under construction at present , Started from FY 2050/51	27
2	Follow up Projects under construction at present , Started from FY 2052/53	126
3	Follow up Projects under construction at present , Started from FY 2053/54	77
4	New Projects Started from FY 2054-55	81
5	New Projects Started from FY 2055-56	29
6	New Projects Started from FY 2056-57	20
7	New Projects Started from FY 2057-58	20
8	New Projects Started from FY 2058-59	20
	Total	400

Table 6
Construction, Upgrading, Reconstruction and Maintenance of Roads
Under Road Maintenance and Development Project (RMDP)
with Loan Assistance from the World Bank

S.No	Name of Road	Length in km
A.	New Construction	
1.	Baitadi-Darchula	60
2.	Sanfebagar- Martadi	41
3.	Sanfebagar- Mangalsen	27
4.	Surkhet- Jumla	100
5.	Baglung- Beni- Jomsom	70
B.	Upgrading	
1.	Baitadi-Darchula	60
2.	Surkhet - Jumla	69
3.	Gorusinge- Sandhikhark	60
4.	Baglung- Beni- Jomsom	16
C.	Reconstruction	
1.	Tansen-Syangja	42
2.	Nepalgunj- Bagauda	46
3.	Harthok- Tamghas	62
4.	Lumbini- Taulihawa	22
D.	Periodic Maintenance (First Phase)	

1.	narayani Bridge - Tiger Mountain	35
2.	Tiger Mountain-Aurung Khola	15
3.	Pokhara-Sandh Bridge	15
4.	Pokhara-Sarangkot	5

Table 7
Construction and Maintenance of Roads Under Fourth Road Improvement
Project with Loan Assistance from Asian Development Bank

A. Link Road to District Head Quarters		Length	Remarks
Name of Road			
1.	Basantpur - Chainpur - Khandbari	65	GTZ/KFW Joint Cooperation
2.	Hile-bhojpur	60	
3.	Okhaldhunga - Diktel	120	
4.	Lamahi-tulsipur Road Bridges		Included in 3rd Road Improvement Project but not completed due to lack of budget
B. Kathmandu Valley Access Road			
1.	Ringroad - Naubise Alternative Road	26	To include in construction of First Phase
C. Reconstruction/Maintenance			
1.	Phidim-Taplejung	85	
2.	Damak-Gaurigunj	22	
3.	Biratnagar-Rangeli-dayniya	30	
4.	Kathmandu Ringroad	14	
5.	Panchkhal-Melamchi	23	
6.	Dolalghat-Chautara	25	
7.	Urlabari-bardanga	34	
8.	Dadeldhura-Patan-Satbanjh	59	
9.	Bauddha-Budhanilkanth	10	
D. Periodic Maintenance			
1.	Belbari-Choharwa	104	
2.	Trishuli-Dhunche	64	

Appendix - 1
 Situation of Vehicles According to Their Categories in Nepal
 (up to mid-July 1997)

S.No	Category of Vehicle	Vehicles upto Chaitra 2048		Vehicles upto Asar, 2054		Increase in Vehicles from Chaitra 2048 to Asar 2054	
		Number	Percentage	Number	Percentage	Number	Percentage
1.	Bus	3283	3.3	7078	3.7	3795	115.6
2	Mini Bus	1888	1.9	2440	1.3	552	29.2
3	Truck, Tanker	9591	9.8	16913	8.9	7322	76.3
4	Ca, Jeep, Van	26547	26.9	42780	22.4	16233	61.1
5	Tempo	4735	4.8	5181	2.7	446	9.4
6	Motorcycle	44854	45.5	98006	51.4	53152	118.5
7	Tractor	7545	7.7	14414	7.6	6869	91.0
8	Others	128	0.1	3860	2.0	3732	2915.5
	Total	98571	100.0	190672	100.0	92101	93.4

Source : Department of Transport Management

Appendix - 2
Development of Road Transport in Nepal (1951-1997)

S.No	Year	Plan from Beginning	Length of Road (km)				Road Ownership km per 10000 people	Road density km per 100 sq.km.
			Black Topped	Gravelled	Earthen	Total		
1	2007		5	83	288	376	0.47	0.26
2	2013	First	137	122	365	624	0.74	0.44
3	2019	Second				1193	1.25	0.84
4	2022	Third				2049	1.95	1.45
5	2027	Fourth	821	435	1474	2730	2.37	1.88
6	2032	Fifth	1549	667	957	3173	2.47	2.22
7	2033	Fifth	1579	310	1555	3444	2.61	2.37
8	2034	Fifth	1751	556	1829	4136	3.06	2.85
9	2035	Fifth	1851	593	2151	4595	3.31	3.16
10	2036	Fifth	1916	685	2090	4691	3.29	3.23
11	2037	Sixth	2044	564	2332	4940	3.38	3.40
12	2038	Sixth	2167	703	2151	5021	3.34	3.46
13	2039	Sixth	2322	719	2229	5270	3.44	3.63
14	2040	Sixth	2484	830	2232	5546	3.54	3.82
15	2041	Sixth	2645	815	2257	5717	3.58	3.93
16	2042	Seventh	2724	918	2283	5925	3.63	4.08
17	2043	Seventh	2757	946	2336	6039	3.62	4.16
18	2044	Seventh	2794	1180	2332	6306	3.71	4.34
19	2045	Seventh	2837	1477	2297	6611	3.81	4.49
20	2046	Seventh	2891	1594	2522	7007	3.95	4.76
21	2047	Seventh	2959	1658	2714	7330	4.05	4.98
22	2048	Seventh	3083	2181	3064	8328	4.50	5.66
23	2049	Eighth	3164	2243	3444	8851	4.65	6.01
24	2050	Eighth	3404	2373	3757	9534	4.88	6.48
25	2051	Eighth	3451	2396	3934	9781	4.87	6.65
26	2052	Eighth	3533	2662	4529	10724	5.21	7.29
27	2053	Eighth	3609	2867	4761	11237	5.32	7.64
28	2054	Ninth	3655	3011	5048	11714	5.41	7.96

Source : 1. A Compendium on the Environmental Statistics of Nepal.
CBS

2. Nepal Road Statistics -1995 DOR
3. Department of Roads

Appendix 3
Region-wise Development of roads during various Plan Period

S.No	Plan	Mid-western				Far-Western				Grand Total Length (km)	Total Increment		Increment per year	
		Black topped	Gravelled	Earthen	total	Black topped	Gravelled	Earthen	Total		Length (km)	Percentage	Length (km)	Percentage
		16	17	18	19	20	21	22	23	24	25	26	27	28
1.	First(2013-18)									624				
2	Second(2019-22)									1193	569	91.2	95	15.2
3	Third(2022-27)									2049	856	71.8	285	23.9
4	Fourth(2027-32)									2504	455	22.2	91	4.4
5	Fifth(2032-37)									3173	669	26.7	134	5.3
6	Sixth(2037-42)	64	46	569	679	39	48	271	358	4940	1767	55.7	353	11.1
7	Seventh(2042-47)	211	81	391	683	69	63	341	473	5925	985	19.9	197	4.0
8	Finished Year	231	209	386	826	71	87	411	569	7330	1405	23.7	281	4.7
9	Eighth(2049-54)									8679	1349	18.4	674	9.2
10	Interim Period	305	382	769	1456	257	134	596	987	10724	2045	23.6	683	7.9

11	Ninth(2054-59)							11764	1045	9.7	520	4.8
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Appendix 4
Development of Road Transport during the Eighth Plan (1992-97)

Year	Length of Road (km)				Road Ownership km per 10000 people	Road Density km per 100sq.km
	Black Topped	Gravelled	Earthen	Total		
1992	3164	2243	3444	8851	4.65	6.01
1997	3655	3011	5048	11714	5.41	7.96
Increment	491	768	1604	2863	0.76	1.95
Increment Percentage	15.5	34.2	46.6	32.3	16.2	32.3
Increment Percentage Per Year	3.1	6.8	9.3	6.5	3.2	6.5

Source : Department of Roads

Appendix 5
Physical Target and Progress of Road Construction According to Classification and
Category during the Eighth Plan (1992-97)

S.No	Classification of Road	Physical Target/Progress according to category (km)				
		Black-topped	Gravelled	Earthen	Length	Progress %
1.	Highway Target	48	149	566	763	61.7
	Progress	44	66	361	471	
2.	Feeder Target Road	89	205	621	915	53.2
	Progress	1	106	380	487	
2.1	Target Feeder road to Highway		18	336	354	76.3
	Progress		14	256	270	
2.2	Important Development Project, Road assisting		64	155	219	

	Development of Economic and tourism sectors target					
	Progress		20	29	49	22.4
2.3	Other feeder Road target	89	123	130	342	49.1
	Progress	1	72	55	168	
3	Urban Road target	50	25	25	100	134
	Progress	74	59	1	134	
4.	Total Target	187	379	1212	1778	
	Progress	119	231	742	1092	61.4
	Progress percentage	63.6	60.9	61.2	61.4	
5	Progress of Road no mentioned in Eighth Plan	372	537	862	1771	
6	Total Progress of Eight Plan km	491	768	1604	2863	
	Percentage	262.6	202.6	132.3	161.0	

12.4 Information and Communication

1. Background

Information and communication, which are indispensable infrastructures for development, possess great importance for the overall development of a nation. The contribution of the information and communication has played an important role for creating a healthy, civilized and cultured society based on justice and morality as envisaged by the Constitution of Kingdom of Nepal 1990. The democratic polity adopted by the country in political perspective means to govern oneself by uniting one another, whereas from the economic point of view it means to go hand in hand with prosperity. The great responsibility for encouraging and motivating people to involve in overall development of nation through massive people's participation while disseminating such an underlying implication of democratic polity depends on the efficiency of the communication sector. The act of maintaining sustainability of and continuity to development by bringing positive change in people's daily lives through every development work conducted by the nation depends on the effectiveness the communication. In a geographically remote and economically and educationally backward country like ours, it is indisputable that the development, expansion and proper mobilisation of the communication sector can play an effective role in creating awareness and consciousness to every citizen and bringing them into the mainstream of national development.

In a world standing on the gateway of the twenty-first century, it is already understood that the coming era is the era of communication. The developed nations have already started to develop advanced communication technology and make their multifarious use. The communication service equipped with highly advanced electric communication system has already come into utilisation in our country though at a limited scale; however, the majority of the population is still marginalised even from minimum communication services. By doing therefore, it has already been highly essential that communication facilities in coming days have to be develop and expanded in a way to contribute to the balanced development of the country. It is equally necessary that, while keeping the communication sector in line with the open, liberal and competitive economic environment, this sector should be develop and mobilise in a business-like manner with a view to attaining economic benefits. In doing so, the communication sector will become self-reliant and the economic burden of the nation will be minimised to some extent, on the one hand, and the development of the communication sector can go a long way in developing the economic and social sector and their by reducing the wide spread poverty in the country, on the other. In the context, of the private sector investment being attracted at present, in the communication sector, it is equally necessary to embrace private initiatives emerged in this sector and move them forward to build a new communication era through healthy competition. Therefore, the Ninth Plan has given a high priority to the proper

development and expansion of the information and communication sector with the objectives of extending communication services to the rural areas throughout the country; expanding required communication system for infrastructure; assisting in increasing the economic growth rate while mobilised the communication sector; alleviating poverty which still remain a serious challenge to the nation; and eradicating social backwardness.

2. Review of the Eighth Plan

While considering the importance of information and communication as a necessary physical infrastructure for the overall development of the country, constant attempts have been made and modern technology adopted for the development of the means of communication; and the information and communication service has gradually been made simpler and more reliable. The Eighth Plan has adopted the strategy to provide common type of communication service to the people and ensure balanced development of various means of communication whereas, on the other hand, it has pointed out the steps to attain a sustainable development of communication through the private sector participation in this sector with a view to making institutional development and communication means more self-reliant.

Postal Services: Ever since the inception of development plan, the expansion of post offices, the diversification of services, the construction of post office building, the improvement and the review of mail line, the postal link to all countries of the world and the timely restructuring of post offices have made the postal service world wide. During the Eighth Plan period, 3660 post offices have opened and a post office has served 5917 people. In the area of postal transportation and quality development, necessary mailing line has been expanded; and internal express mailing service (EMS) to 33 places of the country and international express mailing service (EMS) to 20 foreign destinations have already been operated. Some arrangement has been made for postal transportation.

During the Eighth Plan period, the construction of district post office buildings in Bhojpur, Chitawan and Ramechhap has been completed, and the construction two area post offices building in Rangeli of Eastern development region and Tikapur of Far-western development region has been completed. The construction of post box building in the Western regional postal directorate has been completed. In the area of financial services, money order service in 85 post offices and postal bank service in ten post offices have been operated. In the front of general post office strengthening, additional 6000 post boxes have been arranged and brought under operation during this period and working procedure has been made simple with the assistance of consultancy service from GTZ. In addition, CCTV installation work has been completed in order to increase the effectiveness of inspection and crime prevention. In the process of the preparing postal master plan., a framework of physical and training requirement for the next ten years has been prepared with the expert service received from the Universal Postal Union (UPU). With the objective of enhancing service

standard and directing gradually towards self-reliance, a study report has been prepared with the assistance of UPU.

Telecommunication Service: Prior to beginning of the Eighth Plan, 27 districts of the country were deprived of telephone service; however, the telecommunication service has been made nationwide by connecting all the district headquarters in the telephone service network during this period. In this connection, the telephone service has been extended to 1200 VDCs against the target of establishing 600 terminals in various areas.

While analysing the telephone service situation by the end of the Eighth Plan, density of telephone service comes to be 100 people per line, which implies the total telephone line capacity equal to two hundred thousand. During the plan period, around 80 percent progress of the physical target has been achieved by installing 130 thousand lines as against the target of enhancing additional telephone line capacity by 161,000.

During this period, rural telephone service has been provided with the installation of telephone exchanges only in 29 places as the installation of rural telephone exchange of 150 to 200 lines has been begun in 31 places. The expansion of microwave digital transmission link and the application of optical fiber cable has been initiated in this Plan.

Press Information Service: Among the programmes under the Department of Information, no progress has been made in building construction due to the lack of budget allocation. The achievements of programmes for journalism development and workshop/seminar, etc., programmes are on the average. The preliminary facilities for information technology have been provided to the Department of Information with the objective of enabling the Department for contributing to the institutional development of journalism.

Printing Service: In the area of printing and publication, little progress has been made in the main programme - security printing due to the lack of required budget allocation. The financial progress of this sector is 1.06 percent due to the lack of progress in other programmes as well. The maintenance and improvement of buildings have been done in order to prepare minimum physical infrastructure required for security printing.

Frequency Management: Under this programme, a frequency monitoring station has been established with the release of Rs 14.3 million against the allocation of Rs. 16.4 million under HMG/N and foreign assistance; this progress has been achieved as per the target.

Radio Broadcasting Service: The main programmes under this agency is the establishment of the second medium wave channel and the training unit for manpower development through foreign resource mobilisation; however, no work has been carried out due to the absence of foreign resource mobilisation.

Television Transmission Service: The rest of the four programmes of Nepal Television except for calibration and establishment of maintenance centre have made progress as

per the Plan. The main hindrance to the establishment of the centre is inability of arranging donor agency for funding. In other programmes, the relay stations in Dhankuta, Nawalparashi, Palpa and Pokhara have been installed under the Network Expansion Programme. The regional programme production centre in Kohalpur has been established as per the target and the service expansion with the installation of equipment in Ilam and Pokhara relay station has been made as per the target. The construction of studio building in Kathmandu has been completed as per the target. Nepal Television Corporation has achieved the progress in the programmes other than the establishment of calibration and maintenance centre as per the target.

National News Service: The main programmes under Rastriya Samachar Samiti (RSS) during the Eighth Plan period are building expansion and equipment installment in four places. The construction of buildings has been completed in Kakarvitta and Birgunj as per the programme. Under the programme of equipment installation, the computer system has been installed at the Centre. Similarly, television service has come in operation in Pokhara. In order to improve the news collection, processing, and distribution process of RSS, the establishment of computer network has been completed.

Film Development: The film development laboratory has been installed at the cost of Rs 5 million, in the first year 1992/93 of the Eighth Plan. In order to privatise Nepal Film Development Corporation in line with privatisation policy of HMG/N, 51 percent share of the Corporation has been floated to the private sector and the Corporation has taken the form of Nepal Film Development Company.

Financial Progress: A total of Rs 5770.0 million has been spent in the information and communication sector during the Eighth Plan period. Among this expenditure, Rs 44.4 million in the projects operated under the Ministry of Information and Communication, Rs. 62.6 million in postal service, Rs. 8.9 million in press information service, Rs. 12.1 million in printing service, Rs. 376.6 million in television transmission, Rs. 8.3 million in RSS, Rs. 5211.0 million in telecommunication service, Rs. 5.0 million in film development and Rs. 46.7 million in radio broadcasting service have been invested. (Table 1 and 2)

Table 1
Physical Progress of the Eighth Plan

S.N.	Description	Target	Progress
1	Establishment of Post Office		
	A Post Office (P.O)	400 Post Offices	270 P.O.
	B Additional Post Office	1800 P.O.	830 P.O
2	Extension Express Delivery Service		
	A Domestic City Area	36 Places	33 Places
	B Foreign (Different Nations)	To commence	20 Countries
3	Expansion of Financial Service		
	A Money Order Service	403 P.O.	85 P.O.
	B Saving Bank Service	593 P.O.	10 P.O.
4	Building Construction	15 P.O.	5 P.O.
5	Addition in of Post Box Numbers	3000	6000
6	Establishment and Extension of Telephone		
	A Establishment and Extension of Telephone Exchange	1,61,000 lines	1,30,000 lines
	B Telephone services to district head quarters having no service	27 districts	27 districts
7	Capacity Extension		
	A Establishment of A- type earth station	960 channels	960 channels
	B Establishment of Packet switch	90 circuits	90 circuits
	C Establishment of VSAT	8 places	4 places
8	Establishment of Digital Transmission Link	1560 channels	1560 channels
9	Rural Tele communication Project: (Ilaka Centre / VDC)	600 terminals	466 terminals (Service access to 1200 VDCs)
10	Establishment of Rural Telephone Exchange	32 places	29 places
11	Rural Tele-communication Project (District headquarters/commercial centres)	11 places	11 places

Table 2
Expenditure During the Eighth Plan

(Rs. in 000)

S.No		FY 1992/93	FY 1993/94	FY 1994/95	FY 1995/96	FY 1996/97	Total	Remarks
1	Ministry of Information and Communication	8672	-	-	3125	2617	44414	
2	Department of Postal Service	7128	10908	726	21600	21700	62062	
3	Department of Information	3090	4979	-	-	845	8917	
4	Department of Printing	1395	5928	-	1700	3031	12054	
5	Nepal Television Corporation	185700	50516	20200	65200	55000	376616	
6	Rastriya Samachar Samiti	-	800	-	7500	115	8255	
7	Nepal Telecommunication Corporation	650551	666703	878973	1543970	1470843	5211040	
8	Royal Nepal Film Corporation	5000		-	-		5000	Privatised
9	Radio Transmission Service Development Committee	21300	25400	-	-		46700	No Budget Allocation since 1994/95
		882826	755034	899899	1673095	1554191	5775055	

3. Existing Challenges

The information and communication sector had confronted various problems and obstacles during the implementation of the Eighth Plan. An attempt has been made to explain these problems in the following paragraphs:

During the Eighth Plan period, lack of financial resources, lack of own vehicles for postal transportation, lack of building and physical resources, inadequate national transportation system, lack of awareness and low level of education among people, lack of co-ordination with related agencies, no consideration given as priority sector though considered as necessary service, difficulty in competing with the private sector because of managerial and legal complexities, lack of efficient and skilled personnel, and inferiority complex of the personnel, etc., were the inhibiting factors in the direction of making postal service efficient, reliable and effective. Necessary physical resources for the effective operation, development and improvement of the service could not be managed; obstacle to quick postal delivery service was being faced because continued to appear due to the dependence on private entrepreneurs for transportation; and the expected progress in providing customer-oriented services while competing with the private sector courier and fast communication means could not be achieved due to legal complexities and lack of managerial flexibility. Due to the compulsion of arranging office buildings on rent and the uncontrolled exorbitant rent, most of the post offices were found in constant difficulty in setting of post offices at comfortable and appropriate places for customers. With the lack of initiation to name road, street and building complexes of residential areas due to unplanned urbanisation, the attempt for scientific delivery could not be expedited. The number of postal goods could not be increased because of low writing habits of the people and the lack of literacy. The attempts to operate the popular service like money order for increasing the number of customers giving them full satisfaction could not become much fruitful due to the lack of revolving fund for secured financial service whereas the legal arrangement was limited; and conducive environment for competing with commercial banks could not be created for the effective operation of postal saving bank. Due to the instability in organisational structure and the lack of attraction in postal service, non-gazetted personnel working in postal service could not be classified as postal service group and, consequently, tendency of transferring trained manpower to other government offices could not be stopped; and building and facilities of Postal training Centre became inadequate for providing necessary training. In the field of telecommunication services, it was difficult to reduce the gap between the growing demand for and the short supply of telephone. The difficulty in achieving the set target of developing infrastructure in the appropriate area arose due to the problem in land acquisition during the implementation of telecommunication programmes. Late procurement decision, delay in decision implementation, and lack of co-ordination were the problems experienced on the implementation of telecommunication programme. The programmes were not designed in an integrated manner; the problem of coordination occurred in the availability of project materials due to frequent changes in

project design, whereas procurement became burdensome due to multi package nature of project materials and on the other hand, the project took a long time to complete due to the appropriation of various materials in various times. Complicated customs clearance procedure due to the lack of transparency, exemption in custom duty regulations, late approval to dig road, and long time to new electric connection were also the problems that appeared during the Eighth Plan period.

Lack of financial resource remained the main problem in the implementation of programme for security printing in the Eighth Plan. Inability to attract foreign aid due to the lack of required internal resource allocation, lack of necessary land arrangement for constructing building for improving the physical condition of Department of Information; and lack of budget release as estimated to spend during the Plan period were the problems that were confronted with as well. That no progress could be made in establishing a training unit in Radio Nepal and Nepal Television for producing required skilled manpower and in setting up a maintenance and calibration centre for Nepal Television due to the lack of foreign assistance became another major problem.

4. Long-term Concept

- The concept of operating effective information and communication service within next 20 years while orienting various agencies of the information and communication sector towards self-reliance has been adopted.
- In line with this concept, postal service will be made self-reliance and fully competitive by commissioning a board with full authority; providing institutional autonomy; and increasing private sector participation in this service. The expansion of postal services will be completed within first-five years by setting up an area post office in every Ilaka (sub-district) of district and an additional post office in every VDC and the quality of postal services will be gradually increased qualitatively rather than quantitatively by setting the postal standard based on cost and benefit, making every post office whereas possible. In the next twenty years, full mechanisation of ten post offices, construction of post offices in ten feasible places with the private sector participation and improvement of income and quality standard, expansion of express mailing system (EMS) from existing 33 towns in the country and twenty foreign countries to all the feasible domestic places and all the feasible nations of the world, money order service to 528 post offices, and expansion of postal saving banks for 806 post offices, will be carried out. Various agency services like facsimile, cash on delivery, postal GIRO, e-mail, EDI and Internet services will be operated with a view to diversify postal services and make them effective. Accordingly, the concept of physical capacity enhancement and skilled manpower development will be undertaken.
- In a way to contribute to essential infrastructure for the overall development of the country, with 300 thousand lines in first five years, 563 thousand lines second five years, 1,259 thousands lines in third five years, 1,853 thousand in fourth five years, a total capacity of 3,959 thousand lines will be increased. The telephone

line capacity will thus be increased by 15 lines per hundred people and 210 thousands lines will be expanded as per the target of providing five percent mobile telephone of the total basic telephone; and various additional telecommunication services will be provided in appropriate places. While expanding and developing services in this way an arrangement will be made to channelise investment with the full participation and involvement of the private sector.

- Appropriate steps will be taken in order to make radio broadcasting and television transmission and make agencies providing such services financially self-reliant and independent. In this regard, private sector will be encouraged in radio broadcasting and television transmission and a conducive environment will be created to channel private sector investment in the area of transmission. The expansion of transmission through the application of satellite will be expanded in the first five years in order to provide quality service by enhancing effectiveness of transmission and appropriate new technology will be applied gradually. An arrangement will be made to establish second medium wave channel and broadcast short-wave by applying appropriate technology. Transmission of Nepal Television will be expanded nationwide; second channel for educational and informative programme and other channel to air entertainment programme will be set up.
- Physical capacity, skilled manpower and necessary infrastructure for the Department of Printing at present will be gradually developed in order to transform the Department into a security printing press and enhance its capacity to perform all the security printing matters in the country. In order to arrange data exchange and make the flow of information systematic, effective and useful, the capacity of the Department of Information will be increased; regional communication centres under this Department will be integrated with all districts for information collection and flow; expansion of information centres at local levels will be completed; and a data exchange system between the Department of Information and the Information Bureau of SAARC countries will be established.
- The information and communication sector will be developed in a way to constitute infrastructure for the overall socio-economic development by giving priority to research, application and expansion of information technology.

Ninth Plan

5. Objective

- To involve private sectors for the development, expansion and effective operation of the information and communication sector.
- To extend communication services to rural areas by adopting modern technology.
- To develop the information and communication sector as an infrastructure for the overall socio-economic development by emphasising on research, application and expansion of information technology.

- To give priority to utilise means and resources within the country with a focus on production of skilled manpower, mobilisation of people's participation and cost recovery while developing and expanding information and communication services.

6. Policy and Implementation Strategy

Postal Service

- To develop postal service as an autonomous administrative entity within the government sector which can provide business-oriented, competitive and qualitative services. To regulate private sector participation in the operation of postal services.
- To extend postal services to the rural areas with their quality improvement for the development and effectiveness of postal services.
- To make money order and postal bank services effective for achieving economic self-reliance in postal services and gradually operated other financial and business services as well.
- To increase physical capacity of postal service by emphasising on gradual mechanisation and the application of modern technology for its effective operation and make a timely change and improvement in mailing lines.

Printing Service

- To develop the press of the Department of Printing as a security printing press for printing the security matters such as post stamps, airograms, bank cheque, travellers cheques, passports, visas, air tickets and revenue receipts, etc.

Press Information Service

- To provide all the necessary data and information pertaining to Nepal to the journalism sector while adopting the concept of media village; and develop the information sector in an integrated manner from the regulation point of view.
- To develop the Department of Information as a control agency for dissemination the information of HMG.

Telecommunication Services

- To develop the telecommunication sector by expanding existing services, beginning new services and upgrading the quality of services with the private sector participation in a competitive environment.
- To provide telephone services 25 lines per 1000 people by establishing new telephone exchange and increasing the capacity of existing exchanges.
- To develop Nepal as an international telecommunication transit by co-ordinating with various countries.

- To conduct research and development works for diversifying and enhancing the telecommunication services; reducing imports; gradually developing necessary means, resources and manpower within the country; encouraging the application of modern technology; and enhancing the reliability of services.
- To contribute to the development of agriculture, tourism, health, education and commerce sectors while considering the possibility of quick information flow through various means of communication in the social and economic sectors of the country and preparing national information infrastructure.
- To adopt appropriate strategy for mobilising required capital for the development of the telecommunication sector while considering the development strategy undertaken by other countries.

Press media

- To involve the private sector in the operation of Gorakhapatra Corporation with the objective of conducting press media by the private sector in a competitive manner.
- To develop Gorkhapatra Corporation as a publication house through the diversification of services the application of new technology.

Transmission Service

- To make private television and radio transmission effective by designing and integrated structure at the policy level for the development and expansion of electronic media.
- To establish an independent regulating agency for creating a healthy competitive environment for the development, expansion and operation of transmission modes.
- To apply satellite mode for making television and radio transmission nationwide.
- To conduct transmission training programmes in a coordinated manner.

Film Services

- To create a conducive environment for the proper development of Nepalese film industry.
- To preserve old and valuable films produced by the HMG/N.

News Agency

- To involve in the development and expansion of services and the management of RSS.

7. Programmes

- A long-term twenty-year plan will be prepared for the information and communication sector.

- Study of various technologies and modern information system will be carried out in various sectors in order to obtain maximum benefit.
- National information and communication coordination programme will be conducted; policy for the role and the application of information and communication technology in the overall development of the country will be formulated; and its coordination will be maintained.
- National Broadcasting Authority (NBA) will be established and an effective Broadcasting of radio and television will be arranged.
- Visual archives will be established for preserving feature films, documentaries and news pictorials produced by HMG/N and received from foreign agencies.
- Various feature films owned by HMG/N will be preserved.

Film Development

- Films will be preserved.
- Visual archives will be established for preserving feature films, documentaries and news pictorials produced by HMG/N and received from foreign agencies.
- The final picture negative, final sound negative, music negative and final release prints of various feature films owned by HMG will be cleaned and protected; and arrangement will be made to provide necessary equipment and chemicals to this effect.
- Necessary projection and screens will be arranged; and physical capacity of the Ministry of Information and Communication will be developed for conducting film censor by providing necessary projectors and within the Ministry.
- Study will be conducted; policy will be formulated; and coordination will be ensured on the role and the application of information and communication technology in the overall development of the nation.
- A perspective plan for the information and communication sector will be formulated.
- NBA will be established; and an arrangement will be made to broadcast the radio and television in a coordinated and effective manner.

Frequency Management and Monitoring Strengthening Project:

Objective

To ensure and effective use of frequency spectrum through frequency management and monitoring for radio technology-based telecommunication services and radio and television transmission.

Implementation Strategy

- To review and modernise national frequency project in line with rapid technological development and changed context.
- To amend the rules and regulation in a way to obtain frequency other security and other service-oriented activities required for the operation of commercial service.
- To arrange appropriate software/hardware for preparing computerised frequency management data base.
- To make international coordination effective in order to ensure frequency utilisation.

Programme

- Mobile monitoring van with necessary equipment will be provided and a feasibility study on the application of satellite monitoring system will be conducted for enhancing the capacity of monitoring station.
- Hardware/software will be provided to computerise frequency licensing and renewal activities and the existing computerised computer network will be linked with international data base (ITU-TIES).
- Since international co-ordination is mandatory for ensuring and making the effective use of frequency at national level, a library will be established for managing the acquired information, documents and books.
- A maintenance workshop with basic equipment will be set up for the repair, maintenance and operation of installed station.
- A programme for appropriate studies/training will be conducted for the additional supply of skilled manpower.

Postal Service:

Objective

To gear the postal service gradually towards economic self-reliance and operate in a business like and competitive manner in order to provide easy reliable and standard postal services to common people.

Implementation Strategy

- To form a capable postal service board with full authority.
- To make appropriate and relevant change in the existing postal laws.
- To extend postal services to all VDCs and review them as needed.

- To conduct feasibility study for operating the postal services in the rural areas.
- To extend domestic express mail service to all the places regular transportation service.
- To make an arrangement for the registration and distribution of foreign parcel gradually in all district postal offices.
- To extend international express mail service (EMS) to many more countries in the globalisation process of EMS.
- To establish express mail service centre.
- To expand the registration and distribution of international EMS to other cities than Kathmandu.
- To start track and trace system for the inspection of the condition or the international EMS of postal goods.
- To conduct market studies and operate new services.
- To arrange necessary vehicles for mail delivery.
- To review all mail lines; establish necessary new mail lines; and cut off unnecessary mail lines.
- To implement postal code number effectively.
- To begin mechanisation process in the main post offices.
- To ensure effectiveness in the delivery system of postal materials.
- To construct, improve, and expand central offices, regional directorates, district post offices and Ilaka post offices.
- To increase the capacity and physical infrastructure of Postal Training Centre and its capacity.
- To training diversify money order services and expand them in international field.
- To identify and introduce new financial services.
- To strengthen saving bank services.
- To increase revolving fund for the effective management of the payment of international and national money order.
- To give priority to publish post stamps reflecting the importance of tourism and culture of the nation and initiate competition for ticket designing.
- To expand and promote commercial philatelic service.
- To establish a museum.

Printing Service:

Objective

To make the press of the Department of Printing capable of printing the important and confidential materials and other security materials by developing as a security printing press.

Implementation Strategy

- To develop, expand and strengthen the press of the Department of Printing for printing the important and confidential materials of HMG.
- To be active for achieving economic self-reliance through the modernisation of press by replacing letter press with multi colour printing press.
- To conduct training for printing service operation, repair and maintenance and manpower development.

Programme

- To conduct security printing building complex in the land owned by the Department of Printing.
- To supply and install the necessary equipment like multicoloured offset press, dry offset press and perforating machine for the purpose of security printing works.
- To produce skilled and capable manpower by providing training to concerned personal in order to operate machine used in offset press, offset processing, machinery repair and maintenance and binding works.

Press Information Service:

Objective

To establish a permanent and systematic communication network constructing own building complex for the proper development of this sector; adopt the concept of media village for providing necessary information and assistance to the press community for the development of healthy, dignified institutional journalism; and strengthen photo lab.

Implementation Strategy

- To construct a building complex with advanced modern facilities for the development of institutional journalism.
- To establish modern information network for developing the Department of Information as a central agencies for disseminating information department of HMG; and increase the capacity by strengthening photo laboratory and establishing photo gallery.
- To develop five information centres of the Kingdom as an effective agency for data exchange and integrating them with central information system.
- To organise study tour for providing information to domestic and foreign journalists about the on going development projects in various parts of the kingdom of Nepal and the events of national public importance.
- To enhance the capacity of library in all the six information centres.

- To distribute and publish various information materials about Nepal.

Programme

Press Information Strengthening: A modern building complex equipped with modern facilities include photo laboratory, archives, library, information and communication centre and press conference hall at the Department of Information will be constructed.

Establishment of Communication Network: A modern communication network linked with all commissions, ministries, secretariats, departments along with Bureau of Statistics and all information centres will be established in order to develop the Department of Information as a central agency for disseminating the information of HMG/N.

Strengthening of Photo laboratory and Establishment of Photo Archives: Photo laboratory in the Department of Information will be strengthened by installing photo scanner with negative rack, computer and printer and arranging dark room, negative room, photo library, photo transmission room, etc.; and photo archives will be established.

Communication Centre Strengthening and skilled Manpower Development: The information centres of five development regions will be strengthened developed as effective information agencies by equipping them with modern communication facilities, and necessary domestic and foreign training will be arranged for administrative and technical manpower in order to achieve the objectives of the Department of Information.

Arrangement of Journalist Study Tour: A study for tour providing information to the domestic and foreign journalists about the on going development projects in the various parts of the Kingdom of Nepal and the events of national public importance will be organised every year.

Strengthening of Study Centres: The five study centres running under the Department of Information will be strengthened and operated in systematic manner.

Publication and Distribution of Information Materials: Materials providing various information about Nepal will be published and distributed.

Telecommunication Development:

Objective

- To develop and expand the means of telecommunication in a competitive manner with the private sector involvement in order to contribute to interlink the various parts of the nation and to maintain regional balance.
- To extend telecommunication services to the rural areas, expand local telephone and reliable trunk services to the important areas of the nation while setting the

target to provide three telephone lines per hundred people and contribute to economic development.

Implementation Strategy

- To develop and operate the telecommunication sector with the private sector participation in a competitive environment through the expansion of existing services, introduction of new services and upgrading of service facilities.
- To provide three telephone lines per 100 people by expanding and installing exchange capacity by the end of the Ninth Plan.
- To provide telephone services to VDCs of the Kingdom deprived of services at present.
- To operate cellular mobile telephone and value added services in addition to the existing telecommunication services.
- To install another earth satellite station outside the Kathmandu Valley in order to make international telecommunication more reliable; and establish an additional gateway exchange.
- To make the national trunk service effective by installing optical fibre as an alternative to the existing national microwave link.
- To modernise the telecommunication services by gradually applying modern technology of the world.
- To build the infrastructure for developing the country as an international telecommunication transit in coordination with various countries.
- To perform research and development (R&D) works for the upgrade quality of existing system; and encourage the application of modern technology in the telecommunication sector.
- To prepare national information infrastructure for contributing to the development of agriculture, health, education, tourism, and commerce sectors with a view to adopting the concept of Information Technology Park and Information Highway.
- To conduct study and formulate policy on the service tariff rate in order to enhance effectiveness in the operation of telecommunication services.
- To produce required skilled manpower for the telecommunication sector.

Programme:

The number of total telephone line will be increased to 643,750 with the increase in the capacity of 400,000 lines during the Ninth Plan period. Among this, 100,000 lines through the private sector participation and 300,000 lines through Nepal Telecommunication Corporation will be installed. Programme of expansion of additional 300,000 telephone lines by Nepal Telecommunication Corporation will be as follow:

- As it is necessary to replace existing exchanges with 50,000 lines and arrange supply of spare parts for and the repair and maintenance of their switching equipment, a total of 350000 lines including additional 50,000 lines will be installed.
- A total of 38,500 telephone lines will be distributed in various places of the Eastern Development Region.
- A total of 202,900 telephone lines will be installed in various places of the Central Development Region.
- Additional 31,300 telephone lines will be expanded in various places of the Western Development Region.
- A total of 9,600 Telephone lines will be added in various places of the Mid-western Development Region.
- A total of 8,550 telephone lines will be added in various places of the Far-western Development Region.
- In addition to above mentioned places, telephone exchanges will be installed in some new commercial areas of all Development Regions.

[Transmission link Expansion Project](#)

The following transmission links will be established and their capacity will be enhanced in order to inter-link the existing expanded newly established telephone exchange, rural exchange, MARTS system and mobile system through microwave and optical transmission link:

- The capacity of microwave links existing in the places to the east of Kathmandu will be enhanced.
- The capacity of microwave links existing in the places to the west of Kathmandu will be enhanced.
- A new optical link will be established and the capacity of the existing optical link will be enhanced in order to inter-link the existing and newly established telephone exchange in the Kathmandu Valley.
- So far micro wave transmission link has been established for operating nationwide through a single trunk route; however, optical links will be installed gradually from east to the west as an alternative to micro wave links in line with the objective of adopting a concept of Information Technology Park and Information Highway; and telephone services will be expanded in small commercial centres in a way to use such optical links for connecting with Kathmandu.

[Establishment and Expansion of Earth Station](#)

The international telecommunication services have so far been operated through a single standard A-satellite station; however, one additional satellite earth station and a gateway exchange outside the Kathmandu Valley will be established.

Rural Telecommunication

- Among the district headquarters and business centres telephone service will be operated in Chautara of the Central Development Region, ten district headquarters of the Mid-western and Far-western Development Regions (Pyuthan, Salyan, Liwang, Musikot, Dailekh, Kalikot, Jumla, Jajarkot, Chainpur and Martadi) through the establishment of microwave transmission link in place of existing MARTS system.
- In line with the policy of establishing at least one public telephone office (PCO) in all VDCs, telephone service for the remaining 2,700 VDCs of the country will be gradually provided through the medium of MARTS, VHF/UHF, VSAT, WLL, GMPCS/CDMA and other appropriate technologies. Thus telephone service to all the VDCs will be completed with the participation of Nepal Telecommunication Corporation and the private sector as well.
- The telephone services will be provided by establishing rural exchanges of 150 to 300 lines in 61 places of following 41 districts in line with the policy of rural telephone expanding the service by establishing gradually rural telephone exchanges in the district headquarters and having demand for telephone service and in the places of commercial importance.

1	Jhapa	Kakarbhitta
2	Ilam	Phikkal
3	Morang	Urlabari and Letang
4	Sunsari	Jhumka
5	Sankhuwashava	Chainpur
6	Dhankuta	Hile
7	Solukhumbu	Namche
8	Saptari	Kanchanpur
9	Okhaldhunga	Rumjatar
10	Udayapur	Katari and Gaighat
11	Sarlahi	Barhathawa
12	Dolakha	Charikot
13	Bara	Nijgadh and Chandranigahpur
14	Parsa	Jitpur and Visuwa
15	Chitwan	Sauraha, Rampur (Saradanagar) and Parsa
16	Bhaktapur	Nagarkot
17	Sindhupalchowk	Chautara
18	Syangja	Waling and Syangja
19	Tanahun	Aanbu Khaireni and Dumre
20	Gorkha	Manakamana, Arughat and Gorkha

21	Kaski	Sisua
22	Lamjung	Besishahar
23	Baglung	Baglung
24	Nawalparashi	Sunwal, Kawasoti and Parasi
25	Rupandehi	Bardghat
26	Gulmi	Gulmi
27	Pyathan	Pyathan and Bijuwar
28	Rolpa	Liwang
29	Rukum	Musikot
30	Salyan	Salyan
31	Dang	Lamahi
32	Jajarkot	Jajarkot
33	Dailekh	Dailekh
34	Banke	Kohalpur, Chhinchu, Khajura, Lalmatia and Lamaki
35	Bardia	Gulria
36	Jumla	Jumla
37	Kalikot	Manma
38	Kailali	Chainpur, Tikapur, Belauri and Ataria
39	Bajura	Martadi
40	Dadeldhura	Dadeldhura
41	Kanchanpur	Jhalari

Establishment and Improvement of New Service Technologies and Manpower Development :

- A total of 10,000 customers will be served by installing cellular mobile telephone in Kathmandu Valley, Biratnagar, Birgunj and Pokhara.
- Modern Technology equipment like asynchronous transfer mode for providing high capacity data communications services will be installed in the main cities of the country with a view to adopting gradually the concept of Information Highway.
- The value added services of telecommunication like phone, E-mail, and Internet will be established and operated.

Television Transmission:

Objective

To extend the transmission coverage of the Nepal Television nationwide with the private sector participation in a competitive manner with a view to providing the common people educational, informative and entertainment programmes appropriate for Nepal language, culture and tradition.

Implementation Strategy

- To extend the transmission of Nepal Television nationwide through the application of satellite in transmission.
- To establish a separate channel for Nepal Television and operate development-oriented, educative and informative programmes on agriculture, education, health, science and technology, family planning, tourism, environmental preservation and rural development and entertainment programme appropriate for Nepali language, culture and traditions.
- To establish a studio in Kathmandu for the production of educational programme; establish one production centre in Eastern Development Region; and produce programmes from all the three television centres of the country.
- To achieve economic self-reliance in television transmission and programme production by involving private sector.

Programme

- Transmission through Satellite: Transmission of Nepal Television will be expanded nationwide through satellite transmission.
- An Earth station will be established in a technically feasible location.
- Transponder will be acquired on hire from a satellite company.
- Transmission will be conducted by arranging TVRO at various places of the nation for receiving television signals and setting up necessary transmitters or any other equipment for 15 stations.
- One outdoor broadcasting van equipped with satellite transmission facilities will be provided.
- Establishment of Educational Channel: An educational and informative programme will be aired by establishing a separate second channel of Nepal Television.
- A transmitter with 2 kw capacity will be established in Phulchowki.
- Arrangement for transmitting another channel in the satellite transponder acquired on hire will be made.
- Transmission of the second channel will be done by arranging required transmitter in various places of the country.
- Arrangement for Educational Programme Production Studio: Education and information programmes will be produced and aired. Programme production studio will be established for producing educational programme.
- Establishment of Regional Programme Production Centre: A regional programme production centre will be established in Eastern Development Region.

- **Manpower Development:** Appropriate training will be provided for the supply of skilled manpower in the area of television transmission.
- **Establishment of Maintenance and Repair Centre:** Maintenance and repairing centre will be established to maintain the equipment applied in television transmission and programme production in a systematic way.
- **Machinery Strengthening:** Additional required machinery and equipment for television transmission will be arranged and their quality will be upgraded.

Radio Broadcasting:

Objective

- To improve, renew and expand the existing broadcasting system and establish additional broadcasting centres in order to enhance sentimental unity among different religions, languages, castes, communities and classes of the nation and provide reliable radio transmission service nationwide.
- To make the transmission of Radio Nepal countrywide by involving private sector in the development of radio transmission in a competitive manner in order to provide common people with educational, informative and entertainment programmes appropriate for Nepali language, culture and tradition.

Implementation Strategy

- To arrange the regular transmission by providing necessary equipment and spare parts for various exiting transmission centres and studios.
- To establish medium wave transmission centre (Fill-in Station) at few feasible places in order to provide reliable radio transmission services throughout the country; and start radio broadcasting service in outside the Kathmandu Valley through FM system.
- To produce and broadcast development-oriented, educational and entertainment programmes on agriculture, education, health, family planning, population, women, science and technology, rural development, tourism and environmental protection.
- To make short-wave transmission system effective and timely relevant while adopting advanced technologies available in the international level.
- To improve and manage regional transmission by arranging second channel in medium wave transmission; and prolong gradually the existing regional transmission time.
- To enhance the private sector participation in radio transmission.

Programme:

Improvement and Renewal of Existing Transmission Station: With modern equipment and component parts of appropriate technology, the existing obsolete radio stations of

five Development Regions of the country and studios and transmission existing in Radio Nepal will be improved and renewed.

Establishment of Second Channel and Medium-wave Transmission Centre: A second channel will be established for improving regional radio broadcasting; and medium wave broadcasting centres (Fill-in-Station) will be gradually set up at feasible places for providing reliable radio service to remaining 20 percent of the population.

Establishment of Short-wave Station: New short-wave station will be established with an appropriate technology due to the fact that the existing transmitters used in the short-wave station have become obsolete; their spare parts are difficult to procure; and all short-wave stations have to be replaced by a single side band by 2007 as per the international convention of ITU.

Expansion of Physical Facility of Regional Broadcasting Centre and Arrangement of Satellite Link: Satellite link will be arranged for regular and standard Broadcasting and appropriate studio construction will be made with new equipment in order to enhance studio facilities of existing five regional broadcasting centres.

Expansion of FM Station: Additional FM station will be established outside the Kathmandu valley to make Radio Nepal economically self-reliant.

Establishment of Computer and Audio Work Station: Computer networks will be setup and of programmes standard will be upgraded in order to regulate and manage the radio broadcasting; and easily handling audio work station by skilled and semi-skilled personnel will be established for reducing economic burden of Radio Broadcasting Committee.

Manpower Development: Training for skill development will be provided to the manpower involved in radio broadcasting sector.

Rastriya Samachar Samiti (RSS):

Objective

Modern technology will be applied in the collection of information, processing and distribution; RSS service will be strengthened and diversified; and the private sector will be involvement in the management of RSS.

Implementation Strategy

The physical capacity of RSS will be enhanced; and its service will be strengthened and diversified.

Programme

- The information exchange will be arranged through computer networking in the eight main cities of the country.
- Basic infrastructure will be constructed for the development and self-reliance of RSS.

- Communication network building complex will be constructed in Kathmandu.
- RSS building complex will be constructed at various eight places based on regional as well as news importance.

Tele-communication Sector Reform Projects:

Objective

- To create an environment for the establishment, expansion, development and operation of the telecommunication services in a competitive manner; and attract the private sector investment in the development of the telecommunication sector.

Implementation Strategy

- To establish and operate Nepal Telecommunication Authority (NTA) as an independent regulatory agency for the development of various communication services through a healthy competition among the operators of telecommunication services.
- To participate all the domestic and foreign investor in a competitive way for the establishment, expansion, and development of telecommunication service.
- To make all telecommunication networks and services open by 2000 in a way to operate in a fully competitive manner.

Programme

- NTA will be established and operated.
- An environment will be created in a way to encourage domestic and foreign investors to invest in the development in communication sector.
- License will be provided to service operators.
- A healthy competitive environment will be created among various operators.
- Physical capacity of NTA will be enhanced.
- Man power training will be provided to develop skilled manpower.

12.5 Science and Technology and Alternative Energy

1. Background

The fact that science and technology significantly contributes to the economic development of a nation is obvious. The attempts to support economic development by tying up science and technology with the national development policy in a planned manner have been initiated in Nepal since the Sixth Plan. The agencies institutionally organised to operate national-level programmes in this sector are National Science and Technology Council, Royal Nepal Academy for Science and Technology, National Agriculture Research Council, and Research Centre for Applied Science and Technology at Tribhuvan University. The Ministry of Science and Technology has been established in the Eighth Plan in order to co-ordinate related agencies and move their activities. In addition, various laboratories and service delivery agencies established in forwarding agriculture, forestry, botany and food sector have been fulfilling their sectoral responsibilities.

The country needs to use additional energy power to enhance the application and development of technology. Moreover, an additional use of electricity and other energy is needed to direct the country towards industrialisation by adopting new and traditional technology. Almost 90 percent of energy in Nepal is supplied by bio-mass and alternate energy sources. Since such sources of energy have been used to light stoves particularly in the rural area, the health status of women and children has adversely been affected by indoor air pollution caused by the smoke of fuel wood. On the other side, the supply of fuel wood has created deforestation and soil erosion problems in many places. A long distance needs to walk to collect fuel wood and more time needs to spend to fetch drinking water due to the drying up of water sources. Hence, special consideration will be given to conduct additional study and develop traditional energy policy in order to address the problems emerging from energy consumption.

Thus, attention in the Ninth Plan should be focused on increasing the productivity through the utilisation of science and technology and using the established infrastructure in the country. The Ninth Plan will pay attention particularly to mobilise existing, human resources; to strengthen institutional and managerial aspect for activating research agencies; to attract the private sector in research; to encourage rural, indigenous appropriate and advanced technology research; and to develop the capacity of science and technology of the nation.

2. Review of the Eighth Plan

In order to implement policy and objective of science and technology in the Eighth Plan, researches, teachings and various programmes related to scientific and technological services had been conducted. The structure of these programmes

seemed larger as compared to previous plans. In the Eighth Plan, national level programmes were conducted by Royal Nepal Academy for Science and Technology (RONAST) and National Science and Technology Council, whereas sectoral programmes were carried out by the various departments of HMG/N and other agencies. The programmes including under RONAST were bio-technology research, botanical resources (FLORA), environment, research on radio activity, solar photovoltaic water pumping, high altitude science and technology, promotion and dissemination of rural technology, electronics database and information centre, etc.

Some policy-related studies and research works were carried out under the National Science and Technology Council. The important works were research and development plan, study on the investment of the nation in research and development, evaluation of waste recycling technologies, bio-technical policy, study on bio-fertilizer and pesticide uses, implementation of Tyson turbine, etc.

Establishment of the Ministry of Science and Technology can be taken as an important achievement of the Eighth Plan. Following the formation of the Ministry, formulation of long-term science and technology plans and programmes have been started. The prevailing chaotic environment of RONAST for a long time has come to an end following the amendment of RONAST Act. With the initiative of the Ministries Various activities like study on the status of the National Computer Centre under the Ministry, data collection of science and technology-related agencies, human resources and available equipment, research works, etc. have been started.

Activities such as wool dyeing from natural colour, use of solar energy and study of various edible things and low-priced house building technique were carried out by the Research Centre for Applied Science and Technology, TU. In addition, a feasibility study for producing petrol-and diesel substitute oil from the plants available in various parts of the country has been begun. Perspective plans on agriculture, forestry and energy sectors have been formulated. National Agriculture Research Council has been able to arrange abundant economic resources from international agencies donor and various donor countries in order to encourage research. Moreover, the Council has broadened its scope and has tried to direct its management towards autonomy. An attempt has been made to use outreach research as an effective means to enhance agriculture extension and participation of agriculture entrepreneurs and farmers.

During the plan period, Lumle Agriculture Centre and Pakhribas Agriculture Centre, which have playing a leading role in agriculture service and research works in the hilly areas in Nepal for more than two decades, have been integrated into National Agriculture Research Council in a phase-wise manner.

Towards the development and expansion of rural and traditional technologies, handicraft design, training on leather goods production, ceramics promotion and skill enhancing programmes have been conducted by the Department of Small Scale Industry. In addition, soil testing, white glaze, mosaic tile, and electric kitkat testing have been carried out at various places. It is self evident that use of techniques in

rural area has possessed great importance; however, due to the low investment in research and development, the level and the scope of such technologies have not been broadened.

Regarding mines and geology, important works like rural survey, geological section measurement, petro-geological sampling, regional stratigraphy and remote sensing, seismological network establishment, landslide inventory and slope stability mapping were conducted during the plan period.

The Botanical Department has continued technology development works for making various medicines from the plants available in various parts of the country. The Department has quantitatively increased its previous works like herbal and pharmaceutical study, chemical analysis, research on plants with scented oil, botanical protection (plant curation, germplasm collection, ecological, anatomical study).

The Water and Energy Commission has completed the study on water utilisation of some districts, study on ground water utilisation, preparation of energy profile, field and area study of glacier lake. Likewise, the Department of survey has conducted detailed study on the crystal dynamics of some places with foreign technical and economic assistance in addition to its regular works like astrological study, topographical map preparation, Geodetic survey, GPS (Global positioning system) survey and Aerial photography. The development of GIS (Geographical Information System) has been initiated by National Planning Commission and ICIMOD (International Centre for Integrated Mountain Development).

During the Eighth Plan period, a total of 30,494 bio-gas plants were installed as against the target of 30,000 establishments in order to produce 3 percent i.e. 72 megawatt energy of the total capacity of 2400 megawatt bio-gas energy on the basis of the entire existing livestock in Nepal.

Traditionally, solar energy is used to dry up some agro-product whereas it is at present started to apply in other activities i.e. heating water, generation of electric energy through photovoltec system, etc., The electricity generated through photovoltec system has been utilised to pump water for drinking and irrigation purposes and also for operating telecommunication equipment. In addition, the private sector and semi-government agencies have been involved in the development and promotion of solar power.

During the Eighth Plan period, a total of 1199kw (24 percent) hydropower has been generated against the target of enhancing the hydropower capacity by 5000 kw from the implementation of various small hydropower projects.

During the Eighth Plan period, target was set to prepare master plan and conduct programme for the development of wind power; during this period however, no programme could be launched. The wind power plant become closed due to technical problems, although it distributed energy in Mustang area in the past. There is a

potentiality of wind power development in Palpa, Ramechhap, Karnali, Chisapani, Jumla and Namche; nevertheless, nothing could be done to this end.

3. Existing Challenges

The target of the Eighth Plan was to increase rural economic activities by producing electrical and mechanical energy through micro hydel power; however, due to the lack of programmes, are faulty subsidy and policy management, even allocated budget could not be utilised. The development of micro hydel project has negatively been affected due to the lack of required maintenance, shortage of necessary machinery parts, lack of evaluation and monitoring of the quality of production equipment and plan in the running micro hydel projects. Water utilisation issues have appeared in some micro-hydel projects. In addition, lack of necessary technical and non-technical training for entrepreneurs of micro hydel projects has been noticed.

Bio-gas development programme has gained more popularity in rural communities; however, it has not been able to reach the rural poor. Rural people are not getting partial subsidy offered by HMG/N and foreign assistance. The main reasons for this are their inability to invest the residual amount and the lack of collateral to get loan from the banks. The appropriate returns have not been achieved from bio-gas technology due to the lack of necessary publicity and research of bio-gas technology development in areas with low temperature, or in cool area, and of the use of residuals of bio-gas exultant dung.

Although there is an increase in the involvement of government sector, the private sector and non-government organisations in the development of solar energy, expected development in its utilisation has not been noticed due to the lack of long-term solar energy development programme.

It is realised that the programmes for creating public awareness about bio-energy utilisation are far short of requirement. The improved stove distribution programme for keeping rural people healthy and reducing deforestation became inadequate, and some lacking still prevailed even though there was a programme for providing the information about the use and usefulness of improved stove. Due to the lack of firewood, the use of dung and residue of bio-mass has increased including the increment of kerosene and L.G.P. gas utilisation in the urban area.

The sources of hot water which is located at various places of the country has been used for bathing and limited only for washing and applied for health treatment at some places. There is a potentiality of fishing pond swimming pool construction, green house farming, soil heating and drying of agro-residual through mobilising hot water sources; however, no action has been taken to this end. The inventory preparation and scientific study of hot water sources have yet to be done.

4. Long-term Concept

Perspective plans have been formulated for the sectors like agriculture, forestry and energy; however, macro plan for science and technology has not yet been drafted. HMG had published a national Science and Technology Policy in 1988. The policy stated that the development of science and technology aimed at the application of science and technology for the overall development of the country and enhancing the capacity for that purpose. Moreover, the application of science and technology for national development, self-reliance and enhancing intellectual creativity has been targeted in the policy and the priority has been set for capacity enhancement.

The overall objective of the Ninth Plan is to bring economic prosperity to the people by alleviating poverty; through socially and economically empowering people; bringing them into the mainstream of development. In order to achieve this objective, targets have been set for developing science and technology; acquiring self-reliance by enhancing necessary intellectual creativity; ensuring proportional distribution of returns by incorporating the achievements of the science and technology in relevant activities of rural and deprived people; developing gradually the research sector by adopting research as a necessary aspect in higher education; and developing small technologies and skills prevailing in the rural area. Accordingly, the following long-term concept has been adopted for the science and technology sector:

- The fundamental goal of the development of rural energy systems is to increase employment opportunity which develops economic foundation and enhances rural living standard. Environmental sustainability will be maintained in local area.
- Considering the long-term effect on the utilisation of natural resources, the application of traditional energy sources will gradually be replaced by modern energy.
- The necessary arrangement will be made to provide research, information flow, training and financial services in a way to make market economy and people's participation strong, capable and meaningful for energy development.
- The commercialisation of technology will be carried out by arranging technology development and expansion in a planned way; and existing foreign dependence for energy will be reduced.

Ninth Plan

5. Objective

- Science and technology will be applied in achieving national objective and maintaining sustainability in economic, social, cultural and environmental perspectives of the country.
- Traditional technology like agriculture, cottage and small industries which can contribute to rural development will be improved, and appropriate rural technology will be developed and transferred.

- Advanced technology which is necessary for reducing foreign trade deficit by exporting the goods and services having comparative advantage will be developed and transferred.
- An arrangement will be made to comprehend usefulness of science and technology in ordinary people, teaching and learning of science and mathematics among students will be standardised; and research will be conducted along with teaching and learning in higher institutions.
- A conducive environment will be created to conduct objective research on production process; and, to this effect necessary encouragement will be provided to research and development (R&D) agencies established in the government, the private and the non-governmental sector, and to all scientists and technologists.
- Traditional energy sources will be supplied to fulfill household purposes, economic and health activities and basic needs and to increase the income of the rural community.
- Energy use efficiency will be improved by adopting new technology for rural energy and economic development; and negative environmental effect created by other activities will be minimised.
- Hydro and meteorological services will be expanded and upgraded.

6. Policy and Implementation Strategy

- A conducive environment for imparting standard science and technology education at three layers of educational institutions (school, college and university) will be created. The proportion of technical education will gradually be increased at three layers of educational institutions with a view to link science with day to day life. Necessary physical facilities, research environment, educational exchanges refresher course, etc., will be properly arranged in order to make such kind of education of regional and international standard. Students will be attracted to technical education rather than imparting pure theoretical knowledge only. The industrialisation and service-oriented technology sector will be expanded in order to utilise skilled manpower thus produced.
- An improvement in endogenous and traditional technology will be made in order to bring backward people into the mainstream of development and improve the economic situation of agricultural, cottage and rural sectors. In order to implement this policy, programmes for subsidy to research and development for the private and government agencies involved in rural development, and the expansion and dissemination of science and technology in rural areas will be increased in order to impart new knowledge of science and technology to the rural people .
- Prior to the application of imported technology, selection process will be practically conducted in a way to have a positive effect on such sectors as economic, social, and cultural. While selecting the technology, attention will be

paid particularly on reducing under-employment and implementing projects, accordingly. In such a selection process, scientific and technical communities and technology users will be actively involved.

- A policy will be adopted to increase production and productivity of one's agency by the compulsory adoption of advanced technology in economic and social sectors. Necessary strategies will be under taken to implement this policy efficiently.
- Special consideration will be given to commercialise indigenous technologies developed in various sectors as per the strategy. Regular interaction among research agencies, higher education institutions, industry, private sector and practitioners will be conducted in order to strengthen the identification, operation and application of indigenous research areas; and a national level committee will be established under the Ministry of Science and Technology with the representation of all these sectors.
- Science and technology committee will be formed in all government and semi-governmental agencies; and representatives from the Ministry of Science and Technology and experts from necessary fields will be incorporated in these committee; and the Ministry of Science and Technology will provide financial and technical assistance to these committees.
- R&D unit in all government and semi-government agencies relating to science and technology will be set up and established units will be strengthened.
- Business institutions will be encouraged to form such committees and to allocate a certain percent of their profits to invest in research.
- System of developing the science and technology sectors based on R&D will be initiated in the districts, municipalities, and VDCs.
- Drastic change will be made in the implementation process of projects run under development budget of ministries and departments, and costing and programming of such development works will be based on transparency established through study and research rather than conventional basis of guess estimates.
- A national science and technology management system will be developed to ensure efficiency and effectiveness of national investment in the area of science and technology.
- In order to give highest priority to R&D, separate science and technology service for personnel working in the science and technology sector will be formed; and lateral entry system will be developed.
- Advanced technologies necessary for the export of goods with comparative advantage will be imported from developed countries. Such goods and services will be produced within the country by developing appropriate production technology for bio-technology, computer software, Ayurvedic and pharmaceutical

products, perfumes and essential oils. Production responsibility of such goods will be assigned to existing R&D agencies as far as possible; co-ordination will be maintained among various agencies within the country; technology park will be established and operated; and projects will be jointly implemented with national and international agencies.

- Special programmes on information and dissemination will be implemented for the publicity of research findings of science and technology. In order to implement this policy, science information centre will be set up with the coordination of concerned agencies; publicity will be carried out through various means; and permanent mobile exhibitions will be organised. In addition, standard of science and mathematics courses will be improved in curriculum and teaching method in collaboration with the Ministry of Education and related agencies; and subsidy will be arranged for researches in higher education under university.
- Hundred percent additional remuneration of salary will be offered to scientists and technologists involved in R&D in order to encourage science and technology personnel, and R&D agencies to conduct and arrange result-oriented and time bound research independently. In addition, patent rights will be provided; necessary recognition will be given to such scientists; and custom duties will be exempted to research for importing research equipment.
- A twenty-year science and technology perspective plan will be formulated during the Ninth Plan; and the period by incorporating all related aspects of science and technology, Ninth Plan will be the part of such a perspective plan.
- Necessary institutional framework and system will gradually be developed for the optimum development and application of science and technology.
- The Ministry of Science and Technology will maintain co-ordination among various government, semi-government and non-governmental organisation agencies involved in science and technology sector, and necessary assistance will be provided to make the Ministry capable.
- Necessary strategy will be designed to control national brain drain, and adequate working opportunity will be provided to excellent young scientists in the area of their expertise.
- Bilateral, multi-lateral, regional and international mutual relations and assistance will be developed in the science and technology sector.
- A guideline will be prepared for various ministries and departments, institutions, industry and other agencies related to science and technology for the successful implementation of science and technology policies.
- Supply of traditional sources of energy will be increased and negative environmental impact from their use will be minimised.

- Private sector, national and international non-government organisations will be involved in research and development for utilising and reducing the cost of rural and alternative energy sources and technologies. Collection of data on solar, wind and geo-thermal energy will be made up-to-date and institutionalised through Alternative Energy Promotion Centre. Special consideration will be given to diversify energy utilisation in order to improve the feasibility of new energy sources.
- Absorption of energy will be reduced by increasing the existing bio-energy utilisation efficiency while considering the replacement time for traditional energy, and special attention will be given to expand and promote improved stove to keep rural environment smokeless and more healthy. Similarly, special emphasis will be given to replace kerosene and diesel by generating micro hydel, solar and other isolated energy generation for light and other purposes.
- Application of hydro, solar and wind energy will be encouraged to replace imported energy through adaptive study, research and development and commercialisation of energy technology. Educational research institutes and the private sector will also be mobilised towards this end.
- Local energy development programme based on geographical region will be designed for balanced and sustainable development of easily available energy and will be implemented in some districts; a rural energy accounting system will be introduced with this programme on an experimental basis; and a rural energy development fund will be established for making the system sustainable.
- Necessary institutional arrangement at the central level will gradually be made to integrate rural and alternative energy development with rural development programme. Alternative energy promotion centre will be developed as a main agency for the promotion and development of alternative energy sources in Nepal, and its committees will be reconstituted and made more autonomous.
- Private sector will be attracted and encouraged to conduct study and research; promote, disseminate, establish, operate and develop the sources and technologies of energy (including alternative energy); and in order to connect the energy produced from rural alternative energy with the central grids, such energy will be purchased at a reasonable price; subsidy will be granted; and legal provisions will be made.

7. Programmes

- Various programmes will be implemented for the application and monitoring of science and technology and the main responsibility for conducting such programmes will be lied on the Ministry of Science and Technology. Necessary specialists and consultants will be appointed towards this end. An integral unit will be created under the MOSAT to this end. This unit will carry out review of research and development and other development-related works.

- MOSAT will carry out rural technology development and dissemination programmes. All the related research and development works, and propagation of its findings will be carried out through governmental, semi-governmental, non-governmental and international non-governmental organisations involved in this sector.
- Advanced technology transfer and development programme will be conducted through the agencies that are interested to produce goods having comparative advantage, develop and transfer necessary technology for export and trade promotion, and arrangement of subsidy will be made through MOSAT towards this end.
- Science and technology dissemination programmes will be launched for imparting the importance of science and technology to the public; raising the teaching standard of science and technology in the educational institutions; incorporating research into higher study in universities; developing information system for propagation through newspaper, radio and television. Science village will be established in various development regions as per requirement. Two science Olympiads and mobile exhibition works will be organised during the Plan period. Curriculum will be upgraded to enhance teaching standard of science and technology in schools, and attention will be drawn towards applied science by preparing science package materials. MOSAT will perform this work through related agencies.
- In order to encourage institutional development of science and technology and the scientists, necessary subsidy will be granted to reduce prevailing weakness in the existing agencies and equipment will be arranged; and research subsidy to the research project carried out at the personal and institutional level will be provided.
- MOSAT will draft a twenty-year science and technology perspective plan with the massive participation of scientists and technologists of the county.
- Micro-hydel project equal to around 5,200 kw will be installed during the Ninth Plan. Subsidy programme and necessary study, training and standardisation programme to develop micro-hydel power will be conducted to achieve this target. Training programme will be carried out for entrepreneurs and workers to strengthen the micro-hydel project economically and technically. Around 93 micro-hydro electricity projects running under the Rural Energy Development Programme of the UNDP will be operated by 2000 AD. Around 1900 kw electricity will be generated by these projects. The research, technology development, human resource development and people mobilisation will be carried out under the programme.
- The existing bio-gas support programme will be continued in the Ninth Plan. 90,000 bio-gas plants will be established while taking the Eighth Plan's achievement into consideration. The existing subsidy for this programme will be maintained. Non-collateral investment for rural energy development under the Rural Poor

Programme as targeted by the programme will be encouraged. The rural energy development fund will be mobilised as a revolving fund and used as collateral for this purpose. Research will be carried out in order to produce bio-gas in the hilly and the northern regions of the country.

- Improved stove technology will be developed and promoted with the active participation of the private sector and non-governmental organisations. Improved stove programme will be launched in 45 districts during the Plan period, and about 150,000 stoves will be installed. Besides, 100,000 additional improved stoves will also be installed by non-governmental sector.

Solar Energy

- Around 38,000 household photovoltaic systems will be installed during the Plan period at remote places that are not feasible to link with the central grid system and to generate micro-hydel electricity. In the near future, based on the experience, at least photovoltaic energy can provide energy in such areas for lighting purpose.
- It is obvious from the previous experience that solar dryer can be established under the thermal solar energy programme in order to increase income for rural communities. Since such programmes can contribute to stop the environmental degradation, around 300 solar dryers will be installed during the Ninth Plan period.
- Special emphasis will be given to community income-increment training and priority training necessary for making solar energy programme successful. Similarly, solar energy data collection programme will be conducted. Based on these data, long-term solar energy programme will be designed, and solar stove will be expanded on the basis of study.
- The other alternative energy like wind and geo-thermal energy which seems technically feasible but has not yet been confirmed their viability will be studied and identified their feasibility. Some pilot projects will be operated to utilise and expand hot water springs at some places, following the determination of technological inventory of hot water springs of existing sources along with data collection and mapping of wind energy for that purpose.
- Quality standard will be maintained by organising workshops on determination quality in order to provide appropriate qualitative technology to consumers while maintaining the quality of commercialised technologies like micro-hydel and solar photovoltaic. Similarly, programmes for cost reduction, quality enhancement and encouragement to entrepreneurs will be operated.
- Non-collateral loan will be provided for most of the people who are unable to utilise the subsidy for alternative energy technology in the absence of collateral. Rural energy development fund will be created, and special consideration will be given to mobilise local NGOs and to create income generation opportunities while providing such loans.

- In the hydrology and meteorology sector, programmes will be conducted to maintain and develop water, hydrology and meteorology network; to minimise negative economic and social impact created by natural calamities, landslides, water and air pollution, and climate changes, etc; and to prepare various types of data base on watersheds, water resources, meteorology and pollution in order to make climate and flood forecasting modern, and to improve maps.

Table
Ninth Plan: Alternative energy Development
Physical Target

S.No	Description	Unit	1997/98	1998/99	1992/20	2000/01	2001/02	Total
1.	Micro-hydro							
	a) Micro-hydro Installation	Kw	226	580	930	1530	1950	5216
	b)Mini-hydro Installation	Kw	0	185	333	742	740	2000
	c)Micro-hydro Inventory study	District	3	3	3	3	3	15
	d) Micro -hydro Feasibility Study	Rs in	0	2	2	5	5	14
	Grant	million	25	65	100	200	200	540
	e)Micro-hydro Training	Number	425	510	510			1900
2.	f) Rural Energy Development	Kw						
	Programme		12000	14500	17500	21000	25000	9000
	Bio-mass	Number	0	5	10	15	15	45
	a) Bio-gas Installation	District						
3.	b)Improved Stove							
	Training/Demonstration/Supervision/ Technology R&D	Number	1200	4800	8000	12000	12000	38000
	Solar Energy:	Number	30	60	60	60	90	300
	a) PV System Installation (Frday 36/50 peak)	District	1	4	5	5	5	20
4.	b)Solar Dryer Installation(3 sq.m)	District	4	6	8	10	12	40
5.	c)Solar energy Data Collection and Mapping	Disatrick	0	1	1	1	0	3
	d)	Number	0	0	0	1	1	2
6.	Training/Demomonstration/Technoligy R&D	Number	0	2	2	2	2	8
	Other Alternative Energy:	Rs in	0	2.5	2.5	2.5	2.5	10
	a) Wind Energy Data Collection and Mapping	million						
	b) Geo-thermal Inventory Study							
	c) Geo-thermal Pilot Project							
	Quality Determination							
	Workship/Seminar/ Research							
	Rural Energy Development Fund							

Social Service and Social Security

13.1 Education

1. Background

Education plays a prominent role in creating patriotic, disciplined and productive manpower. Educated manpowers are precious assets as well as agents for advancing the nation. Multidimensional development and progress of a country depend upon the education policy adopted by the country. In this context, ever since the establishment of democracy in 1950, various attempts have been made to move educational programmes forward and make them comprehensive in a planned way, in line with democratic norms and values, based on the demand of time and aspirations of people. Education in the Ninth Plan has remained a main policy for utilising education as an effective means to poverty alleviation and all-round development. Moreover, special emphasis will be given towards availability of equal opportunity in education; improvement in qualitative standard; enhancement in internal and external capability; and making education development-oriented.

2. Review of the Eighth Plan

The achievement of targeted programmes in the Eighth Plan was satisfactory. The progress made in the education sector during the Eighth Plan period is presented in the following table:

Description	Target	Progress
Net Enrolment Percentage of Children in Primary Level	90	69.4*
Additional Primary Schools.	2025	3524
Additional Primary Teachers	8000	14883
Enrolment Percentage of Children in Lower Secondary and Secondary level.	45	
Lower Secondary.		50.3
Secondary.		34.7
Additional Teachers	5404	
Lower Secondary		6699
Secondary		4796
Additional Schools	900	
Lower Secondary		1461
Secondary		824
Higher Secondary Schools	125	213
Student Number	40,000	21,048
Literacy Percentage of Informal Education.	60	48.00**
Appointment of Women Teachers	5100	4150
Technical Education :		
Regular Training	2595	2274
Short-term Training	2034	6709
Universities	-	5
Affiliated and own campuses of Tribhuvan University	-	166

* Net enrollment percentage in totality

** Literacy percentage in totality

On primary education sector during the plan period, net enrolment of children between 6 to 10 years of age was targeted to make 90 percent with the establishment of 2025 additional primary schools and the appointment of 8,000 additional teachers. According to the statistics of 1996, 3524 additional primary schools were established and 14883 additional teachers were appointed and net enrolment percent stood at 69.4. In lower secondary education sector, the Plan aimed to make education facility available to 45 percent children of 11 to 15 years of age, and set a target to establish 900 additional schools and appoint 5404 additional teachers. However, at the end of the Plan, 1461 additional schools were established; additional 6699 teachers were appointed; and children enrolment percentage on lower secondary was 50.3. In secondary education, 824 additional schools were established, 4796 additional teachers were appointed; and net enrolment percentage was 34.7.

In higher secondary education, a total of 213 higher secondary schools were in operation by FY 1996/97 as against the target of conducting higher secondary education in 125 high schools of the country during the plan period. In the front of student enrollment, a total of 21048 students enrolled against the target of 40,000.

Considering the fact that illiteracy constitutes a main barrier to the development of a country, a target was set to make literacy rate 60 percent and implementation literacy programme as national campaign. During the Plan period, the government and non-government literacy programmes increased the number of literate people by 13,06,000 and the literacy of population of 6 years or above in the country was estimated to have remained 48 percent.

Basic and Primary Education project was implemented with the objective of improving the quality of primary education. During the Eighth Plan, this project conducted pre-primary classes in 588 schools of 40 districts of Nepal with the objective of decreasing class dropout in primary level. This project provided in-service training to 91,963 teachers; established 661 resource centres; and constructed 395 resource centre buildings under the institution development programme. This project also constructed 12,192 new classrooms, 15 District Education Office buildings and renovated 6,019 classrooms. In line with the policy of giving priority to the appointment of women teachers in primary school and the objective of appointing compulsorily at least one woman teacher in primary school 4,150 women teachers in each primary school were appointed.

During the Plan period, primary education development project set a target to establish 9 primary teacher's training centres in nine parts of the country. The project achieved this target and the training centres conducted training programmes. It provided training to 17,265 primary teachers. Secondary Education Development Project has been implemented with the objective of enhancing the quality of secondary education. This project, during the Plan period, conducted training programme to the secondary school teachers on English, Mathematics, Science and Nepali. It also revised curriculum and textbooks and reformed examination system.

In the area of technical education and vocational training, four new technical schools were targeted to establish, and technical schools in Doti, Banke, Dang and Mustang districts of the country were established as per the target.

The Technical School and Vocational Training Centre, which works under Technical Education and Vocational Training council, set target to provide regular training to 2,595 teachers and short-term training to 2,034 teachers. It provided regular training to 1,274 teachers and short-term training to 6,709 teachers.

During the Plan period, Kathmandu University and Eastern University have been established and are in operation. Similarly, Pokhara University has been proposed to establish. During the Eighth Plan period, the number of universities has reached to 5 including Tribhuvan University and Mahendra Sanskrit University and a total of 166 campuses have been functioning under Tribhuvan University; among them, private campuses are 135 and campuses under Tribhuvan University are 61.

3. Existing Challenges

The education sector faces various problems. Basic education is not still available to all people. More than half of the population is illiterate. Quality of education from basic to higher level has not improved as expected. Educational programme lacks equal gender participation. Internal and external capacity of education system from basic to higher level is not encouraging. Educational management has not become strong. Education sector has been unable to get spontaneous and result-oriented public participation. Syllabus and textbooks have been integrated with development needs and made mutually inclusive at different levels of education. Cost recovery concept has not been really implemented in higher education. Specially, in primary schools in the rural areas, teacher's attendance is low. School has not become a centre for attraction. Teacher's training has not been made effective. Specially, in remote areas, education materials like textbooks have not been distributed in time.

The vocational and technical education provided in the secondary to higher level has not been fully integrated with the process of economic development in the country. Students coming out from exit point at each level of education have not been developed to fulfill the manpower requirement for the development needs of the country.

The achievement of research and development programme in the education sector has not really been utilised. No step is found to have undertaken for making sustainable and result-oriented programme in the education sector. Thus, problems of the present education system can be stated as follows:

Pre-primary Level:

- Lack of resources to provide opportunity of pre-primary education in all over the country.
- Lack of capability to prepare efficient teachers to provide pre-primary education.
- Lack of capability to arrange education materials to conduct pre-primary education programme.
- People's participation has not been made result oriented.

- No particular attention has been paid to make programme effective in line with the achievements of innovative work performed in pre-primary education.

Primary Level :

- About 31 percent of children of primary school age have not enrolled in schools.
- Attendance of children in schools is particular is low.
- Children of weaker section, schedule caste, backward group and people living in remote areas are deprived of the opportunity for getting primary education.
- Dropouts and repetition in primary level remains still strong.
- External and internal efficiency of primary education is not encouraging.
- Attendance of teachers in primary schools particularly in the rural areas is not satisfactory.
- Defects still exist in making syllabus career-oriented.
- Achievement of projects implemented in the primary education sector has not been institutionalised.
- Lack of reform for improving the quality of education as expected.
- Education management has not been decentralised due to the lack of people's participation in the qualitative improvement of primary education, guardian's interest in children educational achievement and dynamic role of social service agent and concerned agencies.
- Lack of effective supervision of primary school, monitoring of school programmes, and student evaluation.
- Lack of solid promotive measures for making accessible and availability of primary education.

Secondary Level:

- Syllabus has not been revised in accordance with social, economic, technical and political context, and lack of effort to make it timely.
- Lack of comprehensiveness in teacher training programme.
- Lack of effectiveness in supervision of secondary schools.
- Lack of qualitiveness in student learning achievement.
- Local people's participation in school management in most places has not been made active.
- Programmes necessary for making management aspect fruitful, such as guardian's involvement in school programmes, concern of local bodies, social interest, etc have not become spontaneous; and the belief that school management is only the government responsibility is widespread among people.

- Decentralised management aspect has become a secondary matter.

Higher Secondary Level:

- Higher secondary level (10+2) has been set as the last point of school education; however, the present structure of higher secondary level remains at diverse forms.
- Management of higher secondary education has not been made clear, capable, effective, decentralised and contribution oriented.
- Mapping and substantive bases needed to promote higher secondary school have not yet become up to date.
- Most teachers of higher secondary level are under qualified and un-trained.
- Ambiguous policy about teacher's professional security, career development, permanency, salary and other benefits has created a confused situation between teachers and management.
- Necessary physical facilities are inadequate to conduct higher secondary level education.
- Higher secondary level syllabus has failed to produce necessary manpower to fulfill the development requirements of the country.
- Weakness in textbook preparation and distribution has appeared.
- Weaknesses still exist in making examination system decentralised, systematic, scientific and effective.
- Though policy was adopted to consider higher secondary education as an extended form of secondary education, its organisational and management aspects have not been modified accordingly.
- There is no planning about infrastructure; teacher and financial arrangement needed to transfer proficiency certificate level to higher secondary level.

Higher Education:

The Ministry of Education has limited control over universities. The existing inequality between school education and higher education has not helped to develop interrelation among syllabus, examination, enrolment policy and financial arrangements. Tribhuvan University has become centralised. Its educational and administrative management aspect is weak. Problems existed in higher education can be pointed out as follows:

- Almost all the financial burden of T.U has been borne by the government. No steps are found to have undertaken towards cost recovery. Effective programmes have not been conducted for taking economic benefit through the mobilisation of fixed and current assets of universities.
- Campus and research centres are not financially autonomous; and active steps have not been undertaken to fulfill this need.

- No active effort has been made to produce manpower as per the need of productive sector through the interaction and cooperation of the sector for the formulation and implementation of necessary curriculum.
- Lack of effective involvement of teachers in teaching activities, limited efforts to increase the quality of higher education.
- Lack of study and research oriented education for students for getting new knowledge.
- There is the concept of regional university on the one hand and the attitude for developing major campuses under Tribhuvan University as one university on the other.
- Lack of awareness in converting existing technical institutions into Technical University.
- The reasonable task of providing autonomy to efficient and capable self-sufficient research centres, campus, institute under T.U. have not been actually materialised.
- Situation has been created to take the responsibility of conducting 7 years of higher education by TU until proficiency certificate level is converted into 10+2 level.
- Late publication of results of the examination conducted by T.U. has made the whole academic year of students a waste.

Technical and Vocational Education. :

- Lack of harmonization in the production of basic, medium and higher level manpower in accordance with the pace of economic development.
- Technical and vocational education has not been made easily available at the local level in order to produce needed manpower according to local development needs.
- Technical and vocational education could not be extended to upgrade the skill of local artisan and occupational group.
- Lack of coordination between the programme of Technical Education and Vocational Training Council and the programme for technical and vocational education conducted by the private sector in the balanced production of qualitative and competitive manpower.
- Technical education and vocational training programme could not be implemented in a cost effective manner.
- The process of adjustment in the syllabus of technical and vocational education could not be performed effectively as per the demand of production sector.
- In order to produce basic and medium level manpower, technical and vocational education could not be extended to the local level.

- Reputed private education institute could not be attracted to conduct technical and vocational education programmes in different parts of the country.
- Institutional capacity of Technical Education and Vocational Training council could not be increased.
- Labour Management Information System could not be systematically developed.

Education Administration:

The participation and the role of community and those directly interested in the education sector have become secondary matter due to the state control in planning, organisation, management, financial liability and different activities for education system. There are separate agencies for formulation and implementation of educational planning and programme, development of syllabus and textbooks; supervision and monitoring, teacher management, training and school administration. However, activities of these agencies have not been conducted relatively in a co-ordinated manner. Regional Education Directorate and District Education Offices have failed to provide effective educational leadership.

Examination:

Result of SLC examination is not much encouraging. SLC examination is conducted by SLC Board and higher secondary level examination by Higher Secondary Education Council. Examination is conducted at the central level; therefore, examination control office is under heavy pressure for holding examination. Objective of student is limited more to pass examination by memory than to know the actual meaning of textbooks. Decentralisation process for conducting SLC examination has already been initiated; however, Regional Education Directorates have not been made capable of taking this responsibility effectively.

Educational Project:

Programmes of Higher Education Projects, Secondary Education Projects, Basic and Primary Education Project and Primary Education Projects for education development have been implemented in parallel with the programmes of various agencies within the regular educational institutional structure-Particular strategy has not been designed for eventually institutionalising the activities of these projects.

Financial Arrangement:

Government is bearing heavy financial burden in the education sector. Co-operation of concerned persons, participation of people and contribution of community are necessary to bear the increasing cost in education. However, encouraging achievement has been made in this direction.

School Mapping:

It is appropriate to establish schools on the basis of school mapping; however, there has been no analysis of different studies already done in this field, and school mapping has not been given continuity in an effective way.

4. Long-term Concept

Emphasis will be given to develop and implement those significant educational programmes, which make education time relevant as well as research-oriented, scientific, creative, productive, and technology oriented. Educational institute will be developed as a centre of excellence; internationally competitive manpower will be produced. To achieve this objective, modern and scientific technology will be used in classroom teaching technique. Computer will be used extensively to create the capacity of adapting new knowledge developed in the international field.

Basic education will be made easily available to backward class, schedule tribes and people living in remote areas, deprived and socially marginalised communities from education; these people will be integrated with the main stream of national development. Syllabus will be reformed according to internal and external conditions; and syllabus of different education levels will be made mutual reinforcing. In order to prevent educational unemployment, context focused and development based education will be developed.

In fiscal year 1996/97, enrollment percentage of children in primary education was 70; at the end of the Twelfth Plan the target is set to make it cent percent. Likewise, enrolment percentage of children going to lower secondary and higher secondary education age group will be made 85 and 75, respectively. Percentage of literate person of 6 years or above age will be made 70 percent at the end of Ninth Plan and hundred percent at the end of the Twelfth Plan. Educational activities will be conducted with the objective of making it qualitative, time relevant, and career-oriented. Unequal gender participation in education sector will be addressed.

Technical and vocational education will be developed and extended effectively; and special emphasis will be given to produce basic, medium and higher level manpower in the country. In this context, recognised foreign education institutes will be encouraged to establish their affiliated institutes in Nepal by providing them various facilities.

In the international context, a new system has been developed to bear the burden of educational cost by the production sector by conducting programmes reflecting the need of the production sector in the operation of higher education. Mutual relationship between university and industrial institution has also borne significant economic burden for the formulation and implementation of higher education curriculum. Taking this reality into consideration, an emphasis will be given to bear economic cost of higher education by isolating from the system of depending upon government grants only to ensuring cost recovery system, people's participation, private sector for long-term resource mobilisation for higher education. Open and technical universities will be established at the national level in order to achieve the objectives of making higher education available on the basis of social demand and development oriented, and developing scientific education technique.

Ninth Plan

Polices will be adopted to develop education as a fundamental means for alleviating poverty and bringing substantial improvement in the standard of livings through

socio-economic well-being, and achieve national progress through the proper development of human resources. The education sector policies will aim to prepare patriotic citizen conscious and loyal to democratic values, capable, productive, disciplined, responsible to human right and social values; make primary education gradually compulsory; conduct literacy programme as a national campaign; emphasise qualitative development of secondary education; fulfill the short of supply of basic and medium level skilled manpower through comprehensive extension of technical education and vocational training facilities; extend higher-level technical education to supply high level technical manpower; upgrade the quality of education; increase women participation in education by extending and making accessible women education; and provide education to disabled, backward and weaker sections for bringing them into the national mainstream.

The Ninth Plan has been formulated in the light of achievements made in the education sector; existing problems; provision about education in the constitution of the kingdom of Nepal 1990; and national long-term objective and target of the education sector. While focusing on the long-term objective of education to make primary education easily available to all children of primary schooling age and make all people literate at the end of the Twelfth Plan period special emphasis will be given to the development and extension of basic and primary education. The education sector in the past has made substantial progress; however, the quantity of education has not been developed as expected. In this context, it is highly essential to give emphasis on such factors that play an effective role in enhancing the quality of education, such as teacher's training; reform in physical facilities of schools; timely revision of syllabus and textbook; regular and effective supervision system; and regular and effective examination.

5. Objective

- To develop education as an effective means for human resource development which is indispensable for overall national development and poverty alleviation.
- To prepare citizen conscious of and devoted to democracy, individually capable, productive, disciplined, responsible to human right, social liability and sensible to nationality.
- To make primary education easily accessible to people and conduct programme for making primary education gradually compulsory.
- To expand gradually secondary and higher secondary education in line with the development need of the country.
- To conduct literacy programme as national campaign by making it skillful, knowledgeable and information oriented.
- To supply basic and medium level technical manpower by extending opportunities for technical education and vocational training.
- To extend higher technical education for the supply higher level technical manpower.

- To expand opportunities for and accessibility of women education for enhancing gender equality in education.
- To provide educational opportunity to disabled, backward ethnic tribes and deprived sections of people living in remote areas and bringing them into the national main stream.

Educational Level-wise objectives:

Pre-primary Education: To expand the opportunity of this level of education, to create an interest for education to the children of 4-5 years and make them capable of enrolling in primary level through the medium of educational and recreational activities.

Primary Education: To make primary-level students capable of simple reading and writing, and handling ordinary daily account; develop them to cultivate a habit to be clean and healthy; and generate a feeling of patriotism in them.

Secondary Education: To prepare students with knowledge and skill necessary for the study in higher secondary level; to inculcate a positive feeling about work; to make them conscious and devoted to nation and democracy, committed to productive work; to make them aware of environmental conservation; to develop in them a sense of complying with moral decency and social and cultural values and norms; and to discharge the duty of self dependent citizens.

Higher Secondary Education: To prepare students capable of contributing as creative and productive medium level manpower for the overall development of the country; having faithfulness as possessed by the conscious, self dependent and patriotic citizen; and acquiring knowledge and skill needed to study at the graduate level.

Higher Education: To develop academic sharpness at this level of students and the quality and capacity needed for intellectual development; discharge social responsibility, performing the role of skilled manpower for the overall development of the country; and create the quality as possessed by conscious, self dependent, capable and patriotic citizen.

Technical and Vocational Education: To produce basic, medium and higher level technical manpower needed for the all-round development of the country.

6. Target

1	Pre-primary education	To conduct Pre-primary 10,000 classes
2	Primary Education:	
a.	Net student enrolment percentage	increase to 90
b.	Primary School	add 3,000
c.	Primary Teacher	add 15,000
3	Lower Secondary Education:	
a.	Easily student enrolment percentage	increase to 55

b.	Lower secondary school	add 1,500
c.	Lower secondary school teacher	add 6,000
4	Secondary Education	
a.	Easily observable student enrolment percentage	increase to 45
b.	Secondary School	add 2,000
c.	Secondary school teacher	add 8,000

Higher Secondary Education: To establish 758 higher secondary schools and raise easily observable student enrolment percentage to 60.

Training: To provide in-service training to 5000 primary teachers, 10000 lower secondary teachers and 5000 secondary teachers; and provide training to 2000 higher secondary teachers.

Technical Education: To provide regular training to 4995 people and short-term training to 20000 people from the Technical Education and Vocational Training Centre.

Higher Education: To ascertain structure of student participation in higher education in accordance with the pace of development of the country.

Informal Education: To make 70 percent of the illiterate people of 6 years and above age literate.

7. Policy and Implementation Strategy

- An emphasis will be given to increase equal participation in education by providing free access of education to deprived people inhabited in the remote areas and backward communities.
- Pre-primary classes will be conducted by involving local elected bodies and community.
- Basic and primary education will be made available as per the need of gender equality, to weaker section, ethnic tribe and community deprived of education opportunity. A specific emphasis will be given to develop qualitative aspects of this education.
- In the context of making the existing free primary education programme compulsory, it will be extended on the basis of the study on the experience of implemented areas.
- Necessary steps will be taken to provide primary education in national languages.
- Literacy programme will be conducted as national campaign with involvement of national and international non-governmental organisations, local elected bodies and local community. Inter-relationship between literacy and basic primary education will be established; and an access will be provided to literate children to enter in to formal education.

- Physical, human and educational infrastructures will be strengthened with the active participation of community.
- Accessibility of lower secondary and secondary education will be gradually extended; opportunities for education at these levels will be regionally balanced; quality of education will be upgraded; and an improvement in internal and external capability will be made.
- Human right education will be gradually included in syllabus from the lower secondary level. Materials, which increase social and ethnic harmony, will be incorporated in textbooks.
- In order to make teaching profession more respectable and responsible, reforms will be carried out in aspects like appointment, evaluation, promotion and career development of teachers. Professional aspects of education will be strengthened through the medium of training; promotional programmes will be conducted to create motivation, commitment and self-confidence towards their profession.
- Management, monitoring, supervision and evaluation system will be strengthened at each level of education.
- Syllabus, textbooks and education system will be timely and appropriately reformed.
- Secondary and higher secondary education will be integrated into a single management system. Local school management will be made capable of fulfilling effectively educational and economic responsibility and taking active leadership in school management through the use of necessary training and action-oriented strategy.
- Higher secondary education will be accepted as school education, local needs and regional balance will be taken into account for its extension; and special emphasis will be given to the mobilisation of national and international resources for its strengthening and quality enhancement. Grant will be provided on the basis of student capability and the need for school operation.
- Policy of conducting career carrier-oriented education programme will be adopted to increase the participation of weaker section and ethnic tribe in secondary and higher secondary education; gender equality will be maintained, Technical/vocational/skill education and training programme will be made employment and income oriented. Policy will be adopted to formulate and implement such types of education from secondary to higher education level. For this purpose, polytechnic schools will be operated under short-term and long-term programmes in order to produce basic and medium level skilled manpower. To make programme of private sector technical school useful, Technical Education and Vocational Training Council will be strengthened for ensuring effectiveness in syllabus formulation, trainer's training and evaluation system.
- During the Plan period, proficiency certificate level programme currently conducted at universities will be adjusted in a phase-wise manner in the structure

of technical and higher secondary school; and education programme will be conducted in line with the objective of such institutions and schools.

- Higher education will be made more systematic, competitive and standard. Universities will be established in all five development regions in accordance with multiple university concept in order to fulfill national and regional needs. For this purpose, a University Establishment and Implementation Co-ordination Committee will be constituted with the representation of NPC, Ministry of Education, Tribhuvan University and University Grant Commission.
- With a view to supplying high level technical manpower necessary for the country, Agriculture and Forestry Universities will be established and other technical universities will also be established on the basis of feasibility study.
- Only the Government cannot bear the financial burden of higher education; therefore, policy will be adopted to share the cost by students of higher education; receive community contribution; and get cooperation from those concerned with higher education. Moreover, arrangement will be made to provide scholarship and education loan to the poor and talent students.
- Preference will be given to academic, knowledgeable, scientific and basic technical research in higher education. Necessary mechanism will be developed to extend and utilise knowledge and skill gained from the study and research to the concerned sector.
- The policy of providing cooperation to universities based on the capacity of government will be maintained in order to build physical, human and appropriate education infrastructures.
- With a view to ensuring the quality of higher education, University Grant Commission will determine criteria for grant; steps will be taken to determine grant on the basis of whether universities comply with such criteria or not; His majesty's Government will adopt the policy of providing amount of grant to University Grant Commission; and the Commission will undertake the policy of allocating the amount of grant following the set criteria for grant
- A Policy of conducting open university, open secondary and high secondary school will be adopted in order to extend the opportunity of secondary, higher secondary and higher education, and to ensure cost effectiveness in higher education.
- Special education programme will be strengthened and conducted for providing opportunity of literacy and higher education to physically and mentally disabled and intellectually retarded groups. Policy will be adopted to encourage national and international non-government organisations and local community participation for the development of special education.
- Education opportunity will be made easily available and scholarship will be provided to children of backward ethnic tribe and oppressed class.

- Training will be provided to teachers through distance education and other appropriate means. All primary teachers will at least be provided with basic training opportunity. Short-term and refresher training programme will be conducted to upgrade teacher's teaching capability.
- Policy of balanced distribution of financial and other resources between school education and higher education will be adopted in practice by identifying appropriate balancing technique.
- A clear policy will be adopted about cost bearing at different level of education by different concerned people without obstructing the private sector to participate in education.
- Policy of encouraging private sector will be adopted to make meaningful participation in education management by re-evaluating the role of the private sector and formulating necessary regulations. Schools conducted by the private sector will be brought in the policy framework and policy will be adopted to inform all concerned sectors about the academic, financial and physical programme of private schools.
- Policy of decentralising education management will be effectively undertaken in practice in order to increase the active local participation in management and operation of education institutes, and improve their capability.
- The activities of the projects implemented in the process of developing education quality will be institutionally integrated with the structure of the Ministry, and the organisation structure of the Ministry will be improved to increase its capacity.
- Policy of information management system and library development and strengthening will be formulated and implemented in a phase-wise manner for the development of educational communication and information.
- Special emphasis will be given to formulation of appropriate education policy, selection and implementation of appropriate education programme for formal and informal education.
- Effective policy measures will be adopted to extend accessibility of women in education in order to increase equal gender participation in education.
- Policy will be implemented to invest certain share of gross domestic product in the education sector for making the sector durable, sustainable, continuous and unobstructed. Amount of investment capital will be determined on the basis of the identification of education programmes and agencies that should receive priority within the education system.
- Higher education policy will be formulated on the basis of the necessity of manpower to agriculture, industry and commerce sectors. Education policy will be modified on the basis of the recommendations to be received from the High Level National Education Commission.

- The existing anomalies and weaknesses in syllabi of school and higher education will be addressed; syllabus of one level will be made consistent with another level; and syllabus will be revised in line with the need of national and international changed context. Textbook distribution system will be made simple and efficient by resolving existing problems. Extensive study on liberal promotion policy in primary level classes from level one to three will be made; and this policy will be tested on pilot basis in some places.

8. Programme

Pre-primary education:

Effective operation and management of pre-primary or nursery classes contribute to minimise the tendency of class dropout and class repetition in pre-primary level, which in turn help to minimise the wastage of investment in the education sector and increases its efficiency. Therefore, the Eighth Plan has adopted a policy to encourage local elected bodies and people participation for conducting pre-primary and nursery classes. In the Ninth Plan, 10,000 such pre-primary classes will be conducted. Basic facilities, such as buildings and teachers needed to conduct classes, will be provided by local community. Basic and Primary Education Project will provide technical cooperation such as necessary education materials, teacher's training for school operation.

Primary Education:

Programme will be conducted to make primary education qualitative and gradually compulsory. Primary level syllabus will be revised and reformed as necessary. Continuous evaluation system for students will be gradually implemented. Liberal promotion policy to upgrade from class 1 to 3 will be experimentally implemented in some places. In order to fulfil the objective of easy availability of textbooks, free textbook distribution system will be made simple and efficient. Preliminary works will be carried out to provide primary level education in various mother tongues. Examination system reform programme will be conducted by preparing question by expert and conducting examination on the basis of special working chart at the primary level. Basic training will be provided to all primary level teachers.

Basic and Primary Education project has been implementing currently in 40 districts of the country with the objective of increasing the quality of primary education. During the Ninth Plan period, second phase of the project will be implemented all over the country. National criteria for primary education will be prepared for increasing the quality of primary education and bringing gradual change in school education environment. Particular operation of school for at least 180 days in a year will be made mandatory and regular attendance of teachers and students will be ensured. Considering decentralisation as fundamental principle for effective management and implementation of primary education, arrangements will be made to involve guardians, local elected body and people in the programme formulation, implementation, monitoring and evaluation. In the process of extending physical facilities to schools during the Ninth Plan, 19000 additional class rooms will be constructed; 10000 schools will be renovated; 1,000 additional resource centres will

be established; 500 resource centre buildings will be constructed; and additional 2000 women teachers will be appointed. Almost all municipalities and 10 percent village development committees of the country will be given responsibility to conduct and manage primary schools established in their areas.

Informal Education:

Illiteracy has remained a barrier to the overall development of the country. Therefore, with the objective of removing illiteracy as soon as possible long-term national target has been set to make literacy rate 100 percent at the end of the Twelfth Plan. In order to achieve this objective literacy programme will be conducted as a national campaign. During the Ninth Plan period, a target has set to make 32,16,000 illiterate adults and 7,84,000 children outside the school literate and to make 70 percent of population of 6 years and above age literate. In the process of achieving these targets, policies will be adopted to extensively conduct adult and children literacy programmes; emphasise women education by reducing literacy difference between men and women from 30 percent to 20 percent; conduct education programme giving preference to the areas where difference in geographical situations exist and where literacy rate is low; and conduct post literacy and continuous education programme as an integral part of informal education. Net literacy progress will be counted on the basis of evaluation of those participants who are involved whole time in literacy programme. Emphasis will be given to research and extension aimed at making the literacy campaign effective.

Literacy campaign will be conducted in the form of a strategy to eradicate illiteracy of target population of selected areas during a specified period. Such campaign will be time bound, selected area-focused and result-oriented. In the initial stage, such campaign will be conducted in small areas (one or some districts) on the basis of geographical situation and will be gradually extended. While selecting such area, activeness, commitment and participation of District Development and Village Development Committees of concerned areas will constitute the main basis.

Training to people involved in informal education programme will be institutionalised. National Informal Education Council will activate non-government organisations to conduct literacy campaign in different areas by preparing literacy mapping at district and village levels and collecting information about the number of national and international non-government organisations, and club which are involved in informal education programme. Emphasis will be given on such aspects as extensive publicity for literacy campaign and action oriented post literacy programme.

Lower Secondary and Secondary Education:

In order to develop and extend lower secondary education, improve the quality of education; and increase internal and external capability and this level, professional commitment of teachers will be strengthened; an emphasis will be given to teachers training; and improved inspection, monitoring and evaluation system will be adopted.

New syllabus and textbooks will be applied in lower secondary and secondary education. Arrangements will be made to make the teachers' manual available for all

classes; and various education materials will be developed and distributed. Monitoring and reform programme will be conducted to make student evaluation process effective. Arrangement will be made to prepare standard question papers for annual examination by the subject matter specialist based on the specialisation chart.

Secondary education will be gradually expanded; and an emphasis will be given to increase its quality. For this purpose, Secondary Education Development Project being implemented for making education management strong and efficient will also be continued in the Ninth Plan. Activities of this project will be carried out in line with the objective, policy and targets set in the Secondary Education Perspective Plan. During the Ninth Plan period, 15000 teachers of lower and secondary level will be trained on English, Science, Mathematics subjects, and 25 science education units will be established in different districts under this project. These programmes will be gradually monitored for ensuring their effectiveness.

Various promotional activities will be conducted to develop mutual relationship among school, local community and guardian; create an awareness of community and guardian towards school; and make the school perform the role of getting community cooperation for regular and effective management of lower secondary and secondary schools.

Higher Secondary Education:

The objective of higher secondary education (10+2) is to prepare conscious and self-dependent citizens in the form of productive and creative manpower to help the overall development of the country; and also to prepare students ready for graduate level study. The Long-term goal of this level of education is to develop higher secondary school as a centre for academic excellence.

In the process of transferring proficiency certificate level gradually to school level during the Ninth Plan period, necessary arrangement will be made to transfer technical aspects of the programme to technical institutions under the Technical Education and Vocational Training Council and other programmes to higher secondary schools. For this purpose, coordination among Tribhuvan University, Higher Secondary Education Council and Ministry of Education will be maintained to move the programme forward. Syllabus and textbooks of higher secondary level will be revised. Financial resources allocated to teacher's training by the Secondary Education Project will be mobilised and expended on those programmes as approved by Higher Secondary Education Council. Arrangements will be made to reform physical infrastructures of higher secondary schools and provide training to teachers. In order to arrange necessary infrastructure for the transfer of proficiency certificate level to higher secondary school and to strengthen academic aspects, necessary resources will be mobilised.

During the Plan period, additional higher secondary schools will be operated, and easily observable student enrolment will be made nearly 70 percent. Affinity to higher secondary school will be provided on the basis of school mapping and local needs. Moreover, programme will be conducted to make syllabus of higher secondary education timely, contextual and work-oriented; to increase women participation; to

carry out regular monitoring for effective management of higher secondary school; and to make evaluation system effective. Since higher secondary level is an important part of education system, a policy concept will be made clear for strengthening academic and technical aspects in its effective operation. Management system of higher secondary education in particular will be integrated with the secondary and higher secondary levels. For this purpose concerned Acts will be amended on the basis of the need of the productive sector and appropriate vocational syllabus will be implemented for the students of higher secondary level.

Management committee will be activated to mobilise local participation for the management of higher secondary schools. School will be oriented towards to self-sufficiency by conducting preference for establishing mutual relation and cooperation between the school and community in order to increase their mutual contribution to education.

Technical Education and Vocational Training:

Basic and medium level manpower will be produced for different development programmes implemented in various parts of the country. Physical, human and financial resources will be mobilised at the local level in order to establish training centres for the operation of technical training and vocational education. During the Plan period, currently running technical institutions will be strengthened in a way to be appropriately cost effectiveness. For this purpose, Technical Education and Vocational Training Council will identify similar training programmes provided by the private sector training institutes; co-ordinate with these institutions; and play an active role in mobilising and managing resources.

Technical Institutions, currently functioning and to be established during the plan period, will produce nearly 5000 basic and medium level manpowers. Various technical and vocational training centres will provide short-term training to nearly 20,000 people.

Basic and medium level technical manpower needed to carry out the Ninth Plan programmes will be managed to produce as required. Short-term training will be provided to village and local people to make them capable of implementing basic development programmes for their areas. Arrangement will be made to establish effective coordination between government and non-government technical and vocational training institutions and necessary steps will be taken for their standardisation and certification. Necessary technical assistance will be provided to standard technical training centres, which are already in operation or intend to conduct training in the private sector. Similarly, Technical Education and Vocational Training Council will be encouraged to establish training institutions in the private sector and will provide possible technical assistance for their development. Necessary steps will be taken to establish polytechnic schools with a view to supplying medium level manpower needed to implement local level development programmes. Internal and external resources will be mobilised to conduct these schools. Community development and vocational training centre will be gradually extended. In order to help for development and extension of technical education, training for technical trainers and the task of updating their knowledge will be effectively implemented.

During the Ninth Plan period, vocational and technical programme currently running at the certificate level under Tribhuvan University will be gradually transferred to Technical Education and Vocational Training Council. Policy aspects of Technical Education and Vocational Training Council will be made transparent for systematising all these programmes.

Special Education:

The Constitution of the Kingdom of Nepal 1990 states that education, health and social security policy shall be adopted for the protection and progress of disabled and handicapped people of the country. In this context, gradual development of special education programme is an important need of the present situation for mobilising country's internal resources and means, and the assistance received from donor agencies in order to fulfill Nepal's commitment on the protection and progress of such people at the national and international level.

Disabled People are the target group of special education programme; therefore, they are classified as physically disabled, retarded, deaf and inattentive hearing, blind and low sight power, learning disability or inability, difficulty in sound, language and communication ability, and multiple disability. Special education in the Ninth Plan will be developed as an integral part of education for all. For this purpose special education will be gradually implemented in those areas or districts where compulsory primary education programme is currently in operation. Syllabus of special education from primary level to higher education will be revised as necessary. Brilliant disabled students will be provided with the opportunity for higher education. Special education programme will be developed in the form of integrated and inclusive school education programme by determining and making available syllabus, textbooks, and other education materials and instruments and their free distribution will be arranged as necessary. Scholarship will be arranged for brilliant disabled students to provide them an opportunity for higher education. At present only 1 percent of disabled children are getting training and education opportunity; therefore during the plan period, five percent of disabled children will be provided education and training opportunity by integrating and conducting teachers training and development and extension of education for all programmes. So far there is no institution to provide education and training to multiple disabled children; therefore during the plan period, currently running special schools of five development regions will provide education and training to multiple disabled children. In every district where special education programme is intended to implement, manpower will be prepared to examine and evaluate disablesness of children. Training centre will be established in each development region. Special informal education will be made work oriented and gradually extended.

Curriculum and Textbooks:

Efforts will be made to achieve national and level-wise objectives of education through syllabus, and syllabus will be gradually revised according to the demand of changing situation and time. During the Ninth Plan period, primary curriculum and textbooks units under Basic and Primary Education Program will be merged into curriculum development centre. Process to revise the curriculum of primary education

will be initiated; and continuity will be given to revise and standardise textbooks. System of continuous evaluation of student will be gradually implemented. Free distribution of textbooks will be made simple and effective. Authority will be delegated to schools for choosing any one textbook prepared on the basis of revised curriculum, and this will be experimentally implemented in some districts. Arrangement will be made to prepare question paper for annual examination of primary level by the expert of concerned subjects based on specialisation chart.

New curriculum and textbooks up to class ten of secondary level will be gradually implemented. Teacher's guidebooks for all classes will be gradually prepared, and arrangement will be made to sell them. All primary works will be done to provide instruction and consultation service to students. Arrangement will be made to develop and distribute education materials. Student evaluation procedures will be made effective by implementing necessary programmes.

Information related to negative outcome of intoxicating drug addiction, its abuse and control procedure will be included in the content of lower secondary and secondary school curriculum. To fulfill the changing need of time, science and computer education will be given special place in school level curriculum. Effort will be made to relate one level of curriculum with another level by addressing lacuna presently existed in level-wise school curriculum. Important aspects of human development such as human right, environment conservation and gender equality will be included in secondary level curriculum.

Programmes will be conducted to develop human and physical resource and management aspects of curriculum development centre for scientific and systematic management of syllabus and textbooks. In this process, research, monitoring and evaluation section will be established in Curriculum Development Centre.

Women Education:

Various programmes have been implemented with the objective of easy accessibility of primary education to girl child; increasing enrolment number of girl student; encouraging maximum number of educated women to adopt teaching profession; and encouraging maximum number of girl students to complete their secondary level education. During the Ninth Plan period, these programmes will be made more rapid and programmes like women teachers training and scholarship distribution will be conducted.

In order to increase women participation in education, targeted programmes for women will be conducted during the plan period. Arrangement will be made to appoint at least one woman teacher in every primary school, and preference will be given to the appointment of woman teacher in lower secondary and secondary schools. Subject contents reflecting gender inequality will be removed from curriculum and training materials of school education. Monitoring and evaluation will be systematically carried out effective operation of women education programme. Local elected bodies will be involved in the development, publicity and extension of women education. Arrangement will be made to provide reward to the schools, which increase the number of girl enrolment and maintain enrolment sustainability without

dropouts. Income-oriented skill development programme will be conducted for women participants under the Informal Education Programme. Training in effective teaching techniques will be arranged for women teachers at schools.

With the objective of bringing women into the mainstream of development, as they constitute half of the population in the country, scholarship programme has been conducted for girl student in each level and area of education in order to increase girls' participation in education. During the Ninth Plan period, scholarship will be made available to girl students of 65 districts on quota basis, and to all enrolled girl students of 10 remote districts as follows.

S.No.	Scholarship Programme	Girl Students to be Benefited within 5 Years
1	Primary School Scholarship.	162,404
2	Local Scholarship.	58,041
3	Campus Scholarship.	2,376
4	Upgrading Scholarship.	1,804

(Doti, Accham, Bajhang, Bajura, Jajarkot, Dolpa, Jumla, Humla, Kalikot and Mugu are identified as 10 remote districts of Nepal.)

Lower Caste Student Scholarship Programme:

Children various lower caste group inhabitants in Nepal, such as lower castes and backward ethnic tribes people like Dom, Chamar, Mushahar, Dushadh, Raute, Bhagad, Satar, Dhima, Sarki, Damai, Kami and so on will receive Rs. 25 a month up to 10 months scholarship to encourage their children to admit to and study in the schools. During the Ninth Plan period, this quota will be increased to nearly 4,40,000 scholarships.

Primary School Nutrition Programme:

Primary school nutrition programme has been running in 8 districts of the country since the late years of the Eighth Plan. This programme has been implemented with the objectives of increasing the number of student enrolment in primary education by arranging lunch to boys and girls student; maintaining and reforming the attendance of children and minimising their attitude of class dropout; increasing daily attendance rate, class pass-out rate and reforming nutrition and health of students. The Ninth Plan has set a target to make nutritive food available to four additional districts, with low primary school enrollment ratio and food deficit, and to 2,50,000 children of primary schools of 12 districts in total. Moreover, target has been set to distribute anti-worm drugs and publication of health related educational materials in order to increase the knowledge of the local community on health and nutrition.

Nutrition Programme:

Nutrition education is important to upgrade children's living standard by improving their nutrition condition. Children's nutrition status may improve only if necessary knowledge and skill required for proper food habits are provided with. Most of the

villages in Nepal, children of school going age have become the only educated member of the family. Therefore, the message about nutritious food provided to them may contribute to raise the living standard of whole family.

In the Ninth Plan training on nutrition will be provided to different trainers, supervisors, teachers, guardians and students. Likewise, programme will be conducted to create community consciousness through information flow and knowledge promotion through posters, chart and audio-visual aid.

Population and Health Education:

Under the projects to be conducted for the purpose of creating awareness among people about the problems arising out of population growth, health education curriculum will be included in textbooks of school education, higher education, and adult education during the Plan period. Teacher's training programme will be conducted in the area of population education. Besides this, special education programme for population and health education will be implemented for women community; and public awareness will be created through the means of information and communication.

Monitoring, Evaluation, Education Statistics and Reform in Education Management:

During the Plan period, monitoring and evaluation system of education programme will be made effective, education information management system in the Ministry of Education and other educational agencies will be strengthened; and education information system will be reformed and developed.

Organisation structures of education will be reformed and school inspection and supervision system will be made effective. Education plan formulation process will be reformed on the basis of decentralisation policy. Participation of private sector, local community and local elected bodies will be increased in school management. Since school management committee is an integral part of school management, training programme for capacity development will be conducted to make this committee capable of providing effective leadership to school management.

Higher Education:

During the Ninth Plan period additional education institution and universities will be established only if their particular needs in the parts of the country are identified as essential. Emphasis will be given to increase the quality of higher education and expansion of technical higher education. With a view to supplying high level technical manpower required for the country. The agriculture and forestry and other technical universities will be established on the basis of feasibility study. For this purpose, present structure of education institution will be thoroughly studied and possibility of developing these institutions as university will be ascertained. Encouragement will be given to the persons and agencies directly concerned to the education sector with a view to minimising pressure on government resources and means and to increasing the participation of the private and non-government organisations in the process of developing higher education. Policy of opening up an

Open University will be implemented to extend the opportunity of higher education on the basis of cost effectiveness.

The role of University Grant Commission will be made more effective in making higher education qualitative; and maintaining and promoting university and higher educational institutions in a coordinated manner. Institutional aspect of the Commission will be strengthened; clear policy to establish universities in future will be formulated; and appropriate process will be determined. Policy and process will be clearly determined to provide government grants to universities, and grant will be distributed on the basis of determined policy. Minimum quality of different levels of higher education will be activated and determined and monitoring system for ensuring minimum quality will be maintained to make higher education of international standard. Priority will be given to well-known and best foreign academic institutions showing an interest in conducting Nepal chapter for providing an opportunity of international education in Nepal. Since autonomy does not mean only exercise of power, the Ninth Plan will therefore, adopt a policy of making universities and higher educational institutions financially autonomous as well as more accountable and responsible.

Policy and Programmes of Universities:

Policy:

With a view to making higher education more systematic, standard and competitive, and fulfilling the needs of higher education in national and regional level, a policy was adopted to establish one university in each development region. In line with this policy, Eastern and Pokhara University was established. The Ninth Plan will develop these two universities as regional university and existing campuses in those areas will be brought under these respective regional universities.

- With a view to fulfilling the shortage of higher level technical manpower in the country, Agriculture and Forestry University will be established. On the basis of viability and necessity, other technical universities will also be established.
- Policy will be implemented to bear the cost of higher education by its beneficiaries; people participation will be increased; and non-government cooperation will be sought for cost sharing in higher education with the government. Provision of loan and scholarship for brilliant and poor students will be made.
- Policy for providing assistance to universities in creating physical, human and appropriate educational infrastructures as per the capacity of the government will be maintained.
- Policy of establishing Open University will be adopted in order to extend higher education opportunity on a cost effective basis.
- University Grant Commission will be strengthened. Policy will be adopted to distribute grants received from the government to higher educational institutes on the basis of criterion set by the Commission. The role of Grant commission will be made effective in order to maintain the quality of higher education.

Programme:

University Grant Commission: University Grant Commission was constituted in 1994 under the University Grant Commission Act, 1993 with the objectives of maintaining coordination between universities and higher educational institutes already established and to be established; appropriately distributing grants provided by government; and providing qualitative education by setting criteria for maintaining standard higher education. Process has already been initiated to discuss grant budget during the Plan period and provide grants based on the approved budget. The Commission will specially pay attention to conduct programmes for the evaluation and monitoring of university programme; provide grant on the basis of set criterion in order to upgrade the quality of higher education; and operate other programmes for improvement.

Emphasis will be given to institutional development of the Grant Commission in order to make the role of the Commission more effective and promote and serve university/ higher education in a coordinated way for qualitative higher education. Besides, following policies and programmes will be implemented as well:

- To formulate clear policy and determine, an appropriate process for establishing universities in future.
- To determine clear policy and process and initiate to distribute government grant to different universities accordingly.
- To strengthen "Quality Reform Programme" of the Commission and make the programme more effective in order to contribute quality reform of higher education for providing high quality education of international standard.
- To arrange international cooperation and scholarship/fellowship for the development of higher education.
- To formulate and implement policy for making university/higher educational institute autonomous and more accountable and responsible.
- To make the concept of regional universities clear and take necessary steps for systematic and effective management of higher education from the financial and educational point of view.
- To strengthen the University Grant Commission Secretariat.
- To perform an active role in arranging physical facilities to universities.

Tribhuvan University:

By the final year of the Eighth Plan or FY 1996/97, a total of 166 campuses have come in operation under Tribhuvan University, in which 61 technical and general institutes and 135 affiliated private campuses are included. The five technical institutes include Engineering, Agriculture and Livestock, Medicine, Forestry, and Science and Technology whereas the four general institutes encompass Law, Management, Education and Humanities and Social Sciences. According to 1995/96 statistics, it is estimated that total of 133,521 students are currently studying in

campus. Among them, 16,045 are getting technical education and 117476 are in general institutions. There are 30 central departments in Tribhuvan University. Besides this, its four research centres such as Centre for Economic Development and Administration, Nepal and Asian Research Centre, Applied Science and Technology Research Centre and Education Development and Research Centre are currently under operation. These research centres have been performing research and study programme on the subject and area of their concern.

With the policy of increasing the capacity of producing medium and high level manpower on agriculture, medicine, engineering, forestry, and science and technology within the country, and increasing the quality of teaching and learning, Bachelor of Veterinary Science and Animal Health programme has already been started, and infrastructures have been built for conducting master 's programme in Agriculture Science.

In medical science, Master's degree in Nursing, and, under engineering institute, Master level programmes have already been conducted. Higher Education Project and Engineering Education Development Project are under implementation in order to increase the quality of higher education and strengthen physical infrastructures.

With the objectives of providing standard higher education for producing necessary skills for the overall development of the country; conducting research in various educational and academic fields; conserving and developing national culture and tradition and making knowledge and research on Art, Science, Technology and Commercial extensive, practical and time relevant, Tribhuvan University will adopt the following policies during the Ninth Plan period:

- Taking national requirement into consideration, quality of teaching and learning of agriculture, medicine, engineering, forestry and science and technology will be upgraded, and to prepare high level technical manpower within the country during the plan period, preference will be given to the promotional work of national technical capacity.
- Emphasis will be given to include curriculum and research in the programmes of institute, campus and research centres in a way to increase the quality of higher education and fulfill the requirement of overall development.
- An emphasis will be given to conduct additional new programme for technical higher education on the basis of people's participation.
- Teaching and learning in institutes and campuses will be made regular by pre-determining entrance date, schedule, teaching period, and examination date and accordingly programme implementation will be made effective. One academic year will be determined which will include a minimum of 180 working days as per the international practice.
- Continuity will be given to time-relevant programmes like curriculum revision and changing the name of education departments; higher education will be made more standard, competitive and qualitative.

- The relationship with national and international universities and educational and research-oriented institutions will be strengthened; and area for mutual cooperation will be extended.
- Management of university will be modernised and will be made more effective.
- Self-development and promotion of teacher and employee will be made scientific and simple. Minimum qualification of teaching in university will be increased.
- Teaching and learning activities for students will be made effective and personality of students will be made complete through conducting various programmes for physical, mental and intellectual development.
- National consensus will be developed to strengthen academic environment in university.
- During the plan period, proficiency certificate level programme will be phased out from university.
- Fee structure of university will be made timely and reasonable.
- Scholarship programme for poor and brilliant students will be arranged and student loan will be provided through the mobilisation of own resources of universities.
- Research centres of university will be made self-dependent during the plan period. Similarly, campuses under university will be encouraged towards becoming self-dependent.
- University will adopt a working policy of generating additional income by mobilising its own resources.
- Autonomy will be provided to campuses and institutes on the basis of their capacity. Programme for decentralisation will be extended to increase working efficiency of educational agencies.
- Campuses running under Tribhuvan University will be merged into the University established as a regional university in the respective regions.

Engineering Institute:

This institute has been producing medium and high level technical manpower in the engineering sector. In the Ninth Plan, Ph.D. programme, master level programme in electrical, electronics, mechanical, civil, architectural engineering; programme in technical, water resources, environment and village infrastructure and graduate level programme in computer engineering will be started in Pulchowk Campus. Graduate level curriculum of chemical engineering and geo-structure and Master level curriculum in village energy will be designed. Preparation will be made to begin graduate level programme in Eastern, Western and Thapathali Campuses. Regular course fee will be amended and sponsored course will be commenced while taking into consideration to cover nearly 4.5 to 20 percent of total cost. In this context, principle of equality will be adopted. Special emphasis will be given to mobilise

internal resources. Preference will be given to promote national technical capacity by expanding research and development activities. Applied research and development centre will be strengthened.

Agriculture and Veterinary Science Institute Programme for producing Master level manpower in the agriculture sector will be implemented during Ninth Plan period. In line with national agriculture research policy Agriculture Research Directorate of the institute will be coordinated with Nepal Agriculture Research Council. Agriculture Education Extension Directorate will be established to identify agriculture problems through research, and make solutions available to farmers. During the Plan period, programme for medium level manpower production such as B Sc Ag, BV Sc and AH will be strengthened.

Post graduate hostel, veterinary students hostel and laboratory, and veterinary, and teaching hospital will be constructed in order to conduct aforementioned programmes effectively. Co-operation will be obtained to purchase necessary scientific and educational instruments.

Institute of Medicine:

Report of National Education Commission 1992 has suggested to run graduate and post graduate programmes only at the Institute of Medicine; however, until other institutes become capable of conducting proficiency certificate level programme in nursing, radiography, pharmacy, health lab, the institute has set a target to continue these programmes.

In the Ninth Plan, Teaching Hospital under Tribhuvan University will provide health services on heart by-pass surgery, cancer radiation therapy, kidney transplant and neuro-surgery and C.T. Scanning. Ganesh Man E.N.T. and Neck centre will be established in cooperation with Katmandu Metro Politian Town Committee. Day care centre will be started for drug-abusers in the building being constructed by the Ministry of home. Health Learning Material centre, BP Kiorala Ophthalmic Center, and Department of Medical Science, which were operated since the Eighth Plan, will be strengthened. Programmes of M.N. Nursing and B.N. Nursing courses, which have been functioning since the Eighth Plan, will be strengthened and steps will be taken to conduct B.Sc. Nursing programme. Among 21 departments in the central campus of this institute, 9 departments are already running Master level programme; additional Master level Programme in Pediatric and Psychiatric will be commenced. Steps will be taken to gradually conduct Master Level Programme in remaining 10 departments, considering the availability of technical manpower in concerned subjects.

Necessary physical structures will be created to develop overall aspects of Ayurved (Herbal medicine) campus. Field Training Center, BP Kiorala Ophthalmic Studies Center, and Health Learning Material Center will be strengthened. Mental Health, Medical Education and Cornell Eye Infection projects will be continued. Infrastructure requirements of Cancer Radiation Therapy Center will be gradually fulfilled.

Institute of Forestry Science:

This institute will produce efficient manpower necessary for protecting wildlife for the promotion of national interest, land conservation, forest conservation, soil and land utilisation. Besides, certificate and graduate level will be strengthened and Master's level programme will be conducted in Pokhara campus during the Ninth Plan period. G.I.S. and arboretum will be established in Pokhara campus. Physical facilities required for Pokhara campus will be developed. Music cum library and documentation centre will be conducted in Hetauda campus. Appropriate lab, for graduate level will be strengthened. Physical infrastructures will be created for dean office and private quarter.

Science and Technology Institute:

During the Plan period, necessary arrangements will be made to fulfill necessary skilled scientists and technical manpower by increasing educational capacity of campus and central education departments. Programme will be conducted to gradually implement additional programmes and subjects of national need.

Certificate Level Programme:

Certificate level programme will be conducted in higher secondary level during the Plan period.

Graduate Level Programme:

Graduate level programme will be conducted in Bhaktapur Campus, Padma Kanya Campus, Surya Narayan Satya Narayan Marvaita Yadav Campus and Hatisar extension campus in Dhankuta districts of Nepal. Laboratory will be strengthened in those campuses where a 3-year graduate level programme is running. Training will be provided to upgrade teacher's educational standard. Facilities will be extended and additional subjects will be introduced, on a regional basis and graduate level programme in Environment Science, Computer Science, BioTechnology, Biochemistry, Material Science, Analytical chemistry will be conducted if their curricula have already been prepared.

Post Graduate Level Programme:

New curriculum of post-graduate level will be prepared and introduced for students who passes a three-year graduation programme. Post graduate level education programme will be introduced in Mahendra Nagar, Nepalgunj and Butwal, and additional post-graduate level programme in chemistry, physics, geography, microbiology will be started in Biratnagar, Janakpur, Pokhara and Katmandu. Ph D Program will be systematised. M.Phil programme will be introduced in mathematics, chemistry and physics for enhancing university teacher's standard. Post-graduate programme will be commenced in mountain risk engineering.

Technology Education:

Laboratory will be strengthened for making Food Technology programme standard and graduate level programme in Dairy Technology, and M.Tech in food Science will be introduced.

Institute of Law:

During the Plan period, programme already running under this institute will be strengthened and Ph.D. programme will be introduced; and a special emphasis will be given to promote higher education on the basis of people's participation and regional need of the country. Human Right Research Center under the Institute of Law will be established. Additional subjects in L.L.M. will be introduced and arrangements will be made to establish International Study Center.

Institute of Management:

The Institute of Management under Tirbhuvan University has already been producing medium and high level manpower in management and concerned subjects. During the Plan period, various programmes will be designed such as curriculum of B.B.A., M.B.S., M.B.A., M.P.A., and Ph.D. course will be revised. Graduate level curriculum in Hotel Management and Tourism Management will be developed. Library and computer facilities will be developed in campuses under this institute. Seminar will be organised and training classes will be conducted to increase the qualification of members of this institute. Development programmes for managers of the private sector will be conducted. Research programme will be conducted to make curriculum and education materials useful for case study and teachers' teaching guide. Curriculum for post-graduate level will be prepared and introduced for students completing a three-year graduation course.

Institute of Education: During the plan period, physical education will be extended as special subjects to all campuses, where M.Ed. programme is conducted. Under this programme, population and environment education will be strengthened and continued as additional specialised subjects, and math, science, English as specialised subjects in M.Ed. and three-year graduation level. It is necessary to produce high level experts and teachers to make special education programme timely and continuous; and physical and educational facilities will be arranged for making special education programme useful. It is important to give due importance to teachers training to provide standard, reliable and quality education to children. In this context, Children Study Center will be established to conduct research in these aspects and this Centre will be effectively managed. One year B.Ed. programme will be conducted in Dadeldhura campus. Besides, a study will be conducted to establish additional campus in Far-western region. Teaching of informal education programme will be made effective by involving indigenous organisations. Post-graduate curriculum will be reformed and revised and introduced to those students who have completed a three-year graduation course.

Institute of Humanities and Social Sciences:

Emphasis will be given to subject matter-oriented research and academic programme in order to strengthen programme conducted by this institute. Relation with foreign scholars contributes to academic upliftment. Therefore, an interaction programme

with foreign scholars will be conducted during the Ninth Plan period. M Phil programme will be conducted on subjects already running under this institute. Research will be conducted on national history, culture, language and different castes and tribes. Post-graduate programme will be conducted in journalism, philosophy, strategic studies and library science.

Economic Development and Administration Research Center (CEDA):

The Research centre will give emphasis to continue the programmes for action-and policy-oriented research and appropriate training programme as conducted in the past plans. In order to achieve its objectives during the Ninth Plan, the Research Center will concentrate on research and study in planning and fiscal policy, village development, population and human aspects, management system and administration, environment and resource management, women and development and action-oriented research.

Nepal and Asian Research Center:

This centre, by maintaining coordination with education departments in research, will conduct programmes intended to get more benefit and promote manpower. Visiting foreign scholars will not be limited only in centre, and emphasis will be given to make them work in the campus outside the valley. Agreement will be made with additional foreign universities on research in mutually beneficial areas and, resources received through such agreement will be utilised to increase physical facilities and publication. In publication sector, excellent and necessary hand-scripts in National History Project will be re-evaluated and gradually published. In addition, standard reports on anthropology, sociology and political science will be published both in Nepali and English language. In this process, policy will be adopted to make Center's main publication standard and extensive in the world market. During the Ninth Plan period, seminar, discussion and interaction programmes will be conducted at least on current political and social issues. Scholars and publications will be exchanged with organisations and centres of SAARC countries with similar objectives.

Applied Science and Technology Research Center:

This centre in the past has conducted research on food processing, fiber development, natural dye, development of low cost construction materials, development of natural production, development of alternative energy, appropriate income-oriented technology and modernising local technology. Additional research work on agriculture and environment development will be conducted. Necessary works will be carried out to implement research findings, which will be extended to local level. More and more students will be involved in research works during the plan period for doing M.Sc. and Ph.D in science and technology and thereby contributing to the production of required manpower in the field of science and technology.

Education Development and Research Center:

This centre will conduct relevant educational research and promotive activities focused on poverty alleviation and children's physical and intellectual development and appropriate to increase the quality of informal, pre-primary, secondary and higher

education. Research publication, educational reports and data will be kept up to date and the Center will develop reliable education information system to make these data easily available to concerned people and agencies. Programmes like educational research, training, seminar, workshop, educational publication will be conducted during the Ninth Plan period.

While conducting educational research, training, seminar and other promotive functions during the Ninth Plan period, the Center will take cooperation and service of experts from different educational institutes, campus, research centre and other related agencies. The Center will construct office building with its own resources. Research findings will not be kept inactive. Rather, with extensive discussion, these findings will be made useful for educational upliftment. By increasing and extending working scope of various research centres, they will be geared towards resource generation, and grants from the university to these centres will be gradually reduced.

Higher Education Project: Higher education project has been running with the loan assistance of the World Bank with the objective of developing higher education. This project will conduct various programmes such as reform in curriculum and examination system, management and operation of 'management information system' and arrangement of physical facilities in order to increase the quality of higher education.

9. Institutional Development

The work for establishing education management information system (EMIS) will be completed and education administration will be reformed through this system and other media.

- Regional cluster development stage I + II + II will be completed during this Plan period.
- Proficiency certificate level will be phased out during this period.

- Physical Reform:

Construction will be completed in the second phase.

Scientific and educational instruments will be arranged.

Electricity distribution and maintenance work will be completed.

Drinking water distribution work will be completed.

Other maintenance works will be completed.

- Educational Development:

Entrance examination will be introduced in all the departments and programmes of Tribhuvan University.

Reform in examination will be continued.

Reform in curriculum will be continuing.

- Cooperation in higher secondary education reform.

In the Eighth Plan, curriculum has already been developed in 23 subjects of higher secondary education. During the Ninth Plan period, curriculum for remaining subjects will be developed and introduced.

Kathmandu University: Considering the contribution made by Kathmandu University in the development of Nepal's higher education, efforts will be made to obtain cooperation from this University in order to achieve set objectives of higher education.

Mahendra Sanskrit University: During the Plan period, one campus will be established in each zone of the country. Sanskrit school will be opened in each district. Ayurved Teaching Hospital established in Dang district of Rapti zone will be strengthened. Yoga training centre will be extended. A study centre will be established to study Budha philosophy, ancient books and ancient economics; Sanskrit language training centre will be established. Physical aspects of the University will be strengthened. Higher level *karma-kanda* class will be conducted

Eastern University: In the Plan period, Eastern University will be converted into Regional University and it will be strengthened. Its academic programmes will be extended. Necessary reforms will be made in the management aspect of the University and emphasis will be given to the development of qualitative higher education.

Pokhara University: Pokhara University will be extended as Regional University of the Western Region. During the Ninth Plan, infrastructures for the establishment of university will be prepared and it will be operationalised.

Agriculture and Forestry University: A feasibility study will be conducted to develop existing structure of Agriculture and Forestry Institute into an Agriculture and Forestry University. If it is felt necessary to open a new separate university, preliminary works will be carried out in this regard. Infrastructures for establishing the university will be systematised.

Open University: Feasibility study for establishing Open University will be conducted, and infrastructures will be arranged for its operation.

Education Policy Implementation Arrangement:

- Role of the Ministry of Education will be centred on policy making, plan formulation, monitoring, supervision and evaluation.
- School education implementation will be made effective by establishing Departments of Education.
- Role of Regional Education Directorate will be more concentrated on monitoring, supervision and coordination of examination programme.
- School inspection system will be made effective and district resource centre will be strengthened.
- Local elected bodies will be involved in the formulation and implementation education programme in accordance with the principle of decentralisation.

- Emphasis will be given to mobilise local resources for maintaining the quality of education.
- Literacy programme will be implemented as a campaign by mobilising government and non- government agencies.
- Compulsory primary education will be implemented gradually in 22 districts.
- Secondary schools will be increased to a minimum number and emphasis will be given to strengthen existing schools.
- Programme will be conducted for bringing higher secondary education within the structure of secondary education.
- Arrangement will be made to provide grants to universities through University Grant Commission on the basis of set criteria.

13.2 Culture

1. Background

All aspects of Nepalese lives such as lifestyles, traditions, languages, costumes and dresses, arts, customs and mores, religions, philosophy, etc., render vitality to Nepalese culture. Architecture, painting, sculpture and crafts as well as historical and archaeological sites constitute the Nepalese cultural heritage. Profuse varieties of life styles, arts, languages, dresses, festivals, religious fairs, musical instruments, music, dances, etc., scattered throughout the country are the integral part of our culture. The memorials and stone records, which are maintained to make such cultural heritage eternal, reflect the contemporary living standard. Nepalese cultural heritage as such has presented in the form of human quality and characteristics like high morale, etiquette, social discipline, good character, artistic efficiency, and internal purity.

2. Review of the Eighth Plan

Archaeology:

The preservation campaign for culture heritage of Katmandu valley under the auspices of UNESCO has not gained momentum, though periodic evaluation has been done several times. With the cooperation of H.M.G./Nepal and German Government and people's participation, preservation of monuments, management of drinking water and sewerage, afforestation and environment reform programmes in Swayumbhu areas have registered a satisfactory progress and these programmes are currently in operation. Preservation work for Patan Palace Square has been completed and Patan Durbar Museum has already been established and operated.

With the cooperation of Nippon Institute of Technology, Japan and German Government, Ivawahi and Lampati's audience hall made by Bahadur Shah has been renovated. Brick pavement work at Patan Durbar square has been completed and renovation of Jagannath and Hari Shanker Temple in Ikhalkhu has already been completed. Detailed scientific survey of Sundarichowk yard of Patan Palace Mulchowk, Taleju and Degu Taleju Temple has been completed with the cooperation of UNESCO. With the financial cooperation of Bhaktapur Development Project, German Government and local people's participation, preservation and renovation works for monuments renovated by HMG and other monuments have been carried out.

Survey of bronze and stone water spouts of Katmandu valley has been completed. Work has been completed to renovate the historical Gorkha palace and the lower Gorkha palace, improvement of late King Prithivi Narayan Shah statue area, construction of road and sewerage in the market and palace area and construction of stairs in accordance with Gorkha Palace Area Preservation master plan. Panauti Integrated Project has conserved and renovated 55 monuments like Indreswor Mahadev Temple, rest house, and inns, stone water spouts and schools. Noticeable

progress has been made in the construction of Banepa-Panuti road, sewerage and bridge and so on.

Among the monuments included in the World Heritage sites, master plans have been prepared for Patan Durbar square and Pashupati area, but those of Bhaktapur Durbar square, Hanuman Dhoka Durbar square and Boudhnath area have not been formulated. Strategies could not be designed to survey and record areas of archaeological, historical, religious, cultural and artistic importance and the classified preserve monuments at the national and local level.

Culture:

The Royal Nepal Academy has performed its functions in line with the goal of developing Nepalese literature and culture. Culture Corporation has conducted training programme in music, dance, performing arts and has also been performing an important role in the development of folk song and dance by organising national cultural festival. With the objective of demonstrating life styles, costumes and food habits of ethnic tribes a concept has been developed to establish ethnic tribe museum at the public level. For this purpose, land acquisition has already been completed.

3. Existing Challenges

Exploration and research of our cultural heritage have not been performed as needed. Existing cultural heritages are being degraded or deteriorated due to the lack of proper care, maintenance and preservation. In a multi-lingual, multi-ethnic, multi-cultural country like ours, traditional indigenous cultures representing dress, festival, religious fair, music, dance, language are on the verge of extinction. Western culture is enormously encroaching upon our culture and its originality is being eroded.

In order to utilise the Nepalese natural and cultural heritage for domestic and international tourism, pilgrimage, and for the development of employment oriented industry and trade, the process of making adequate investment for heavy infrastructure is still at initial stage. Cultural heritage and natural resources have not been fully utilised for national income generation.

Nepalese stone and metal sculptures are characterised by original features in the entire South and East Asia. Efforts made so far are not sufficient for the institutional development of handicraft industries. Although Lumbini is the main pilgrimage place for Buddhists all over the world, its development works have yet to be completed as per the master plan.

Lumbini, Pashupatinath, Swayambhu, Muktinath, Halesi, Sworgadwari, Baraha Chhetra, Pathivara, Janakpurdham, Rishi Keshab, Balmiki Ashram, Dev Ghat, Tribeni are sites of religious, cultural and historical importance and also holy pilgrimage places for all religious follows of the world. Infrastructures have not been developed in a way to preserve develop religious tourism or pilgrimage.

Guthi (land trust) is managed to conduct religious activities; as these land trusts are not appropriately operated, this has made a negative effect on the worship of enshrined deities, management of religious ritual. For these reasons, such land trusts have not been conducted in a traditional manner and Guthi arrangement has been

slackened. Towns and markets are established in the land of Dev Guthi, Raj Guthi; revenue generated by these land trusts is insufficient and this state of affairs has stopped regular worshipping. Temples and monasteries are gradually collapsing. Some of these monuments have already been extinct and others are in the process. Money offered by devotees in temple and monastery at main pilgrimage sites are not properly utilized. Income generated through these has not been used for the maintenance of these sacred places.

Precious idols and records of temples, monasteries, religious rest houses are on the verge of destruction and are being gradually destroyed. Nationwide inventory of such idols and records could not be conducted and prepared. Even survey could not be conducted on these precious heritages.

Slackness in production of traditional the construction materials which are needed for the preservation of monuments and monument areas have made these materials expensive and there by the preservations works have become sub-standard; skilled craftsmen of traditional metal craft and painting are switching over towards others modern professions. This has made standard cultural preservation difficult and traditional construction materials have become rare. Likewise, no system of documenting the design and map of traditional technology has been established yet; therefore, traditional technology is being almost extinct.

4. Long-term Concept

- To explore, research, preserve and maintain physical and live heritage of Nepal which is a multiethnic, multilingual and multicultural country; conserve them as national heritage; and mobilise them as a source for increasing employment and national income.
- To mobilise Nepalese cultural heritage as a main source of foreign exchange earning and make local people directly benefit from cultural tourism.
- To ensure a sustainable management and preservation system for maintaining special characteristics of monuments of world heritage and other sites of national importance.
- To preserve life style, dress, cultural tradition, dance, music, language, script of different ethnic tribes, and to establish museums for preserving them.
- To establish an open museum in Katmandu valley in a way to demonstrate entire cultural traditions of the valley.
- To identify the cultural heritage of the country as a symbol of glory for Nepali people.

Ninth Plan

5. Objective

- To conserve cultural, religious and historical sites, and develop them for tourist attraction.

- To develop arts and crafts as industry for creating additional employment opportunities and contributing to the economic development of the country.
- To provide national and international recognition to profession also of literature, arts and culture and protect their intellectual property.
- To earn international fame by maintaining originality of cultural heritage sites both proposed and included in the world heritage list.
- To institutionalise heritage conservation works on the basis of income generation and to manage them gradually at the community level.
- To preserve and conserve language, literature, arts and culture of various castes and ethnic tribes.

6. Target

• Archeological study, research and excavation.	as necessary
• Infrastructure development of Lumbini Area	To complete
• Preservation of historical, archaeological and religious sites	as necessary
• Establishment of museum based on genre and site	10
• Community cultural centres	75
• Regional cultural centres	2
• Audio-visual, electrification programme for monuments and preserved area	3
• Establishment of Academy based on genre	2

7. Policy and Implementation Strategy

- Adequate publicity on cultural heritage in the national and international arena will be carried out; and archeological survey, exploration, excavation and preservation of possible sites will be carried out.
- Preservation of monuments of national and international importance will be carried out on a priority basis.
- Industries will be encouraged to produce traditional construction materials for the repair, maintenance and preservation of monuments.
- Policy will be adopted to develop literature, art and music in a way to encourage famous artists, musicians and litterateurs and provide inspiration and training to new genius.

- Cultural specialty of different ethnic tribes, language, customs and traditional mores will be preserved as integral part of the Nepalese culture.
- Approved standard will be enforced with a view to preserving and maintain originality of the monuments included in the World Heritage list.
- Policy will be adopted to mobilise local and community cooperation, secure active participation of municipality and village development committees and utilise fees and donations realised in such places in a systematic way in order to preserve important heritage, monuments and religious sites.
- Private sector will be mobilised to strengthen the institutional aspect of cultural heritage conservation.
- Policy will be adopted to co-ordinate with the tourism sector for the effective utilisation of cultural heritage for tourism purpose.
- Policy will be adopted to preserve originality of Nepalese life styles, arts and crafts, dance, and music and promote them as tourism attractions.
- Policy will be adopted to develop historical, archeological, cultural, religious sites, caste, and dress, life styles and cultural tradition as tourism infrastructure; and conserve environment in protected monument areas.
- Scientific technology and geo-physical survey will be conducted for the survey of historical, archaeological monument sites in Nepal.
- Monuments areas included in a world heritage list and other monuments of national importance will be preserved on the basis of set standards and appropriate institutional mechanism will be created in a way to secure people participation for their management.
- Guidelines will be prepared to involve local elected bodies in the preservation of local monuments and monument sites. Records of local monastery, temple; religious rest houses, public inn, memorial buildings, ponds, idols, stone water spouts, historical and cultural monasteries etc., will be prepared on the basis of extensive study and research. For this purpose, government, non-government and local organisations will be involved and massive people participation will be mobilised for monument preservation.
- Historical, cultural and religious books and records scattered in different parts of the country and in government offices will be collected and preserved.
- Emphasis will be given to the study and research of script, language, dress, folk literature, folk culture, technology, socio-economic life styles, customs and traditions ethnic groups of Rai, Limbu, Sherpa, Gurung, Tharu, Maithali, Bhojpuri, tribal people of the country. Encouragement will be given to establishing cultural industries in feasible areas, covering those subject matters. Preservation and promotion of these live cultural heritages will be given due attention.

- Emphasis will be given to conservation, promotion, and development of literature, arts and culture by keeping records of national living legends on the basis of investigation and monitoring of their performance; these heritages will be preserved; and training will be provided to selected new genius.
- Cultural festivals, religious fairs organised in archaeological and cultural sites will be encouraged and thereby emphasis will be given to the development of tourism industry.
- Fund will be created at local and national levels to preserve historical, archaeological, literary, cultural and artistic works.
- Local regional and national festivals will be organised on various cultural genres.
- Arrangement of pension will be made to encourage people demonstrating their genius and scholars conducting the research and study of Nepalese history, literature, culture, arts, religion, philosophy.
- Necessary reform in Copyright Act will be made to protect copy right in literature, arts and culture, sector while taking into consideration of international practice. Protection of arts and crafts will be made effective and its management aspects will be strengthened and made capable.
- The importance of Nepalese cultural heritage and its preservation process will be included in the curriculum from school level to higher education level.
- Promotional activities will be conducted for Nepalese folk literature, classical music, dress by arranging drama festivals, music festivals, and dance festivals. Emphasis will be given to develop singing, music and dancing as income generating activities.
- Emphasis will be given to research programme on the application of traditional technology for the preservation of archaeological monuments; and by study and analysis of various classical books will be conducted.
- Facilities will be provided to conserve historical, artistic, archaeological monasteries, temples, religious rest houses, public inns by extending technical consultation, making available traditional construction material, exempting land building tax etc. In a situation where the private sector shows no interest in conserving these monuments, the public sector will enact necessary law to turn such monuments into public monuments.
- Emphasis will be given to cultural exchange programme with friendly nations for the upliftment of Nepalese literature, arts and culture.
- Audio, visual and electricity programme showing cultural, historical and religious importance will be conducted in monument sites of tourist importance.
- Entry fee will be charged into monument sites and proceeds thus realised will be used for preservation of those areas. Programmes will be implemented for economic and social development of those areas.

- Local manpower will be mobilised for the preservation, conservation and development of famous religious and pilgrimage sites, and, money offered by devotees, income from charity and donation will be used for the maintenance and conservation of those areas.
- Cultural, historical, archaeological and artistic monuments and monument sites will be scientifically surveyed, classified and analysed. These monuments and monument sites will be classified as monuments of international, national and local importance and responsibility to concerned agency will be assigned for their preservation and development. The central level together with the cooperation of local people will carry out preservation of national and international monuments.
- Encouragement will be given to conduct professional training programme in sculpture, metal crafts, stone craft and painting in order to making skilled manpower available for monument preservation.
- Genre and site specific museum will be established and regional museums will be strengthened.
- Government will provide appropriate facility and cooperation to those who preserve private monuments according approved criterion located within protected monuments as included in world heritage list.
- Craft-men will be encouraged to produce souvenir items using local materials for tourism purpose.
- Employment opportunity will be created to local youths in the monument sites, which are important from tourism point of view, by providing them guide training.
- Basic tenets will be decided to develop Bhaktapur municipality into a cultural town.

8. Programme

Archaeological Exploration, Research and Excavation:

- Extensive archaeological survey will be carried out in the Eastern Region. Excavation and preservation programme will be conducted in new possible areas like Rani area of Morang district which is noted as palace area of legendary King Birat.
- Archaeological excavation programme based on feasibility will be conducted in possible areas of Pallungtar in Dhading district; Somadi parbat in Chitwan District, Balmiki Ashram in Chitwon and Nalwal Parasi district; Ramgram in Nawal Parasi; Devdaha in Rupandehi; Senamaina; various archaeological sites of Butwal, Kapilbastu; of Kaski and Lamjung; Dang and Gandaki and Karnali valley.
- Exploration research and preservation programme will be conducted on the fortress such as Sindhuli Gadhi, Chisapani Gadhi, Makawanpur Gadhi, Armerkot and so on.

- Research and excavation programme in on-going areas will be continued and research in other possible archaeological places will be initiated.
- Testing Laboratory will be strengthened.

Preservation of Physical Cultural Heritage:

- Remaining programmes for preservation of monastery, building and monument areas of national and international importance and those included in the world heritage list will be launched at the central level.
- Private monuments under protected area included in world heritage list will be preserved on the basis of set standard and with the objective of developing cultural tourism. Technical and other co-operative programme for preservation work will be conducted as micro project.
- Study, survey, and research of various historical, religious, archaeological monuments and monument sites will be conducted in a phase-wise manner; their records will be maintained scientifically and these monuments will be classified as international and local monuments.
- Programme will be conducted to keep records of precious artistic and archaeological sculpture and materials under private ownership.
- Programme will be launched to preserve famous 'Ghat' (site for burning dead body) on Baraha Chetra, Triveni, Ridi, Gokarna, Sankhamul, Pashupati, Tekudovan, Devghat and so on.
- Environmental conservation programme will be carried out in holy ponds and pilgrimage sites like Gosaikunda, Ramsagar, Dhanusagar, Matathirtha, Gokarneswor.
- Natural and cultural heritage will be preserved by protecting religious forests of Swyambhu, Pashupatinath, Budhanath, Changunarayan, Muktinath, Devghat Triveni, Panauti, Manakamana, Sworgadwari, Pathivara and Haleshi Mahadev. Daily rituals at holy places will be conducted on a self-sustainable basis.
- Programme to preserve important monasteries, local monuments and temples will be conducted by mobilising people's participation.
- Basis facilities like drinking water, sewerage solid waste and management will be provided in a coordinated manner so as to conserve monument and monuments areas of international and national importance.
- Excavation, preservation and development of Lumbini area will be continued and construction works for necessary infrastructures will be completed during the Plan period.

Preservation of Records:

- Records will be maintained by collecting them from various sources like monasteries, temples and private collections, government records, historical, archaeological and religious hand written records. They will be preserved in

microfilms. Programme will be conducted to keep these records secure in local level.

Development of Museums:

- Regional and national museums will be strengthened and well decorated. Area specific museum will be established in national monuments and protected area. Study will be conducted to establish open museum in Kathmandu valley.
- Programms will be conducted to provide technical and physical assistance in establishing ethnographic and other museums in the private sector.
- Dress and musical instrument museum will be established as per the programme for establishing genre-wise museum.

Conservation and Promotion of Living Culture :

- Programme will be conducted to establish cultural centre at the sectoral level with the objective of reflecting cultural specialty of various ethnic groups. Two such centres will be established during the Plan period.
- National, regional and district cultural festivals will be organised and competition programmes in singing, music, dance performing arts will be held.
- Among various ethnic settlement areas of Rai, Limbu, Sherpa, Gurung, Tharu, Maithali, Bhojpuri etc, in Nepal two appropriate villages from tourism point of view will be selected during the Plan period, with a view to developing the entire village as an open museum and display life styles, custom, arts and crafts and festivals of the concerned caste tribe.
- Academy of music and drama and academy of fine arts will be established.
- Cultural exchange programme will be conducted among various regions of the country and with different countries of the world.
- Programme will be conducted to provide honour, reward, pension and honorarium to national genius who have made a significant contribution to research and study of various genres such as literature, music, arts, acting, religion, philosophy, language, culture of Nepal.
- In order to conduct cultural and youth activities, in coordination with youth programme in the areas dominated by ethnic tribes and backward class, cost-effective community cultured centre will be established with the utilisation of local resources.

Preservation of Copy Right:

- Copy right preservation programme will be conducted to stop the pilferage of intellectual property of litterateurs, musicians, artists, and film producers.

Development of cultural Tourism :

- Arrangement will be made to prepare and display cultural activities and audio, visual programmes in monuments and protected areas in order to attract tourists.

- Audio, visual and reading material on cultural tourist areas and live culture of those areas will be prepared.
- Preservation programmes for physical and living heritage will be carried out along the trekking, mountaineering and rafting routes.
- Package Programmes will be prepared for the preservation and development specific areas appropriate for religious and cultural tourism.

Organisational Strengthening:

- Central and regional organisations related to culture will be strengthened for cultural promotion and preservation.
- In order to conserve, promote and manage local culture and heritage, organisational arrangement will be made with the main participation of the private sector at the local level.

13.3 Health

1. Background

Health service being the essential service for human life has been accepted as the most important part of human right. In view of the campaign over the urge "Health for All by 2000 AD" of World Health Organisation (WHO) and the commitments made in various international health conventions, Nepal has formulated and implemented Health Service Policy (1991). During the Eighth Plan period, by extending health establishments to rural areas, preventive, promotive, curative and rehabilitation, and family planning programmes have been brought into the village level.

For the development of health services, attempts made in the past have had some improvements in the public health status; however, major health indicators of Nepalese people have shown that their health status is far below as compared to other developing countries. Malaria, tuberculosis, leprosy and immunisation-oriented preventive diseases have been controlled, to a great extent; however, due to the lack of consistency between policy, programme and budget, managerial problems and the lack of apparatus and equipment at hospitals, people have not obtained expected health services from the extended health institutions. Therefore, health services should be made more service-oriented and commitment should be made towards improving the public health status.

2. Review of the Eighth Plan

In line with the objectives of uplifting the health status of Nepalese people gradually; providing "Health for all by 2000"; bringing an improvement in public health status; producing healthy manpower for development; controlling population; making maternity health and family planning services effective; and making the specialist-oriented health services available in the country, various programmes had been implemented.

Basic Primary Health Services:

Female Health Volunteer: Under this programme, basic training to 17,150 people and refresher training to 95,314 people have been provided against the target of 26337 and 137,412 people, respectively, in the Eighth Plan.

Sub-Health Posts, Health Posts and Primary Health Care Centres: In accordance with the National Health Policy 1991 of establishing sub-health post and primary health care centre in each constituency and Village Development Committee respectively, a total of 3,199 sub-health posts and 100 primary health care centres respectively have been established. In order to provide an integrated basic health services such as first aid to ordinary ailments, common curative service, immunisation, health education, nutrition and curative service for contagious diseases--malaria, tuberculosis and leprosy, at the village level as per the policy of the Eighth Plan, primary health services have been provided at wards, VDCs and constituencies. Accordingly, female

health volunteers have been posted at sub-health posts and primary health care centres. According to Nepal Living Standard Survey – 1996, 41.41 percent of household families have an access to nearest health institution within a walking distance of half an hour.

Family Planning and Maternity Welfare: This programme has been conducted with the objective of reducing the adverse effect of population growth on the socio-economic development of the country and thereby uplifting the living standard of the people gradually. The progress status of set targets for this programme has remained as follows:

S.N.	Description	Eight Plan's	
		Target	Achievement
1	Total Fertility Rate	4.5	4.58
2	Family Planning Services to Couples	12,46,800	12,62,523
3	Rate of Contraceptive Users (in percent.)	32	30.1
4	Maternal Mortality (Per 10000 live births)	75.0	47.5
5	Pregnant and Obstetric Services	17,04, 000	8,33,951
6	Services to Children below 5 years	14,85, 000	16,49, 415
7	Producing Female Health Volunteers	63, 000	46,427
8	Producing Trained Birth Attendant	15,000	12,559

The total fertility rate has been targeted to reduce to 4.5 percent; however, the rate has remained only at 4.58 percent due to the impact of age for marriage, breast feeding period, anemia, infertility, abortion and social norms and values in addition to family planning services.

Malaria, Kala-azar and Encephalitis: Programmes such as pesticides spraying two times a year throughout the malaria-infected 64 districts of the Kingdom with areas of 6,00,000 to 8,00,000 inhabitants, collecting and examining of 350,750 blood samples, treatment for infected persons and conducting research and mobilising people's participation in malaria control activity have been successful as targeted.

Expanded Programme for Immunisation: During the Eighth Plan period, immunisation against six types of paediatric diseases and TT vaccination service to women between 15 to 42 years have been provided. The target to provide immunisation service has been achieved by 2 percent in the first three years, thereafter by 1 percent in the remaining 2 years and henceforth to 92 percent of the targeted population by the end of the Plan. In FY 1994/95, a target has been set to eliminate child tetanus totally; however, only 33 percent of obstetric and pregnant women have been provided with TT vaccination to date. As vaccination against measles has been provided only to 56.6 percent of children, the disease still exists as a complex problem.

As part of the mission to eradicate polio from the world by 2000, a total of 3380,000 children below 5 years have been immunised against poliomyelitis for the first time in FY 1996/97 by observing a National Immunisation Day.

Tuberculosis Control: Tuberculosis control programme has been expanded to all the districts of the Kingdom during the Eighth Plan period. In this period, against the target of conducting phlegm examination of 643,976 suspected patients, and giving treatment to patients as well as providing curative services to old patients, both resistant and relapse cases, a total of 287,978 tuberculosis patients have been diagnosed and provided treatment. An estimate shows that five patients per ten thousand people suffer from the disease during the plan period. Curative services have been made effective by managing DOTS curative programme in ten districts.

Leprosy Control: The target to reduce the rate of leprosy endemically to one person per one thousand people by the end of the Eighth Plan has been met with more achievement than the target, which shows the rate at 0.59 of patients being registered by the end of the Plan. Against the target of expanding leprosy programme to 71 districts from 56 districts, it has actually been expanded throughout the Kingdom. Smear examination of 20,987 has been done out of 40,000 patients; training to 3,810 health workers has been provided against the target of 1,500; and in-door service targeted to 1,550 patients have been provided to 1,619 patients.

By mobilising health education, information and communication programmes in an integrated manner, public awareness towards health has been promoted. With the objective of raising public health awareness through health education by conducting publicity and seminars, the targets under this programme of producing and distributing 10.2 million copies in various languages, publishing advertisement 1,440 times and exhibiting advertisement 35,886 times have been achieved.

For the purpose of helping, extending and promoting health education programmes in districts, production and distribution of educational materials, advertisement and broadcasting in radio and television, publication of articles in news papers and journals, exhibition and video films show in communities, calendar printing, cinema slides, health information services (library, internet, e-mail, photocopy, CD ROM search) have been completed as per the set target.

Nutrition Programme: During the Eighth Plan period, against the targets of providing treatment of malnutrition to 27,20,964 children by caring their physical growth, anemia in 12,60,569 pregnant and breast-feeding women and disease caused by vitamin-A deficiency to 52,714 people; and of distributing iodised salt, the following progress has been made.

S.No.	Description of Projects	Unit	Target	Achievement
1	Growth Monitoring	Number of (Person)	2,720,964	1,818,750
2	Treatment and prevention of Anemia	Number (Person)	1,260,568	1,260,560
3	Treatment & Prevention of Vitamin - A Deficiency	Capsule		6,799,424
4	Iodine Injection	Capsule	5,335,000	5,335,000

5	Distribution of Iodine capsule	District	46	46
6	Transportation of salt to Remote Districts	Quintal	57,500	34,759
7	Construction of warehouses	Number	11	1
8	Salt Iodination work	Metric Ton	500,000	545,591

Control of Diarrhoeal Disease: In the Eighth Plan, target has been set to reduce child mortality among children below 5 years by 32 percent; however the actual status has not been known as there has not been any survey to have conducted. The patient rate due to diarrhoea as targeted to reduce by 20 percent has been reduced only by 2.9 percent. The target to raise the accessibility rate of *Jeevan Jal* from 60 to 90 percent has been met. A target has been set to raise the correct use of *Jeevan Jal* among mothers from 2.25 to 2.5 percent; however, the actual progress has not been able to ascertain due to the lack of survey. The purchase and distribution of 14 million JJ pockets have been completed against the target of 7.5 million pockets. A total of 1500 ORT Centres have been established against the target of only 200 centres. The target to provide ORT training to 15000 primary school teachers and 60000 scouts has been met by providing ORT training to 12000 teachers only.

Control of Acute Respiratory Infection: The target to expand this programme from 50 to 70 districts in the Eighth Plan has been met by expanding the programme throughout the country. Against the target of providing training to 8881 health technicians with ARI case management, only 1541 Health workers of different levels have been provided with ARI strengthening training; and training for controlling ARI in 10 districts has been provided to female volunteers. Orientation training as targeted to provide to the political and social workers of 70 districts has been provided only to 2051 persons of 6 districts.

Curative Programme: In spite of the target of the Eighth Plan to strengthen referral mechanism, physical facility and the capacity of beds have been expanded only to a limited extent due to the lack of policy, procedural system and guidelines. In the Eighth Plan, a total of 450 beds have been expanded in district, regional and central hospitals. 100 beds in Kanti Children Hospital, 100 in HRH Indra Rajya Laxmi Maternity Home, 200 in B. P. Koirala Medical Science Institution and 50 in Janakpur Hospital have been expanded during the plan period. Building construction has been started in the process of establishing B. P. Koirala Cancer Hospital. By the end of the Eighth Plan period, 55 nursing homes and hospitals in the private sector have provided curative services.

Development of *Ayurved* and Other Traditional Therapeutic Methods: *Ayurved* has been regarded as an important organ of health service. National *Ayurvedic* Health Policy 1995 has been brought out for the planned development of this method. In the Eighth Plan, a target has been set to establish standard district *Ayurved* hospitals; however, *Ayurvedic* health centres in 25 districts and 20 dispensaries have been established and new building and compound walls of 30 dispensaries have been constructed. Refresher training has been conducted to technical workers from all over

the country. Medicine production has been started in 3 regional rural pharmacies. A total of 50 beds have been added in *Ayurved* hospital at Nardevi against the target of 100 beds. In line with the policy of commercialising and giving autonomy to Singha Durbar Baidya Khana, Singha Durbar Baidya Khana development committee has been formed; its management and production capacity has been enhanced; and physical improvement has been made.

Management of Medicines: In the Eighth Plan, the target to set up an analytical medical laboratory for maintaining test and standard of medicines has been fulfilled. The programme for pharmacy orientation training to 2000 medicine sellers has been reached only to 291 people; surveillance over 218 pharmaceutical industries has been completed as against the target of 182; and 3354 drug samples have been examined as against the target of 1450 samples.

National Public Health Laboratory: With the objectives of detecting and diagnosing diseases and examining germs in drinking water and foods, laboratory building in 4 districts has been constructed; laboratories in seven districts and 43 primary health centres have been set up; and bacteriological examination service has also been provided.

Manpower Development in the Health Sector: In accordance with the need of health establishments to provide training in the Eighth Plan, a national training centre has been set up and training to health technicians on recruitment and in service has been provided in an integrated manner. Accordingly, a total of 365207 employees have been provided various new recruitment and in-service training.

Moreover, necessary training and study available in the country and overseas have been provided for fulfilling necessary medium and high level manpower in the country. In this context, subjects include MPH, neuro and orthopedic surgery, hospital administration, pathology, dental specialist, radiology, mental health, plastic surgery and so forth. B. P. Koirala Medical Science Institute has initiated MBBS course for 40 students whereas two medical colleges in the private sector and 55 training centres have been set up for the production of medium level manpower.

Miscellaneous: A massive publicity has been carried out against the negative impact of smoking, alcoholism, and drug addiction. Programmes have been formulated and implemented by the private sector and non-government organisations for rehabilitation for disabled and handicapped people. In other to assist in AIDS control, necessary cooperation has been provided to the blood bank operated by Nepal Red Cross Society.

3. Existing Challenges

- Due to geographical difficulties and higher population pressure, even basic health facilities have not been able to serve to the target population. HMG has the policy of providing health service through sub-health posts in each VDC; however, due to the lack of buildings and manpower, such institutions have not been able to function smoothly. Moreover, the blanket policy of HMG has been made health services difficult to provide in all the areas in a uniform process.

- People have faced with unnecessary economic burden and waste of time due to unclear policies about the services available in concerned health institutions at district, regional and central level and the operation of referral system and the cost to be borne by patients for service delivery from these institutions.
- Annual programme and budget have not been prepared in a way to meet the targets set in the periodic plans. Instead, due to the lack of resources and means, required budget allocation and full release of allocated budget in time, these targets have not been met.
- Health sector being a multidimensional subject needs to be functioned in coordination with other ministries, organisations and institutions. However, due to the lack of vertical and horizontal coordination among the institutions established under the Ministry of Health, lack of communication, the lack of cooperation and administrative problems, satisfactory achievements have not been made in programme implementation.
- Owing to geographical difficulties, morbidity pressure, lack of human resources, lack of health awareness and ineffective health service in remote areas, women and disabled people have not been provided with basic health services.
- Furthermore, the lack of coordination among NGOs and INGOs, private sector and local communities in the development of health institutions has affected the coordination between NGOs and local authorities, consumer groups and government offices.
- Due to the lack of study and research on Ayurved, Unani, homeopathy, naturopathy and other traditional health services, the lack of mobilisation of resources and means and the lack of public participatory management and research, local resources and means have not been identified and mobilised.
- In the absence of monitoring and evaluation over the positive and negative impact of standard services managed by private sector and the lack of surveillance, the proper mobilisation of the private sector has been weakened.
- Human resources have not been developed properly due to the lack of manpower planning based on demand and supply, the lack of placement of right man in right place; lack of opportunities for transfer, promotion and career development; transfer of doctors to remote areas without medicines and equipment affecting their skill, talent, knowledge and capability.
- The problems of health institutions that still exist are the lack of medicines and equipment, lack of maintenance of hospital buildings, quarters and equipment.

4. Long-term Concept

- The need of health services for every citizen will be accepted as an important part of human right; essential health care services will be provided to all the people; and specialist services in addition to essential health services will be extended gradually on a cost effective basis.

- In the health sector, liberal, open and competitive health financial plans will be implemented. Such policies will be thought of enhancing indigenous competitive capability and reforming in a way to be able to obtain benefits from new opportunities created by the worldwide open policy.
- A policy will be adopted to create infrastructure necessary for the health sector and to encourage the services operated by the private sector and NGOs. Policy arrangement will be made for strengthening the role of the private sector and the state will develop necessary infrastructure.

The Ninth Plan

Although health indicators have been improved with the development and expansion of policy level and institutional programmes for the development of the health sector. Big effort is still needed for bringing out further improvement in this situation. The child mortality rate of 79 out of every 1000 live infant birth is the highest one in this region. On the one hand, the average life expectancy of 54.7 years is far less and on the other, maternal mortality rate of 53.9 per 10 thousand live births is far more. The population growth rate has been 2.1 percent. Forty-one percent of the total population constitutes women group of reproductive age. The statistics of Morbidity Survey of 1996 in Nepal have indicated that maternal health condition; childhood deformity, malnutrition and contagious diseases have appeared as the most fundamental factors for morbidity and death.

For solving the existing health problems, various policies and plans had been formulated and implemented in the past. Realising the need for extending manpower and physical facilities and making fundamental reforms on administrative and financial management, necessary strategies have been designed; however, these problems still exist. The constraints in adopting preliminary steps for sustainable policy, effective implementation mechanism, full utilisation of means and resources have also occurred. In this context, it is necessary to gear the country's efforts towards uplifting the health status of the people through the development of the health sector; contributing to the growth of healthy manpower for poverty alleviation; and developing human resources for overall socio-economic development.

For the purpose of promoting physical, mental and social health of the people; producing health sector manpower to make basic health services available to all the people; reducing the mortality rate; and uplifting the average life expectancy, a 15-year long-term health plan (1976-1992) was implemented in 1976. In view of the investment and priorities, morbidity burden and the proper utilisation of resources, a second long-term health plan (1997-2017) has been prepared.

The second long-term health plan has focused on the preparation of periodic and annual plans, guidelines, and formulation of strategy, programmes and plan of actions based on national health needs and priority and coordination among governmental, non-governmental and donor agencies. Self-dependence, gender awareness, decentralisation, effective and efficient organisation and management, full people's participation, partnership among government, NGO and private sectors, are the policies adopted by this plan. In addition, the Plan has incorporated the detailed

position analysis, analysis of morbidity load, long-term strategy on basic health services, other specific services, strengthening health financial mechanism, concern of government and private sector, strengthening district health system, internal and inter-agency concern, quality standard, etc. The Second long-term plan which is supposed to come out in the current plan period will have an institutional review; necessary amendment thus will be made in the form of rolling source document; and accordingly programmes will be implemented.

Since the health sector has a special role to play in poverty alleviation from the country, necessary improvements will be made in public health status by making existing infrastructure strong, efficient and movable for preventive, promotive, therapeutic and rehabilitating services. It has been realised that more efforts have to be made towards achieving targets of woman and child health as committed at the international level on various occasions by HMG; ensuring health for all by 2000; and uplifting gradually health of the people.

On the whole, considering the high importance of this sector, three factors will mainly be focused. In order to create an environment from the family level towards health awareness, and improve health status, priority will be given to do right works on basic health services; proper management of public hospitals; efficiency of health service; and quality standard by the government. The private sector, communities and NGOs will be encouraged for providing high level and specialist-oriented health services by promoting diversity and competition of services in this sector. The government will play the role of a motivator for providing necessary help in the production of trained manpower and involving in research and development.

5. Objective

- Comprehensive improvement in public health status will be brought about by accepting public health as an important organ of human right and strengthening existing infrastructure for preventive, promotive, curative, rehabilitation and family planning services.
- Public health status will be improved by the development and extension of health services; the concept of small family will be expanded through providing health and family planning services; and thereby the population growth rate will be brought down.
- A contribution to poverty alleviation will be made by increasing income through the participation of healthy manpower for enhancing the capability of people going to labour market.

6. Target

S.N.	Health Indicators	Status of 1996/97	Target for Ninth Plan	Target for 20 years
1	Infant Mortality Rate (per 1000)	74.7	61.5	34.4
2	Child Mortality Rate (per 1000)	118	102.3	62.5
3	Total Fertility Rate(per woman))	4.58	4.2	3.05
4	Average Life Expectancy (years)	56.1	59.7	68.7
5	Maternal Mortality Rate (per 10000 live birth)	47.5	40.0	25.0
6	Contraceptive Users (percent.)	30.1	36.6	58.2
7	Obstetric Service by Trained Manpower (percent.)	31.5	50.0	95.0
8	Birth of Infant below 2500 gm (percent.)	-	23.0	12
9	Crude Birth Rate (per 1000)	35.4	33.1	26.6
10	Crude Mortality Rate(per 1000)	11.5	9.6	6.0
11	Basic Health Service Accessibility (percent of people)	-	70.0	90.0

Source: Nepal Family Health Survey, 1996; Population Projection Report, 1998; and Projections made by the Ministry of Population and Environment, Central Bureau of Statistics, National Planning Commission and New Era.

7. Policy and Implantation Strategy

- In order to provide health services to all by 2000 and in the long-term context as well, basic health services will be made accessible at the local level. Under basic health services, an emphasis will be given to the development of prioritised public health and curative services such as control of contagious diseases, safe motherhood and obstetric health, child health and nutrition. For making health services accessible and sustainable, people's participation will be mobilised and extended to the village level.
- At the institutional level, an integrated health service will be made accessible at the public level through district hospitals, primary health care centres, health posts and sub-health posts.

- Curative services of health institutions and hospitals will be made effective by developing a fixed procedure for effective referral system. Policy will be undertaken to make emergency services easily available for serious injuries due to accidents. In order to develop emergency services, necessary facilities will be arranged gradually in concerned health institutions.
- Reproductive health programme, which has a significant role to play in the population management, will be made more effective; various programmes for reducing maternal and infant mortality rate at the local level will be conducted effectively; family planning services will be based on public will; and thereby the concept of small family will be made extensive and effective.
- Overall policy and programme will be formulated for making cost-effective services of health institutions from the local to the national level. Equity principle will be taken as a basis for adopting cost-effective policy.
- Policy will be adopted for mobilising the government sector, the private sector and the non-government sector in the development of health sector. The private and the non-government sector will be directed to provide services based on rural and geographical region for the development of health services. In order to increase the private sector involvement particularly in the development of specialist-oriented health services, the government will play a role of facilitator and carry out monitoring and evaluation works for maintaining service standard. The private sector services will be made attractive for groups who visit overseas for specialist services.
- Specialist-oriented health services will be expanded, and a policy will be adopted to involve central, regional and zonal hospitals in the study and teaching programme.
- Ayurved therapeutic method will be developed as an integral part of health service, and naturopathy, homeopathy, Unani and other traditional health services will be developed gradually.
- In order to make health services standard, legal provisions will be amended and enforced, and facilities will be made service-oriented.
- Effectiveness will be brought in the planning, management and implementation capacity of the health sector on the basis of decentralisation policy and procedure. For this purpose, policymaking works for strengthening the district health system will be limited only to the central level, and administrative, financial, planning and procedural authorities and responsibilities of district health offices will be clearly defined. Regional level office will be involved in playing supportive role for central policymaking; and entrusted with the responsibility of monitoring and evaluation of districts in their respective region. People's participation and resources will be mobilised at the local level for the development of health services in line with district, village and municipality Acts.
- A national level policy will be undertaken to produce basic, medium and high quality manpower in the country. Private sector will be mobilised in this area.

Regular monitoring will be arranged for quality control by actively involving concerned authority. Policy will be undertaken to involve government-owned hospitals, the private sector and non-government organisations in a planned manner in order to produce medium and high level manpower in the health sector on the basis of national requirement. In order to ensure coordination, regulation and controlling of quality standard of medium and higher health education, an agency will be set up.

- Since the development of the health sector requires huge investment and the investment made in the health sector can generate returns, the health sector will be provided with more resources, and financial resources for the health sector will be mobilised through the private sector and people's participation as well.
- Effectiveness will be ensured in the implementation and monitoring of medicine policy. In order to bring sustainability for medicine supply, the implementation of community medicine policy will be carried out in a phase-wise manner.
- Sustainability of the health sector, its relationship with other sectors, and drinking water and nutrition having a direct concern with health have an important place in the development of health sector; therefore, necessary policy will be formulated and implemented in coordination with other concerned sectors.
- Plans and programmes of the health sector will be made transparent; people's participation will be given high importance; and community monitoring will be taken as an integral function in the implementation of such plans.
- A policy will be adopted to link environmental and occupational health to health services while taking growing environmental degradation and industrialisation into account. An arrangement will be made to ensure proper disposal of garbage produced by health institutions.
- Forensic science and medico-legal subject, which are integrally linked to the health sector, will be given priority as per the national requirement; and their related services will be modernised and expanded gradually.

Essential Health Services Provided in the District

High priority will be given to provide essential health services. Under such services, prioritised public health and essential curative services, such as contagious disease control, reproductive health, child health, nutrition and so on, will be provided. Moreover, mental, ocular, oral and dental services will be gradually incorporated in the integrated health services. These services will be extended to the village level in an integrated manner through district health institutions, district hospitals, primary health centres, health posts and sub-health posts.

Strengthening of District Health System

District health system will be strengthened by taking district as a focal point. People's participation and resource mobilisation at the local level will be ensured in accordance with DDC, VDC and municipality Acts for the development of health services. Local bodies will be operated in an effective manner by providing them

more autonomy to formulate, implement and operate plans. District health committee will be formed and operated; and all the health institutions, government, non-government and private sector will be involved in the committee in order to maintain coordination among health programmes within the district.

Medical Service

Easy accessibility and adequacy of essential health services will be arranged; and medium and higher level medical services will be provided in an integrated manner. In this regard, the government sector will encourage the private sector for the development of specialist services; and play a role of facilitator and cooperative partner. Taking account of the loss of lives and properties caused by growing road accidents and natural calamities, necessary facilities will be arranged gradually at central, regional and district health institutions so as to develop emergency health services. To reduce diseases, such as cardiac disease, cancer, etc., arising out of the increase in average life expectancy and changing life style, an effective preventive and promotive implementation strategy will be designed.

Organisation and Management

For the purpose of bringing change in the present organisational structure of the Ministry of Health, its concerned departments, directorates and centres will be restructured on the basis of the nature and the level of work for avoiding duplication. Moreover, units will be formed for playing an effective role in monitoring and coordination of the Ministry, collecting and analysing information and data, and maintaining coordination between private, national and international organisations. Public health branch and hospital branches have been managed separately in 14 districts; however, other remaining districts will follow the same during the plan period.

- Effectiveness will be ensured in planing, management and implementation capability on the basis of decentralisation policy and procedure. Long-term health plan will be implemented as the main source document in the process of formulating and updating annual and periodic plans at the central and district level.
- An integrated supervisory system and community monitoring programmes will be carried out in order to make the programmes and plan formulation procedure more transparent and participatory.
- Additional information required in integrated information system for decision-making process such as information on supply, manpower, financing, repair and maintenance will be included. Epidemiological survey system will be developed in way to diagnose and cure diseases in preliminary stage.
- Medical materials, equipment and medicine supply procedure will be made simple, effective, need-based and demand oriented (based on morbidity load and distribution). National drug policy will be implemented effectively and the government and non-government sector will be mobilised for implementing the

production and management of required quality drugs to be used in curative services.

- A policy will be adopted for establishing governmental, non- governmental and private health institutions on basis of not only administrative division but also population, geographical situation and morbidity load. Prior to the establishment of such institutions, a detailed feasibility study will be carried out and programmes will be conducted in this respect.
- Taking into account the growing environmental degradation and industrialisation, a policy will be adopted to affiliate environmental and commercial health with health services. Waste materials produced from health institutions will be properly managed.
- A policy will be adopted for planning, developing and utilising technical manpower in the health sector as per the requirement. Priority will be given to produce qualitative manpower in coordination with non-governmental agencies, university and educational institutions. Manpower will be mobilised by considering workload, service target, geographical area and population in projecting the manpower requirement. A national policy will be undertaken for producing qualitative medium and higher level health manpower in the country. Policy will be adopted for mobilising private and non-governmental sector in this field. In order to produce medium and high level manpower for the health sector, government central hospitals and government and non-government institutions in the district will be involved in a planned manner and properly mobilised. An agency will be set up to determine, control and coordinate the quality standard of the medium and high level of health education.
- Ayurved therapeutics, homeopathy, Unani, naturopathy, and other traditional therapeutic methods will be brought into the mainstream of health service and will be developed gradually.
- Central medicine research laboratory will be timely strengthened for maintaining quality of medicines. National pharmaceutical industries will be encouraged to produce essential medicines. Various measures will be undertaken to make the services provided by government and non-government institutions qualitative.
- Effectiveness will be ensured in planing, management and implementation capability on the basis of decentralisation policy and procedure.

Health Financial System

In order to increase more capital investment and production in the health sector, necessary resources will be arranged by mobilising people's participation. Local bodies will be involved in sharing the expenditure of health institutions at various levels. To meet the targets set by the Ninth Plan, various alternative health financing options (such as re-allocation of internal resources in governmental sector, additional resource mobilisation from the external sector, health insurance, community medicine programme, revolving drug scheme, expenditure partnership/recovering, etc.) will be explored and implemented.

Coordination and Inter-agency Cooperation

Institutional arrangement at the central, regional and district level will be made for creating an environment, achieving long-term targets and implementing the programmes of the health sector through the integrated efforts of all these sectors while maintaining the necessary relationship and coordination with non-governmental sector and donor agencies working in the health sector.

Health Research

The research and priority list for health research will be prepared; and governmental, NGOs and donor agencies will be encouraged for quality research. Such research will be focused on the objective of poverty alleviation by solving main health problems of the majority of the people.

8. Programme

Essential Health Services

Essential health services are defined as prioritised public health and basic, therapeutic, integrated health services and traditional or other health services. Basic health services will be provided to the people; it will be gradually expanded; and more public and therapeutic services will be included. Essential health services will be based on the principle: of people's accessibility to public health; of community and individual participation, self dependence, inter-regional coordination, appropriate technology and cost effectiveness. The following services will be provided under the essential health services:

Female Health Volunteer: For providing general health education and ordinary primary health services at the doorsteps of people, female health volunteers will be mobilised. Selected from the 'Ama Samuha' (Mothers' Group), these workers will be given training of 24 days in a year, health kit boxes and identity cards for providing common health services at home. The number of FHVs will be increased to 73,000 in the Ninth Plan.

Sub-Health Post, Health Post and Primary Health Centre: For providing health education services on vaccination, malaria, leprosy, tuberculosis, family planning services, mother-child health at the Ward levels, sub-health posts in every VDC of the Kingdom will be made effective and their evaluation and supervision will be performed.

In the Eighth Plan, one primary health centre with three beds was established in each of the 100 constituencies for casual and obstetric services. In the Ninth Plan, one additional primary health centre in each of the 105 constituencies will be established, adding additional 315 beds.

Cure for Common Diseases and Injury: Preventive, promotive and therapeutic services on common diseases and injury will be provided through sub-health posts, health posts and primary health centres; therapeutic services include common injury, diarrhoeal diseases control, stomach diseases and respiratory diseases. Obstetric

services and health care education for mother and child will be encouraged to provide through trained traditional birth attendants.

The arrangement for providing common therapeutic health services to the targeted population group, referring complicated and chronic patients to upper levels (from sub-health post to health post, health post to primary health centre, from health centre to district hospital) for treatment will be implemented effectively. Likewise, other cases that need specialist services will be arranged to refer to zonal and regional hospitals.

Reproductive Health: For reducing the increasing population growth rate gradually, bringing the awareness of "Small Family for Happy Family" to the village people and reducing the higher infant and maternal mortality rate, safe motherhood under reproductive health, family planning and female health will be conducted with priority in the Ninth Plan. A target is set to reduce the present reproductive rate from 4.6 to 4.1 percent and maternal mortality rate from 539 to 400 per 1,00,000, contraceptive users rate from 28.9 to 37.3 percent.

By extending village clinics to the ward level, a policy will be undertaken to provide family planning and maternity care services. A fully facilitated maternity health and safe motherhood service programmes will be carried out in about 25 districts. Accordingly, treatment and prevention of infertility, prevention of abortion and its solution, and reproductive health related programmes for adolescence and women over 44 years will be carried out.

During the plan period, family planning services will be provided to 16,91,020 people, trained traditional birth attendants will be increased to 22,000, village clinics will be conducted 8,99,328 times, and 20,60,000 pregnant mothers will be provided safe maternity services.

The trained birth attendant programme has played a big role in providing home service on maternity health and pregnant and obstetric mother health. National birth attendant programme has reduced the maternity and infant mortality rate and the morbidity of mother and child; and the programme has supported national safe motherhood programme.

National Birth Attendant (NBA) Programme. Initiated in the FY 1983/84, this programme has covered 55 districts by FY 1996/97. According to the policy set by NBA programme, this programme will be extended to other districts during the Ninth Plan period as well.

Expanded Immunisation: Expanded Immunisation programme will help to reduce the present status of infant mortality rate from 79 to 50 per 1000 by 2000 AD. The presently managed BBG, DPT, polio and measles vaccine will be provided to all infants below one year and TT vaccine to all reproductive women between 15 and 44 years of age. The present TT vaccine programme will be expanded every year by 5 percent. In addition, DPT and polio booster dose service will be gradually expanded.

Presently on-going National Immunisation Day programme for eliminating poliomyelitis from Nepal and the world by the year 2000 will be given continuity

even after 1998/99 as necessary. Along with vaccination, vitamin 'A' capsules and medicine against worms will be distributed. For eradicating tetanus in infants by 2000 AD, special TT vaccination programme will be conducted in those places identified as risky. In order to reduce the mortality and patient numbers caused by measles, a regular vaccination programme will be carried out and measles vaccination will be conducted as special campaign.

The surveillance mechanism over disease poliomyelitis, measles and tetanus from which life can be saved by immunisation will be conducted throughout the Kingdom. To strengthen the expanded immunisation programme, the ongoing National Immunisation policy will be timely reformed and all the medium and lower level health technicians will be provided a short-term refresher training.

The number of hepatitis-B patients is being increased; therefore, the vaccine for hepatitis B in the expanded immunisation programme will be provided initially as an experiment in some districts.

Control of Diarrhoeal Diseases: A programme will be conducted to meet the target for reducing death and diseases caused by diarrhoea in the children below 5 years by one third. To conduct the disease control programme out reaching the public level, extensive publicity on causes of diarrhoeal diseases, its preventive measures and its effective management will be carried out. In this plan period, the target is set to reduce the mortality rate caused by diarrhoeal diseases in children below 5 years by 30 percent and mortality rate by 20 percent. In all the districts, a total of 20275000 packets of JEEVAN JAL will be purchased and distributed. The programme also includes 2133 sets of ORT, control of diarrhoeal epidemic, printing of advice cards for 25,000 mothers and 50000 record forms in two districts.

Control of Acute Respiratory Infection: Control of Acute Respiratory Infection control programme has been taken as an important part of health services in view of the fact that more than one third of children's death in Nepal has been caused by respiratory diseases. This programme aims to reduce the mortality rate caused by pneumonia in children below 5 years; reduce the mortality rate in children below 5 years; discourage the use of antibiotic medicines; and reduce the complication caused by respiratory tract. This programme, conducted in 6 districts at present, will be extended to 35 districts by the end of the Ninth Plan.

Nutrition programme: As about more than 70 percent of people being malnourished and, without improving the nutrition status of the children in rural areas, much progress can not be made in public health status. Therefore, in the Ninth Plan, a target is set to reduce malnutrition status by one third. Nutrition programmes will be included compulsorily in all levels. To meet the target of reducing blindness caused by deficiency of vitamin 'A' by ninety percent, vitamin 'A' capsules will be distributed to all the children from 6 months to 5 years, throughout the Kingdom by 2000 AD. A target is set to distribute iodine capsules in 15 remote districts of Himalayan and hilly regions.

The Ministry of Health will carry out monitoring and evaluation for ensuring both the distribution of iodised salt by Salt Trading Corporation and the iodisation of salt at an

appropriate proportion. Likewise, an arrangement will be made to examine quality standard by the Food Research Laboratory.

Control of Tuberculosis: Though Tuberculosis control programme has been conducted since FY 1985/86, the germs of this disease have been found in 45 to 50 thousand people and, therefore, this disease has been taken as a serious problem. Besides, 60 percent of the economically active people have been affected by this disease and, for that reason, they die early and even if they live, they are unable to do income-generating job; therefore, the economic status of the people living in rural areas is low. A target is set to diagnose 70 percent of tuberculosis patients throughout the country and, out of them, 85 percent will be treated. For the treatment of tuberculosis patients, DOTS and direct treatment method will be expanded from 20 districts at present to all the districts during the plan period. Tuberculosis patients will be examined and cured by DOTS method; treatment centres and sub centres in every 100,000 population will be established; activities will be conducted for detecting and treating pulmonary tuberculosis and phlegm examination centres will be established in each area of 100000 population. National Tuberculosis centre will be evolved as a central level institution and DOTS programme will be carried out through district hospitals and primary health centres. Moreover, monitoring of the regular use of medicine by the patients and its effects on them will be conducted.

By integrating the tuberculosis control activities in a planned way, an effective curative service will be provided nation-wide in the Ninth Plan to the patients diagnosed as positive through examining phlegm of 2909214 suspected cases, and to the old resistant, relapse and other cases. In the plan period, a programme will be conducted for treating 180509 patients, for providing training to 85752 health workers, and for carrying out supervision 14790 times. Likewise, the quality standard on phlegm examination of suspected patients will be upgraded by establishing a microscopic centre at the national level.

Control of Leprosy: In order to reduce present 5.9 percent of lepers in 10000 population to below one per 10000 population by the end of the Plan; maintain this rate by timely diagnosis and treatment; and reduce the deformity and rehabilitating lepers in the society, this programme will be launched as an essential health service. Self-confidence will be built by conducting additional programmes such as: removing negative attitudes in the society, outreaching education, health and communication technology at the village level, and raising public awareness for making them realise that lepers are also the civilised people of the society. In the plan period, programme for this purpose will include contact service to 120000 persons, survey of 1000 schools, rapid inquiry survey in 1500 VDCs, defaulter case monitoring on 4500 persons, health education in 1000 schools, community education in 3300 places, producing 75000 copies of health education materials, conducting mobile health education 50 times, supervision and monitoring 14000 times and providing 100 percent anti-reaction medicines.

Kala-azar, Malaria, Japanese Encephalitis and other vector-borne diseases: Full and partial malaria has been found in 67 districts of the Kingdom; morbidity of vector-borne diseases such as Kala-azar, encephalitis has been spreading particularly in terai.

Programmes have been designed to reduce the problems of public health caused by vector-borne diseases- malaria, kala-azar and encephalitis; to spray pesticides for controlling malaria, to collect and examine blood samples; to carry out research and provide treatment; and to prevent these diseases by providing environmental education and public participation. Programme will be launched for preventing malaria to be an epidemic.

Epidemiological Surveillance Mechanism: In the process of gradually reducing the mortality rate caused by epidemic diseases, regular surveillance will be conducted at an annual rate of 400000 population. Controlling measures will be adopted by providing immediate information to all levels and through special investigation of contagion and epidemic diseases. A task force will be formed to provide immediate services by diagnosing and treating such diseases at an early stage. Sentinel Surveillance Programme will be conducted in five districts for controlling epidemic diseases.

AIDS and Sexually Transmitted Diseases (STD): This programme aims to control in time the socio-economic havoc caused by AIDS and STDs; provide essential training to health workers involved in the treatment of STD patients; diagnose STD in the early stage; and provide health education about the importance of treatment and prevention measures against AIDS and STDs. In the Ninth Plan, programmes will be implemented for providing training to 1000 health workers, collecting and examining blood samples and 25000 persons, counseling service to 1000, and conducting inspection and monitoring 200 times. The role of NGOs in AIDS control will be coordinated and made effective.

Oral and Dental Health: Oral and dental diseases being prevalent as a public health problem have been included in the essential health services for the purpose of preventing their causes of origin and dangers by raising public awareness through publicity. Treatment for these diseases will be specially provided by district hospitals and primary health care centres. Dental health services will be included in the programmes of health posts, sub-health posts and health institutions at all levels.

Eye Care: Ophthalmological diseases such as cataract and trachoma have been the chief causes of blindness in Nepal. Various studies show that about 0.8 percent Nepali people are found to have been affected by such diseases. Among these, cataract causes 72 percent of total blindness cases and trachoma 2.4 percent. Likewise, factors causing blindness include malnutrition, vitamin-A deficiency and other diseases such as measles, diarrhoea and respiratory infections. In the old age, glaucoma and other similar diseases appear as well. For the purpose of eye care and protection, this service has been included in the essential health services. Publicity will be carried out for eye care and protection from virus-causing diseases and giving the message that green vegetables enhance eyesight. Mobile teams will be arranged for providing treatment to the people in remote and backward areas. Non-government and private sector will be encouraged to provide higher level special eye care service. A special facility will be provided to NGOs and INGOs for encouraging them to implement eye care programme in remote areas.

Hearing and Deafness: In order to protect children from becoming deaf in childhood, this programme will be included as an essential service in the Ninth Plan. A school health programme will be conducted to educate students about ear relating problems caused by common cold and pneumonia; ear scratching, danger of lying posture in breast feeding, negative effect caused to ears by dirty water and other harmful objects and ear wax. In this plan, programmes for hearing and deafness treatment will be conducted at district level by mobile teams. The government will play the role of promoter in expanding the services provided by Low Hearing and Deafness Centre, private sector and NGOs.

Mental Health: About 10 percent of the total population of Nepal are estimated to have been suffered from mental diseases. To identify and cure such patients in the district and village levels, preliminary curative services will be provided. An effective and timely referral system will be established in the zonal, regional and central health institutions for specialist services.

Environmental Health: Due to population growth, uncontrolled urbanisation, migration pressure and so forth, Kathmandu valley and other urban areas have confronted with water, air and sound pollution and piling up of garbage, which have made negative impact on public health. Therefore, programme will be implemented such as environmental education, encouraging for the self disposal of owns garbage, and encouraging VDCs and municipalities to make fertilizers from the garbage, and to keep streets clean.

Strengthening the District Health Management System: District Health Management system will be taken as the central focal point which will formulate the district health plan, assess the health status of the district, implement, monitor and evaluate health programmes for raising the health condition of the district with the help of central and regional health institutions. For this, district governmental offices, NGOs and international agencies will be made responsible.

District health management system will be based on six basic principles, namely, equitable distribution, availability of health service, inter-agency coordination, public participation, decentralised management and integrated health service. For assisting the district health management, commitment, technical cooperation, necessary health legal arrangement, finance and necessary manpower will be provided from the national level.

All the governmental health authorities, local, INGOs, NGOs, health agencies and health workers involved in traditional therapeutic health services, private pharmacies, nursing homes, clinics and teaching institutions will be recognised as an integral part of district health management system and, in this process, an emphasis will be given to provide health services to the people.

In the Ninth Plan, district health management system will be strengthened for upgrading the district health status by including all organisations, agencies and individuals. For the coordination and proper management of health programmes, health committees in district and health committees at local levels will be formed and given responsibility of health management. To put the principles and concepts of

decentralisation into practice, necessary amendments will be made in laws; information on legal provisions will be disseminated to local agencies; and, for this purpose, local communities will be motivated.

Therapeutic Service

Since therapeutic services have become more technical and expensive, this service has to be developed as service-oriented and on cost sharing basis, and the concept of hospitals in the valley and other specialist hospital groups will be adopted. The specialisation of their own procedural arrangement of referral system in such hospitals will be developed and the arrangement of teaching facilities will be made. Service fee charged by the hospitals will be made transparent and hospital management will be made 75 percent self-dependent. While designing programmes on expansion of management and services in government hospitals through the development boards and the cooperation of Ministry of Health (MOH) including B. P. Koirala Health Institution and B. P. Koirala Cancer Hospital, main attention will be paid on the available resources and means in the country. In the process of finding out alternative sources for making hospital service effective, special steps will be undertaken for giving the responsibility of hospital management to the District Development Committees and making an arrangement of special fee charged to the patients and health card management. An arrangement will be made to undertake the existing responsibility of appointing necessary manpower extending service and supplying necessary materials from the budget allocation of HMG and sources raised by income generating programme.

While developing and extending the health institutions of private and non-governmental hospitals, nursing homes, clinics, teaching institutions and diagnostic centres which have been making a direct contribution to the development of medical services, policy and objectives set forth in the Ninth Plan will be taken into account. Approval will be granted to such institutions for conducting programmes following the study of their contribution to strengthening the health system through their present services, and to the development of necessary manpower and sources. For maintaining the quality standard of services provided by these institutions and bringing uniformity on fee charging system, an effective inspection and monitoring programme will be designed. An encouragement policy will be adopted for promoting the participation of private sector. For this purpose, policy level and financial cooperation will be provided to hospitals operated by the private and non-government sector in the districts (without having any government hospital) in order to conduct the functions of district hospitals.

District and Zonal Hospital: For making referral service system of district hospitals effective, physical facilities as well as apparatus, equipment and manpower will be arranged. A zonal hospital will be established in Rapti Zone; Baglung Hospital will be transformed into Dhawalagiri Zonal Hospital; and construction of necessary buildings and other infrastructures will be completed.

Regional Hospital: In line with the policy of establishing regional hospital in other development regions except Mid Zonal Developmental Region, constructions of incomplete buildings for transforming Koshi Zonal Hospital into Eastern Regional

Hospital, establishment of regional hospital in the Mid-western region will be continued. Hospitals and quarter buildings will be completed for transforming P. Chandra Doti District Hospital into Far-western Regional Hospital.

Bir Hospital: In the process of extending and strengthening Bir Hospital Development Board, the Board will be geared towards full empowerment, and necessary resources and means for the repair and maintenance and management of hospital will be generated and explored. In order to develop Bir Hospital as national hospital, an emergency and trauma centre and 200 beds will be added. Staff quarters will be constructed. In order to make service delivery of the hospital effective, CT SCAN, MRI, Bronchoscopic and ventilating equipment will be supplied and hospital management will be strengthened. In addition to the presently ongoing unit of high-specialists, new highly special units will be additionally opened up.

Post Graduation Education Coordination Committee will be encouraged to carry out effective works for producing post graduate manpower in the country. For this purpose, the hospital group situated in the valley will be mobilised as teaching authorities.

Kanti Children's Hospital: Kanti Children's Hospital will be given the responsibility of reducing the infant mortality rate and performing curative services at the national level. In the Ninth Plan, 50 additional beds will be added; paying wards will be arranged; shopping complex will be constructed; and two doctors' quarters, two nurses' quarters, one low standard quarter building, one eight-family residential house and one Matron quarter will be constructed. A feasibility study will be conducted for making this hospital as a child health study, teaching and research centre.

Shahid Shukra Raj Tropical and Contagious Disease Hospital: Contagious hospital will be developed as a centre for services, facilities, study and research of tropical diseases. For upgrading the service standard of this hospital, X ray's machines, ultra sound machines, ECG plant, Endoscopic machines and ambulance will be provided in the Ninth Plan.

Mental Hospital: Considering the problem created by the lack of physical infrastructure, new hospital buildings and staff quarters will be constructed, and sewerage and water supply will be arranged. Other mental health service programmes under essential health services will be determined.

Nepal Eye Hospital: During the Ninth Plan period, Nepal Eye Hospital will be strengthened. Surgical microscopy, vitrectomy machine, perimeter, slit lamp inami, Argon laser fundus camera, octa-sonography and surgical microscope will be arranged. For operating these machines and equipment, training on oculoplastic, eye banking, orthopedics, contact lens vision, vitro-retina, glaucoma and neuro-ophthalmology will be provided. In addition, short-term refresher training will be provided. Besides, programme on eye care included in the list of essential health services will be carried out.

Paropakar HRH Indra Rajya Laxmi Devi Maternity Home: In order to develop Paropakar HRH Indra Rajya Laxmi Devi Maternity Home as a higher study centre for gynaecologic service, obstetrics, and gynaecology and natal health in accordance

with the maternity service policy will be developed. A total of 352 beds will be operated by adding 100 beds; service area will be expanded; oxygen plant will be installed; and logistics of various types of equipment will be arranged.

Sahid (Martyr) Ganga Lal National Centre for Heart Diseases: Shahid Gangalal National Centre for Heart Diseases, established in 1995, aims to provide OPD service to 202,000 heart patients and in-patient service to 12,250 with 100 bed hospital; conduct 50 different programmes to control the heart diseases resulted from average life expectancy and changing life style; rehabilitate 153,700 heart patients; launch 25 research programmes on heart diseases; and conduct training programme to 80 persons on heart diseases, during the Ninth Plan period. This Centre will be operated under a separate act.

BP Koirala Memorial Cancer Hospital: This hospital is under construction in Bharatpur, Chitwan district. With its physical infrastructure, equipment and manpower, it aims to render expert service in cancer, and conduct health programmes to save and be saved from the major causes of heart diseases like modern life style, smoking and drinking.

BP Koirala Institute of Health Sciences: It aims to produce skilled manpower such as 250 doctors from MBBS course, 60 nurses from B.Sc. Nursing, 34 post graduates doctors, 25 BDS doctors, provide training or seminar for 15 on applied health science of bachelor level to 250 persons, higher education opportunity to 15 persons. In addition, it has a target of providing medical services to 500,000 patients.

In line with the policy of increasing the number of beds in the hospitals of different levels, a target is set to add 100 beds in the hospital for infectious diseases, 50 beds in mental hospital, 50 beds in Sagarmatha Zonal Hospital, 100 beds in Bhaktapur hospital, 10 beds in Jumla hospital, 100 beds in Maternity hospital, 50 beds in Nardevi Ayurvedic Hospital and 68 beds in Kanti Children Hospital. Thus, 478 beds in total will be added. In addition, more and more beds will be added based on the service needed for the population and the manpower available in district hospitals.

Mobile Health Service Team: Mobile health services by specialists in surgery, gynaecological diseases, ENT and dental problems will be continued at least once a year in remote district hospitals. For this purpose, the Team will provide training at the local level; an environment will be created to transfer techniques and skills to the local level.

[Ayurved Service](#)

Ayurved service will be rendered to the rural sector in order to make additional contribution to the self-reliance in the health sector and improve the public health condition. Notional Ayurved Health Policy 1995 will be implemented in a planned way. Ayurved Pharmacy, District Ayurved Health Centre, Regional and Central hospitals will be well coordinated as per the service-oriented treatment system. Hundred Ayurved Pharmacies, 50 District Ayurved Health Centres, three Regional Ayurved Hospitals and five Regional Ayurved Directorates will be established. One training centre and five herbariums in five development regions will also be

established. Manufacturing of Ayurvedic medicines through regional rural pharmacies will be encouraged and operated smoothly.

Priority will be given to produce health manpower. In this regard, 650 Ayurved technicians and 40 Ayurved supervisors will be produced and 100 persons will be sent for BAMS studies. Master's programme (MD and MS) and condensed course and refreshment training programmes will be conducted. However, these courses will be conducted following their feasibility study. Land will be purchased and house building will be constructed for the Ayurved department. Seventy-four buildings for Ayurved institutes will be constructed. Infrastructure for Ayurvedic institutes will be developed and their managerial and technical efficiency will be increased. Necessary arrangements for the transportation of medicines, and medical equipment will be made. Preliminary works for establishing an information and research centre will be initiated.

Nardevi Ayurved Hospital: This hospital as a central hospital for Ayurvedic treatment will be made one of the best hospitals for rendering special Ayurvedic treatment service. Emergency services will be operated. Present 100 bedded hospital will be turned into 150 bedded. Machinery tools, equipment, extension of building, ambulance service and transportation facility will be arranged, and five function and alkali formula system will be developed. This hospital will be developed as an Ayurvedic teaching hospital.

Ayurvedic Hospitals: Specific Ayurvedic service will be made available in districts with the production of medicine at the regional level and the development of medicinal herb farms will be facilitated. Treatment for general diseases and special Panchakarma treatment will be provided through the hospitals located in the districts. Production of essential Ayurvedic medicines in districts will be encouraged. Production, collection and preservation of medicinal herb and production of medicines will be carried out at the local level, and Ayurvedic service will be made easily available to the rural people. Medicinal herb available in the local community will be identified, and manufacturing of Ayurvedic medicine will be extended at the local level.

Singh Durbar Vaidyakhana: In order to enhance the qualitative production of Ayurvedic medicines, emphasis will be given to improve the physical infrastructure of Singh Durbar Vaidyakhana with equipment and skilled manpower, necessary training and research. To increase manufacturing capacity for medicines, this Vaidyakhana will be developed as an industry of Ayurvedic medicine. By the end of Ninth Plan period, Vaidyakhana will be capable of producing medicines worth Rs 250 million.

Other Traditional Treatment System

Besides Ayurvedic treatment system, about 800,000 Dhamsi, Jhankri, Lama, Vaidya will be encouraged to provide health services. Other traditional treatments like Homeopathy, Unani, and natural therapy will be developed gradually.

Homeopathy: Pashupati Homeopathy Hospital is only a National Homeopathy Hospital, which was established 27 years ago. This hospital is providing treatments to

the patients with chronic respiratory problems, diarrhoeal diseases, skin diseases, jaundice and so on. In the Ninth Plan, these treatments will be included in the list of essential health services. The present 6 bedded hospital will be turned into 25 bedded hospitals, and feasibility study will be conducted to establish homeopathy hospital in all five-development regions. More and more skilled manpower in Homeopathy will be prepared.

Unani Hospital: At the government level, Unani treatment is available from the Unani hospital located within the homeopathy hospital of Kathmandu. This hospital is providing the treatment to different diseases through OPD. In the Ninth Plan, the list of all the necessary Unani treatment services will be prepared in detail and Unani treatment services will be provided accordingly. This includes the treatment on diseases related to digestive system, mental disorder, gynaecological problems, asthma etc.

Naturo-therapeutics: In the Ninth Plan, natural medicine system that cures through air, water, soil, exercise and dieting will be developed at the institutional level while bringing the system into the mainstream of health services. The NGOs and private sector will be encouraged for providing this kind of service.

Laboratory and other Accessory Services

National Public Health Laboratory: National public health laboratory is established for the effective treatment of the disease and the examination of poisonous substances in foods and communicable organism in drinking water. It has set the targets to establish 40 bacteriology laboratories, 54 biochemistry laboratories, 5 immunology centres, 5 research laboratories for viruses, laboratory training cum seminar for 100 people, 340 laboratory service extensions and 355 maternity workers capable of providing basic laboratory ideas to the village level.

Haematology, pathology, biochemistry, histopathology and parasitology service will be provided gradually in the regional and zonal level laboratories. Research laboratories will be set up for cancer and communicable diseases. Haematology, gastrology, biochemistry and histo-pathology laboratories will be operated gradually at the district level. Preliminary laboratory services at the village level will be provided through health posts with well-equipped laboratories by the microscope and chemicals and medicines. In this type of laboratories, malaria, parasite, organism of leprosy and polio will be examined and urine test, stool test, and tuberculosis examinations will be arranged.

Management of Medicine: Policy will be adopted to collect data on the need and the use of medicine at the national level; identify diseases and the use of medicine; make medicine available to common people; and assure people on the quality of medicine. In order to maintain the quality of vaccine, sera and biological products and medicines, and protect the quality in transportation, an arrangement of inspection and test will be made. The government, the private sector, and the local community will be mobilised for maintaining the quality of medicines.

Blood Bank and Blood Transfusion Service: Blood bank and blood transfusion service will be established at the village, zonal and regional level so as to provide

effective and long-term health services. Existing anomalies for blood donation and selling will be removed; and emphasis will be given to include blood donation in language, literature, music and culture promotion programme in order to develop spontaneous blood donation system in non-government organisations and local communities. Emergency services will be made effective in the district hospitals. Additional programmes will be conducted by Nepal Red Cross Society in coordination with the Blood Bank.

Information, Education and Communication: Ever since the Eighth Plan, a policy has been adopted to carry out publicity of health education, through audio-visual cultural programme and other various means of communication, in an integrated manner. Accordingly, the production, distribution, publicity of educational materials and the operation of training/seminar on immunisation, epidemic such as diarrhoea and dysentery, malaria, leprosy, tuberculosis, etc.; blindness disabled, mental diseases and maternity health will be continued; and an awareness about health will be raised in community. During the plan period, programmes for publicising 90,000 copies of “Our Health” magazine (in Nepali) for health education; printing 80,000 copies “Family” (half-yearly in Nepali); printing 150,000 copies of “Immunisation” on a quarterly basis; producing and distributing 5 million educational materials; broadcasting public health 700 times on radio; broadcasting advertisement 7,000 and 1,100 times on radio and television, respectively; publishing advertisement 1,000 times in news papers and magazines; strengthening and expanding district health education in all districts; publishing 250,000 copies of calendar; producing 20 video films and displaying 2,000 times in communities; providing camp information 5,000 times; conducting the impact study of health education 3 times; and providing health education and information in all districts will be conducted on the basis of decentralisation policy, and more people’s participation will be mobilised in such works. In the context of low percentage of literacy in the country a survey will be conducted to measure health awareness.

Organisation and Management

Organisational structure: To make health services effective at the community level, it is important to improve the organisational structure and management of health institutions from the VDC to the central level as the efficiency of organisational structure depends upon its managerial aspect. Therefore, job analysis of the MOH and its departments will be conducted and necessary changes in their organisational structure will be made in order to ensure effectiveness in their management.

Central hospitals will be converted into research hospitals and other zonal and regional hospitals will be developed as referral hospitals. District hospitals will be made capable of providing basic and emergency services. A liaison centre at the ministerial level will be developed as an agency for coordinating and managing these hospitals. As hospitals and public health institutions have different nature of works and public health offices have been established only in 14 districts, such offices will be set up in the remaining districts during the plan period and an agency responsible for public health programme will be arranged at the central level.

Information Management: To obtain the data required for analysing health project, its implementation and observation, a health management and information system has been started since the FY 1991/1992. In addition to the information obtained by the MOH and its concerning departments, a national health information system will be developed to collect and integrate information on manpower supply and management and will be converted into a division at the ministerial level. Training will be provided from time to time for formulating, implementing, monitoring and evaluating health sector plans at the district level in line with decentralised administrative system. In addition, a policy will be adopted to conduct timely monitoring and evaluation of health sector programmes.

Logistic Management: Targets have been set to supply essential medicines and instruments for treatment on a regular basis; and conduct preventive and curative programmes in an effective way. In addition, purchasing and storing of medical instruments and providing immunisation programmes at various places will be included in the programme as well.

Programmes will be conducted to build ten district-level medical centres and five regional medical stores. For the emergency situation, purchasing and supplying of medicines have been schemed in 30 districts. Programmes for buying ambulance and its supply in hospitals will be conducted as well.

Human Resources: Despite the commitment of the government to health service delivery at the community level, lack of skilled manpower and acute problem of population growth have led to the ineffective community health services; therefore, the government has the policy of supplying skilled manpower based on requirement

According to this policy, basic training will be provided to various people such as rural health training for 350, maternity health training for 1500, ANM for 300, upgrading training for 680 people. Similarly, in maternity training, basic training will be provided to 1,500 people and refresher training to 2,660 people. Female health volunteer training will be conducted for 254,132; nursing development training for 2105; logistic training for 5346; obstetric attendance training for 77,527; fertility health training for 1576, health education training for 90; audio-visual training material training for 60; medical hospital administration training for 150; supervision training for 2430; training study fellowship for 20; family planning training for 5718, teacher's training for 825; children health training for 5530 and data processing training for 375 people.

In addition, preparation and printing of 121,052 copies of training materials will be carried out for publication and distribution, 7,787 kit boxes distribution, educational syllabus development, 1935 primary health centre training. A total of 100 meeting of central and regional level teacher review will be conducted.

With the objective of developing human resources, TU Teaching Hospital, BP Koirala Health Science Institute and private educational centres will be mobilised for producing necessary manpower. In this process, governmental and non-governmental health institutions will be allowed to use for conducting teacher's training and training required for hospitals and health institutions. For this purpose, necessary

policy and regulations will be formulated. Some districts will be developed as teaching district on the basis of types and numbers of health manpower produced.

Continuity will be given to post graduate programmes conducted by Bir Hospital and other hospitals in the valley. The manpower, which cannot be produced in the country, will be trained abroad. A study on the manpower produced by medical colleges will be conducted for increasing their capacity. A medical college training centre will be started. Training workshops will be organised for ANM and AHW in the remote areas so as to provide medium standard local manpower. Health assistants required for 100 health posts in the Ninth Plan will be trained by the technical education and vocabulary training council. Health workers will be upgraded: HA/CMA to medical officer, ANM to CMA, and AHW to SAHW for providing an encouragement to them.

Supervision, Monitoring and Evaluation: Regular supervision, monitoring and evaluation programme in organisation and management will be conducted in an effective manner. Development projects will be supervised and monitored from the perspective of their work progress and management. For this purpose, the National Planning Commission Secretariat, ministry and its department will be involved in the supervision, monitoring and evaluation of development projects at the central level. Regional offices will conduct supervision of programme and managerial aspect of concerned district level offices and district offices will carry out similar supervision of institutions under them as per the set timetable. Integrated supervision checklist will be prepared and brought into use.

Quality Determination: In order to provide qualitative and effective drugs, maintain their quality standard and ensure the supply of high quality of drugs, the sale and the distribution of poisonous and counterfeit drugs will be prohibited in the Ninth Plan. For this purpose, sample test will be conducted from time to time; and medical act and regulations will be effectively implemented. In order to ensure an access of quality medicines to consumers and expand the rational use of drug, training will be provided to drug dealers to upgrade their capacity.

Health manpower produced by teaching institutions and vocational training centres of private university and council and the quality standard of health institutions will be evaluated. In order to be self-reliant in the supply of essential medicines, medicine manufacturers of the private sector will be encouraged.

Role of Private Sector and NGOs: Private sector and NGOs will be encouraged for making the general and specialist medical service available within the country. Necessary assistance will be provided to nursing homes, hospitals, clinics, polyclinics and medical centres as well as drug shops in the private sector. Standard guideline and treatment protocols will be developed for health institutions at various clinic levels in order to provide standard service at medical treatment centres and the centres will be monitored and evaluated on the basis of the protocols. An emphasis will be given to maintain the quality standard of training provided by private training centres. The private sector will be encouraged to provide the preventive and promotive services in the Ninth Plan, which are available in the non-government sector health services but have received little attention by the private sector. Such

services will include safe motherhood, family planning, child health programme, leprosy, TB, deafness and blindness prevention programme, etc. Health institutions in the private and non-government sector will be encouraged to provide the health services available at the government level.

Health Financing System: For promoting health service and making investment in preventive activities and essential medical services, government, NGOs and communities will be encouraged; and alternative health financing system will be gradually implemented. Other innovative approaches will be adopted in alternative health financing system. Revolving fund will be set up and grant will be provided to carry out such programme as necessary. An attempt will be made to implement the following alternate health financing systems in the Ninth Plan:

Community Medicine Programme: Under this programme, necessary drugs will be provided to all the primary health centres, health posts and sub-health posts of the MOH. In the Ninth Plan, this programme will be implemented in all the health institutions of 30 districts of the country in a phase-wise manner. This programme aims to ensure the supply of medicines required for one year and the proper use of medicines at the primary health centres, and to conduct medicine programme at the local level with people's participation.

Revolving Medical Fund: In order to improve the state of poverty and poor health conditions, enough internal and external sources in the health sector vis-à-vis the re-allocation of internal resources in the government sector, and the mobilisation of additional resources from the external, private and non-government sector are essential. Henceforth, for the regular provision of medical facilities, the programme of health medical fund launched in some places as pre test will be extended to other districts in the Ninth Plan.

Health Insurance programme: Health insurance in alternative health financing plan is a popular programme. This programme will be implemented as pilot programme in the areas inspired by local communities.

Cost Sharing and Cost Recovery Programme: In order to improve the quality of local health services of local health institutions, medicine and health plans such as cost sharing, cost recovery conducted by local bodies will be implemented. Such plans will ensure the regular availability of medicines and enhance the standard of health services.

Health Research: In the Eighth Plan, the establishment of Health Research Council and the Ministry of Science and Technology has contributed to the development of health research in Nepal. Basically, Nepal Health Research Council provides information on new research techniques and coordinates different organisations, universities, educational institutions and non-government organisations. Programme to give information on this subject to politicians, planners, programme officers and common people will be conducted for essential national health research by involving all the institutions and decision-makers investing in health.

National consensus and commitment is quintessential for essential health research. Therefore, Nepal Health Research Council will conduct discussions and interactions

among MOH, TU Teaching Hospital, B. P. Koirala Health Science Institute, professional health institutes and people's representatives at various levels; and will prepare a national list for research. Nepal Health Research Council will be developed as a central body in the area of research and the Council will give an emphasis to institutional strengthening, capacity enhancement and demand for health research programme as well as the development of conscience. The programmes to be conducted in the Ninth Plan will include provision of grant to 50 health system research, training on research proposal preparation to 400 health workers, short-term technical training on health research management to 50 higher level health technicians, development of national health research library and feasibility study on the establishment of research and training centres in each development region.

Miscellaneous

Urban health programme: Necessary cooperation will be extended to provide preventive and curative health services in coordination with various health institutions under metropolitan and sub-metropolitan cities. The MOH will play a role of mediator in providing necessary technical assistance for conducting primary health services at ward level as required whereas integrated programmes will be launched to mitigate the adverse effects of increasing urbanisation and migration on environment and health.

Due to the growing migration of people from mountainous and hilly areas to mainly terai and urban area, the pressure of population has mounted in municipalities. Unsystematic urbanisation, uncontrolled increase of the means of transportation and environmental degradation caused by increasing industrialisation have exerted a negative impact on the health of the people living in urban areas. The MOH will develop and implement gradually appropriate plans in urban areas including metropolitan and sub-metropolitan cities and municipalities; and necessary coordination will be maintained with other agencies. The MOH will provide necessary technical assistance to metropolitan and sub-metropolitan cities and municipalities for formulating and implementing urban health perspective plan on the basis of their health sector situation.

Old Age Health: With the increase in average life expectancy of the people, there has been an increase in the population of old people. Policy will be adopted to mainstream the experience and the contribution of senior and old citizens in national development. For this, geriatric ward will be established in zonal hospitals and production-oriented programme will be conducted as per their wish and capacity. Non-government and private institutions will be encouraged to take part in such activities.

Programmes for Disabled and Handicapped: Provisions will be made to protect rights of the disabled and to give them proper health services. Free treatment will be provided to them in health centres; and an emphasis will be given to the programme for family and community rehabilitation centre for disabled and handicapped. Cooperation will be extended for the establishment of community rehabilitation centre. Groups based on community, clubs and other institutions will be encouraged and mobilised in such activities. For the implementation of these programmes,

coordination will be maintained with the Ministry of Social Welfare and the Ministry of Health will play a role of coordinator in the places where this programme has been initiated by local authorities.

Problems Caused by Smoking, Alcoholism and Drug Addiction: Private and non-governmental organisations will be mobilised to solve the problems of drug addiction through establishing rehabilitation centres vis-à-vis providing counseling services for the families of addicted people. With the cooperation of community leaders and concerned personnel and through the creation of extensive awareness, necessary programmes will be conducted to provide basic service for solving the increasing problems of tobacco chewing, drinking alcohol, drug addiction, AIDS and other diseases as an epidemic, by means of rehabilitation, diagnosis and treatment of the diseases.

Job and Occupation-oriented Health: Along with the increasing industrialisation and urbanisation and the development of new technology, job and occupation related health problems are also increasing day by day; hence, in such a situation, these problems need to be resolved. Keeping in mind the health of laborers and professional employees, provisions will be made for safe environment at work place. For laborers working in factories, regular check-up facility in government hospitals will be made as well as health insurance and other alternative compensation schemes will be implemented. For this, policy, legal and service arrangement will be made with the participation of industrialists, businessmen and laborers.

Legal Provision: Existing problems in the health sector will be minimised by effectively implementing laws related to the health sector; while keeping in mind the production of herbal medicine, their use and environmental protection, special act and regulation will be framed and enforced to ensure the proper use and management of poisonous drugs. To implement these laws effectively, necessary amendments will be made in the present health laws. Laws and policies will be made transparent and informed to the common people. Training will be provided to medical officers and health institutions will be well equipped with necessary instruments for the post-mortem of dead bodies taken to the district hospitals. New laws will be framed and necessary amendments will be made in the existing laws per the requirement.

Councils-medical, Para-medical and Ayurved: To improve the standard of health services, concerned Medical Council, Nursing Council, Para-medical Council and Ayurved Council will be provided adequate patronage from the government sector through the formulation of laws, policies and action plans. Such councils will be mobilised in accordance with such laws, policies and action plans for the purpose of upgrading the quality of their services to the people and enhancing the expertise of health personnel.

13.4 Child Development

1. Background

About 52 percent of the total population of the country comprise children below 18 years. Projected number of children in 1997/98 is 1,10,47000 and at the end of Ninth Plan this number is estimated to be 1,24,31000. For the development of children, various programmes have been carried out since the Planned development for education and health sector. Child development policy has been adopted since the Seventh Plan. In line with the commitment expressed by the government in World Child Summit 1990, child development action plan 1990 has been formulated with the determination of targets to be met by 2000AD. In this way, efforts have been made for the development of children; however, due to poverty and other social reasons, Nepalese children are suffering from malnutrition, illiteracy, economic and social exploitation and diseases. Besides these, the problems of disabled, drug addict, orphan, sex exploitation, child labouring and street children are equally serious.

2. Review of the Eighth Plan

During this Plan period, in line with the commitment expressed by the government to the declaration of the World Child Summit for the development of children, policies based on the child development action plan for the decade of 1990 have been formulated and various programmes have been conducted. In the Eighth Plan, for the physical and mental development of children from birth to growth, policies were undertaken to provide educational opportunities necessary for nutrition and health facilities; develop good habit right from the childhood; protect child's rights; and raise the income of parents for making them capable of raising children. In accordance with this policy, education, health and local development sectors have been conducting various programmes. Among these, elimination of polio by 2000 AD programme, vitamin-C programme, school tiffin programme were prominent. In addition, according to Child Act 1990, national children welfare committee and children coordination committee have been established in 75 districts whereas welfare home has been established for orphans and bad habitual children.

There are 182 NGOs working for the development of children. These organisations conduct programmes especially for orphan beggars and disabled children.

In the end of Eighth Plan, in order to conduct monitoring and evaluation of child and development mid-term (1996) and periodic (2000) targets, Nepal Multiple Indicator Surveillance was conducted for the development of children. The survey was carried out on health, nutrition, primary education, diarrhea, and drinking and cleaning water. In Nepal, situation of child labouring and street children had been studied. According to United Nation's Children Welfare Organisation's World Summit on children rights, a national documentation has been prepared and submitted to the United Nations' Organisation. For this, there will be reforms in the Acts and some new rules. In this regard, a regional-level workshop has been organised.

3. Existing Challenges

The endeavors made for the overall development of children have helped them to some extent; tangible achievement has not been realised yet. The fertility rate is 4.58 and infant death rate is 74.7 per thousand live births and child death rate is 188 per thousand. Fatal diseases, diarrhoea and acute respiratory diseases have been the major causes of death among children. Thirty one percent children are deprived of the opportunity for primary education; child labour has become an income source for the family whereas children are employed for household jobs as well. Addiction, prostitution, orphans, handicapped and begging are among the children related problems that are getting deeper and deeper.

4. Long-term Concept

To ensure children's rights and development; to include welfare and development of handicapped, disabled, street children, child labourers and children in difficult conditions as an integral part of national development; and increase the qualitative involvement of non-governmental and social organisation in this effort.

Ninth Plan

5. Objective

To develop children physically, mentally and intellectually; and protect and promote rights of children as they are the pillars of the country for the future.

6. Policy and Implementation Strategy

Saving Children: Preventive, promotive and curative services influencing child health from pregnancy until adolescence will be expanded and improved.

Protection: In order to protect children's rights, legal criteria for child labouring will be effectively enforced. In order to gradually eradicate hard child labouring and bonded child labouring, and also to make children in difficult condition (especially disabled, orphan, beggars, mentally retarded, etc.) self-dependent programmes for education, health, housing, etc., training will be expanded. For this purpose, government, semi-government, non-government, international non-government organisations and other organisations will be mobilised. Programmes on child welfare rights will be conducted on the basis of community-based approach. In order to provide children below five years living in remote villages with necessary services, certain child development programmes will be conducted. Appropriate early childhood development programmes for small children will be conducted as well.

Development: Primary education will be made practically compulsory during the plan period, and the number of children going pre-primary school will be increased qualitatively. Specially, the involvement of girl child will be encouraged in this matter and special arrangement for encouragement will be made for girl child to stop dropouts.

Participation: The media of communication have their effect on children's personality and psychology. Hence, in various media like radio, television programmes useful to

children will be broadcast and telecast with the involvement of children themselves. Children's involvement in activities contributing to the upliftment of children's mental and intellectual capacities will be encouraged.

Co-ordination, Monitoring and Evaluation: Institutional arrangement will be made for coordination, monitoring and evaluation of the activities carried out by national and international non-governmental and other organisations for the development of children rights and development.

7. Programme

- For the development of child health services, programmes for safe motherhood, extended vaccination, diarrhoeal and respiratory diseases will be extended. Child treatment services based on referral system will be developed. In this context, child health research centre will be established.
- In order to make education easily available for children, public involvement will be encouraged and programmes for pre-primary education will be conducted. Besides, leaving and repeating classes and irregularities of primary teachers will be discouraged and school administration will be improved so as to make primary education easily available and gradually compulsory. The standard of lower secondary and higher secondary education will be uplifted and emphasis will be given on teachers' training for English, maths and science. On technical education, basic and medium technical education will be provided.
- According to the study on condition of child labour 1997, children devoid of opportunity for education due to household work or employment in household work or other work for income generation are about 26 percent of the total population. In such a situation, rights of child labourers will be protected by giving them formal or informal education; health and training programmes will be conducted; and children in difficult conditions will be placed in rehabilitation centres for resettlement.
- In order to help children in difficult conditions, especially blind, handicapped, orphan, beggars, mentally retarded, street children etc. and lead a decent life, education, health and community based rehabilitation programmes will be conducted. For that matter, child improvement homes will be established in all 5 development regions and non-government and social organisations will be assisted in establishing such rehabilitation centres.
- More than half of the children are suffering from malnutrition; hence, for the improvement of child nutrition condition, arrangement will be made for improvement in household and food habit, school lunch and treatment of diseases due to the lack of iodine and vitamin-A and disease caused by the lack of micro-nutrition elements, etc. To increase awareness about nutrition, nutrition education will be included in the curriculum from the primary level.
- Analysis of Children Act 1991 and other laws will be conducted and they will be implemented according to International Treaty on Children Rights. Juvenile courts/benches will be established in all the five development regions.

- Awareness about various aspects of children's rights will be raised and parental education will be provided for this activity. Non-government and social organisations will be encouraged for conducting such activities.
- Textbooks will be revised for reducing the existing social disparity between girls and boys.
- Appropriate laws against sexual exploitation, sale and theft of children and other inhuman and heart rending activities will be framed and implemented effectively.
- Children park, children magazines, libraries are encouraged and social and the non-governmental organisations will be encouraged in conducting such activities.
- Monitoring and evaluation of the activities regarding children's rights and welfare will be carried out by central to local bodies.
- Inter-sectoral programmes on equality of children will be co-ordinated by the Ministry for Women and Social welfare.

13.5 Nutrition

1. Background

Physically and mentally, health manpower is indispensable for the overall development of a country, as healthy children are pillars of the country. However, Nepal Multiple Indicator Surveillance 1997 reveals that about 53 percent of the children of the country are at present under various stages of malnutrition. Population growth, income-generating employment, lack of nutritious food, poverty, lack of health and basic facility, lack of education and public awareness, etc. have resulted in deteriorating nutrition condition and people hence are suffering from various types of malnutrition. Lack of protein-based food is one of the main problems of malnutrition. In addition, Nepalese children are affected by micro-nutritional elements like vitamin-A and iodine. Such types of malnutrition have resulted in loss of age-specific weight, and height, blindness, anemia, thyroid, dumb, mentally-retarded and among the children.

Anemia among women is the outcome of malnutrition. A majority of Nepalese women, especially pregnant and obstetrics, are affected by it. In many remote places, people are even suffered from thyroid caused by the lack of iodine. This has badly affected their mental health, and the body has been found abnormal.

2. Review of the Eighth Plan

Realising the fact that the level of development is reflected by the level of nutrition of the people, 'Food and Nutrition Policy' has been set for the first time in the Eighth Plan in the process of formulating the National Development Policy. The activities to be taken under this policy are to increase the availability of food by enhancing production with multi-cropping and diversity in farming; to make effective distribution of food in food deficit and nutrition sensitive regions and group; to create employment and develop manpower; and to control population growth. Level of nutrition has been regarded as an indicator of development and National Nutrition Co-ordination Committee has been formed to undertake such activities under this policy.

Accordingly, legal basis for the formation procedure of Nutrition Co-ordination Committee has already been arranged. From this arrangement, effective coordination has been maintained among various organisations, which would contribute to nutritional programme implementation. Iodised salt Act has been formed. In line with Nepal's commitment expressed in the International Conference on Nutrition in Rome in 1992, National Plan of Action on Nutrition has been prepared and published. Similarly, various surveys have been conducted to make nutrition data up-to-date.

3. Existing Challenges

During the Plan period, programmes on nutrition and other income-generating activities were conducted in agriculture, health, education and local development sectors; however, their limited coverage in terms of population and geographical

region has not contributed to bringing effectiveness in raising the nutrition level of the general people.

4. Long -term Concept

Level of nutrition among general people will be enhanced in order to contribute to poverty alleviation by developing human resources.

Ninth Plan

5. Objective

Living standard of general people will be raised by improving nutrition status; and healthy living standard will be enhanced by improving the deficiency of micro-nutritious elements.

6. Policy and Implementation Strategy

- In line with commitment to reducing malnutrition, and in order to increase food production, for improving the availability of food at the family level, the production of nutrition-enriched foods will be supported in coordination with the Ministry of Agriculture.
- To improve the nutrition situation, cold storage will be arranged at rural level and distribution system will be improved.
- In order to control unfavourable impacts on nutrition level, quality of food will be improved and the importance of balanced diet will be publicised vis-à-vis the use of low quality food will be discouraged.
- Immunised vaccines will be provided to keep favourable nutritional level of children. Children will be measured on their age specific height and weight while the nutrition status of pregnant and breast-feeding mothers will be checked-up and arrangement will be made for treatment service.
- National distribution programmes of micro-nutritional elements (protein, vitamin-A, iodine, iron, etc. will be conducted in highly problematic areas in accordance with the international commitment made on micro nutritional elements. Legal arrangement will be made for the sale and distribution of iodised salt.
- To improve nutritional level, children will be provided with nutritional education from the primary level and public awareness will be enhanced by seminars and training. Breakfast feeding programmes in school level will be extended in a sustainable manner.
- Private and non-governmental sectors will be encouraged to participate in nutrition programmes.
- In order to expedite income-generating activities for the majority of population, poverty alleviation and nutrition programmes will be implemented through local government bodies like Village Development Committee, Municipality, etc.

- Importance and availability of nutrition will be publicised through public communication media and public awareness will be created; study and researches will be carried out for identifying nutritional food appropriate for low-income family.
- Nutritional level will be considered as main indicator of life standard and its periodic monitoring and evaluation will be conducted.
- An autonomous institution will be established for the integration of various programmes conducted by various bodies and conducting information, communications, monitoring, and evaluation in a co-ordinated manner.

7. Programme

In order to achieve the objective of improving nutritional level in the Ninth Plan, the following programmes will be carried out with the involvement and coordination of various governmental and non-governmental bodies, viz. the Ministries of Health, Education, Agriculture, Local Development, Supply, etc. and National Nutrition Co-ordination Committee.

- In the situation of the majority of people of Nepal affected by malnutrition, production programmes will be carried out in coordination with the Ministry of Agriculture to increase food production for improving of the level of nutrition.
- To arrange foodstuff and increase its availability for each of the household, less expensive and frequent supply of food will be made available by increasing the capacity of cold storage. Necessary initiatives will be taken with the Ministry of Agriculture to enhance the production and supply of nutrition enriched food, viz. yellow fruits, green vegetables, food grains, meat, fish, milk, egg, etc.
- In the training programmes especially targeted to the rural women by various bodies, seeds of nutrition- enriched vegetables will be distributed with the suggestion of the Ministry of Agriculture in order to implement programmes for increasing consumption levels of nutritional vegetables.
- Adulteration of various inedible food items will be controlled in order to eliminate negative impact of contaminated and low quality food items on public health and nutrition status. Quality control activities will be extended throughout the country, and quality control system will be made effective with the active participation of local bodies in order to discourage the consumption of low quality foodstuff.
- List of less expensive variety of food will be prepared and published for increasing the consumption of balanced diet and improving the nutritional status of sensitive class, especially children, pregnant women, breast feeding mothers, and poor peasants. Appropriate technologies will be developed and publicised for appropriate storage, protection, and processing in order to enhance food availability.
- Immunised vaccines will be provided under extended vaccination project in order to reduce the infant mortality rate by protecting them from the disease due to lack

of vaccines. In health posts and sub-health posts, children will be measured for their age-specific height, and weight to protect their physical health; nutritional level of pregnant breast-feeding women will be checked up; and treatment will be provided for anemia, night-blindness, and diseases caused by malnutrition.

- To improve the malnutrition situation due to the lack of micro nutritional elements, children will be treated for the diseases caused by deficiency of vitamin-A, iron, protein, etc. Iodised salt will be distributed in the mountainous and northern districts to reduce thyroid and other iodine caused diseases, and iodised vaccines will be given for defensive treatment of iodine caused diseases like mental illness, thyroid, etc. To ensure the distribution of iodised salt, level of iodine in salt is fixed and legal criteria will be set to eliminate low iodised salt.
- *Jeewan Jal* will be made easily available in the community level through hydrotherapy centres established at health posts and through rural health workers in order to reduce the death rate due to diarrhoea and dysentery. Children will be treated with medicines to reduce the weakness and mortality rate of due to acute respiratory problems.
- Children will be provided with nutrition education from the primary level by incorporating appropriate education materials relating to nutrition in their curriculum. Breakfast feeding programmes in schools will be extended in a sustainable manner under Nutritional Food Programme in order to improve the nutrition situation of children. Training, seminars and publicity programmes will be conducted at the local level to enhance public awareness.
- Henceforth, public awareness will be enhanced through necessary publicity in order to encourage women to breast-feed their children for two years from the perspective of newly born child's nutrition and immunity.
- Private and non-governmental organisations will be involved in nutrition programmes under the policy, direction and supervision of National Co-ordination Committee in order to improve the nutrition level of people according to their capacity and talent.
- Local bodies like Village Development Committees and Municipalities will be involved for mobilising local resources for poverty alleviation and thereby increasing purchasing power of the people to improve nutrition level. Development and construction programmes will be conducted for increasing income-oriented employment opportunities at the local level.
- Nutrition level will be regarded as a main indicator of life standard; for monitoring and evaluation of nutrition level periodically, indicators will be prepared with the cooperation of all the governmental and non-governmental bodies who are involved directly or indirectly in nutrition level improvement programme
- Priority will be given for effective coordination of programmes and the development of skilled manpower in nutrition sector. In order to make nutrition

improvement programme effective, National Nutrition Co-ordination Committee will be activated to work and conduct studies and researches on nutrition.

- To bring an appropriate improvement in food and nutrition level; to conduct integrated programmes in coordination with government and non-government bodies of health, education, agriculture and local development sectors, and to carry out periodic monitoring and evaluation of the progress made in this sector and disseminate the information, an autonomous secretariat of National Nutrition Co-ordination Committee will be established at the central level. Following the establishment of the secretariat, activities on nutrition will be carried out in an integrated and effective manner.

The above mentioned nutrition programmes have already been included in the programme budget prepared in coordination with various bodies/ ministries; therefore, they have not been mentioned for the sake of avoiding duplication. However, programmes to be conducted by National Nutrition Co-ordination Committee are essential to mention here, which are as follows:

- To prepare nutrition indicators;
- To carry out monitoring and evaluation of the programmes conducted by various bodies;
- To conduct necessary research and studies with regard to nutrition;
- To conduct seminars/ meetings with the participation of governmental, non-governmental and private sectors; and
- To carry out all the activities to be conducted by the National Nutrition Co-ordination Committee as mentioned in the National Plan of Action on Nutrition.

13.6 Drinking Water and Sanitation

1. Background

Various attempts were made to develop the drinking water and sanitation sector since the beginning of planned development. Among these attempts, public participation did not get the main focus until the Seventh Plan. Emphasis was laid on the optimum mobilisation of non-governmental sector, private sector and public participation only from the Eighth Plan. Thus, although plans were launched in various processes from the beginning, expected success could not be achieved. As a result, only 61 percent of the total population have got an access to drinking water facility by the end of the Eighth Plan. For upgrading the service standard of existing facility, great effort has to be made even further. Water borne diseases have not been controlled due to the lack of clean drinking water and sanitation. Sometimes, such diseases break out as epidemic. Due to the increasing pressure of urbanisation and population growth, drinking water supply has to be increased and sanitation programmes need to be launched effectively in the rural and urban area. Similarly, more emphasis has to be given to the enhancement of the quality of water, proper management of garbage and the construction of sewerage and drainage with treatment plants.

2. Review of the Eighth Plan

The objective of the Eighth Plan was to deliver drinking water facility to 72 percent and sanitation facility to 13 percent of the population of the Kingdom during the plan period. It was expected that more public participation would be forthcoming in the small and low cost projects during the plan period. By involving the consumers from the primary stage of projects for rapid and sustainable development of drinking water and sanitation sector on the basis of community management, policies were adopted to give emphasis on the construction of projects, in which users' group could be involved in formulation, implementation, operation, repair and maintenance of the projects; to increase the involvement of non-governmental organisations, local agencies and private sector in the projects of small piped water distribution system and source protection, hand pump and well construction; to implement drinking water and sanitation programmes by integrating these activities and to increase public awareness on public health and sanitation through the medium of publicity and expansion of health education.

The Eighth Plan targeted to deliver drinking water facility to a total of 7,199 thousand people, which comprised of 6,756 thousand people in the rural area and 443 thousand people in the urban area. In this period, a total of 5,446 thousand people benefited from the drinking water facility: 5198 thousand people of rural area and 248 thousand people of urban areas. In terms of physical target, 77 percent was achieved in rural sector, and 56 percent was achieved in urban sector and thus only 76 percent of total target have been achieved. With this achievement, it is assumed that a total of 61 percent population has been provided the drinking water facility by the end of the Eighth Plan in the following manner:

Total Beneficiary by the End of the Eighth Plan

S. N	Development Region	Rural		Urban		Total	
		Population	Percent	Population	Percent	Population	Percent
1	Eastern	2273.0	49.77	333.2	55.29	2606.2	50.41
2	Central	3287.0	56.49	1014.8	69.16	4301.8	59.05
3	Western	2508.3	64.57	292.1	58.55	2800.4	63.88
4	Mid-western	1836.8	70.36	142.4	66.45	1979.2	70.07
5	Far- western	1433.6	81.86	98.1	43.33	1531.7	77.45
	Total	11338.7	60.86	1880.6	62.49	13219.3	61.08

By extending the sanitation facility to 1159 thousand people of rural areas, 414 thousand people of urban areas and a total of 1573 thousand additional people, the target was set to provide the sanitation facility to an additional 13 percent of the population. However, it is estimated that a total of 20 percent population has been provided with the sanitation facility by the end of this Plan.

3. Existing Challenges

- Adequate authority has not been decentralised and sufficient financial authority has not been delegated to local agencies and users' communities. The capability of users' groups and local agencies has not been strengthened and effective coordination has not been maintained among these agencies.
- Conducive environment has not been created for attracting the private sector in this area and the mobilisation of non-governmental organisations and institutions has not become comprehensive. Sufficient attention has not been paid to the development of such institutions and the service motive has not developed in non-governmental organisations as the tendency still prevails in such institution to be established as a medium of employment only. Clear legal framework has not yet been established for the organisation of users' committees and non-governmental organisations and on their registration process. User communities are not aware adequately of managerial, technical and financial aspects of project
- The consumers of rural areas have to bear the cost of construction, operation, repair and maintenance of projects in various ways. The policy that users' group would bear the cost of construction, operation, repair and maintenance of projects in the development of drinking water and sanitation facilities in urban areas has not been put into practice. Similarly, the responsibility, role and coordination of various agencies involved in the development of drinking water in the urban areas such as Department of Water Supply and Sewerage, Nepal Water Supply Corporation, users' committees and municipalities have not been made clear in the management of drinking water.
- While formulating district development Plans District development committees and district-level governmental agencies should without being limited to drinking water and sanitation programmes have prepared the integrated programmes by taking into account the programmes of non-governmental organisations, international non-governmental organisations, village development committee

and municipalities. However, programmes have not been formulated fully in such a manner.

- Technical and administrative capability could not be strengthened to complete the projects in specified time due to the involvement of costly technicians in donor-assisted projects, the adoption of costly technology, the delay in the delivery of service and the increment in the cost of construction caused by delay in implementation.
- There are many drinking water projects, which are not handed over to users' committees after completion. There are also many incomplete projects. These incomplete projects should be completed and handed over immediately to the consumers. While handing over these projects, a sense of ownership on the part of consumers needs to be aroused.
- Public participation and investment is inadequate in drinking water and sanitation sector. Investment need to be increased with priority for the development of drinking water sector which is minimum basic need of the people. In addition, additional investment could not be channeled in this sector from the income of village development committees and municipalities.

4. Long-term Concept

The target of the Eighth Plan was to provide the drinking water facility to all the people of the Kingdom by the Ninth Plan period. In this context a long-term concept has been set up for the next 20 years in order to conduct programmes for the proper development of the drinking water and sanitation facility in a phase-wise manner. The target of the Ninth Plan has been formulated on the basis of this perspective.

In the context of development of water supply sector, it will be proper to classify the service standard on the basis of indices of daily amount of water consumption, quality of supplied water, time period of daily supply and its reliability. During the Ninth Plan, drinking water facility will be delivered to all the people of the Kingdom and in the next 20 years, the programmes for developing service standard will be conducted gradually to improve the quality of drinking water by classifying the service level of drinking water.

In the sanitation sector, proper sewerage with treatment plants will be constructed in the densely populated areas of all the urban areas in the next 20 years. In all urban areas, suitable drainage technology and proper management of garbage and sewerage will be developed within 20 years. Similarly, environment in rural areas will be improved by developing accessible domestic toilets with appropriate technology based on geographical situation.

Development of drinking water and sanitation sector will not only benefit consumers from water supply facility but also make a favourable impact on good health leading to the production of healthy manpower and production-oriented works. Consumption of clean and hygienic drinking water will also help eliminate water borne diseases and the investment in health will decrease considerably. Similarly, the time spent on fetching water can be used for productive purposes and hence the income of people

will also increase. Because of the time and energy spent on fetching water being saved, consumers will also have good health. In this way, development of drinking water and sanitation will save time, and the saved time can be used for productive works; and thus people will benefit from additional income and the reduction of expenditure on health, and hence it will indirectly contribute to fulfil the objective of poverty alleviation in the Ninth Plan.

The Ninth Plan

Although the achievement during the previous plan period on drinking water and sanitation sector was satisfactory, one-third population of the Kingdom still has no access to this facility yet. As a result of increasing urbanisation, industrialisation and growing pressure of population on the existing sources of piped drinking water, it has become obligatory to go further to tap additional source of water and, hence, drinking water projects have become more costly than expected. It is necessary to strengthen and clear supporting programmes such as standard maintenance of construction materials, production of efficient manpower, establishment of processing system, development of management information system and the involvement of national and international organisations. Similarly, it is urgent to give emphasis on programmes implemented in previous years for the continuance of the service. Therefore, drinking water and sanitation sector has to be speeded up with further efficiency.

To make consumers conscious of the existing leakage of water, source conservation, proper utilisation of water and environmental sanitation, it is essential to ensure their active participation from formulation of projects up to construction and implementation works. It is equally necessary to make the drinking water and sanitation sector more attractive from the investment point of view; involve non-governmental organisations, institutions and private sector for the development of this sector; and create proper environment for the continuance of their involvement.

By creating an environment for using assistance from national and international donor agencies by local non-governmental organisations, consumers' groups and local agencies under the periphery of national policy for the development of this sector, and by conducting the drinking water and sanitation programmes in an integrated and co-ordinated manner for the optimum mobilisation of existing manpower and internal and external resources, it has become necessary to deliver the drinking water facility to all the people of the Kingdom by improving the service level of completed projects and creating an environment for delivering healthy drinking water by the end of the Ninth Plan.

For the proper and sustainable development of drinking water and sanitation sector, the role of local institutions is highly important. In the context of authority and economic decentralisation for the development of this sector, local institutions should be made accountable and responsible. Similarly, by identifying the liability of central organisations, emphasis should be laid on the development of organisational structure. By identifying resources and the ability of local institutions and the administrative and technological capability of central organisation; and by mutual understanding and coordination on the basis of proper economic management, proper

charge and fee collection management and reliable service, strategy will be adopted to make drinking water and sanitation programmes productive during the Ninth Plan.

5. Objective

- By developing the standard and facility of drinking water in a phase-wise manner, drinking water facility will be delivered to all the people of the Kingdom by the end of the Ninth Plan.
- By increasing public awareness and developing proper sanitation facility in rural and urban areas, sanitation facility will be provided to additional 30 percent of the population.
- By strengthening decentralised plan system in the planning process, users' committees, non-governmental organisations and local institutions will be mobilised at the local level.
- By increasing the quality of drinking water in a phase-wise manner and thus eliminating water-induced epidemic, healthy life will be encouraged.
- For the proper management of drinking water facility in urban areas, private sector will be involved and special responsibility will be assigned to municipalities in order to activate them in developing and extending drinking water facility.

6. Target

Drinking Water:

According to the objective of delivering drinking water facility to all the people of the Kingdom by the end of the Ninth Plan, 7850 thousand additional people of rural areas and 1850 thousand additional people of urban areas will benefit from the drinking water facility.

Sanitation:

In the Ninth Plan period, special emphasis will be given to conduct public awareness programmes on domestic and environmental sanitation. Through extensive publicity and training, consumers will be encouraged to construct surface private toilets and a total of 80 percent of the population is estimated to be benefited from the sanitation facility by the end of the Ninth Plan.

The Status of Drinking Water and Sanitation by the End of Ninth Plan
(population in thousand)

S. No	Particulars	Rural	Urban	Total
1	Drinking Water			
1.1	Population to be benefited by the end of fiscal year 1996/97	11,339	1,880	13,219
1.2	Percentage to be benefited by the end of fiscal year 1996/97	61	62	61

1.3	Population to be benefited from the existing system by the end of the Ninth Plan	12,724	1,944	14,668
1.4	Additional population to be benefited during the Ninth Plan period	7,850	1,850	9,700
1.5	Percentage to be benefited by the end of the Ninth Plan	100	100	100
2	Sanitation			
2.1	Population to be benefited in the fiscal year 1996/97	2,900	1,530	4,430
2.2	Percentage to be benefited in the fiscal year 1996/97	16	51	20
2.3	Additional Population to be benefited during the Ninth Plan	6,360	1,320	7,680
2.4	Total Population to be benefited by the end of the Ninth Plan	9,260	2,850	12,110
2.5	Percentage to be benefited by the end of Ninth Plan	36	60	40

7. Policy

- By improving gradually the service level of drinking water, all the people of the Kingdom will be delivered drinking water facility with a minimum specified level by the end of the Plan.
- By upgrading the standard of health and hygiene, education and awareness on environmental sanitation of communities, drinking water and sanitation sector will be developed under their leadership and sanitation programmes will be tied up with drinking water projects.
- In every district, profile will be prepared with statistics of present condition of drinking water and sanitation, existing water resource, potentiality of development etc. and hence district-wise long-term programmes will be prepared for drinking water and sanitation sector.
- Emphasis will be laid on the development and extension of technologies that can be maintained by the ability of local consumers. For sustainable development and operation of drinking water and sanitation sector, private sector participation will be encouraged and local institutions; non-governmental organisations and private sector will be mobilised as co-workers. For the projects in backward areas, disadvantaged communities and ethnic groups, special priority will be accorded to launching the drinking water projects on the basis of public participation.
- Emphasis will be laid on the construction of sewerage and drainage and local toilets in various parts of the Kingdom on the basis of population density, geographical feature, size and nature of settlement, service level and accessibility to drinking water, interest and involvement of local agencies and communities.
- By revising the existing jurisdiction and role of organisation for the development of effective, efficient and dynamic service standard of drinking water and sanitation sector through the medium of decentralised system of operation,

existing service level of drinking water in urban areas will be upgraded and alternative dynamic organisational structure will be developed for sustainable development. The charge of drinking water facility in the urban areas will be determined according to the cost of construction, repair, maintenance and operation of projects.

- First priority will be accorded to natural sources of water for drinking water purpose. To prevent the hindrance of project implementation due to the controversy about water source and source use; and prohibit the pollution of source; existing laws and administrative system will be improved.
- Drinking water facility will be classified in accordance with service level defined on the basis of amount of drinking water, its quality standard, its daily service period and distance, and necessary improvement for the quality standard of drinking water will be made to control water-induced diseases.
- In the implementation of projects in the rural areas, projects will be formulated and launched with at least 10 percent of cost, whether in cash donation or labour participation borne by consumers. To make local agencies or users' committees and representatives of consumers responsible for repair and maintenance of the projects after completion, they will be involved right from the formulation of projects. A prior repair and maintenance fund will be established.
- Special attention will be paid to reduce environmental impact from the programmes of drinking water and sanitation sector. In accordance with the provision of environment protection Acts and laws, initial environmental examination and environmental impact assessment will be carried out.
- Emphasis will be given to the development of manpower by means of training, seminar and workshop for consumers, skill development of existing manpower and production of medium level manpower necessary for the agencies related to drinking water and sanitation sector.
- The state of construction, maintenance and operation of drinking water and sanitation projects will be monitored continuously for raising the effectiveness of monitoring and evaluation system.

8. Policy and Implementation Strategy

Plan and Programme: District profile will be prepared in a way to project the existing situation and the future development needs for the formulation of short-term and long-term plan for drinking water and sanitation. Proposed projects will be evaluated on the basis of the level of access to drinking water, needs of community, local public opinion, public participation and the involvement of community and consumers in repair and maintenance. A tradition of selecting projects on the basis of decentralised planning system by assimilating them in the district development plan will be initiated. Health education and sanitation programmes will be launched by integrating them as an integral part of drinking water projects in a unified and integrated manner.

In order to operate projects in a sustainable manner and develop this sector properly, a prior development phase will be incorporated into construction phase of projects to ensure social mobilisation and management. Projects will be launched only after the

study of environmental impact assessment and environmental examination right from the conception stage. Mutual cooperation will be enhanced by arranging regular coordination with bilateral and multilateral donor agencies for the implementation of large urban projects.

Technology: Priority will be accorded to the development of small projects which are cheap, sustainable and can be maintained by the ability of local consumers. Equal priority will be given to the conservation, protection and development of traditional drinking water sources. Appropriate technology will be developed and applied by improving local technology. The private sector will be encouraged to produce necessary materials for drinking water and sanitation sector, and necessary structures that can be prepared at the local level. Cost directive will be prepared to simplify the implementation of projects.

Quality Standard of Water: By maintaining the biological, physical and chemical standard of water distributed from various systems, the process of making it clean and hygienic will be adopted. A national code of conduct will be prepared to maintain the quality of water; appropriate organisation will be made responsible for regular monitoring of drinking water; organisational capability will be developed. By establishing water refinement centres and improving the quality standard of water in the urban area and district headquarters, existing laboratories will be used at the central and regional level for testing drinking water, and additional laboratories will be established in accordance with local necessity.

Institutional Arrangement: By confining the roles of central public agencies in policy formulation, technical support, monitoring and evaluation, local agencies, non-governmental organisations and social organisations will be made responsible for the construction and operational aspects of projects. In this context, the responsibility for constructing small drinking water projects with the number of beneficiaries up to 500 population will be given to local agency, social organisations and the private sector.

By adopting one of the suitable alternative organisational systems among central public governmental agency, central public corporation, local municipality and local users' committee, various corporations and the private sector of urban areas on the basis of local condition for upgrading service quality, drinking water facility will be delivered from the business point of view. To attract private sector in drinking water and sanitation sector, necessary legal framework will be developed. Non-governmental and social organisations will be encouraged to participate in programmes for drinking water and sanitation, and maximum women participation will be encouraged in various stages of projects right through their formulation. By formulating the policy of information flow about drinking water and sanitation, proper organisational system will be developed and information flow will be maintained.

Legal and Administrative Reform: To give highest priority to use local water sources for drinking purpose and carry out the construction, maintenance and operation of project by consumers, water resource committee in districts will be made effective. To reduce pollution in natural water source, existing Acts and laws will be improved as per the requirement.

Financial Resources: Public participation will be mobilised in a way to secure the optimum utilisation of local resource and skill. The proportion of mobilisation of public participation will be the basis for prioritising the selection and implementation of projects; prior repair and maintenance fund will be established for the purpose of sustainable development of projects. For big projects and projects with pumping system which can benefit more than 5000 population, financial subsidy will be given at a decreasing rate for few years for regular operation after hand-over. External financial resource obtained from various donor agencies for the construction of drinking water projects will be optimally mobilised, and internal source will also be mobilised with the coordination of local agencies. Service will be determined in urban areas on a scientific basis of cost of production, construction, improvement and extension. The process of determining different charge for different towns will be adopted on the basis of local service level. The system of collecting monthly charge will be started from the community using public taps. To encourage the private sector in the construction and operation of drinking water projects, a clear-cut policy and legal system will be developed in connection with public policy and economic subsidy with legal base.

Repair, Maintenance and Improvement: Full ownership and responsibility of projects will be transferred to user's committees by developing their knowledge and skill for operation, repair and maintenance of the projects after completion. The projects which were completed in the past but not yet transferred to users' committees will be transferred to them. Among the completed projects which are big and technologically complex and which are in the state of repair and maintenance or extension, external construction materials will be channeled through the agency constructing these projects. For big drinking water projects, directive of repair and maintenance will be developed and publicised. To control the leakage of drinking water in the distribution system, leakage control programme will be launched as a regular programme of concerned authority.

Manpower Development: The existing manpower development unit in the Department of Water Supply and Sewerage will be developed as a semi-autonomous institution for the purpose of skill development, transfer of technology and production of medium level manpower necessary for all agencies relating to drinking water and sanitation sector. Training with fee or without fee, seminars and workshops will be conducted for increasing the skill of employees in the offices related to drinking water, non-governmental organisations, community development organisations; users' committees; and other agencies related to drinking water and sanitation. Training concerned with awareness on health and sanitation will be conducted in coordination with the nearest existing agency under Ministry of Health for publicising and expanding health education.

Coordination: With the active participation of existing central drinking water coordination committee and national drinking water and sanitation committee, mutual coordination of agencies related to drinking water and sanitation will be made reliable and action-oriented. To increase and mobilise foreign aid, coordination with donor agencies will be made effective. Membership of international organisations will be taken for exchanging information on proper technology, management system relating

to the service of drinking water and sanitation; and an attempt will be made to extend coordination with such organisations.

Mobilisation of Non-governmental Organisations: Local non-governmental organisations will be mobilised as supporting organisation to users' committee for the selection, implementation and operation of drinking water and sanitation projects, and skill and ability of such organisations will be developed. The works of non-governmental organisations, working environment and coordination among various agencies will be regularly monitored and evaluated.

Monitoring and Evaluation: Supervision system from district, regional and central levels will be managed and strengthened in order to monitor the standard of construction work of drinking water projects. Emphasis will be laid on benefit monitoring for evaluating effectiveness of completed projects. Performance report of projects will be taken periodically and technicians from regional and central levels will supervise the projects after completion of construction works.

9. Programme

In accordance with the objective of delivering the drinking water facility to all the people of the Kingdom by the end of the Ninth Plan with service delivery to additional 7850 thousand people of rural areas and additional 1850 thousand people of urban areas, a total of 9700 thousand people will be benefited from drinking water facility. The public awareness programmes for increasing domestic and environmental sanitation will be extensively launched. Consumers will be motivated to construct private surface toilets through the medium of training and extensive publicity. A total of 50 percent people will be benefited from the sanitation facility by the end of this Plan.

Rural Sector Programme

To deliver the drinking water facility to all the people of rural areas, projects with various technologies will be launched in accordance with geographical situation and existing water source. Priority will be accorded to complete those projects, which are not yet completed. In hilly region, piped water supply projects will be given priority as far as possible, taking into account the density of population. The drinking water sources, which are traditionally in use, will be improved and protected in the place where there is scattered settlement and where projects with pipe supply are not feasible. Pumping system with solar power and electric power will also be constructed, taking account of the accessibility of water source and the capability of consumers in operation, repair and maintenance of projects. Drinking water will be supplied by collecting rain water in places where there is no other alternative sources. Since land-water can be used in various parts of Terai region, programmes with hand pump, deep boring and well construction will be launched. These programmes will be launched along the side of Mahendra highway for the benefit of passengers. By making consumers aware of domestic and environmental sanitation, they will be motivated to construct accessible toilets and launch other sanitation programmes.

Rural Water Supply and Sanitation Fund Programme

For the purpose of providing financial, technical and institutional support to local, national and international non-governmental organisations and private sector organisation in the sustainable development of drinking water and sanitation sector; and supporting users' groups in formulation, implementation and operation of projects through the medium of these organisations, a Rural Water Supply and Sanitation Fund has been established since the fiscal year 1996/97 with the loan assistance of International Development Agency. The facility of drinking water and sanitation will be provided to the rural community by completing 900 projects in rural area through this support.

The programmes for piped water supply in the hilly region and the programmes for deep-set tube-well and well-construction in the Terai region will be launched under this scheme. These programmes will include community mobilisation, informal education, health and sanitation education, capability enhancement and optimum women participation, supporting organisation and capability increase of users' groups and skillful trainings.

Urban Sector Programme

Due to the increased pressure of growing population on water supply from the existing water supply system in big urban cities, the problem of water supply is seriously increasing. In order to manage the drinking water properly by facing this condition, new projects with proper technology will be launched and implemented in the Ninth Plan period.

In order to provide the regular and reliable facility of drinking water in the municipalities of the Kingdom, municipalities will be involved and the present system will be comprehensively improved and renewed. The projects with new pipe system will be constructed in the municipalities of hilly region, and traditional sources will be repaired, improved, protected and brought to use. Priority will be accorded to the construction of projects with pumping system in the municipalities of Terai region.

To maintain the environmental sanitation and cleanliness of urban area, special attention will be paid to construct drainage and sewerage. In the place where there is no facility of sewerage, consumers will be encouraged to construct private toilets with septic tank. The tendency of polluting the environment by connecting sewerage into rivers and drain water will be discouraged.

Main Cities Outside the Valley

Total demand for water is increasing by 6 percent to 9 percent annually in the main cities such as Dharan, Biratnagar, Janakpur, Birgunj, Hetauda, Pokhara, Butwal, Bhairawa, and Nepalgunj of the Kingdom for domestic, industrial and business purposes. By increasing the source of drinking water in these cities during the Ninth Plan period, necessary amount of water will be provided and, by rehabilitating the existing structures, drinking water system will be strengthened. To enhance the quality of water provided from surface source, processing centres will be established, and the system of distributing water from land source will be adopted by processing it

in a phase-wise manner. In addition, comprehensive programmes will be launched to solve the problem of drinking water in urban and semi-urban regions.

Kathmandu Valley Urban Sector Programme

The problem of water supply in Kathmandu Valley is increasing due to the increased rate of population growth. The demand for drinking water in urban sector of the valley is estimated to be 145 million litres a day, whereas the supply of drinking water is only about 115 million litres a day in the rainy season and about 80 million litres a day in other seasons. Thus, the supply of water is quite low in comparison to the demand in the urban areas of Kathmandu Valley.

The demand for drinking water will reach 182 million litres a day by the end of the Ninth Plan. To fulfil this demand, new projects to increase the supply will be launched and projects to reduce the leakage of water and strengthen the existing system will be conducted and Shivapuri watershed areas will be properly managed and developed to continue the water supply.

Existing sewerage and drainage systems will be rehabilitated to make them effective. The sewerage system limited only to some areas will be extended to cover all areas of Kathmandu Valley. Existing sewerage treatment centres will be reconstructed and brought into operation. To prevent the tributaries from being polluted, the practice of releasing waste into these tributaries will be fully checked; the quality level of sewerage to be turned into tributaries will be determined; and its implementation will be continuously monitored and evaluated.

Melamchi Water Supply Project

In order to solve the long-term problem of drinking water in Kathmandu Valley, Melamchi Water Supply Project has been evaluated technically, economically and environmentally viable. The objective of the project is to take water from Melamchi tributary; generate hydro-electricity; and then make necessary improvement in the existing system of drinking water distribution. 170 million litres of additional water will be delivered daily through this project, and hence the demand for drinking water of Kathmandu Valley will be fulfilled for the coming decade.

Miscellaneous

Service Level Enhancement Programme: The service level enhancement programme will be launched during the Ninth Plan period. In order to deliver the facility of determined service level from constructed drinking water projects, programme for improvement, extension, renewal and quality improvement will be launched.

Repair Maintenance and Transfer Programmes: In order to ensure an arrangement for regular and reliable drinking water supply and make projects sustainable, the repair, maintenance, and renewal of constructed water supply projects will be made through the active participation and leadership of users' committee. The rural drinking water projects, which are completed but not yet transferred to users' committees, will be repaired, renewed and transferred to the users' committees under the active participation of consumers. In the drinking water projects of urban sector the concept

of alternative organisational arrangement will be put into practice, and a regular repair, maintenance and renewal system will be arranged.

Supportive Programme

In order to meet the set target of the Ninth Plan, training, seminar and workshop will be conducted at various levels. Necessary training will be given to all those organisations involved in drinking water and sanitation sector; and to users' committees and to the employees involved in operation, repair and maintenance of projects. Necessary system will be developed to institutionalise information concerned with drinking water and sanitation sector and collected from district, regional and national levels, and an information flow system will be made reliable and strong.

Bagmati Sector Sewerage Construction/ Improvement Project

This project is under way to keep the Bagmati river clean from Shivapuri to Chovar and control disposal and other waste into the river system. For this purpose, part of Bagmati river, from Gokarna down to Tilganga where the famous temple of Lord Pashupatinath is situated, will be made pollution-free in the first phase. In the second and third phase, the target of the project is to construct the sewerage on both sides of Bagmati river from Tilganga to Chobhar and on the eastern side of the river from Gokarna to Tilganga. To make the valley clean and pollution-free, a target has been set to construct sewerage and road on both sides of the Bagmati river and 7 sewerage treatment plants at various confluences of various tributaries of Bagmati river. Moreover, treatment plants will be established at the mid part of Bishnumati and Manohara rivers. During the Ninth Plan period, sewerage will be constructed from Gokarna to the confluence of Dhobikhola and Bagmati river, and construction of two treatment plants will be completed.

Solid Waste Management and Resource Mobilisation Programmes

For the management of solid waste disposal from various sources in the rural areas, programmes tied up with environmental sanitation programmes will be launched. Community will be motivated for the self-management of garbage by making them aware of the impact of mismanaged disposal of garbage on public health through the medium of public awareness programmes.

The garbage from urban and sub-urban areas will be managed by local agencies with the involvement of the private sector and non-governmental organisations. Since garbage can also be used as resource, programmes will be launched with a special priority for the beneficial use of garbage.

It is believed that due to these policies and strategies to be adopted in the drinking water and sanitation sector in the Ninth Plan, the existing service level of drinking water will be sufficiently improved for the sustainable development of this sector. It is also expected that healthy manpower will be produced through the proper development of this sector leading to favorable impact on national productivity.

13.7 Social Security

13.7.1 Indigenous People and Ethnic Groups in Development Programmes.

1. Background

Nepal is the homeland of multi-lingual, multi-religious and multi-ethnic community; therefore, it is necessary to have a balanced progress of all these communities and ethnic tribes for the overall development of the nation. It is equally necessary to mobilise their knowledge, skill and capacity. The corner stone of democracy is to explore social talent and capability and provide equal opportunities to all, which has been started in our country with the inception of people's revolution in 1950. In the subsequent period, some basic infrastructure have been created; however targeted communities could not feel themselves being involved clearly in the economic and social development as envisaged by plans. Various programmes in the past were conducted for target groups. However, no consistency could be ensured between the development programme carried out by the state and the expectations of endogenous and ethnic tribes. The main reasons for this are a failure in tapping their peculiar skill and ability as a valuable asset, unfair implementation procedure, lack of coordination, incomplete package of programmes and failure in involving beneficiaries by raising their awareness.

Such failure has obviously brought about a feeling on them that these communities are marginalised from the mainstream of developmental activities and they are beyond the reach of development. Keeping in view of this factor, a different approach is at present sought to be adopted for the fact that indigenous people and different ethnic groups should participate with self pride as an important partner in developmental activities so that they can realise that their contribution to nation-building and balanced development is significant. So, their contribution is expected to be in the form of special and active participant, which is apparently different from the traditional role. The policy is designed to create a congenial environment for enabling indigenous people and ethnic groups to play such a role. Such approach emphasises on "active role of indigenous people and ethnic groups " rather different from supposing them passive recipient of benefits. So, future programme will focus on motivating, helping, and creating environment for getting their active participation by boosting up morale and inherent talents instead of being confined only in welfare programmes.

2. Review of the Eighth Plan

In the Eighth Plan, endogenous and ethnic groups were targeted to be benefited from different welfare programmes vis-à-vis integrated programme. During the plan period, many programmes were implemented targeting socially and economically backward people, like integrated community development programme; study, research and survey programme; social security stipend project; social welfare centre strengthening and development programme; rehabilitation programme; skill training project; women welfare centre; women development programme; social survey and

study programme; rural self-employment development programme; social awareness programme; bonded labour rehabilitation programme; educational development; environment protection programmes. Many of such programmes were carried on prior to the Eighth Plan. These programmes are successful if evaluated in isolation; however, they have not been able to bridge the gap between different communities. Besides, there is less possibility of bringing comprehensive change due to the fact that they are confined only in some targeted programmes. Following the restoration of democracy, the nation has been making vigorous efforts to represent the desire of these communities. On the whole, some weaknesses in the formulation and implementation of targeted programmes can be listed as below:

- The failure in making clear concept in line with the wave of decentralisation, creating proper organisation and providing autonomy to such organisation have resulted in ineffective institutionalisation of the system of developing backward community.
- Failure to attract this community in the formulation and implementation of programmes targeted to their development due to the imposing nature of backward community development programme by the centre.
- Feeling of endogenous and backward communities as a subject of mercy rather than realising them as active participants of development.
- The failure in encompassing all aspects of empowerment of backward communities by targeted programmes.
- Improper attention towards human resource development and ineffective monitoring of existing resource development.
- The failure in assessing and utilising properly the knowledge, skill and life style of endogenous and backward communities.

3. Long-term Concept

A long-term concept has been adopted for eradicating social inequality, unemployment and poverty from the country by creating a conducive environment for moving indigenous people and ethnic groups further as an active partner and capable co-worker of development together with other community of the country.

Ninth Plan

4. Objective

- To eradicate social imbalance by developing indigenous people and ethnic groups, economically and socially;
- To uplift overall status of cultural development of the nation through exploration and preservation of cultural heritages of indigenous people and ethnic groups;
- To enhance capability of indigenous people and ethnic groups through their economic, social and collective aspects;

- To involve indigenous people and ethnic groups in nation building by ensuring their access to necessary resource; imparting knowledge and skill to them; and modernising their occupations.

5. Policy and Implementation Strategy

- Indigenous people and ethnic groups will be empowered economically and socially through decentralisation, local development and human resource development and utilisation. In such a process, people's participation will constitute a main basis.
- Present targeted programmes for indigenous people and ethnic groups will be adjusted structurally and institutionally, and implemented effectively. Special new programmes will be launched as necessary.
- It will be made mandatory to spend a certain proportion of grant provided by the government to village development committees for employment and income generating skill development programmes for indigenous people and ethnic groups
- Non- government organisations specialised in working with targeted groups will be encouraged to carry out programmes for indigenous people and ethnic groups.
- Targeted programmes with easy access to credit will be conducted through governmental and other institutions for the proper arrangement of education, health, drinking water, etc. to the poor among indigenous people and ethnic groups;
- Students from indigenous and ethnic groups will be granted priority in getting admission in technical subjects of higher studies. Similarly, scholarship programmes for children of this community at the school level will be made more effective;
- Programmes for increasing opportunities for education and health service to indigenous and ethnic groups will be implemented through various specialised programmes, and human resource development will be emphasised through training programme;
- Proper institutional arrangement will be made for making the beneficiaries, i.e. indigenous and ethnic groups, in a way to be able to carry out project formulation, implementation, monitoring and evaluation as per their needs. An arrangement will be made to provide a grant by the government in a way to mobilise local resources;
- Knowledge and skill of indigenous people and ethnic groups will be explored, and proper evaluation and application of their professional expertise will be made in development works; and
- Integrated programmes will be launched by revising the operation procedure of programmes for indigenous people and ethnic groups.

6. Programme

Institutional arrangement and programme implementation procedure:

- It is felt that an appropriate central institution is essential for the identification of needs of indigenous people and ethnic groups, policy arrangement, programme formation and coordination. So, an independent and effective central level council for indigenous people and ethnic groups will be formed and the council will be responsible for preparing national-level programmes; analysing all programmes submitted from the local level, coordinating with other government entities; and managing different functions at central level. The council will be formed by appointing members from the groups of people who can contribute, are devoted to and have specialised knowledge in the peculiarities and development of the indigenous people and ethnic groups. The seventy-five percent of council members will be elected from the district level. The tenure of the council member will be a minimum of three years.
- At the district level also, a committee on indigenous people and ethnic groups will be formed. Such seventy-five committees in all districts will work as active sections of the centre in policy formation and implementation in close contact with District Development Committee. Such a committee will try to get alternative programmes from the VDC level and choose the best programme. Similarly, at the district level, the money received from government through central council, grant provided by donor agencies and contribution made by participating individual or group will be deposited in a separate fund. The money of this fund will be provided to VDC or consumer groups made up of indigenous people or ethnic group as per to the decision of such committees. Such district level committee will take cooperation from District Development Committee, governmental and non-governmental organisations for programme implementation or provide technical assistance for this purpose. This committee will perform the role of special programme coordination committee; will conduct regular monitoring and evaluation for these programmes; and will submit periodic reports to the council.
- An arrangement will be made for implementing programme through own group in the event that local needs have been identified; programme to be implemented decided, and sent to the district level; and approved by the district level committee. The framework of programme implementation procedure will be ascertained by the central council and district level committee. District Development Committee, VDC and various government agencies in the district shall extend technical and specialised service as demanded by such committee (District Level Committee).
- District level committee on indigenous people and ethnic group will mobilise NGOs as necessary for identifying possibilities of programme implementation in partnership; and will send regularly the appropriate suggestion and advice to the centre.

Human Resource Development Program:

- For improving the educational status of indigenous people and ethnic groups, the district level committee and other user groups will be mobilised to create awareness in target people for sending their children to school. Besides, some other programmes for formal and informal education will be arranged in a way to operate in a special manner by themselves if feasible.
- Candidates from such community will be given priority in admission of higher study in technical subjects, like agriculture, forestry, engineering, medicine and others, in order to provide more access to such targeted people.
- Special priority will be given to the representation of such groups in technical schools. For this purpose an arrangement will be made to make decision on the basis of enrollment capacity of technical school and number of applicants from such groups.
- In order to avoid problems confronted in getting basic education due to mother tongue and cultural factor an arrangement will be made to provide primary education in mother tongue in order to provide basic education for all.
- In order to make a positive impact of family planning and maternal health programmes on indigenous people and ethnic groups, special programmes of population education, family planning, and maternal and child care will be implemented by directly targeting to such groups.
- For providing primary health care and health education at the doorsteps of such clientele group, women from this group will be mobilised to work as community health volunteers. For this purpose, appropriate training will be arranged.
- Youths from indigenous people and ethnic group are engaged in employment within the country and abroad. They perform low level of work at low pay due to the lack of appropriate education and minimum technical training. To ameliorate such situation, appropriate education and training programmes will be carried out after identifying the demand of labour market.
- Candidates from indigenous people and ethnic groups will be provided with priority admission in vocational schools and training institutes.
- NGOs specialised in working with targeted people will be mobilised for conducting labour intensive as well as employment oriented training programmes.
- For encouraging such target group for training programme, necessary loan will be made available with the recommendation of district level committee in a way to pay back after getting employment.
- People will be persuaded through mass social awareness programme about the significance of activities oriented to the development of indigenous people and ethnic groups. In addition, skill and knowledge of such groups will be mobilised for conducting programmes in health, environmental protection, etc.

- Special attention will be paid for personality development and empowerment of indigenous people and ethnic groups while conducting educational and health programmes.
- Such programmes will be implemented in a phase-wise manner.
- With a view to bringing ethnic groups and indigenous people in the mainstream of national development, social workers or facilitators of any group, community and region contributing to eliminating social inequality and discrimination will be encouraged through definite programmes.

Other Economic and Social Development Programs:

- Income generating activities will be conducted with seed money provided by the government, and local participation will be ensured for resource mobilisation. Programs specific to particular sector will be launched, such as programmes for promoting traditional skill, art and market management in industry sector; crop diversification, technology transfer and extension programmes on ethnic group settled area in agriculture sector; and rehabilitation and social development of ethnic groups in local development sector. Detail of such programmes will be designed by proposed central council and district level committee. The government will provide necessary policy level and technical assistance.
- Since cultural features are valuable property of Nepal, programmes like the establishment of museum related with indigenous people and ethnic groups for the preservation of their art and culture; informal education in mother tongue and establishment of ethnic group study centre will be carried out.
- Employment as well as income generating opportunities will be created by mobilising indigenous and ethnic group development committee where it has been formed for the implementation of various other poverty alleviation programmes.
- Indigenous people and ethnic groups will be provided with easy loan in order to arrange necessary capital for carrying out different development programmes.
- Since national development requires preservation of cultural diversity and exploitation of traditional skill and ability specific to different community and groups, skill and ability of indigenous and ethnic community and available technology in the local area will be encouraged to mobilise.

Special Arrangement:

It will be made mandatory to VDCs and DDCs to expend certain proportion of grant provided by HMG for the development of indigenous people and ethnic groups.

Monitoring and Evaluation:

Monitoring and evaluation of programmes at grassroot level will be performed primarily by indigenous people and ethnic group themselves. Review and coordination of such programmes being implemented within the district will be undertaken by district level committee in coordination with the Ministry of Local

Development (MLD) and central council. The central council will coordinate and monitor all the programmes being implemented in the Kingdom and will report to MLD. The MLD will assess the amount of investment provided by HMG in terms of effectiveness of coordination, impact of programme and its sustainability. For this purpose, an appropriate system of regular information flow and reporting will be developed.

13.7.2 Downtrodden and Oppressed Community in Development

1. Background

Overall development of a country is meaningful only when all communities residing in it are developed. Such purpose can be achieved only if the knowledge, skill and ability of each group and community are harnessed properly. Discrimination toward some castes and groups was declared illegal by Civil Code 1963 though social efforts against it had been undergoing since the aftermath of Rana regime in 1951. Nevertheless, social discrimination and its problems are prevailing in Nepali society and reminiscences of untouchability can still be seen. Downtrodden people are still the subject of neglect by the higher caste groups and thus, they suffer from poverty. Some programmes were implemented in the past to uplift the socio-economic status of such community; however, the disparity between downtrodden and higher classes could not be narrowed as per the expectation. So, the former class feels that the state has not paid due attention in their protection and development.

It is noteworthy that downtrodden and oppressed people had also a crucial role in restoring the democracy in the country. However, they are not benefited by the fruits of democracy and development as per the expectation. Such situation has occurred for various reasons, like lack of integration in programmes, unsustainable and dissatisfactory programme implementation, failure to affiliate downtrodden group in development mainstream and programmes being directed by the centre rather than being initiated by them. In fact, programmes fail to be participatory. Thus, policies and programmes in the Ninth Plan, will be implemented, keeping in view the lessons learnt from the past, so that programmes will be integrated for downtrodden group and deprived community; such programmes incorporate their participation; and they become equal partner, like other communities, and groups, in the process of national development.

2. Review of the Eighth Plan

In the Eighth Plan, some local development policies and programmes were implemented for the development of backward castes and communities. These programmes were related with social and economic development of backward area, social and economic upliftment of poor sects and backward community inhabiting in rural area and enhancing the base of sustainability through emphasising people's participation. Besides these, others projects and programmes, like social security, scholarship, skill training, self employment in rural area, and social awareness, were implemented. These programmes seemed successful if evaluated individually but collectively failed to change the socio-economic status of targeted people. Some shortcomings and problems can be enlisted as below:

- Neither programme was designed with the concept of decentralisation, nor the appropriate legal framework for the autonomy of decentralised bodies came out, which obviously hindered the upliftment of backward area and downtrodden community. Simply, it was due to the lack of effective institutions.
- Programs targeted to the development of these communities were not formulated and implemented with the participation of beneficiaries.
- Failure to pay due attention in human resource development of such communities and occupation as well as skill whatever they had. Their specialty was not given national recognition, so its modernisation aspect pushed in dark.
- Downtrodden class and deprived community could not feel themselves as an equal partner like others so that collective effort of all in development could not be achieved.
- Absence of separate institutions and procedures for implementing such targeted programmes led to the implementation without proper priority.

3. Long-term Concept

The state will play a primary role in uplifting the socio-economic status of such community by creating a congenial environment to spur their talent, knowledge and skill so that they can be involved in national development like others. Programs will be launched for the purpose of eliminating all social discriminations and disparities and eradicating unemployment and poverty from this community within next 20 years.

Ninth Plan

4. Objective

- To uplift the socio-economic status of downtrodden and oppressed community through eliminating social disparity and superstitious tradition;
- To enhance the economic and social capability of such community by modernising their occupational practices;
- To bring the knowledge, skill and ability of downtrodden and oppressed community in the mainstream of national development through empowering them, economically and socially; and to identify as well as encourage their specialty in a way to contribute to national development;
- To create appropriate social base for just and balanced distribution of national resources; and
- To enrich the overall national culture through eliminating all kinds of social discrimination and preserving their cultural heritage.

5. Policy and Implementation Strategy

- Downtrodden and oppressed community will be made participant by empowering them economically and socially, through decentralisation, local development and human resource development
- Current targeted programmes focusing on such community will be reformed structurally and institutionally to make more effective; and some new special programmes will be initiated.
- Traditional skill and occupation of such communities will be preserved and modernised, and they will also be provided with vocational training to enable them for alternative occupation.
- Institutional credit will be provided to them for forming community capital through social mobilisation and savings.
- It will be made binding to allocate stipulated amount of grant provided by HMG for employment oriented and income-generation programmes like education, health, physical infrastructure and sanitation, for oppressed and downtrodden community.
- Programmes for social services such as education, health, etc. and for physical development, such as drinking water and sanitation, etc, will be carried out in oppressed community settlement area on a priority basis.
- The opportunity for technical education and scholarship for higher study will be provided to downtrodden and oppressed community in an effective manner.
- Appropriate institutional arrangement will be made to enable downtrodden class in actively formulating, implementing, monitoring and evaluating programmes and projects focusing on their well being. The government will provide a grant in a way to mobilise local resources.
- Procedures for programme implementation concerned with this community will be improved and conducted in an integrated manner.

6. Programme

The programmes and their implementation procedures related with the upliftment of down trodden and oppressed community in the Ninth Plan will be as follows:

Institutional Arrangement and Program Implementation Procedure:

- A strong and independent downtrodden and oppressed community council will be established to coordinate at policy level and to supervise programmes targeted to this community. The council will also bear the responsibility of finalising the programmes submitted by district level and establish relationship with different entities of government in central level on policy and managerial issues. The council will be comprised of social workers from different communities, groups and geographical area, and specialist in downtrodden community. Seventy-five

per cent of members of this council will be elected from district level and the tenure of members will be a minimum of 3 years.

- A district-level committee for downtrodden and oppressed community will be formed in 75 districts. Such committees will recommend and approve programmes related with the upliftment of downtrodden community, considering the technical aspect and feasibility
- A separate fund will be established in district level to collect the money received from the Central Council, donor agencies and mobilised through people's participation at the local level. Village development committee and group of downtrodden as well as oppressed people will receive money from this fund in accordance with the decision of the District Level Committee. Such committee will receive technical and specialised services from different government line agencies and non-government organisations in district level. Besides, the committee will also have the responsibility to report central council after reviewing programmes at local level
- The District Level Committee may implement programmes in partnership with non-government organisations.

Human Resource Development Program and Education:

Education

- Due to lack of awareness of education and low level of family income, the downtrodden people have fallen behind in utilising the opportunity for education, within their reach. So, for improving their current status, attempts will be made to ensure the stipend programme more practical for downtrodden people and to raise the awareness level through formal and informal education programmes.
- Candidates from downtrodden and oppressed community will be privileged in getting admission in technical schools. Similarly, the provision of special seats will be made available to candidates from this community in higher education of agriculture, forestry, engineering and medicine disciplines.
- Compulsory primary education and informal education will be made effective by utilising literacy mobiliser, and individual from this community in order to conduct programmes for raising their awareness level.
- A "Higher Education Scholarship Fund" will be established to award scholarships to those students selected from the candidates who continue their study in the discipline like science, management etc. even after passing SLC. The final decision regarding scholarship will be taken by the Central Council with the recommendation of District Level Committee.
- A provision will be made to appoint at least one teacher in secondary school from downtrodden community. The school, which enroll and pass the highest number of students from this community in each district, will be rewarded.

Health and Sanitation

- Basic health services will be provided to downtrodden community by conducting mobile health clinics.
- Special programmes, like population education, family planning and child health, will be conducted by directly targeting to downtrodden community.
- Downtrodden woman volunteer will be utilised to raise awareness in health education, first aid and sanitation service. For this purpose, NGOs will be utilised in training and information dissemination activities.

Training and Capability Enhancement Program

- Traditional occupation of downtrodden people will be modernised through training. Candidates from such community will be privileged in being trainee for the training related with their occupation conducted by district office of Small and Cottage Industry Development Committee. Such committee will also be provided with resources for managing the market of traditional products produced by downtrodden people.
- Candidates from downtrodden and oppressed community will be privileged in admission for technical schools.
- Trained individuals from downtrodden and oppressed community will be provided with special loan by Rural Development Banks to carry out own business. By the end of the Ninth Plan, such priority loan services will be extended to 25 districts.
- Programs to raise social awareness will be conducted by government agencies.
- Study and research will be undertaken to ascertain minimum wage rate against service provided by the individual of this community and the standard will be based on it.

Other Social and Economic Development Programs

- Special employment programmes targeting this community will be conducted to minimise the chance of being unemployed despite training and ability. Those private industries will be exempted from tax in certain per cent, which employ individuals of this group beyond certain number. Similarly, savings and loan programmes to mobilise local resources and incentives to self-employment programmes will be launched.
- The problem of drinking water in the settlement area of downtrodden community in some places is still prevailing due to the feeling of strong disgrace and domination. So, water supply to those areas will be provided with priority under District Water Supply Program to resolve such problem.

Special Provision

It will be made compulsory to expend certain per cent of money provided as grant by HMG to DDC and VDC for the development of downtrodden and oppressed community.

Monitoring and Evaluation

A separate system of monitoring and evaluation will be adopted for the upliftment of downtrodden and oppressed community. Primarily, implementation, monitoring and evaluation of such programmes will be undertaken by user groups. The District Level Committee will report to the Central Council and the Ministry of Local Development (MLD) after performing the regular review of programmes at grassroots. The Central Council will also report to MLD after undertaking review, monitoring, evaluation and coordination of programmes. The monitoring and evaluation for effectiveness as well as sustainability of the grant provided by the government will be done by MLD and also by National Planning Commission, if necessary. For this purpose, an appropriate information system will be established.

7. Conclusion

The downtrodden and oppressed community is the asset of the country, and their occupational ability, knowledge and skill are significant resources for the country. The nation's overall development is possible only if their active participation is ensured. Considering this fact, such community will be mobilised as an active participant in development programmes, which create a mutual understanding, equality, social awareness and ultimately contribute to the poverty alleviation that is the only national goal.

13.7.3 Helpless, Disabled and Senior Citizens

1. Background

Social security and welfare aspect is an integral part of overall national development. A welfare state is meaningful only when this aspect is taken care along with other aspects of development. A state has to bear duty and responsibility of social security to uplift and develop the socio-economic and the overall status of its citizens.

Social security system assures the right of socially, economically, physically and psychologically vulnerable people for normal and dignified life. The state should feel the responsibility of guaranteeing social security to weak, poor and helpless citizens. A state should design appropriate structure and programme of social security within its own economic and social limitation. Based on traditional welfare concepts, the disabled and weaker sections of a society are looked upon as subjects of mercy. In accordance with recent concepts of social rights and security, they deserve not mercy but feelings of right and opportunity that need to be established in the society.

Modern welfare state ought to provide economic and social security in the form of facilities and respect to senior citizens who have already contributed to their credit. Some of the nations have been adopting social security policy from the beginning of this century for the welfare and benefit of their people.

It is imperative to bring helpless, disabled, women, children and old people in the mainstream of development process through providing them with rehabilitation, security and employment opportunity.

The government is moving ahead with some new ideas and programmes in social welfare, though it has been lately started. It is envisaged that the government has to bear more responsibility toward people and society these days. The concern over the welfare and protection of women, children, senior citizens and physically or mentally disabled people has gained momentum due to the inherent intention of people's movement and the Constitution of the Kingdom of Nepal 1991 for special provision toward these people.

Social security seems very significant to the country like Nepal having such social and economic structure; however, due attention has not been paid on it in previous plans. In the Eighth Plan, few welfare activities were carried out concentrating on disabled, children, senior citizens and helpless women. But those activities were confined only in narrow aspect of social security. So far, social security to senior citizens have been in the form of pension to ex-employees, elderly homes to helpless old people and allowance to old people.

Though social security comprises all aspects related with compensating people who are unable to actively earn own livelihood, this topic deals only with helpless, disabled and senior citizens and the remaining aspects of social security have been included in other topics.

2. Review of the Eighth Plan

Although there is no separate policy and programme for social security heading of the Eighth Plan document, the annual programme FY 1995/96 had incorporated some policies like assuring social security to helpless, old and weak citizens for maintaining dignified human life; accepting social security as social investment; and institutionalising it. To implement these policies, some programmes like providing monthly allowance worth Rs 100/- to each individual above 75 and helpless widow above 60, free medical treatment and help to old people were promised but only allowance distribution programme could be made effective in practice.

3. Long-term Concept

The state will protect the rights of old, helpless and disabled citizens by providing essential service and facilities; and their valuable experience, skill, knowledge and capability will be mobilised for national development. The state will guarantee social and economic justice to these people.

Ninth Plan

4. Objective

Senior citizens are assets of the nation because they carry social values, tradition and culture. The state will properly honour and protect senior citizens, helpless widow and disabled citizens together with mainstreaming their capability, experience, knowledge and peculiarities in national development.

5. Objective

The experience of elders will be capitalised for the sake of national development. Elderly homes will be established in all five development regions. All senior citizens, helpless widows and disabled citizens will be ensured with social, and economic security, and their rights will be guaranteed and preserved.

6. Strategy

Social security will be made complementary to social justice and thus, social security programme will be based on the economic and social background.

The experience, skill, knowledge and capability of senior citizens, helpless widows and disabled people will be utilised in policy making, income generating activities and formulating directives for national development.

Necessary laws will be promulgated for guaranteeing the rights and ensuring economic, and social security of senior citizens, helpless widows and disabled people.

Elderly homes and rehabilitation centres will be established and operated for securing the lives of helpless old, widow and disabled people.

7. Policy and Implementation Strategy

As the economic capacity of the state becomes strong, the scope of social security expands as well. Realising this fact, policy and programme during the Ninth Plan will

encompass dependent people within the coverage of social security depending on the economic capability of the state. An arrangement will be made to avoid duality in the distribution of allowance to senior citizens, helpless widows and disabled people.

Senior Citizens:

- With the objective of enabling senior citizens to lead a life with more dignity, family-based security system will be developed, in which family caring for elders will be provided facilities and given priority on public services.
- In the background of growing population, senior citizens, helpless widows and disabled people will be classified in different categories on the basis of economic capability. Degree of vulnerability will be the base for encompassing in allowance recipient group; however, they will be treated equally in other aspects as well.
- All zonal hospitals will have geriatric ward. Senior citizens will be treated in subsidised rate in hospital and health centres. Some efforts will be undertaken to render certain per cent concession in the fee for treatment in private nursing homes and clinics. An arrangement for their treatment will be made by conducting various mobile health services.
- Elderly homes will be established in all regions, keeping in view the welfare of senior citizens. NGOs and private sector will be encouraged for this purpose. Income generating activities based on the capacity, skill, knowledge and desire of citizens will be carried on.
- The experience of senior citizens will be utilised in different aspects of nation-building.
- Senior citizens will be given concession also in entertainment and public vehicles.
- Senior citizens will be categorised in two classes; people falling between 70 to 75 years age group will be taken for participation, and people above 75 years age group will be provided security.

Helpless Widow:

- Helpless widows will be involved in income generating activities conducted by the state or NGOs or other groups, and their economic capability will be used criteria for prioritising widows of poorer families.
- Shelter for the helpless widow will be established.

Disabled People:

- Legal reforms will be undertaken to ensure welfare and dignified life of disabled people.
- Programmes like antenatal care, nutritious feeding in childhood and ensuring effective traffic rules will be undertaken to prevent being disabled in childhood.

- In order to conduct effective preventive and protective measures for disabled people, public awareness will be enhanced through various media of communication.
- Disabled people will be provided free education from pre-primary to bachelor level, and disability specific vocational education will be developed.
- The data related with different types of disability will be updated.
- Free treatment to handicapped people will be provided in health centres and hospitals if it is felt essential.
- For physical, intellectual and psychological development of handicapped people, some programmes of sports, entertainment and other activities will be started.
- Priority will be given to rehabilitation in the family. Community shelter will be provided if it is felt essential.
- Necessary works will be carried out for disabled people for creating employment opportunities in government and NGO agencies. Besides, NGOs will be mobilised for rehabilitation and other activities focusing on disabled people.

Keeping in view the provision stated in the declaration endorsed at various national and international conferences for the welfare, security and protection of helpless widows and disabled people, following programmes are approved in the Ninth Plan.

8. Programme

Following programmes will be implemented in this Plan for providing service and facilities and protecting and preserving rights to senior citizens, helpless widows and disabled people.

Senior Citizens:

- VDCs and municipalities will maintain records of senior citizens by updating two times a year.
- Senior citizens will be granted monthly allowance and facilities based on updated record of citizenship and voter's identity card.
- Geriatric ward will be established in central and regional hospitals in order to provide regular health check up and treatment at subsidised rate to senior citizens.
- One elderly home will be established in each development region and such home will have the provision of entertainment, library and religious speeches deliverance. Similarly, senior citizens club will be established in village and small locality. Local bodies, NGOs and private sector will be encouraged to perform above activities.
- Reservations of seats as well as concession in ticket will be provided to senior citizens in public transport.
- Ability and experience of senior citizens will be utilized for following purposes:

- local level policy making,
- playing the role of motivator in social and economic activities,
- sharing the experience with school students,
- participating in local level committees.

Helpless Widows:

- Welfare centres for helpless and disabled people will be established.
- By the second year of the Ninth Plan period, the data of all handicapped people in the country will be collected and classified by the nature of disability. They will be given the certificate mentioning the type of disability. Authentic data of helpless widow and disabled people will be maintained in each VDC, municipality, sub-metropolis, metropolis entities, DDCs and the Ministry for Social Welfare.
- Allowance for helpless widows and disabled people will be distributed through simple procedure at the local level. Allowance to disabled people will exclude regular employee, income earner, people living in rehabilitation centre and recipient of scholarship and other facilities.
- Arrangement will be made for granting free education up to bachelor level to retarded, deaf and blind people as well as hostel facility to them will be arranged in each development region.
- Such group will be provided free vocational training.
- Textbooks will be developed in Braille script and distributed to blinds.
- Special programmes targeting to such people will be broadcast through various communication media, particularly radio and television.
- Specific treatment centres for disabled people will be established to serve them at subsidised rate.
- Industries, which produce accessories like artificial limb, wheel chair, crutches, and hearing aid for disabled people, will be encouraged to establish and an arrangement will be made to distribute much materials at subsidised rate.
- Income generating activities will be conducted in the community of those disabled people who are able to work. Such activities will be implemented mainly by the government, and other sectors will be encouraged as well.
- The employer who employs handicapped people will be provided with special facilities if it is felt essential.
- Laws and regulations relating to disabled people will be timely amended and effectively implemented.

Institutional Arrangement for Program Implementation:

The efficiency of service providing entities conditions goal attainment, to a great extent; however, due to the use of traditional technology and impractical efforts for getting successful implementation of above programmes, the participation of following entities together with the government seems desirable in the manner as follows:

- Assigning the job of identifying senior citizens, helpless widows and disabled people to local bodies (VDCs and Municipalities) and then classifying them on the basis of economic capability.
- Distributing allowance, service and goods to senior citizens, helpless widows and disabled people through local bodies; entrusting gradually specialised non-governmental organisations with the distribution of above facilities using of voucher card; and conducting the monitoring, and evaluating of efficiency and effectiveness of distribution activity through local body.

Chapter 14

Women and Youth Development

14.1 Women and Gender Equality

1. Background

In this competitive age on the eve of the twenty first century Nepalese women are still found suppressed, exploited, neglected and forced to live insecure life because of illiteracy, ill health, poverty, orthodox traditions and discriminatory legal system. Since, women constitute 9.2 million or 50.13 percent of the total population of 18.5 million; multi-dimensional development of Nepalese women contributes to the overall development of the country. Taking into consideration these facts, women in development has been accepted since the Sixth Plan as a national policy and several sectoral women development programmes were implemented and institutional development efforts were carried out. However, the progress in gender equality is not to the mark.

2. Review of the Eighth Plan

In the Eighth Plan, several women development policies were adopted to involve women in the national development mainstream in order to ensure their participation in every sector of development, improve their social, economic, educational, political and legal status, increase their capacity by imparting appropriate knowledge and skill for the employment generation, and create appropriate environment and infrastructure for more opportunities in decision-making from local to national level. On the basis of the concept of one woman teacher in each primary school, a total of 4150 women teachers were hired, and programmes were launched such as free education for females, scholarship for 158948 primary, 37075 secondary and 1231 campus level female students and non-formal education for females (daughters and sisters, *Chelibeti*) not attending the schools. To improve health condition of women and reduce maternal mortality rate, safe motherhood programmes were launched in 10 districts. Similarly, Maternal and Child Health Workers, Female Health Volunteers, and Traditional Birth Attendants training programmes were implemented for mobilising women in the local health delivery system. Recognising the fact that 42 percent share of decision making and 57 percent share of work were performed by women in agricultural works, establishment of Women Farmers' Division in the Ministry of Agriculture, formation of women farmer's group and several training and study programmes were launched during the plan period.

Women-targeted training and income-generating programmes were also launched in forestry, industrial and local development programmes. To increase access of rural women to economic resources, Production Credit for Rural Women Programme were carried out in 621 VDCs and 10 municipalities of 67 districts. Micro Credit for Women Programme is launched with the help of NGOs (NGOs) in 10 districts. Similarly, Small Farmers Women Development programme has also been expanded. To increase women's participation in politics, provision has been made as to the

added inclusion of women candidates in the Ward level elections resulting in the total strength of women ward members reaching 36,000 in number.

According to the commitment shown at the International Women's Conference held in Beijing in 1995, a Gender Equality and Women Empowerment National Work Plan 1997 incorporating several aspects has been formulated. Control and rehabilitation works as regards girl trafficking and domestic violence against women, income-generating education, and several health-related programmes were carried out at the rural level by 572 NGOs involved in women's development. The Ministry of Women and Social Welfare (MWSW) has been established for the institutional development of the women's development sector.

3. Existing Challenges

Past efforts in women development resulted in institution building and extension of sectoral programmes. However, due to the lack of monitoring and evaluation system, an accurate account of the women beneficiaries could not be made. Taking as a whole, socio-economic status of Nepalese women is still lagging behind. According to the statistics of the Central Personnel Record Office, women number at about 5,000 only out of 80,000 total employees. Because of legal and social reasons women were denied access to property, employment, income and other economic resources. Because of low educational level and other social reasons, women are still denied access to political and administrative decision-making. At present, maternal mortality ratio for 10,000 live birth remains 53.9, fertility rate 4.6, average life expectancy 53.4 years (male 55.9) and, out of the average literacy rate of 48 percent, female literacy is only 30 percent (against the male literacy of 66 percent).

Because of economic and social inequality between men and women, women's participation in development activities is not encouraging. Nepal is committed to international declarations for women's development such as the First World Women's Conference held in Nairobi in 1975, Long-term Work Plan 1985, Beijing Declaration 1995. The Constitution of the Kingdom of Nepal, 1990 enunciates women's equality before law and has a provision for special treatment for their socio-economic development. Considering these facts, long-term women development concepts and the Ninth Plan's objectives, policies and programmes are formulated in the following framework.

4. Long-term Concept

Creation of a developed society on the basis of women's empowerment and gender equality through mainstreaming women's participation in each and every aspect of national development is the long-term concept of women's development.

The Ninth Plan

5. Objective

The Ninth Plan has made women as the target for achieving its overall aim of poverty alleviation and human resources development. In this light, following objectives have been incorporated in the Plan.

- To involve women actively in different sectors of development for building egalitarian democratic society.
- To increase access of women to political, economic and social sectors, and reforms in legal provisions so as to ensure women's rights for making that access more effective.

6. Policy and Implementation Strategy

Involvement of Women in the National Development Mainstream

- National and sectoral development policies, goals and programmes will be ascertained to involve women in the mainstream of national development.
- Contribution of women to household labour will be evaluated scientifically and substantially by reviewing the national accounting system.
- For the effective coordination and implementation of women development activities, existing institutional structure will be strengthened, expanded and developed. Similarly, effective coordination will be established among all agencies, organisations and local bodies working in the field of women's development.
- For measuring women's participation in development, appropriate gender desegregated indicators will be reformulated and modified and monitoring and evaluation measures will be carried out effectively.

Elimination of Gender Inequality

- Review of laws and regulations which discriminate between men and women and which are obstructive to ensuring equal rights for women will be carried out to make egalitarian laws.
- Existing economic, social and other forms of discrimination will be gradually reduced with the adoption of positive policies and programmes, which give special priority for women for gender equality and rights.
- In view of the national policies relating to the elimination of gender inequality, governmental and non-governmental organisations as well as local bodies will be mobilised with coordination and integration to control all kinds of crimes and violence against women through preventive, rehabilitative and other kinds of measures. Subsequently, women's human rights will be protected.
- From policy to implementation level, publicity and promotion education and training will be institutionalised for generating gender awareness.

Women's Empowerment

- To increase women's share in the decision-making process of national development policy and programmes from local to national level, policy of adopting special legal system in accordance with the constitution will be applied into practice.

- Considering the contribution made by women to the agricultural sector, agri-technical training, market management, land and agricultural income generating activities in accordance with APP will be implemented to safeguard women's rights and, special arrangement will be made to establish women's rights and mobilise women labour force.
- Women health service based on healthy life cycle will be developed for the protection of women's living rights. In this context, under the purview of the preventive and curative services, qualitative expansion will be made of such services as regards the protection of foetuses and pregnant women, reproductive health and elderly women's health provisions; and an arrangement will be made to increase women's access to these services and facilities.
- With a view to increasing women's access to formal and non-formal education for bringing about improvement in the educational standard of themselves, policies and programmes such as women scholarship, women teachers special facilities in technical education, etc., will be given continuity while placing emphasis on extension, access and encouragement as regards to such programmes.
- In order to enable women to utilize employment opportunities in such sectors as industries, tourism, forestry, transport and water resources, programme has been formulated to enhance women's capabilities including training and access to subsidised credit facility.
- Extension of agriculture and other appropriate technologies for reducing the workload of women and increasing productivity will be made and women's access to such technologies will be ascertained.

7. Programme

Considering the Beijing Declaration 1995, a Gender Equity and Women's Empowerment National Work Plan 1997 has been formulated encompassing 12 sectors that need to be paid serious attention on women and poverty, education, health, violence, armed insurgency, economy, policy making, institutional structure, human rights, environment and children. Following programmes will be implemented for women's development in accordance with the Ninth Plan policies based on the National Work Plan.

- Programmes related with scholarship, hostel accommodation, female teacher and other incentives will be extended. Encouragement programme will be launched to increase female literacy rate from 25 percent to 67 percent, women teachers to 50 percent and women participants in skillful vocational training to 50 percent.
- To enhance women's health status, health service development based on reproductive health cycle will be emphasised. For this, legal arrangements will be made for the protection of foetuses and pregnant mothers and for safe motherhood and elderly women's health programmes will be implemented. With the help of the trained manpower a household to hospital referral system for providing pre-natal, natal and post-natal services will be established. Family planning programme will be expanded significantly to control population. For

securing birth control, special emphasis will be given to increasing the availability of permanent and temporary means of family planning and also to large-scale publicity campaign and targeted population education.

- To increase the productivity of women farmers, necessary programmes for ensuring women's access to production technology, materials, production credit training, market facility, etc., in an easy and simple manner will be implemented. Recognising the lead role of women in animal husbandry, programmes related to credit, animal insurance, animal health training, animal product-based industries will be conducted so as to secure women's direct participation in livestock developing programme. To provide women with equal rights as regards land ownership and utilisation, protection of land tenancy necessary amendments in Acts and regulations will be made and publicity and proportional programme will be carried out.
- To increase women's participation in economic sectors like industry, tourism, forestry, transportation, etc., programmes relating to entrepreneurship management training, concessional credits, employment system will be conducted. Likewise, for the women involved in such system, promotional incentives and honorary certificate programmes will also be conducted.
- To increase self-employment through increasing women's access to economic resources and subsequently assist in the overall poverty alleviation programme, production credit and small farmers development programme will be gradually expanded and institutionalised on a district-wise basis. Similarly, micro credit programmes carried out through mobilising NGOs, rural banks and private banks will be carried out by incorporating them in to the women credit programmes.
- Egalitarian rules and regulations will be formulated and family court will be established in this process, list will be made of the rules and regulations regarded as obstacles for granting equal rights to women; and programme related to the preparation of review reports, seminars, interactions and legal education will be launched.
- Programme to reduce economic and social disparities existing between men and women will be implemented targeting women. In this context, in the development projects, appropriate legal provisions will be made and programmes will be implemented in areas such as political and administrative policy decisions and local level employment opportunities. For this, Public Service Commission, Ministry of General Administration and other sectoral ministries will be mobilised.
- To control all types of violence and crimes against women, programmes will be implemented encompassing such areas as identification of crimes, necessary punishment system, remedy and rehabilitation system and raising social consciousness. For this NGOs will be mobilised with the necessary incentives.
- Provision will be made for incorporating the statistical details on women into the population census and for evaluating women's development programme through

developing indicators for the national accounting system concerning the status of and contribution made by women in nations development programme

- To reduce the burden and time spent in works of women and to utilise the surplus time thus saved appropriate machines useful for household and agricultural works will be marketed and publicised.
- To raise consciousness about gender equality at political, administrative and local levels, training, seminars and publicity and promotional programmes will be carried out under sectoral programmes in an integrated way.
- To increase effectiveness in formulating and implementing women development programmes, institutional capacity of concerned agencies will be enhanced through expansion of their sections and divisions, and provision of gender training programmes. In this context, Ministry of Women and Social Welfare will be made capable and effective and developed as the focal point for women development.
- Several sectoral programmes related with women development will be conducted through the concerned agencies. Special arrangement will be made at the central level for the effective participation of women in various socio-economic activities implemented by the government and the impact of such activities on women.

14.2 Youth and Sports

14.2.1 Youth Mobilisation

1. Background

Youths play a lead role in nation building. Youth's spirit, diligence, enthusiasm and creativeness are comparable to none. In the Nepalese context, youths of 15 to 29 years age group occupy about 27 percent of the country's total population. Qualitatively and quantitatively, this is the most important segment of the nations' population. But most of the youths lack experience and self-confidence and are not properly oriented to the national realities. For securing a nation's development, national priorities, resources and means should all be channelised for the development, progress and mobilisation of youth. But this huge portion of population is not being mobilised effectively in social development, community progress, rural development and, on the whole nation's socio-economic development.

Youths have their own specialties, aspirations, problems and needs. They should be treated as a most important of the population. But efforts towards resolving their problems, fulfilling their needs and utilising their potentialities and specialties have not been satisfactory.

2. Review of the Eighth Plan

In the first three years of the Plan, youth-related programmes were implemented through the Ministry of Education and Culture. During the plan period October 1995 (on Ashwin 6, 2052 BS) Ministry of Youth, Sports and Culture was established. Thereafter in the last two years of the Plan, some programmes were implemented through this Ministry.

3. Existing Challenges

Problems of youth development are mostly related to education, culture, employment, health, sports, crimes and addiction to undesirable acts such as drug abuse.

- Most of the youths are still denied of educational opportunities. There are several problems found among the literate and educated youth mass. There are great numbers of youths who are literate or educated nominally but whose education has not been of any utility to their life. School dropout rate is also very high. As the level of education increases enrollment in the higher education decreases. Educational quality is comparatively low. Besides, ever-growing number of students who fail in their academic exams has also created another great problem.
- Because of the lack of education and unemployment, criminal attitude and abuse are on the rise among the youths.
- The effects of external culture developed and expanded through mass media are also mostly concentrated in the youths. In the course of losing own national

culture and values and imitating foreign culture recklessly, youths have fallen prey to confusion and directionlessness.

- The impact of insufficient basic health facilities has also naturally fallen on the youths. Though there are some youth related health problems which demand special and urgent attentions. Youths are vulnerable to such problems as AIDS, venereal diseases, smoking, alcoholism and drug abuse.
- Taking into consideration the fact that a huge number of young Nepali women are involved in prostitution and similar number of youths are going abroad each year for employment, possibility of AIDS epidemic is ever increasing. Considering these facts, WHO predicted 100,000 HIV positive cases by the year 2000. It is certain that youths will occupy the greatest share of AIDS-positive cases.

4. Long-term Concept

- To create a situation where Nepali youths could enjoy a life full of self-respect and dignity as a citizen of an independent country.
- To inculcate a culture of respect for democracy, human rights, discipline and hard work among youths.
- To provide youths with the opportunities for gaining knowledge and experience on geographic, social, economic, cultural and traditional realities of the country.
- To check youth brain drain by providing employment-oriented education.
- To provide youths with the opportunities for involving them in socio-economic change and nation-building exercise by letting them earn a direct experience about nation's situation while obtaining formal education.
- To utilise youths in sports development and cultural conservation by mobilising them as educated, conscious, disciplined, creative and productive manpower.
- To provide existing and coming generations of youth with education, health, social development and production opportunities. To provide youths with opportunities to acquaint themselves with the prospects and obstacles with regard to national development and too mobilise them in activities that unfold human creativity and integrate culture with economic opportunities while going full attention to its preservation.
- To create opportunities in the mainstream of national development and to mobilise youth manpower through their participation and recognizing them as a change agents for the socio-economic development of the country.
- To provide opportunities for experiencing rural and community level development activities. To ensure continuous participation of all the students of university level by providing them with this process.
- To organise youth camps in rural areas of each electoral constituency with the involvement of NGOs.

- To eliminate educational unemployment by creating employment and self-employment opportunities for the educated youths by providing them skill-oriented training.

Ninth Plan

5. Objective

Considering the lead role youths play in nation building, the Ninth Plan's objectives will be to streamline youth to their fullest extent in the national mainstream by means of mobilising them in the socio-economic development of the nation. Other objectives will be as follows.

- Youth manpower will be utilised to its fullest extent in the productive sector.
- Youths will be enabled to act as able citizens by inculcating national responsibility among them.
- Youths will be developed as change agents for the coming 21st century and they will be made capable of confronting the existing challenges like poverty, illiteracy, backwardness and superstitions.

6. Target

1. Youth mobilisation in rural / community development	20,000 Youths
2. Rehabilitation members	1,000
3. Participation of youth volunteers numbers	5,000
4. Establishment of rural community development centres numbers	75
5. Youth personality development Youths	20,000
6. Youth self-employment youths	10,000

7. Policy and Implementation Strategy

- Necessary coordination will be established for the involvement of youth in the youth development programme and sectoral programmes such as population, environment, tourism, education, health, sports, tribal development, local development and women development.
- In order to systematise and promote youth employment-related activities, employment-oriented vocational education and training programmes will be conducted by coordinating the employment-oriented institutions of the government.
- Appropriate environment will be created to make youths conscious and active with regard to democracy, human rights, culture, traditions, society and national responsibility.
- Policy of utilising youths skill to their fullest extent will be adopted for bringing in the dynamism into development.

- Policy of utilising youth as a change agent in rural and community development will be adopted.
- Youths of rural and urban areas will be encouraged to involve themselves in innovative and creative works. Similarly, they will also be involved in local-level programmes for socio-economic development.
- Cooperation from international governmental and non-governmental organisations will be mobilised for the development of youth.
- To build personality and enhance capacity of those youths with several skills and talents in literature, culture, arts, music, acting and sports necessary training opportunities, reasonable incentives and scholarship programmes will be brought forth.
- Mass media will be mobilised for the publicity as well as information and communication for highlighting the positive role of youths for guiding them in desired right direction.
- Youth exchange programmes with various friendly countries will be arranged for sharing knowledge and experience on the practical aspects of the development.
- Youth awakening and orientation programme will be conducted to develop good character and morality among youths thereby preventing them from falling in criminal acts and abuses.
- National Youth Day will be observed with a view to highlighting the contributions of youth force. National and regional level youth festivals will also be organised.
- At the craftsman level, youth exchange programme will be conducted and exhibitions will be organised to facilitate the practical craft demonstration.
- Several programmes related to youth health will be conducted and advertisement programmes will be launched to distract youth from crime and abuse.
- National Youth Council will be constituted to develop youth personality in different sectors.
- To facilitate research and study on and about Nepal to be carried out by the national and international researchers, Encyclopaedia of Nepal will be published through Royal Nepal Academy.
- Educated youths will be mobilised to expand programmes such as education, health, population, environment and community development and to increase consciousness at the community level. Opportunities will be provided to the youths to conduct study and research on the socio-economic situation of the country.
- Youths will be mobilised towards the programme focusing on the elimination of illiteracy and expansion of education.

- Youth Employment Information Centre will be established to disseminate information among youths about the employment, self-employment and foreign employment opportunities and also the training necessary as per the needs and demands of such opportunities. This centre will also serve as a centre for employment demand-oriented training programmes.
- To conduct self-employment programmes for rural and educated unemployed, concessional credits and loans will be made available on the basis of project proposals.
- For the publicity and dissemination of information on environmental protection, community development, tribal development, literacy, population control, family planning, safe motherhood, nutrition and basic health services, programmes of youth mobilisation and orientation will be launched.
- Youth will be involved in the campaign of anti-AIDS, anti-smoking, anti-alcoholism and anti-drug abuse publicity and communication programme.
- Rehabilitation programme for the drug addicts will be devised and carried out.
- A high level organisation will be established to advise government on the matters related with national youth policy and programmes to mobilise youth in the programmes conducted by different agencies and to coordinate their activities for more youth participation.
- A central network of NGOs concerned with youth-related activities will be set up to establish coordination and inter-relationship between non-government and governmental youth organisations.
- Participation of youth in the youth festivals as volunteers will be increased both at the national and international level.

8. Programme

Youth Personality Development

- Programmes such as training, seminars, workshops, travel, etc.
- Programmes of exchanging practical knowledge and experience.
- Programme providing opportunities for demonstrating one's own talent and encouraging such talents.
- Programme opportunities providing for research and study.
- Youth talent development programme focussing on several skills, arts, sports and other creative sectors.
- Special programmes for developing the personality women and youth.

Youth Mobilisation in Rural and Community Development

- Youths who are currently studying at the universities or have already graduated and post-graduated will be involved in the rural and community development

programmes to provide them with field experience. This involvement will assist in covering such areas as developmental activities environment, population, health, sports, culture and tribal, women and youth development.

- Youths will be mobilised as socio-economic change agents among indigenous tribes and marginalised section of population in the backward regions.
- Youth at the local rural level will be motivated to be involved in the community and rural development programme around their neighbours and villages.

Youth Awakening and Orientation Programme

- Youth festivals, camps and gatherings will be organised for awakening and orienting youths about national values and norms, democracy, human rights, cultures, national problems, existing challenges and the role of youths themselves.
- Publicity and promotional programme focussing on raising awareness among youths will be launched

Rehabilitation Programmes

- Coordinated and cooperational programmes for the propagation and control against AIDS, venereal disease and drug abuse.
- Identification, treatment and rehabilitation programme for AIDS and drug abusers.
- Coordinated programmes aimed at preventing and controlling women trafficking and flesh trade involving all concerned agencies fighting against such practices.

Youth Volunteer Development and Exchange

Training and exchange of male and female youth volunteers at the national and local levels, exchange of volunteers at the international level for rendering cooperation and contribution to the development works on the basis of demonstrated capabilities and experiences.

Institutional strengthening

- Constitution of the National Youth Council
- Constitution the District Youth Mobilisation Committee
- Establishing relations and cooperation with NGOs and clubs concerned with youth activities, e.g. Jaycees, Rotary, Leo, Lions, Scouts etc.
- Establishment of Rural Community Development Centres.

14.2.2 Sports

1. Background

Sports are not only important human activities but also means of building healthy and active workforce in the nation. In order to build healthy, capable, and disciplined manpower, sports should be treated as a strong basis for the overall national development. Sports should also be treated as a means of enhancing national prestige through the success at international competitions. Institutional efforts for the development of sports have spanned four decades but the success as desired is far beyond the reach. Sports sector has not been developed in the context of overall national developmental perspective, and it is limited only to entertainment for the ordinary citizens. Hence, there is a need for making sports development efforts effective, useful and a matter of bringing in national prestige and pride. Likewise there is a need for expanding the facilities of sports for talents development all over the country and also for making this sector resourceful.

2. Review of the Eighth Plan

During the Eighth Plan period, various efforts have been made for the development of sports. In this context, activities including training, competition, international participation and construction and maintenance of sports infrastructure were implemented, which contributed to the development of the sports sector. More than 20 national, regional and district level competitions were held, and about 700,000 players were trained during the plan period. As regards international competition, Nepal participated in the Olympic, Asian and south Asian games and bagged gold, silver and bronze medals totaling more than 100. Similarly, with regard to construction sector some new infrastructures were set up and maintained. During the same period, government established Ministry of Youth, Sports and Culture with the aim of sustainable institutional development of the sports sector.

3. Existing Challenges

- Because of frustration, lack of high morale and capabilities among the players, no significant success has been achieved in the international sports.
- Due to the lack of appropriate training, recognition and career development opportunities for players Nepali sport sector is lagging behind in the international arena.
- Lack of committed and reliable financial resources resulted in ineffective sports development programmes.
- There are no appropriate physical facilities for national and international level sports. From the limited infrastructures available in the kingdom, the sports sector is not able to achieve significant output.
- Existing institutional arrangement is not effective for sports development.

- Sports have not been developed as a means of career development and professionalism.
- Sports programmes conducted without considering the talent and potentialities resulted in poor achievement.

4. Long-term Concept

- To establish sports as a part of education in all schools.
- To develop sports not only as a means of entertainment but also as inseparable activities in life.
- To develop sports as a profession.
- To establish Nepal in the third position within SAARC region and fifteenth position among Asian countries in the sports sector.

Ninth Plan

5. Objective

- To develop and expand sports as a means of building able, strong and disciplined manpower.
- To enhance national prestige by the preparation and securing success at the international sports events by developing qualities sports persons.
- To initiate sports development activities right from the school level.
- Increase in women's participation in sports.
- To enhance skilled sports manpower both qualitatively and quantitatively and emphasise career development and professionalism in sports.
- To contribute economically to national development by promoting sports tourism.

6. Target

Trained players	1.5 million
Construction of sports complex	6 (numbers)
Sports training academy	1 (number)

As most of the players are youths, great achievement can be achieved in the sports sector by youths. In the twenty-first century, the sports sector can contribute significantly in enhancing and increasing national prestige and glory if the sufficient infrastructures are set up and training opportunities were provided.

7. Policy and Implementation Strategy

- Sports development policy will be adopted along with efforts to develop sports at national, regional district, and constituency levels and also spread it from village to village with a slogan of Sports from villages to towns and cities.

- A policy of identification and classification of popular, potential and talent sports will be adopted by giving priority to their development and making sports a professional activity.
- Training, competition, and sports management will be modernised and made scientific. Policy will be adopted to increase the participation of youths.
- A policy of rewarding, honouring and securing the future of the excellent players, instructors and those involved in instruction will be adopted to enhance national prestige.
- A policy of capacity development for organising international level sports will be taken up.
- A policy of involving organisations, institutions, private and business sectors in the sports development and extension and providing reasonable incentives for the sponsors will be adopted.
- A policy of systematic and proportionate strengthening of sports activities at central, regional and district levels by improving existing institutional structures will be adopted.
- To develop sports as a means of entertainment and as an inseparable part of life, sports units in all 75 districts will be made active and effective. Instruction and competition-related programmes will be launched on a district-wise basis. Sports activities will be developed and extended from urban to rural areas by supplying sports goods.
- Talented players who could reach excellence will be identified and sports activities will be promoted by district and regional sports units.
- Arrangement for sports teacher will be made for all secondary schools in the Kingdom, together with making schools as a basis for sports development. All round development of students will be facilitated by involving them in training, competition and international and national sport events.
- Able and skilled manpower will be produced by increasing the standard and number of instructors in the sports sector. Qualitative development of sports will be emphasised to increase efficiency. National and international training, study and research facilities will be provided. In this context, a Sports Instruction Academy with full-fledged facilities will be established. Similarly, a high-altitude training centre will be established which will be developed later into a national and international training centre by mustering resources from various sources.
- A separate and additional women sports development programme to increase involvement of women in sports will be launched. Similarly, number of the women in sports leadership will be increased.
- Insurance, employment and several additional incentives and facilities will be provided to players, instructors and those involved in the sports. Their future will

be made secured and they will be motivated by providing additional necessary incentives and facilities.

- Different governmental and non-governmental organisations and business houses will be encouraged to invest in sports. Necessary policy measures will be adopted for the career development of players. Efforts will be directed towards making sports as a means of career development and professionalism.
- Emphasis will be given to the development of sports tourism. Grounds for the tourism sports like ski, ballooning, golf, rafting, etc., will be developed on the basis of feasibility. Similarly, cricket will be developed as a south Asian tourism sport by providing necessary physical facilities.
- VDCs, DDCs and municipalities will be encouraged to allocate a few percentages of their resources in the development of sports.
- Sports management will be made timely, efficient and effective by providing opportunities for training, instruction and higher education.
- Necessary amendments will be made in laws and rules to make National Sports Council capable and effective and efficient in the present changing context.
- Organisations and associations related with sports and recognised internationally will be made able by providing assistance and encouragement.
- An appropriate system will be established to gather the sufficient resources and means for the development and promotion of sports.
- Necessary arrangement of land for sports activities will be made from the public land at villages and urban areas, district centre, and wards of municipalities.

8. Programme

- Large-scale sports development programmes, instructions and competitions will be organised as a preparation for the national and international competition by activating District Sports Development Committees at the district and concerned associations at the centre.
- Provision of teachers and arrangements for training as well as nationwide school level competitions will be made for the phase-wise arrangement of sports education in the secondary schools nationwide.
- In order to produce high level sports instructors, programmes such as training in internationally recognised sports academy, seminars, workshops, etc. will be conducted with the participation of players.
- In order to develop physical infrastructure additional sports complex with all the sports facilities will be constructed in Kathmandu. Likewise, 5 regional sports complexes at the regional level and 75 sports grounds in all 75 districts will also be built.
- Women's sports competitions will be increased and additional competitions will be organised.

- To encourage players, honors and additional rewards will be established. For the players' employment, coordination will be established with various, governmental and non-governmental organisations and business houses. Any national player who takes sports as a profession will be provided with pension. Non-governmental sector will also be mobilised in the sports development.
- Sports like Rafting, Golf, Ski, Ballooning, Ski-diving, etc., which attract tourists will be identified and tasks such as feasibility study and infrastructure building will be carried out. Similarly, necessary physical facilities will be provided for the development of cricket.
- Nepali players will be encouraged to participate in the international competition and regional and international sports competition will be organised within the country. National and international communication media will be utilised in the sports, and income generation works will be carried out by involving them in sponsorship and advertisement.

Chapter 15

Good Governance and the Management of Development

15.1 Good Governance and Development Administration

1. Background

Administrative machinery has to take the responsibility for the timely completion of the nation's development and construction works in addition to manage easy availability of services and facilities which are to be provided to the people by the state. To fulfill such a serious responsibility, administrative machinery needs to be capable, impartial, productive, economical, lean, people-oriented and accountable. The principle of good governance is also based on this concept. There is no dispute that for the planned development, the administrative system needs to be enriched with the qualities of good governance in addition to be more dynamic. Taking into consideration the above fact, various efforts have been made in Nepal to make administration people-oriented, service-oriented and committed towards development by reforming the traditional style of administration. After the introduction of democracy, with a view to reforming administration, suggestions and recommendations have been put forward by various committees and commissions in 1952, 1956, 1968, 1975 and 1991; and on behalf of the state, commitments have been made time and again for their gradual implementation. In accordance with the principle of the decentralised governance, and in addition to the expansion of administrative organisations from centre to region, zone and up to the district level, efforts have been made to make administrative machinery capable and speedy performing by delegating the authority. However, Nepalese administration, apart from being burdensome and expensive, has not become transparent, prompt and people-oriented. Despite the efforts, Nepalese administration, in true sense, has not become the strong instrument for providing the outcome of development to the people's level.

2. Review of the Eighth Plan

During the Eighth Plan, efforts have been made for the gradual implementation of the recommendations of the Administrative Reform Commission, 2048 by adopting the policy of making administration capable and strengthened in compliance with the principle of democratic governance. In this regard, formulation of new Civil Service Act and Rules and specifying functions, duties and rights of the employees, preparation of job description of most of the positions have been completed. Arrangement has been made to some extent, to increase career development opportunities, forming various groups and sub-groups within technical and administrative service with a view to developing expertise under civil service. Besides, reformative actions such as to consider performance as a major factor in promotion system of civil servants, to provide legal protection to the service of employees have been made. Efforts have been made to tie-up public administration with the pace of rapid development by delegating fiscal and other authorities in order to ease the operation of development projects. Likewise, to make evaluation system

effective, Central Monitoring and Evaluation Division (CMED) has been established as a central agency in the National Planning Commission Secretariat (NPCS) for undertaking monitoring and evaluation of these projects.

Steps have been taken to gradually privatise the public enterprises that are associated with developmental activities with a view to providing the benefits of development to the people in a competitive, prompt and economical manner by facilitating development activities. In this course, initiation has been taken to implement the policy of encouraging private sector and NGOs and reducing government involvement in development-oriented public enterprises. Private sectors and NGOs have been gradually encouraged in the development-oriented sectors of public concern like communication, electricity, irrigation, drinking water and education.

To activate Nepalese public administration as a thinker and facilitator of development activities, it is because of the necessity to solve its practical problems, it has become imperative to focus towards identifying and reducing such problems and accordingly formulate policy of the Ninth Plan. In this context, some important problems that have been seen as challenges are mentioned below.

- Because of the existence of traditional nature of Nepalese society and practice of unduly influencing the administration, efforts made from social and political sectors have not been adequate to make administration neutral and impartial.
- Provision of sufficient salary to maintain at least daily living expenses has not been made for the employees responsible for the operation of public administration. Because of the poor condition regarding facilities and means compared to neighboring countries, our bureaucracy has not been effectively involved in development activities. Those who are able, capable and honest, have little attraction towards public administration (in which development administration is also included).
- By virtue of not yet decreased the centre-oriented tendency of involvement of government in most of the sectors of development, central administration has been unnecessarily involved mainly in minor implementation aspects rather than performing the central role of formulating major policies and supervising and monitoring of their implementation. It has not yet been possible to make the structure of the government administrative organisations lean and effective.
- Culture and democratic environment have not been created where the civil servants who are associated with public administration and development administration in particular can present themselves as the servants instead of the ruler of the people.
- Management information system, which is taken as an important aspect of modern management, has not been incorporated in the administrative machinery of the country. Arbitrary decision process exists due to absence of systematic and regular flow of information.

- Considering the above mentioned and other challenging problems of the similar nature, following objectives, policies and strategies related to the development administration are adopted in the Ninth Plan.

Ninth Plan

3. Objective

- To make the public management clean, lean, transparent, economical, competitive, job-oriented, capable, productive, service-oriented and accountable.
- To make public resource management proper and effective.
- To encourage the concept of legitimate system of governance and civil society.

4. Policy and Implementation Strategy

- Institutional arrangement will be made to coordinate development works implemented by various ministries.
- In addition to institutionalise the regular monitoring and evaluation system of development programmes and projects, the technical management aspect of the project will be reformed.
- With a view to providing continuity by institutionalising the administrative reform process and making the process effective, a permanent Administrative Reform Committee will be formed for regular supervision, monitoring and evaluation of the administrative reform work.
- A high level committee will be formed under the chairmanship of the Prime Minister in order to strengthen the local autonomous system in relation to the concept of decentralisation, and to provide policy guidelines and to regularise monitoring and evaluation.
- Long-term personnel policy will be formulated to make civil service capable, strong, of high morale and accountable and enhance career development opportunities through the clear provision of authority and responsibility.
- Ministry of General Administration will be renamed as Ministry of Public Management with the expansion of the existing jurisdiction of the Ministry making responsible for policy matters on public management.
- Public Service Commission will be made more capable by actively involving it in the functions relating to research and study of examination system.
- Competitive capability of training institutions will be enhanced through the formulation of long-term administrative training policy by unifying and specialising their functions.
- A high level Human Resource Coordination Committee, comprising of the representatives from the Ministry of General Administration, Public Service Commission, Ministry of Education, National Planning Commission (NPC) and the Universities will be constituted and made functional.

- In accordance with the concept of people-oriented administration, the administration will be made transparent, reliable and accountable for management of good governance. Similarly, manpower development and job simplification will be made effective to make administration capable, people-oriented and productive.
- The role of government, local bodies and private sector will be balanced through appropriate combination of the management of good governance and decentralisation.
- In order to improve project management, system will be developed to determine the institutional and official accountability; and physical, human and financial resources will be appropriately utilized to this effect.
- Functions, duties and rights of the officer level employees will be incorporated in the rules by making timely reforms on the existing rules on administrative officers' functions, duties and rights.
- By making timely reforms on the existing Administrative Work Clearance Rules and Government Office Inspection Rules, arrangement will be made for the effective implementation of these rules in an integrated manner.
- Administrative audit will be effectively implemented by providing legitimacy.
- To conduct study and research on pay scale and other facilities of the civil servants and provide recommendations to His Majesty's Government on timely basis, a Pay Unit will be constituted under the Ministry of General Administration.
- An appropriate structure of civil service will be maintained by evaluating the existing services, groups and sub-groups in civil service.
- All non-gazetted employees will be combined into a multi-purpose staff system.
- After conducting client survey, system of seeking possible measures regarding the service standard and their effectiveness that are delivered to the people will be adopted.

5. Programme

Reform in Record System

Information, statistics and record will be computerised by reforming the record system of various subjects related to civil service. By computerising the record related to the civil servants in various ministries, they will be combined with the central record in the Ministry of General Administration. For this purpose, Record Improvement Project will be implemented in the Civil Service Record Office under the Ministry of General Administration.

Administrative Audit

Regular administrative audit programme will be implemented to know whether administrative activities are being operated in accordance with the law and set

procedure or not and to take information about what procedure is needed to follow for their improvement, and to make administrative machinery rule-driven, prompt, and clean. The procedure, scope and limitation to be followed while undertaking administrative audit will be determined by act.

Strengthening of Training

To develop administrative capability in civil service, appropriate arrangement will be made for pre-service and on-the-job training and manpower will be made proficient through qualitative improvement. Nepal Administrative Staff College and other training institutions will be strengthened to enhance their effectiveness. Various programmes including symposium of office in-charge and training centre in-charge, training, research, identification of training need and publication of administration journal will be implemented. A high level National Human Resource Development Council will be constituted in order to formulate human resource and organisation development policy and overall plan for all agencies of public service, and to develop coordination.

Administrative Research and Study

Various research and studies regarding public administration, civil service, group, career development, reform in services and facilities, simplification of procedures, and organisation will be conducted. High priority will be given to such practical research and studies which are conducted aiming at providing timely suggestions and recommendations about the policies and programmes required to establish change-oriented administrative system in compliance with the concept of development administration.

Procedural Simplification

Existing complex administrative procedures, that hinder the work accomplishment affecting the common people and administrative organisations, will be simplified through conducting research and study for the purpose of making administration transparent, dynamic and accountable and for ensuring the easy availability of services to the people. Agencies, which provide services to the general public, will be made lean and simple. In order to make administrative procedure achievement oriented, arrangement will be made to adopt different procedures to each ministry that are appropriate to their nature of works.

Indicator Development

Various performance indicators will be developed and refined for the estimation of manpower requirement and performance evaluation.

Organisation Development and Evaluation

Improvement will be made in qualitative status of administrative organisations rather than increasing their number. Considering overall aspect of the organisation, positions will be created only if it is very essential. While creating positions and establishing organisations 'establishment plan' will be prepared every year on the basis of

administrative analysis, and system will be developed to combine it with yearly budget and programme.

Strengthening of Public Service Commission

The capability of the Public Service Commission will be enhanced; position fulfillment will be made swift; and programmes will be implemented to make selection process transparent, systematic and effective. Furthermore, necessary arrangement will be made to improve physical facilities like building construction and other essential resources of Public Service Commission.

15.2 Decentralisation

1. Background

In the democratic governance, the highest level of peoples' participation is expected in the utilisation of power, resource, and means of the state. The avenues for true decentralisation have been widened since the promulgation of the Constitution of the Kingdom of Nepal. In the directive principles of the present constitution, decentralisation is accepted as a medium of delivering the outcomes of democracy by involving people to the best possible in the political system of the country. The main intention of decentralisation in Nepalese context is to make people residing in rural and urban areas powerful and capable in the management of their development by involving them in the decision-making process that affect them. It has become essential to develop the concept of self-governance in order to provide authority to the local bodies to take decision on the matters of delivering services to the people at local level.

As a backbone of democratic exercise, the application of decentralisation in Nepal is solely based on the fundamental principles of people' participation and empowerment. In order to distribute the benefits of democracy among the people at all level, it is essential to make especially the taciturn people able to use their own right enabling them economically and socially. For this, making refinements on local self-governance concept, it has become necessary to make development programmes more effective and people-oriented with balanced involvement of governmental, non-governmental and private sectors. In this process, on the one hand, it is necessary to limit the role of government as a facilitator, while on the other, it has become necessary to make local self-governance strong, people-oriented and fully responsible for the local development by adopting inspiring policy for the development of various groups of people. Adoption of decentralised planning process is essential to base developmental activities on local possibilities and potentialities and to make planning system more realistic and people-oriented. It is hoped that decentralisation process will help to increase peoples' participation and ownership in planning and to make it more effective.

Various efforts have been made to push forward decentralisation process and practice adopting legal provision of giving decision making authority to the popularly elected local bodies of various levels regarding the services to be provided to the people at local level. However, local bodies were directed to play the role of lower units that implement small development activities rather than towards the direction of local government. As a result, well-managed system of local self-governance could not be established. In Nepal, mainly to expedite and institutionalise development process and to increase peoples' participation in local development, it is imperative to increase peoples' participation in decision making process to find solutions of local problems at local level, and for this, the application of decentralised working system is quite indispensable.

2. Review of the Eighth Plan

Policy Reform

Acts related to Village Development Committees (VDCs), Municipalities and District Development Committees (DDCs) were enacted in 1991. On the basis of these acts, elections of various bodies of VDCs, Municipalities and districts were held with remarkable participation of people. New leaderships have emerged from local bodies. The system applied at local level can be considered as positive step in the context of decentralisation. This has been made possible for the creation of institutional bases to move decentralisation-working process forward. In the Eighth Plan, formulation of decentralisation policy and implementation of various programmes are considered to be crucial in this direction. These efforts have been meaningful to create the basis for decentralisation working process.

Institutional Reform

A high level Decentralisation Coordination Committee was formed during the Eighth Plan period to provide policy guidelines on the nature, concept, hierarchical system, working area of decentralisation and regarding timely changes in legal system and concepts related to local bodies, and a Decentralisation Working Committee to recommend execution system by analysing and studying functional aspects. The Committee has submitted the report on decentralisation and local self governance. This report has been considered as an important achievement of the Eighth Plan. During the plan period, collective working efforts of local bodies were spontaneously initiated. As a result, Associations of DDCs, Municipalities and VDCs were established. These have contributed to the efforts of decentralisation. Similarly, various projects have been implemented with the aim of supporting decentralisation by strengthening the capacity of local bodies in the formulation, implementation, monitoring, operation and management of development projects at the local level. Participatory District Development Programme and Local Governance Programme have been implemented in 32 districts of the country in the course of enhancing planning process and management capacity of the DDCs.

Functional Reform

With a view to supporting decentralisation, various kinds of programmes such as training, symposium, orientation, etc. have been implemented. Similarly, guidelines regarding the working procedures of users' groups in various sectors and for users' group training have been prepared. Priority has been given to enhance direct involvement of local people at all aspects of development projects. In order to encourage peoples' participation, various local development programmes have been implemented through social mobilisation. Besides reform in the process of community based plan formulation, integrated district development plan formulation at local level has also been initiated and achievements have been made in this direction.

3. Existing Challenges

Although acts as to provide power and responsibilities to the local bodies have been enacted, lack of supporting rules for execution process and the contradictory provisions in the existing rules have still created ambiguity in execution. Due attention has not been paid to proceed decentralisation process smoothly, to study and review the existing acts and rules in order to maintain consistency and coherence among various laws that have effects on local development and to regularise their application.

Direct involvement of common people at each stage of decision making process has not received due importance although local organisational structure has extensively expanded in course of decentralisation. Acts and rules related to local bodies, which were enacted in 1991, have given responsibility of formulating and implementing local plans to the elected local bodies. However, due to the inability to develop local leadership and insufficient authority over financial resources given to the local bodies to bear their responsibility, the efforts of decentralisation have been limited to principle only. Local governments do not seem to be able to build up popular confidence due to the inability to bear accountability over their duties and responsibilities because of resource constraint.

Since the elected officials of local bodies have been much involved in project implementation rather than in policy making, monitoring and supervision, the foundation of decentralisation process has not been strong enough. A clear structure of coordination, role, accountability and authority of various organisations including NGOs, users' groups, local bodies and cooperatives in local development activities have not yet been determined.

Although the formulation of district development plan is the responsibility of local body, various sectoral programmes to be implemented in district level have not yet been integrated. In course of giving full autonomy to the local bodies, the budget of sectoral ministries has not yet been included in the budget of the local bodies. Although district level plans have to be executed after the approval of District Development Council, these plans have not been implemented effectively. Various problems including lack of coordination, lack of information exchange and flow, lack of dynamism in proper mobilisation of available resources and insufficient participation of related organisations have been emerging. The role of DDC and District Council in the identification and selection of development projects have not been widened.

Although a policy to enhance the participation of users' groups in planning process and implementation of development activities has been adopted, they have not been directly involved in project implementation. In practice, construction works of some of the projects have found to be completed indirectly on contract basis in the name of users' group. This may deteriorate the quality of project and may have adverse impact on the sustainability of management.

Civil servants are placed at all levels of the local bodies who are administratively controlled by the centre. However, regarding their job performance they have to be

accountable to the local bodies. Hence, the system of recruiting personnel by the centre and sending them to the local bodies as its representative has narrowed local autonomy, and due to double loyalty and responsibility of the personnel it has made adverse effect on job effectiveness.

4. Long-term Concept

To provide people maximum opportunity to participate in governance in true sense is to make arrangement where people can be active for the development of their own areas by decentralising authority according to the geophysical, economic and cultural diversity of the country. Hence, in addition to the devolution of authority and budget, long-term perspective of decentralisation will include the establishment of autonomous local governments that are strong, strengthened, accountable to the people, capable to cope with the challenges of 21st century through human resource development, technical capability building and necessary information flow, and that can undertake the overall development management at the local level.

Ninth Plan

As adoption of decentralised system is imperative to institutionalise and expedite development process at local level for the development of country and especially of the rural areas, decentralisation in the Ninth Plan will be proceeded with new vision and concept. Participatory development process will be gradually institutionalised to develop leadership of local bodies in all aspects of project including identification, formulation, implementation, monitoring and evaluation.

To complete local development activities as per people's expectation, local bodies should be made more responsible, and hence, decentralisation needs to be institutionalised. Similarly, community development needs to be developed as an indispensable part of nation building. Hence, local bodies will be established and made capable, strong, autonomous and accountable through decentralisation. These bodies will be responsible for local development. Locally available resources, means and technology will be efficiently mobilised in socio-economic development activities of rural areas. In addition, on the basis of the concept of assisting local bodies and communities to sustain development in spontaneous manner, working procedure will be developed in the Ninth Plan to this concern.

5. Objective

- To enhance people's participation in resource mobilisation, appropriation, and balanced and equitable distribution of the outcomes of development for local development.
- To institutionalise local autonomous government, the fundamental part of democracy, by enabling them to be accountable to the local people.
- To develop a mechanism for carrying out the responsibility of the enhanced role in developing project formulation and implementation process at the local level.

- To increase the participation of local people in local government by enhancing the accountability and transparency of local government towards local communities.
- To direct local bodies towards self-reliance identifying the financial resources.

6. Policy and Implementation Strategy

Institutional Development of the Local Autonomous Bodies

It is not possible to involve in the decision process all the people covered by development programmes. In the democratic system, agencies involving popularly elected representatives can reflect people's expectations. Therefore, local autonomous bodies are considered to be the fundamental agencies of decentralised governance. Hence, institutional development of the local autonomous bodies will be promoted with due priority to make development activities spontaneous and dynamic at local level. The Centre will play leading role in providing knowledge and information to the local bodies. Local bodies will be made strong, capable and empowered for the overall management of development at local level.

Institutional development is to make capable of the local autonomous bodies. The major foundation of decentralisation is to enable local leadership in implementing development activities effectively. To establish the system to carry out increasing responsibility of development management at local level, remarkable improvement in administrative and management capability of the local autonomous government is essential. Therefore, appropriate measures will be adopted to make local autonomous government capable to operate various sectoral activities. The roles and responsibilities of local and central bodies will be ascertained and arrangement will be made for their successful resumption.

Integration and Coordination among Local Development Programmes

Various problems of local people are interrelated with each other. Impact of development activities becomes qualitative and more fruitful if the activities are implemented in a coordinated manner. Of the investment made at local level, coordination is essential in one hand, while in the other hand, it is equally essential to establish and develop mechanism to keep dynamic inter-relationship between centre and local level. Therefore, stress will be given to have coordination and integration among local development programmes. Coordination will be maintained among the activities of local administration, local bodies and NGOs, and legal provision will be made clearer to help functions transferred to the lower level.

Building Economic Capacity of the Local Bodies

Arrangement will be made to delegate the authority over resources to the local bodies through legal provision by making possible to identify and avail means and resources required for the fulfillment of duties and responsibilities given to the local bodies, and to utilise and make appropriate allocation of means and resources determining the priority. The authority and responsibility used by the centre for various sectoral development will be clearly devolved to the local autonomous bodies, and arrangement will be made to delegate authority for determining priority,

identification, selection, implementation, operation, monitoring and evaluation, maintenance and management of plan to fulfill basic needs of the people at local level. Special stress will be given to encourage appropriate conservation, promotion and balanced utilisation of local resources in spontaneous manner supporting them to be capable of efficiently allocating the resources of the local bodies which are considered as people's representative organisations.

Institutional Development of Participatory Development Process

People's participation is the major foundation of decentralised governance. Since people are the main factors of development works, the major challenge of the day is to develop the sense of ownership of development projects on local people by making people's participation effective. Therefore, participatory development process will be institutionalised to build the sense of ownership towards local projects in addition to involve people in direct and decisive form through social mobilisation in the decision making process related to the management of development activities in implementing their own areas. Training will be provided to local officials, personnel of local bodies and citizens to develop their knowledge on the concept of people's empowerment and to impart functional skills.

Mobilisation of Users' Group and NGOs

Since people's participation is an important base for sustainable development, users' groups will be involved in all activities including identification, selection, implementation, monitoring, evaluation and maintenance of the Plan. For this, users' groups will be formed through general assembly of all the users who receive the benefits from the Plan. Projects, that may have direct effect on the people at local level, will be implemented through users' groups. In such projects, after defining the role of users' groups, they will be provided with training on their authorities and duties before starting the project, and after completion of the project, users' groups will be provided with necessary authority to manage regular maintenance of the project. To ensure increasing participation in the management of local level projects, in addition to the clear-cut management of formulation procedure and area of authority of users' groups, attention will also be given to strengthen the groups.

It is essential to diversify the existing system of service delivery. Local bodies alone are not in a position to take part in development works and necessary service delivery. Therefore, appropriate steps will be taken to mobilise private sector and non-governmental sector in local development activities. Policy will be adopted to encourage non-governmental sector to implement activities in the area of their specialisation. Institutional arrangement will be made to mobilise NGOs also in the remote areas. In addition, arrangement will be made to encourage the expertise of non-government sector to support local bodies to build their capacities by establishing complementary and cooperative relationship between local bodies and non-governmental agencies.

Transparency in the Work Performance of Local Bodies

Attention will be paid to ensure the exchange of information, transparency, accountability and information system. Arrangement will be made to establish such

system not only between centre and local level but also between local bodies and organisations of the civil society.

Participation of Women and Backward Ethnic Groups in Decision Process

To bring women in national mainstream and include them in the decision making process of local development in line with the concept of gender equality in development, their representation will be made mandatory in the institutions to be formed at local level. To enhance the capability of the women, appropriate training programmes will be implemented. Similarly, arrangement will be made to make mandatory representation of the socially backward ethnic groups in the agencies to be formed at local level.

Personnel Management Responsible and Accountable towards Local Bodies

Institutional capacity of the local bodies can be strengthened if they could make arrangement to have their own separate employees accountable to them. Hence, in the Ninth Plan, planned arrangement will be made to constitute the personnel service of local bodies in order to make the employees, working under local autonomous governments, responsible towards people and local institutions.

Implementation and Monitoring System

According to the sentiment and spirit of the Constitution of the country, necessary authority will be gradually devolved in order to make local bodies fully strong and autonomous. Authority and responsibility existing in the centre will be devolved to the local autonomous government for implementing various sectoral works. Appropriate legal provisions will be made for the devolution of necessary authority and responsibility. Budgeting, accounting and auditing system of the local autonomous government will be made transparent and effective in order to make financial management efficient. Appropriate step will be taken to make local autonomous government capable to operate their development and administration. Necessary arrangement will be made for making possible to fulfill the needs of rural people at local level.

Necessary arrangement will be made towards making plans to be formulated at local and national level complementary and supportive to each other. Similarly, in order to enhance the capability of the local bodies regarding plan formulation, implementation, evaluation and other decentralised matters at local level, necessary arrangement will be made towards providing training, extension, resources and administrative supports on regular basis.

A high level Monitoring Committee will be set up as a capable body to provide policy guidelines to all government agencies to push forward the decentralisation process dynamically.

15.3 Delivery System of Development Benefits to the Target Groups

1. Background

Backward, disadvantaged tribe and ethnic groups are deprived from consuming the benefit of development due to the absence of development structure and implementation machinery for providing the benefit of the development to the target groups on the basis of people's participation. Backward areas and the people have not been the real beneficiaries of the benefit of development owing to the lack of proper attention paid towards implementing programmes determining the policy, strategy and appropriate development model based on identification of country's backwardness and their basic causes. On this background, it is non-debatable that forthcoming Ninth Plan has to give top priority to deliver the benefit of development to the target groups by implementing development projects within stipulated period.

2. Objective

To achieve the major goal of the Ninth Plan, the objective will be to deliver benefits of the development to the target groups in time through effective implementation of the policies and the programmes.

3. Policy and Implementation Strategy

- Since the aim of efficient and austere use of resources and to provide the benefits of development as devised by the Plan to the target groups can not be achieved unless aspects related to good governance like transparency, accountability, financial discipline and abiding of rules and regulations, appropriate system of reward and punishment are given due attention. Arrangements will be made for strict enforcement of these aspects. A separate appropriate body will be set up to assist in the control of any possible misuse of resources and other unscrupulous activities at all levels of political, administrative and other fields.
- Any new project which will be proposed during the Ninth Plan will be incorporated only if it is consistent with the objectives of the Plan. Projects which are not implemented according to the objectives of the Plan will be discontinued.
- During the Ninth Plan, an arrangement will be made for providing information in project proposals such as the cost of the project, duration, proposed source of funding, cost benefit ratio, physical targets, the population to be benefited, income generation of the target groups and the share in employment and other services. On the basis of such information, a new system will be initiated to formulate project by coordinating the overall as well as sectoral objectives, targets, policies and programmes.
- It has been found that crises have arisen in the austere use of the scarce resources due to wide differences between the proposed cost, estimated quality, duration, population to be benefited and the real situation after the completion of the

projects. So, during the Ninth Plan technical financial auditing will be started. In this way, immediate action will be taken against irregularities found in the financial auditing done by the Auditor General's Office as well as technical financial auditing.

- Impact assessments will be made an inseparable part of the projects and of annual programme, since timely improvements on policies and programmes can be made only if periodic information on impact of economic policies and programmes on the economy and on the improvement of livelihood of the people is gathered.
- Except for the programmes, which have to be implemented by the centre, the selection and the implementation of other programmes will be made by the local level institutions themselves in accordance with the decentralisation policy. For this, the capabilities of the local bodies will be enhanced.
- The institutional aspects of the programmes run by the centre, local bodies and NGOs and the investments made on such programmes will be improved and refined in such a way that the target groups can get the benefits. The private sector will also be motivated to make their investment in such a way that the target groups could be benefited.
- The deprived groups and communities will be organised through social mobilisation so that they can directly participate in the development process.
- To deliver the services provided through the programmes, which are directly related to human resource development like literacy, accessible health services, pure drinking water, goods and services of daily necessity and to make these goods and services accessible especially to the destitute and underprivileged groups, wage employment will be introduced in appropriate institutional and community based programmes.
- Priority programmes such as small and cottage industries, micro-forestry, rural development through small hydro and irrigation projects, short roads will be implemented through users' groups, NGOs and local bodies instead of through contracts and other similar methods so that the poor, neglected, backward and the oppressed groups and communities are able to get direct advantages and benefits.
- The income-generating and employment programmes run by the government agencies and the banking sector will be directed towards the poor and the underprivileged and disadvantaged groups. In addition to fixing minimum wage rate in agriculture, programmes to solve the landless problem will be implemented which will help in their rehabilitation and in the improvements of their lives. Similarly, special opportunities for employment will be created with special focus on the target groups.
- Employment and income-generating programmes with special focus on youth, educated unemployed and low income groups will be implemented in organised sectors and towns.

- Families who are below poverty line will be given relief through easy and reliable supply of goods and services of daily necessity.
- State-run welfare programmes will be implemented to provide relief and social security to the old, helpless and other underprivileged groups of the society.
- With the objective of making target groups accessible to the increased income generated due to growth in economy, a policy to allocate additional resources generated through the mobilisation of tax and revenue will be adopted for the upliftment of the targeted groups. The revenue, tax, loan and investment policies will be gradually improved and refined to minimise income disparity and to strengthen the basis of just and equitable distribution in the society.

15. 4 Non-government Organisation

1. Background

Development is possible only with the cooperative efforts of government, private and non-government sectors. In order to speed up economic and social development activities of the country, non-government sectors have already been involved as the partners. If NGOs be mobilised especially in the area of rural development, poverty alleviation and in the development of the weaker section of the society who, due to social, economic and physical reason, are unable to equally participate in and consume benefits of development, it will be possible to achieve targeted development outcomes of the Plan. For this, elucidating the role of non-government sectors, their contribution and achievement should be incorporated while assessing national outcome.

In Nepal, institutional development of non-government sector for development activities was initiated around 66 years ago with the establishment of Shree Chandra Kamdhenu Charkha Pracharak Guthi, whereas following the introduction of democracy in 1957, organisations like Paropakar Sanstha, Red Cross were established and the involvement of NGOs in the areas of health, education community development was increased respectively. With the formation of Social Service National Co-ordination Council in 1977 and the Ministry of Labour and Social Welfare in 1981, an institutionalised system of coordination and administrative system regarding the development of non-government sectors has been initiated whereas a national policy for the development of non-government sector has been adopted since the Sixth Plan.

Following the restoration of democracy in 1990, reforms that have been made in the existing Act and policies for the development of non-government sector have contributed towards speeding up the institutional development of NGOs and INGOs. These organisations have covered social and economic activities of regions, specific classes and community development.

2. Review of the Eighth Plan

Under the policies of non-government sector in the Eighth Plan, policies such as extension, of organisation, simplification of Acts and Rules, priority to NGOs in remote and rural areas, involving INGOs through Nepali NGOs in implementing programmes and development of evaluation system were included. By the end of the Plan, the number of INGOs affiliated with the Social Welfare Council has reached 5,978 whereas the number of INGOs has reached 81. The classification of these organisations is as follows: -

	<u>Organisation</u>	<u>Number</u>
1.	Child Welfare	122
2.	Health	157
3.	Blind and Handicapped	106
4.	Community Development	3076
5.	Women Development	572
6.	Youth Activities	1298
7.	Moral Development	177
8.	Environment Protection	386
9.	Education	56
10.	AIDS Prevention	<u>28</u>
	Total	5978

Since the registration of NGOs is possible under different Act and Rules, the number of such NGOs that have been renewed time to time has reached 15,000. In order to mobilise non-governmental organisations effectively, the Social Welfare Council has been reorganised with the enforcement of Social Welfare Act 1990. Moreover and the establishment of the Ministry of Women and Social Welfare, Social Welfare Council has been affiliated with this Ministry.

During the Eighth Plan period, there has been institutional expansion, formulation of act and policy for the development of NGOs; however, execution of laws has been ineffective. As a result, administrative and financial process could not be transparent and simplified, and monitoring and evaluation regarding project approval, co-ordination and effectiveness of services have not been done according to the provision made by Social Welfare Act and by-laws.

3. Long-term Concept

To utilise comparative ability of non-governmental social organisations using a process of people empowerment and people's organisation empowerment, creating conducive working environment in order to achieve the goal of sustainable social, economic, environmental and institutional development, and encouraging them to actively participate in the development process as able, transparent and positive co-operative agencies.

To solve the problems of blind, handicapped, elderly people, helpless, child and women, and to lessen their feeling of humiliation arising from the receipt of donation and charity of others, encouragements will be given to the efforts to their sustainable development and to make them capable by their participation.

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4. Objective

To develop NGOs as partners of development and to conduct the programmes of NGOs in a coordinated manner in order to make their activities effective.

5. Policy and Implementation Strategy

- Policy will be adopted to make appropriate legal and administrative arrangements to review and bring about clarity in various Acts, such as Societies Registration Act, Social Welfare Act, etc. by removing existing ambiguity and confusion in the registration form and working procedures of NGOs arising from their registration under various Acts at the district and central level.
- In the context of overall development of the country, policies and programmes for poverty-alleviation and socio-economic development will be formulated by involving NGOs. Programmes, which come under area of specialisation of the NGOs, will be left to them even though such programmes have been conducted by government or local bodies.
- Appropriate policy and criteria will be formulated to define and classify the NGOs according to their area of activity and geographical region as national, regional and local-level, to make them more efficient in attaining the set objectives.
- The NGOs will also be involved in mobilisation of internal resources, training, sharing of experiences to bring about continuity and effectiveness in their organisations, programmes and resource identification. To this end, timely reforms in prevailing laws will be initiated.
- The INGOs will be mobilised in building up capability of the NGOs on the basis of their specialisation. Effective arrangements will be made to implement new projects and programmes only through the Nepali NGOs.
- One-window system will be adopted to bring about simplicity in administration to further enhance the effectiveness of resource mobilisation from the INGOs.
- INGOs will be encouraged to mobilise resources from international sources. Resources allocated for Nepal by various governments and INGOs will be channelised through NGOs, instead of the INGOs.
- Institutional development of monitoring and evaluation system will be enforced to appraise the contributions of NGOs to the development works.
- Special steps will be taken to honor the contributions of NGOs to national development. For this, a programme will be run to monitor the performance of NGOs.
- With a view to making the contributions of NGOs directly reflected and effective in local development works, the programmes of such organisations will be

coordinated with local bodies and incorporated into local planning process. To this end, appropriate policy will be adopted.

- Arrangements will be made to involve and encourage the competence of NGOs in building up capability and efficiency of the local bodies. To this end, efforts will be made to establish complementary and collaborative relationships between the local bodies and NGOs in accordance with the decentralisation policy.
- In the context of the tendency of NGOs to work only in the accessible areas, which might accentuate regional disparity, institutional arrangements will be made to mobilise NGOs in the remote areas as well.

6. Programme

- In accordance with the goals and objectives of the national development, a workplan along with programmes, goals and objectives that are to be undertaken by non-government sectors will be formulated, and the programmes will be implemented on the basis of their area of activities and specialisation. While formulating the workplan, non-government sector will be involved on the basis of the commitment made by His Majesty's Government for the development of social sectors such as women, children, human rights and physically and mentally retarded people.
- Following a study on various Acts related to organisation registration, arrangement of suitable Acts and Rules will be developed in order to strengthen registration system of NGOs classifying them on the basis of their objectives and nature of work. Statistics of non-government sector including number, area of activities and geographical district of NGOs that have been registered annually will be published.
- Programmes, beneficiaries and financial investment of the NGOs that have been operated in various districts and Village Development Committees will be studied and analysed, and on the basis of the study, NGOs will be mobilised specifying the area of work classifying them into national, regional, district and local level based on decentralisation policy.
- A coordinated and institutionalised working system will be developed to mobilise non-governmental sector as a partner agency of development, and to make formulation, implementation and evaluation of programmes between sectoral ministries and NGOs effective. To this end, organisational set up will be maintained in the sectoral ministries to provide technical services, supervision and evaluation facilities to the sectoral activities.
- In line with the role to be played by the Social Welfare Council for the development of NGOs, its working area and capacity, organisational position, manpower and financial resources, etc. will be evaluated. The council will be developed as a central agency for maintaining the activities, achievement, updated information, monitoring and evaluation of the NGOs. For this, the role of Social Welfare Council will be made transparent and strong.

- A consolidated strategy and plan including various sectors will be formulated and implemented in order to make one window system effective for the mobilisation of NGOs, to acquire foreign assistance for the sake of developing non-government sector, to make procedural and coordination function more effective and to manage INGOs to mobilise resource from international community. In this way, Social Welfare Council will be developed as a focal point with a view to give permission to INGOs, regulate Nepalese NGOs, regarding project operation and management of visa, conditionalities and other facilities through one-door system to manage in stipulated time and in simplified manner. Activities such as training, workshops, district study tours will be carried out by the NGOs operating under the projects funded by INGOs, and Nepalese technical manpower will be developed and institutionalised for the gradual enhancement of project implementing capability of Nepalese NGOs.
- With a view to making the contributions of non-government sector directly reflected in the local development activities, a system will be developed to include them as a part of local planning in accordance with the provision of decentralisation policy, Acts and Rules of District Development Committee and Village Development Committee. To this end, arrangement will be instituted to provide facilities by making the DDCs and VDCs as facilitators.
- By evaluating the contribution of NGOs, arrangements will be made to mobilise them in the remote areas, and economically and socially backward regions, and to operate specified services by providing them with training and financial incentives.
- Facilities will be provided to the expatriates working with the INGOs by classifying them on the basis of their working area, cost and duration of the project.
- Since the projects implemented by NGOs in rural areas can help alleviate poverty by increasing local employment opportunities, medium and low level manpower required for the projects will be encouraged to utilise from the local levels.

15.5 Monitoring and Evaluation

1. Background

During the last four decades of planned development effort, eight periodic plans were implemented setting various objectives. Within the period, huge amount of money was spent to achieve the targeted objectives of economic and social development, and to some extent, economic and social infrastructures were also developed. But the people at large could not obtain realised level of outcome compared to the gradual increment of investment. Utilisation level of available means and resources could not increase as expected. Most of the projects could not be completed in pre-determined cost and time. On the whole, besides the weaknesses in plan implementation, problems were found in obtaining sustainable outcome from the projects. Among the various causes of weak implementation of the Plan, absence of practicing effective monitoring and evaluation system has been found to be the major one. Effective monitoring and evaluation process is considered to be the major part of project management, which makes possible to see whether concerned authority is performing his designated responsibility well or not, and also to determine the quality of performed task. Similarly, it helps to estimate quantity, cost, quality as well as implementation period of performed task and also helps to determine performance standard of designated responsibility of the staff. Hence, to reduce the gap between predetermined plan objectives and targets and their achievements, and on the whole, to make project implementation effective, monitoring and evaluation process will be made result-oriented, dynamic and achievement-oriented in the Ninth Plan.

2. Review of the Eighth Plan

Keeping in mind the necessity of institutional strengthening of the monitoring and evaluation system, some efforts were made in the Eighth Plan to complete the projects making implementation effective, within stipulated time, cost, quantity and quality eliminating the slackness during the project implementation. Objective was set to identify and solve the problems faced by the development projects and to achieve targeted outcome by completing them within predetermined time and cost.

Although the prevailing system was focused mainly to monitor the development projects on the basis of annual expenditure in the past, annual programme and progress reporting forms in this period were prepared and brought into practice also for monitoring the physical progress. During the period, monitoring and evaluation units were established in various levels including the highest level of government to identify and solve the facing problems of the projects in time. The procedures were determined. In these regards, National Development Action Committee (NDAC) in the highest level, Ministerial Development Action Committee (MDAC) in the ministries, CMED in the NPC, and Monitoring and evaluation Divisions or Sections in the various ministries were established. Similarly to improve the monitoring process by collecting the information of project status and activities, project's Problem Reporting Form, Project Status Form and Development Project Inspection

Form including Programme and Progress Reporting Form were put into practice. Furthermore, in order to measure the outcomes set by the project, objectives-achievement indicators and formats for various projects were designed and implemented.

Some institutional and procedural efforts were made during the Eighth Plan in order to make monitoring and evaluation system more effective. However, due to the lack of political commitment and administrative determination, the monitoring and evaluation system, which should have been adopted and followed as a time-bound discipline, could neither be geared up effectively nor receive due priority in practice. Consequently, the institutional structure could not be activated as expected.

Limited use of set formats and indicators for monitoring were made. The effectiveness of their application was not remarkable since the used formats were not utilised properly. As a result, the expected positive impact on project implementation capacity of the system could not be realised. Studies on effectiveness of investment and impact evaluation of some of the completed projects have been undertaken. The results of these studies could be used in the formulation and implementation of new projects.

Analysing on the basis of experiences, following weaknesses have been identified in the implementation of existing monitoring and evaluation system:

- Although compulsory screening of the projects is essential before giving them approval for implementation, it has not been practiced strictly.
- In the absence of the highest level political commitment and administrative determination, existing structures could not be activated and the information flow could not be dynamic.
- The area of activities of monitoring and evaluation is limited only up to implementation aspect. A system of monitoring policy, strategy and programmes has not been developed. Monitoring and evaluation system has not received due priority as an integral part of the project management.
- The indicators determined to measure physical progress have not come into practice and the information is even lacking to strengthen and update them.
- As envisaged by the existing system, subjects like solving problems, identifying them in time, completing projects within stipulated time and cost, and making projects' outcome sustainable have not received due importance.
- The positive impact of monitoring and evaluation system towards enhancement of project implementation capability has not been realised as expected.
- A consolidated system of monitoring and evaluating the activities performed by the NGOs could not be established.

3. Long-term Concept

The whole monitoring and evaluation system will be mobilised with the long-term goal of providing feedback to the policy making level by timely identifying whether

policy, strategy, programme, and budget are formulated or not in line with the objective specified by the Plan. It will also be mobilised in preventing the gap between target and achievement of the development projects for their completion according to pre-determined time, cost, quantity and quality. In order to be in front line in the emerging global competition for the foreign resource mobilisation, to increase utilisation level of available resources, and to achieve targeted outcome of economic and social development in time, along with the vision of making them sustainable, project implementing agencies will ultimately be made accountable to complete standard works by providing them full responsibility of monitoring. The role of NPC will be made limited to policy monitoring only, operation of monitoring and evaluation system and development of its capacity, and in evaluation, concept will be taken focusing on all other activities in achieving long-term target of the Plan.

The Ninth Plan

On the basis of the above mentioned long-term goal of monitoring and evaluation, objectives, policies and strategies of the forth coming Ninth Plan are determined.

4. Objective

- To identify in time and solve the problems that have been raised in the process of implementation of development projects and complete the projects according to the predetermined time, cost, quantity and quality.
- To achieve the targeted economic and social benefits from the projects and make these benefits sustainable.
- To update and make information reliable regarding investment made in the development projects and their achievements.
- To find out the past weaknesses that have been realised in the process of project formulation and implementation and make sure that they will not repeat again.
- To identify whether programmes are formulated as per the policy and implemented or not by developing a system of reviewing policy and strategies specified in the Plan.
- To develop a mechanism of monitoring and evaluation of the programme implemented by the NGOs.

5. Policy and Implementation Strategy

- To make monitoring and evaluation system regular and effective, implementation arrangement will be made to ensure commitment and active participation from the highest political level to the project level. Moreover, the system will be strengthened and extended.
- In order to identify and resolve the problems in time faced during the implementation of projects and to complete them within the targeted cost, existing monitoring and evaluation units of various levels (NDAC, MDAC and Divisions/ Sections) will be activated, and such units will be set up in the Department levels also.

- The existing monitoring and evaluation system will be strengthened when needed and implemented effectively.
- Existing objectives and result-oriented indicators for monitoring and evaluation will be refined and reinforced, and implemented accordingly. Moreover, progress indicators, based on project objectives will be determined in the time of project formulation
- In order to prevent repetition of problems in project formulation and implementation, completed projects will be evaluated and lessons learnt from the past experience will be utilised in new projects.
- According to the new concept of decentralisation and considering the volume of development works in the districts, a monitoring and evaluation section will be established under District Development Committee, and arrangement will be made to form a District Development Action Committee to conduct regular monitoring and evaluation of district level projects.
- Computerised global network among the central agencies will be gradually established in order to make easy access of the exchange of information.
- Necessary amendments will be made in relevant acts and by-laws for speedy and quick execution of development works, and to strengthen implementation aspects of development projects.
- As majority of development works is related to the construction of physical infrastructure, arrangement will be made to maintain quality and sustainability.
- Since the implementation becomes ineffective due to weaknesses during the formulation stage, monitoring of new development projects will be conducted from the formulation stage, and a system of compulsory screening of the projects before approval for implementation will be adopted.
- Responsible persons will be appropriately rewarded and punished on the basis of their performance, and arrangement for career development will be made accordingly along with initiating a system to review the policies, strategies of the Plan.
- Arrangement will be made to regularly monitor the activities of NGOs covered in the wider areas and expanded for the last few years.
- Regional planning offices will be actively mobilised in district level plan formulation, monitoring and on-going evaluation.

6. Programme

- MDAC formed under the chairmanship of Minister or State Minister concerned and the NDAC formed under the chairmanship of the Prime Minister both will be activated and developed as problem shooting vicinities where each and every problem that arises during project implementation will be solved. Moreover in order to change the present situation of reporting minor problems of inter-ministerial coordination to the high level NDAC, a permanent problem shooting

group will be formed at the NPC level which will be assigned also to enforce time bound discipline.

- To institutionalise monitoring and evaluation divisions/sections of the ministries and CMED of the NPCCS, necessary logistics will be provided including budget, computer, fax, and vehicle in order to mobilise them effectively in monitoring and evaluation. In addition monitoring and evaluation units will be established and strengthened in the departments.
- A system of project implementation without a detailed study still exists. As a result, inappropriate projects are also implemented which are neither completed nor become result-oriented. Therefore, a system of screening projects on the basis of set criteria, before they come into action will be implemented, and formulation of programme budgeting on ad hoc and pressured basis will be discouraged. Screening will also be done in two levels. In the first place, ministries will screen the projects and submit selected projects to the NPC. Keeping in view of the perspective plan, resource availability and its effectiveness, NPC will again screen the projects refined from the ministries and then will provide approval for their implementation. For this, manpower working with the NPCCS and the ministries concerned will be trained in order to build their capability.
- Appropriate mechanism will be developed to regularly monitor and evaluate achievements made by the district level projects vis-a-vis increased investment. For this purpose, District Development Action Committee under the chairmanship of the chairman of District Development Committee will be formed and will meet every two months in order to review progress report and solve problems that are faced during the implementation of projects. This committee will be comprised of member of the District Development Committee, Chief District Officer, Local Development Officer, Chief District Treasury Office and chiefs of development offices and projects concerned as the members. A representative from the Regional Offices of the NPCCS will participate in the meeting of the committee. In order to provide secretarial services to the committee, to maintain status report on district level projects and to manage regular monitoring and evaluation system, a separate section will be established under the DDC Secretariat. Information regarding the evaluation done in the district level will be given to the VDCs concerned. Regional Planning Offices of the NPCCS will have to submit compulsorily a periodic report on district level monitoring to the CMED of the NPCCS.
- As majority of development works is related to the construction of infrastructure, establishing a 'quality audit bureau', quality audit of the construction works of some projects will be carried out taking as a sample to maintain the quality of these infrastructures. Similarly, mechanism will be developed to carry out performance audit including technical audit of the management and activities vis-a-vis target set by the projects.
- Keeping in view the importance of statistics in monitoring and evaluation, a computerised global network connecting with the NPCCS will be gradually

established in order to facilitate information flow to and from the ministries. Through establishing a computer network such information will be extended up to the offices of the Prime Minister, Deputy Prime Minister, NPC officials and ministries. In order to manage this, foreign technical assistance will be mobilised. Arrangement will be made to supply in time and regular basis efficient, capable and professional manpower required for the operation of the network. To serve as an information bank until the network is set up, a review hall will be established in the NPC.

- Necessary amendments will be made if required in the existing acts and by-laws for speedy and quick execution of development works.
- As some of the projects funded by foreign assistance have been effectively implemented with the management of steering committee, a policy will be adopted to manage mega-projects funded by His Majesty's Government through steering committee. A separate unit for monitoring and evaluation will be established in the projects, which have wider activities and a mechanism to coordinate with central agencies, will be developed.
- In order to make monitoring and evaluation effective, and to monitor and evaluate the objectives of projects from their formulation stage, progress indicators will be developed in cooperation with the NPC and be utilised in due course. In addition to this, existing objectives and result-oriented indicators will be refined as and when required, and formulation and development of such indicators will be extended to all sectors.
- Since encouragement of beneficiaries' participation in monitoring and evaluation of project implementation helps to sustain project achievement even after completion of project, beneficiaries' participation in monitoring and evaluation will be encouraged.
- Existing process monitoring formats including annual programme format, progress reporting format, progress status format, development project inspection format, and problem reporting format will be improved as and when required, and be made mandatory. Projects will be asked to include expenditure detail in periodic progress reporting. In addition, each and every ministry will have to maintain and up date details of project status.
- In order to make project implementation more effective and efficient, a random visit of the project area by high officials including the Prime Minister will be arranged to receive exact progress reports of the projects. To speed up implementation, arrangement will be made to take on the spot decision during the visit.
- Regional offices under various ministries including regional offices of NPC will be strengthened and actively mobilised for monitoring and evaluation.
- Availability and continuation of efficient manpower is essential for the effective implementation of monitoring and evaluation system. To maintain this, the personnel working at various levels should be provided with training, made

assure and aware of the justification of monitoring and evaluation. In order to organise such training, arrangement will be made to provide trainings through Nepal Administrative Staff College, government training centres and the NPCCS in a regular basis. Since the Economic Planning and Statistics Service which was separately formed to cover planning, monitoring, evaluation and related functions, has grouped only statisticians at present, manpower associated with planning, monitoring and evaluation in NPCCS, ministries and departments will be included within the Service and effectively implemented in order to retain and develop career opportunities within the Service.

- Based on set criteria, on going projects will be classified into two parts: core and other projects. Core projects will be monitored intensively with due priority in resource allocation. Project profile of the core projects will be computerised and updated, field visit will be arranged and a system of reviewing progress in a regular basis will be maintained. In NPC level, CMED will collect the progress report of these projects and review them every month. Organising review meetings every month under the chairmanship of Vice Chairman of the NPC, an effort will be made to solve the problems of the projects that have been identified as problematic. In order to solve the problems of major problematic projects, a review meeting will be organised every four months under the chairmanship of the Prime Minister where ministers and secretaries concerned will be invited. Monitoring of other projects will be carried out by concerned sectoral divisions of the NPCCS. These divisions will regularly receive the progress report of the projects, verify the progress reports through field supervision, maintain project profile in the computer and provide periodic reports to the CMED. A system of putting and updating integrated project profiles in computer will be maintained.
- Arrangement will be made to regularly monitor sustainability and achievement of some mega projects that have already been completed. In doing this, beneficiaries of the projects will be involved. Similarly, post evaluation of some of those projects will be conducted to study their effects and impacts. In order to make evaluation impartial, academic and research institutions will be involved as required, and the personnel working with the NPCCS will be involved in building their capacity as well as making evaluation standard and reliable.
- As the implementation and formulation of budget and programme do not always follow the policy set by the Plan, a system will be initiated for monitoring and evaluation of policy and programme. For this purpose, a separate section under CMED will be established and assigned to look after policy monitoring and evaluation. Research will be conducted as and when required for policy monitoring of specified policies. In this process, rational as well as inter-relationship among perspective plan, budget and programme will be determined, and will be reported regularly to the higher officials concerned. In addition, while approving annual programme it will compulsorily be looked upon whether it has been in line with the perspective plan or not. Since about 60 percent of the total development expenditure of the Ninth Plan is expected to be allocated through private sectors and since their performance basically depends on conducive

policy environment created by the government, special efforts will be made to monitor and follow up the actual implementation of formulated policies.

- Mid-term evaluation of the development projects will be carried out to evaluate annual programme implementation status and on the basis of the evaluation approval regarding the amendment of the programme and budget transfer will be given. Similarly a process of annual evaluation of development projects will be initiated. Progress evaluation of the core projects and other projects will be conducted by CMED and sectoral divisions of NPCS, respectively.
- A scheduled work plan for hiring consultants and manpower, and awarding contracts will be executed in the projects. In cases where activities are not completed as per schedule, project chiefs will be made accountable. A strict arrangement will be made to complete contract award within first trimester. Similarly, project chiefs will not be transferred within project period unless they would harm the project because of their inefficiency or ir-responsiveness. This will be monitored by the NPC.
- For the purpose of evaluating projects, an estimated standard for per unit cost will be determined. Evaluation will be made standard and effective analysing the variance between standard unit cost and actual unit cost. Such standard will be determined by the NPC in cooperation with the ministries concerned.
- NPC will maintain a computerised districtwise profile of development projects that are operated in various districts of the Kingdom.
- Considering that an environment of reward and punishment in project management will have a positive effect towards job, arrangement will be made to differentiate good performing and bad performing personnel through monitoring and evaluation and made it a basis for their performance evaluation. To this end, a system will be introduced to recommend by the NPC.
- CMED of the NPC will be developed as an information focal point regarding monitoring and evaluation. This division will be provided with necessary information regarding core projects directly by the ministries concerned, other central level project by the sectoral divisions of the NPC and district level projects by the regional offices regularly. This division will work as a two-way communication bridge in order to communicate information received to the Prime Minister and various levels of the NPC, and to communicate and monitor implementation progress of the decisions made by the NDAC and the NPC.
- The role of non-governmental organisations is also important in national development. The non-governmental organisations will be asked to submit a detailed annual report to a separate agency established under the Ministry of Women and Social Welfare. The agency will maintain information of the non-governmental organisations, established with the objective of participating in development, whether they deviate from their specified target or not; whether there is any duplication between programmes implemented by the non-government organisations and by the government or not; the benefits or outputs

received by the people are of standard or not; and the programmes run by the non-governmental organisations are sustainable or not. In the process, their services will be regularised by classifying them and monitoring their involvement in profit-making services or not. Similarly activities run by some of the big non-government organisations taking as a sample will be monitored directly by the NPCS.

- NPCS and the agencies that implement monitoring and evaluation functions will perform random audit and play a role of supervisor. In addition, a process of monitoring and evaluating all sectoral projects of selected districts will also be initiated by the NPC.
- For last few years, due to the absence of effective coordination mechanism among the personnel working with different organisation and among the personnel working within the organisation, appropriate working environment has not been created. Decreasing trend of work morale on them has also been found as one of the reasons for slackness in project implementation. In this context it has become extremely necessary to create an environment to work with a team spirit, therefore, an effort will be made to identify and solve project and organisational problems from the ministries and departments concerned in order to improve this situation.

7. Conclusion

Effective pursuance of the system itself is considered a crucial part in monitoring and evaluation as the implementation aspects are considered very important in project management. Since, the justification, utility and success of established national process infrastructure depends on the view and commitment of the personnel involved in their implementation, effectiveness of monitoring and evaluation system depends merely on the responsibility of the implementing agency. Therefore, during the Plan period, an effort will be made to deliver benefit to the targeted groups within expected time by speeding up the implementation of projects through the above mentioned policy, strategy and programmes.