National Population Report 2017

Ministry of Population and Environment (MoPE)
Singha Durbar, Kathmandu

FOREWORD

I would like to present, with great pleasure, the National Population Report, 2017. This population report is part of the Ministry of Population and Environment on policy, theory, and research articles focused on national population dimension and solutions.

Nepal's population reached 28.2 million on 2016 with the slowest population growth rate at 1.32 per annum since 1961. Dominance of pervasive poverty and population management issues has been the major challenge to Nepal's socioeconomic development efforts. The major push of the Nepalese population policy that is described in periodic development plans and Population Perspective Plan has been to enhance population quality, reducing the growth rate of population, regulate internal and international migration and urbanization and management of aging population. Within the context of international conference on Population and Development (ICPD), Beijing Conference, Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs), Nepal has attempted to integrate population dynamics into development planning process. Some progressive steps forward have been made in recent years in reducing Total Fertility Rate (TFR), Maternal and Infant Mortality Rates (MMR and IMR), increasing the life expectancy and the educational status of the general public.

This report has been prepared mainly from the different population issue in relation with ending MDG in 2015 and starting of Sustainable Development Goals (SDG) from 2016. Some major issues highlighted are urbanization, aging, youth, fertility, gender, migration etc. for this publication. The papers in this document were prepared by a team of professionals working in different issues of Population and Development. On behalf of the ministry, I would like to thank them all for their efforts and contributions. It is my hope that this fine collection of topic will be a valuable resource for MoPE as well as readers, and will stimulate further research into the vibrant area of population and development.

I would like to express sincere thanks to all related MoPE officials for their efforts in bringing out this publication.

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LIST OF ACRONYMS/ABBREVIATIONS

ADB	Asian Development Bank
ADRA	The Adventist Development and Relief Agency International
AIDS	Acquired Immune Deficiency Syndrome
AN	Ageing Nepal
ART	Antiretroviral Therapy
ASFR	Age Specific Fertility Rate
AYYP	Adolescents, Youth and Young People
CAC	Comprehensive Abortion Care
CBO	Community Based Organization
CBR	Crude Birth Rate
CBS	Central Bureau of Statistics
CDPS	Central Department of Population Studies
CDR	Crude Death Rate
CEB	Children Ever Born
CEDAW	The Convention on the Elimination of all Forms of Discrimination Against Women
CLC	Community Learning Center
CO2	Carbon Dioxide
CPA	Comprehensive Peace Accord
CPN-M	Communist Party of Nepal (Maoist)
CPR	Contraceptive Prevalence Rate
CPR	Contraceptive Prevalence Rate
CSO	Civil Society Organization
CYP	Commomwealth Youth Program
DALY	Disability-Adjusted Life Years
DDC	District Development Committee
DFID	The Department for International Development
DOTS	Directly Observed Treatment Short Course
DTM	Demographic Transition Model
EAP	Economically Active Population
EHCS	Essential Health Care Service
ESCAP	The Economic and Social Commission for Asia and the Pacific
EU	European Union
FANTA	Food and Nutrition Technical Assistance
FCHVs	Family, Child and Health Volunteers
FDI	Foreign Direct Investment
FP	Family Planning
FPAN	Family Planning Association of Nepal
FY	Fiscal Year
GA	General Assembly
GBV	Gender Based Violence

GDP	Gross Domestic Product
GFR	Generational Fertility Rate
GiZ	German Corporation for International Cooperation
GNI	Gross National Income
GNP	Gross National Product
GO	Government Organization
GoN	Government of Nepal
GPI	Gender Parity Index
GRR	Gross Reproductive Rate
GWA	Gainful Worker Approach
HDI	Human Development Index
HDR	Human Development Report
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ICLSR	International Conference of Labor Statisticians Resolution
ICPD	International Conference on Population and Development
ICW	International Conference of Women
IDP	Internally Displaced Person
IEC	Information, Education and Communication
IED	Improvised Explosive Device
ILO	The International Labor Organization
IMR	Infant Mortality Rate
INGO	International Non Governmental Organization
INSEC	Informal Sector Service Center
IOM	International Organization for Migration
IUD	Intrauterine Device
JICA	The Japan International Cooperation Agency
LDR	Least Developed Region
LDR	Less Developed Region
LFA	Labor Force Approach
LFPR	Labor Force Participation Rate
LGCDP	Local Governance and Community Development Program
LUA	Labor Utilization Approach
LUF	Labor Utilization Framework
MCH	Maternal and Child Health
MDG	Millennium Development Goals
MDR	More Developed Region
MMR	Maternal Mortality Rate
MoFALD	Ministry of Federal Affairs and Local Development
MoH	Ministry of Health
MoHP	Ministry of Health and Population
MoPE	Ministry of Population and Environment
MoPPWTM	Ministry of Physical Planning, Works and Transport Management
MoUD	Ministry of Urban Development

MoWCSW	Ministry of Women, Children and Social Welfare
MWRA	Married Women of Reproductive Age
NCD	Non Communicable Disease
NDHS	Nepal Demographic Health Survey
NER	Net Enrolment Ratio
NGO	Non Governmental Organization
NGS	National Geographic Society
NHSP	National Health Sector Program
NLSS	Nepal Living Standards Survey
NPC	National Planning Commission
NRR	Net Reproductive Rate
PAF	Poverty Alleviation Fund
PDNA	Post Disaster Needs Assessment
PMIS	Population Management Information System
POA	Program of Action
POP	Projection of the Population
PRB	Population Reference Bureau
PRSP	Poverty Reduction Strategy Paper
RH	Reaping Hope
RH	Reproductive Health
SAARC	South Asian Association for Regional Cooperation
SBA	Skilled Birth Attendants
SDC	The Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
SLC	School Leaving Certificate
SNA	System of National Accounts
TDF	The Town Development Fund
TFR	Total Fertility Rate
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	The United States Agency for International Development
UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	The United Nations Children's Fund
USAID	The United States Agency for International Development
VDC	Village Development Committee
WB	The World Bank
WHO	World Health Organization

Table of Contents

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

DEMOGRAPHIC SITUATION

1.1 Concepts

a) Population

A population is the number of all the organisms of the same group or species, which live in a particular geographical area, and have the capability of interbreeding.[1]

The word "Population" usually denotes all the inhabitants of a specified geographical area at a given time. This is concerned with its size, its structure and characteristics, its distribution and the changes taking places due to the interaction of fertility, mortality and migration.

a) Demography

Demography (from prefix demo- from Ancient Greek δῆμος dēmos meaning "the people", and -graphy from γράφω graphō, implies "writing, description or measurement" is the statistical study of populations, especially human beings. As a very general science, it can analyze any kind of dynamic living population, i.e., one that changes over time or space. Demography encompasses the study of the size, structure, and distribution of these populations, and spatial or temporal changes in them in response to birth, migration, aging, and death. Based on the demographic research of the earth, earth's population up to the year 2050 and 2100 can be estimated by demographers. Demographics are quantifiable characteristics of a given population.[2]

b) Population dynamics

Population dynamics is the branch of life sciences that studies the size and age composition of populations as dynamical systems, and the biological and environmental processes driving them (such as birth and death rates, and by immigration and emigration). Example scenarios are aging populations, population growth, or population decline.[3]

c) Population growth

Population growth is the increase in the number of individuals in a population. Global human population growth amounts to around 75 million annually, or 1.1% per year. The global population has grown from 1 billion in 1800 to 7 billion in 2012. It is expected to keep growing, and estimates have put the total population at 8.4 billion by mid-2030, and 9.6 billion by mid-2050. Many nations with rapid population growth have low standards of

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[1] *Wikipedia*. "Population." https://en.wikipedia.org/wiki/Population, 21 June 2017, Web. 24 June 2017.
[2] Wikipedia. "Demography." https://en.wikipedia.org/wiki/Demography, 23 June 2017, Web. 24 June 2017.
[3] Wikipedia. "Population Dynamics." https://en.wikipedia.org/wiki/Population_dynamics, 23 June 2017, Web. 24 June 2017.

living, whereas many nations with low rates of population growth have high standards of living. [4]

1.2 Scholars' Definitions

Demography is the scientific study of human populations, primarily with respect to their size, their structure, and their development.

- United Nations, (1953)[5]

Demography is the statistical and mathematical study of the size, composition, and spatial distribution of human populations, and the effects of changes on the composition and growth of such populations and a change over times these aspects through the operation of the five processes of fertility, mortality, marriage, migration and social mobility".

- Donald Bogue (1969)[6]

Demography is the study of human population in relation to the changes brought about by the interplay of births, deaths and migration.

- Pressat 1985)[7]

1.3 Population Economics and Other Economics

Population Economics and Macro and Micro Economics
Several studies conducted in the past clearly indicate inter-relation between population dynamics and public choice, and the impact of population on distribution of income and wealth. The theory of micro and macro-economic can be adopted in applied population management. While, micro-level examines individual, household or family behavior, including household formation, marriage, divorce, fertility choices, education, labor supply, migration, health, risky behavior and aging; macro-level investigation address issues such as economic growth with exogenous or endogenous population evolution, population policy, savings and pensions, social security, housing, and health care. Moreover, economics always calculate national income for example, GDP, GNP and Per Capita Income based on the population of the country.

Population and Development Economics
Thomas Robert Malthus including other classical economists worried that as the growing population made land increasingly scarce, rising food prices would eventually choke off further economic and population growth, leading to the "stationary state." For classical economists, natural resource constraints, particularly of land, were at the heart of the problem. However, Ester Boserup and the late Julian Simon, argued forcefully that population growth has positive economic effects. Simon pointed out that another birth means

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[4] Wikipedia. "Population Growth." https://en.wikipedia.org/wiki/Population_growth. 24 June 2017, Web. 25 June 2017
[5-7] Ministry of Population and Environment (MoPE), *Nepal Population Report, 2016*.

another mind that can help think up ways of using resources more efficiently. More population could also stimulate investment demand, break down traditional barriers to the market economy, spur technological progress, and lead to harder work (the latter because the presence of more dependents in the household raises the marginal utility of income relative to leisure and leads to longer hours of work). They also noted that a larger population can more easily bear the costs of providing certain kinds of social infrastructure—transportation, communications, water supply, government, research—for which the need increases less than proportionately with less population. Indeed, Simon argued that the ultimate resource was people, and that the world would be better off with more of them.

By the 1980s, policymakers were confused. Was population growth good? Was it bad? Did it matter at all? A reassessment in the 1980s revealed a surprisingly high degree of agreement among economists that population growth matters less than they had previously thought, in part due to the flexibility of free, competitive markets. In market economies, when population growth makes resources scarcer, the prices of those resources rise. This leads consumers to use these resources less while looking for substitutes. The higher prices of resources also give producers an incentive to find new supplies and to substitute cheaper resources as inputs. But, more important, technological progress often reduces prices of resources, even in the face of higher demand.

Population and Health Economics
William Petty (1623-1687), father of Health Economics, attempted to quantify the value of human life by measuring and expressing individual's value in terms of persons' contribution to the national production. Similarly, Vein Dine (1916) estimated the economics effects of Malaria in India in terms of lost output resulting from mortality, disability, and debility. Much of it was termed medical economics, and included gathering financial and social information on health care utilization patterns, investigating the efficiency of hospitals, exploring the desirability of health insurance and looking as the business side of medical practice. Such information shows the causal link between population and health economics.

1.4 Population Situation

1.4.1 Global Update
The history has eminent effect on present as well as future situations. In regards to demographic situation, it is important to study the history of world's population in order to gauge population growth in different corners of the world.

The world's population was estimated at about 300 million in the year A.D. 1, which increased to about 500-800 million by 1750 A.D. The average annual growth rate of population during the period 1 A.D. to 1750 A.D was around 0.56 per 1000 per year, while the growth rate for the period 1750 to 1800 was estimated around 4.4 per 1000 per year.[8]

[8-9] Ministry of Health and Population (MoHP), *National Population Report 2011*.

In the beginning of the 19th century world population was estimated to be around one billion. By 1850 the population has already increased by 300 million i.e. world population in 1850 was estimated to be 1.3 billion. By 1920 the population reached 2 billion, which was estimated to be 3 billion by 1960 (Coale 1974). The next billion in world's population was added by 1975. World reached a population of 5 billion in 1987. It was estimated that the population of the world reached six billion in October 12, 1999. [9]

Figure 1: World Population Prospects
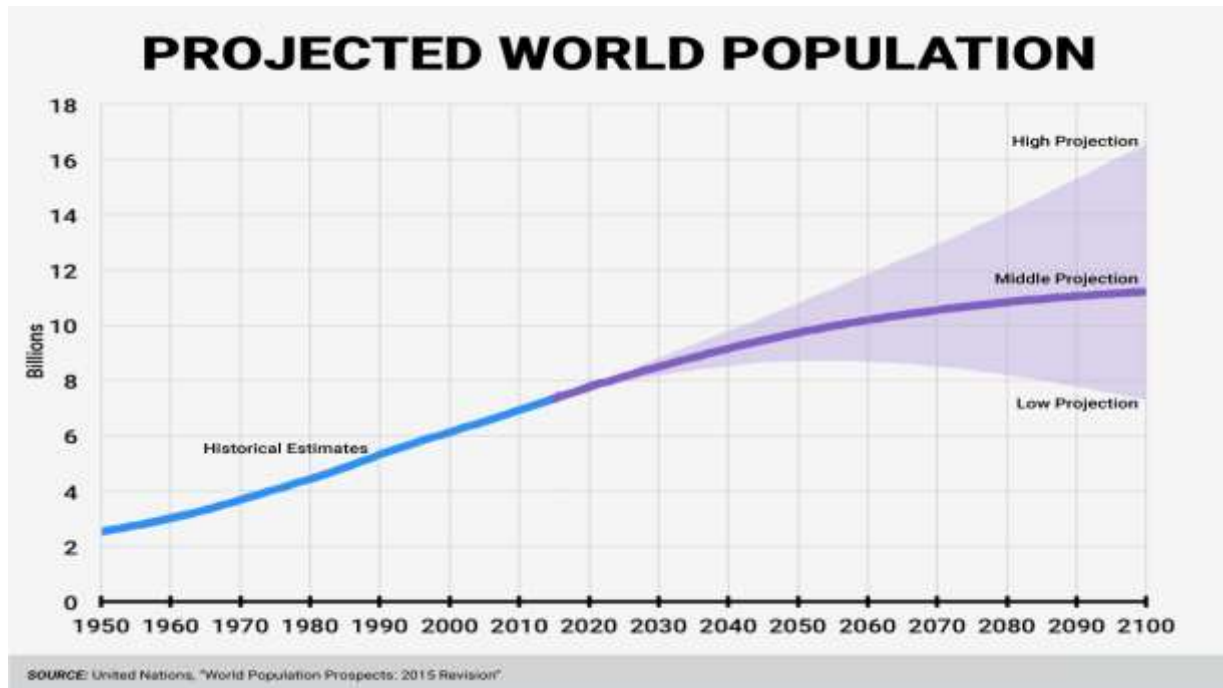
It took hundreds of thousands of years for the world population to grow to 1 billion – then in just another 200 years or so, it grew sevenfold. In 2011, the global population reached the 7 billion mark, and today, it stands at about 7.5 billion.

This dramatic growth has been driven largely by increasing numbers of people surviving to reproductive age, and has been accompanied by major changes in fertility rates, increasing urbanization and accelerating migration. These trends will have far-reaching implications for generations to come.[10]

Table 1: Selected Demographic Indicators of World, 2016

Indicators	World	MDR*	LDR**	LDR***	Asia	Nepal
Population	7418	1254	4778	962	4437	28.4

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[10] United Nations Populations Fund (UNFPA), "World Population Trends." http://www.unfpa.org/world-population-trends, N.d., Web. 25 June 2017.

Indicator							
Projected population (million, mid 2030)		8539	1298	7241	1318	4946	33.3
Projected population (millions, Mid- 2050)		9869	1322	8548	1923	5327	36.4
Crude Birth Rate		20	11	24	33	18	22
Crude Death rate		8	10	7	9	7	7
Urban population (percent)		54	78	49	32	48	20
Infant Mortality Rate		36	5	43	49	31	33
Life expectancy at birth	Total	72	79	70	63	72	68
	Male	69	76	68	61	71	66
	Female	74	82	72	64	74	69
Total Fertility Rate		2.5	1.7	2.6	4.3	2.1	2.3
Population under Age 15 years (%)		26	16	32	40	25	31
Population aged 65 years above (%)		8	17	5	4	8	6
Percent of married women 15- 49 years uses contraception							
Any method		62	67	54	37	66	50
Modern method		56	59	46	32	60	47
Population Density (per sq. miles)		526	238	697	550	919	1345
GNI per capita (2015 in US$)		15415	39963	10214	2424	11969	2500

Source: PRB Data Sheet, 2013.and CBS, Nepal
* MDR= More Developed Region, LDR= Less Developed Region; LDR = Least Developed Region

1.4.1.1 World's Most Populous Countries

The following table provides figures about the 10 most populous nations in the world as of July 2016. While, China is the most populous country in 2016, India is projected to become the most populous country in 2050. It is also clear from the data that by 2050 three SAARC countries will appear in the world's most populous countries list.

Table 2: Most Populous Countries, 2016 and 2050

2016		2050	
Country	**Population (million)**	**Country**	**Population (million)**
China	1,378	India	1,708
India	1,329	China	13,44
USA	324	Nigeria	398
Indonesia	259	United states	398
Brazil	206	Indonesia	360
Pakistan	203	Pakistan	344
Nigeria	187	Brazil	226
Bangladesh	163	Congo, Dem. Rep.	214
Russia	144	Bangladesh	202
Mexico	129	Egypt	169

1.4.1.2 Countries with the Highest and Lowest Total Fertility Rates

According to the world population data sheet (2016), worldwide, the total fertility rate (TFR or average number of children per woman) is 2.5 and 4.4 in the poorest countries. TFRs range from a low of 1.2 in South Korea to a high of 7.6 in Niger. With a current population of 4.3 billion, Asia will likely experience a much smaller proportional increase than Africa, but will still add almost 1 billion people by 2050—determined in large part by trends in China and India. Table 3 shows the highest and lowest TFR countries in the world.

Table 3: Countries with the Highest and the Lowest Total Fertility Rates, 2016

Highest	TFR	Lowest	TFR
Niger	7.6	South Korea	1.2
South Sudan	7.6	Romania	1.2
Congo.Dem.Rep.	6.5	Singapore	1.2
Chad	6.4	Taiwan	1.2
Somalia	6.4	Bosnia-Herzegovina	1.3
Burundi	6.1	Greece	1.3
Angola	6.0	Moldova	1.3
Mali	6.0	Poland	1.3
Mozambique	5.9	Portugal	1.3
Uganda	5.9	Spain	1.3

Source: PRB Data Sheet, 2016

By 2050, Africa is projected to increase to 2.4 billion from 1.1 billion today, making it the region with the largest population growth. But this projection should be treated very cautiously as it assumes that birth rates will decline smoothly in all African countries in much the same way as birth rates declined in other regions.

Asia is home to 60 percent of global population, while China and India account for more than half of Asia's total population. In Latin America/Caribbean region population growth is declining slowing due to lower birth rate in Brazil and Mexico, whereas in North America, immigration is the significant engine of population growth in the United States and Canada due to the fertility decline. Europe's population of 740 million is projected to decrease to 726 million by 2050, but even that lower number depends on whether immigration helps to stall a more-rapid decline. In Australia and New Zealand, continued growth from higher birth rates and immigration is expected.

1.4.2 SAARC update

The following table depicts in detail the demographic situation of the SAARC region as of 2016. While India is the most populous country in the region, Pakistan stands second in terms of population density within the region. Total fertility rate is the highest in Afghanistan and other demographic indicators also show the worse situation in the country.

Indicators		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
Population million mid-2016		33.4	162.9	0.8	1,328.9	0.4	28.4	203.4	21.2
Projected population (million, mid- 2030)		45.5	185.1	0.9	1, 530	0.5	33.3	265.6	21.9
Projected population (million, mid- 2050)		62.4	201.9	1.0	1, 708	0.6	36.4	344.0	21.2
Crude birth rate		37	20	19	22	18	22	30	16
Crude death rate		8	5	6	7	3	7	7	6
Urban population		27	34	39	33	72	20	39	18
Infant mortality rate		68	38	44	40	9	33	69	8
Life expectancy at birth	Total	61	72	68	68	74	68	66	75
	Male	59	71	69	67	76	66	66	72
	Female	62	73	70	70	78	69	67	78
Total fertility rate|		5.3	2.3	2.1	2.3	2.5	2.3	3.7	2.1
Population under age 15 years %		44	33	31	29	27	31	36	25
Contraceptive prevalence rate	Any Method	22	62	66	54	35	50	35	68
	Modern Method	20	54	65	47	27	47	26	52
Population per sq km		429	2122	769	846	10616	1, 345	668	1,628
Gni ppp per capita		1,990	3,550	7, 610	6020	11310	2, 500	5, 350	11480

Sources: PRB Data Sheet, 2016

1.5 Population clock

Population clock is a tool used to predict population of a certain place at a given time. The most common is the World Clock which counts population every second. The following table describes the World Population Clock of 2016. According to this, in every minute, 160 people are being added to the world. In which only 3 additions in more developed compared to 157 additions in less developed countries. This unbalanced spatial addition of the population is the greater challenged for the balanced development of the world.

Table 5: Population clock population in developed, more developed and less developed country, 2016

	World	More Developed Countries	Less developed Countries

Population		7,418,151,841	1,254,309,821	6,163,842,020
Birth Per	Year	147,183,065	13,714,857	133,468,215
	Day	403,241	37,575	365,666
	Minute	280	26	254
Death Per	Year	57,387,752	12,580,616	44,807,108
	Day	157,227	34,467	122,759
	Minute	109	24	85
Natural Increase per	Year	89,795,313	1,134,242	88,661,107
	Day	246, 015	3,108	242,907
	Minute	171	2	169
Infant Death per	Year	5,226,233	65,229	5,160,998
	Day	14,318	179	14,140
	Minute	10	0.1	10

Source: PRB Data sheet, 2016

1.6 Demographic Transition

The "Demographic Transition" is a model that describes population change over time. It is based on an interpretation begun in 1929 by the American demographer Warren Thompson, of the observed changes, or transitions, in birth and death rates in industrialized societies over the past two hundred years or so. The demographic transition was born a lusty infant some 50 years ago. With all its shortcomings, it remains at the centre of the demographic stage.

Thompson (1929), Davis (1945) and Notestein (1945) were the first proponents of Demographic Transition theory. Three basic elements of the transition can be obtained from their writings;

a) It describes the changes that have taken place in fertility and mortality over time.
b) It attempts to construct theoretical causal models to explain the changes that have taken place.
c) Prediction for the changes, which might occur especially in the developing countries in light of the experience of the developed countries.

Implicit in the classical demographic transition theory is the concept of modernization and development, which brings about changes in mortality and fertility. Initially decline in mortality takes place and fertility decline is the response to this decline in mortality. Timing of fertility response depends on the levels of development and modernization in the countries concerned. However, this explanation of fertility and mortality decline was challenged by new information obtained from the European Fertility Project, which found no evidences of association between socio-economic development and demographic change (Knodel and van de Walle 1979).

Caldwell provided further critique to demographic transition theory by stressing the importance of western values regarding nuclear families. In another words, western values were more important than the level of development (Caldwell1976). Caldwell's argument has also been challenged by different studies, which have cited the presence of nuclear families

before the demographic transition (Smith, 1982). In a similar manner, although there has been a remarkable decline in fertility in Taiwan, extended family system is still in place thereby indicating that nuclear family (westernization) is not the prerequisite for fertility decline (Sun et. al.1978).

Although there is still some controversy over the demographic transition theory, it is still an important theory commonly discussed to explain the demographic changes, which are taking place around the world. Basically it can be described in the following stages:

Figure 2: Demographic Transition Model
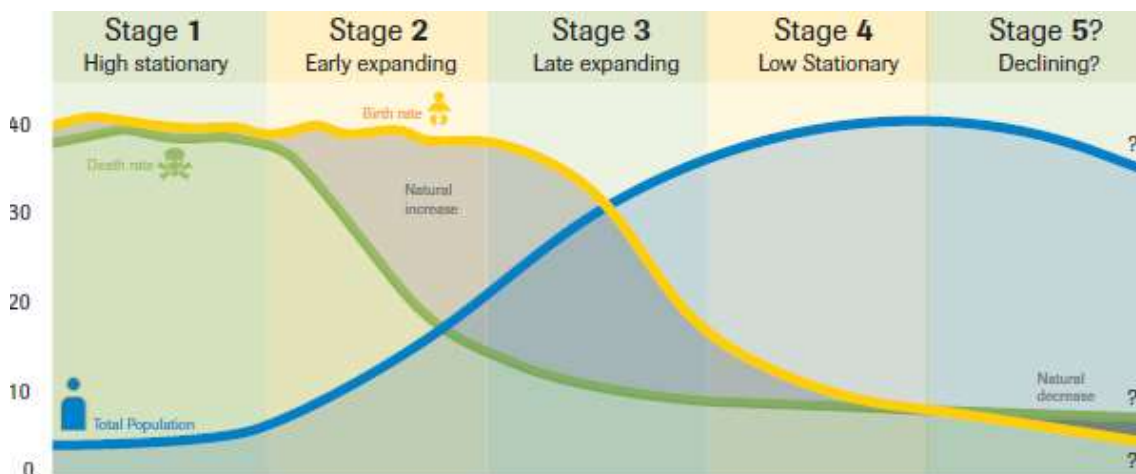
Source: Population Education 2014

In **Stage 1**, which applied to most of the world before the Industrial Revolution, both birth rates and death rates are high. As a result, population size remains fairly constant but can have major swings with events such as wars or pandemics.

In **Stage 2**, the introduction of modern medicine lowers death rates, especially among children, while birth rates remain high; the result is rapid population growth. Many of the least developed countries today are in Stage 2.

In **Stage 3**, birth rates gradually decrease, usually as a result of improved economic conditions, an increase in women's status, and access to contraception. Population growth continues, but at a lower rate. Most developing countries including Nepal fall into this stage.

In **Stage 4**, birth and death rates are both low, stabilizing the population. These countries tend to have stronger economies, higher levels of education, better healthcare, a higher proportion of working women, and a fertility rate hovering around two children per woman. Most developed countries are in Stage 4.

A possible **Stage 5** would include countries in which fertility rates have fallen significantly below replacement level (2 children) and the elderly population is greater than the youthful population.

Nepal's mortality rate started to decline since late 1950s and the pace of mortality decline has become faster since 1990s. Similarly, fertility started to decline much later and at much slower speed than mortality. For instance, fertility in Nepal was more or less constant till early 1980s and started to decline thereafter. Thus, it can be argued that Nepal is in the 3rd Stage of the Demographic Transition where both the fertility and mortality are declining.

Limitations of the Demographic Transition Model

Like any model, there will be outliers and exceptions to the rule and the Demographic Transition Model is no different. Additionally, there are things the DTM cannot reveal: the impact of other demographic variables such as migration, are not considered, nor does the model predict how long a country will be in each stage. But even so, the relationship between birth rate and death rate is an important concept when discussing population and any patterns, such as those provided by the DTM, that aid in understanding are helpful. [11]

1.7 Size and Growth Rate of Population of Nepal[12]

Nepal lies between world's most populous countries - India and China, having total population of more than one billion each. Nepal's 26.4 million population is very small compared to its neighbors; nonetheless, its population distribution has been a matter of great concern for the country.

Nepal undertook its very first census back in 1911, which yielded a population size of 5.6 million. Initial censuses till 1952 were basically head counts backed up by the household level information.

The census of 1952/54 was conducted with technical assistance from the United Nations – this census can be regarded as the first scientific census ever conducted in Nepal. Because of different reasons, this census was carried out in two phases - Eastern part of the country was enumerated in 1952, while Western section was enumerated in 1954. Because the enumeration was carried out in two phases, the 1961 census is generally accepted as the first scientific census in terms of international standard and comparisons.

Based on the 2011 census, Nepal's total population is 26,494,504 (as of June 2011). The average annual growth rate during the last decade i.e. 2001-2011 was 1.35 percent (CBS 2012). The census also revealed the sex ratio i.e. males per 100 females was 94.6. In other words, 48.5% of Nepal's total population is male, whilst 51.8% are female. The total population obtained in different censuses of Nepal, corresponding growth rates and times to double the population have been presented in table 6:

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[11] Population Education, "What is the Demographic Transitional Model?". https://www.populationeducation.org/content/what-demographic-transition-model, 13 October 2014, Web. 26 June 2017

[12] Ministry of Population and Environment (MoPE), "National Population Report 2016. 26 June 2017

Table 6: Population size, growth rate and doubling time, Nepal, 1911 – 2011

Census year	Total Population	Population Change	Annual Growth Rate (Exponential)	Doubling Time
1911 1920	5,638,749 5,573,788	- 64,961	-0.13	-
1930	5,532,574	41,214	-0.07	-
1941	6,283,649	7,51,075	1.16	60
1952-54	8,256,625	19,72,976	2.27	31
1961	9,412,996	11,56,371	1.64	42
1971	11,555,983	21,42,987	2.05	34
1981	15,022,839	34,66,856	2.62	26
1991	18,491,097	34,68,258	2.08	33
2001	23,151,423	46,60,326	2.25	31
2011	26,494,504	33,43,081	1.35	52

Source: CBS 2002, 2012

Population growth rate fluctuations mostly relate to quality of data obtained by the census - notably the coverage and undercount and possibly over-count in different censuses. The table shows the rate of population growth in Nepal is still quite high (1.35 percent) – this growth rate has affected almost every aspect of life, both social and economic. It has caused increased pressure on limited land resource as more and more marginal land is being cultivated. The population growth has also led to shortages of food at places. Because of the need to farm marginal land for food production, forests are being depleted, which have resulted in frequent landslides, floods as well as soil erosion.

1.9 Population Distribution

1.9.1 Spatial Distribution

There are three ecological regions in Nepal - Mountains, Hills and Terai. M*ountains* that lie between altitude of 4877 and 8848 meters comprise 35 percent of land area, while *Hills* lie between altitudes 610 to 4876 and comprises 42 percent of land area. Total of these two regions account 49.7 percent of the total population, according to the census 2011. Similarly, *Terai* region lies below the elevation of 610 meters, which comprises of 23 percent of the total land area and holds more than half (50.3%) of the population. The data presented in the table below clearly shows the proportion of Terai population is increasing, whereas proportions of people living in other two regions are declining over the years. The following factor(s) entirely/partially contribute to disproportionate distribution of population in the ecological regions:

a) Unequal distribution of resources (basic facilities and infrastructure),
b) Availability of productive land in Terai,
c) Difficult topography of Hill and Mountain and
d) Disparity in socio-economic development.

Increased migration (from Mountains and Hills to Terai) can be seen as a result of the aforementioned factors. Additionally, immigrants from the bordering country have played crucial role in the increased population living in the Terai region.

Census yrs.	Mountain	Hill	Mountain & Hill	Terai	Total
1952/54	-	-	5349988	2906637	8256625
			(64.8)	(35.2)	
1961	-	-	5991297	3421699	9412996
			(63.6)	(36.4)	
1971	1138610	6071407	7210017	4345966	11555983
	(9.9)	(52.5)	(62.4)	(37.6)	
1981	1302896	7163115	8466011	6556828	15022839
	(8.7)	(45.5)	(56.4)	(43.6)	
1991	1443130	8419889	9863019	8628078	18491097
	(7.8)	(45.5)	(53.3)	(46.7)	
2001	1687859	10251111	11938970	11212453	23151423
	(7.3)	(44.3)	(51.6)	(48.4)	
2011	1781792	11394007	13175799	13318705	26494504
	(6.7)	(43.0)	(49.7)	(50.3)	

NB: The figures in Parenthesis indicate percentages.
Source: CBS 1995, 2002, 2012.

1.9.2 Population Growth Rate by Ecological Region

Population Growth Rate by Ecological Region, Nepal, 1961/71 - 2001/2011 are presented in Table 8.

Table 8: Population Growth Rate by Ecological Region, Nepal, 1961/71 - 2001/2011

Geographic region	Inter-census period Average Annual Growth Rate				
	1961/71	**1971/81**	**1981/91**	**1991/01**	**2001/11**
Mountain	1.85	1.35	1.02	1.57	0.54
Hill		1.65	1.61	1.97	1.06
Terai	2.39	4.11	2.75	2.62	1.72
Total	2.05	2.66	2.08	2.25	1.35

Source: CBS, 1995 CBS 2002.

As presented in above table, the population growth rate in Terai is high than that of Mountains and Hills. Population in Terai increased by 4.1 percent during 1971-81; however, the population growth rate during 1981-91 declined in all three ecological regions.
During 1991-2001 rate of population growth increased in Mountains and Hills, while gradual reduction was seen in Terai. Likewise, in the period of 2001-2011, the population growth rate decreased in all ecological regions, but the growth rate of Terai was still high than others.

1.9.3 Population Distribution by Development Region

In regards to population distribution by development regions, Central Development Region accounts highest proportion, whilst Far-Western Development Region has lowest. As compared to previous decades, population growth rate during 1981-91, declined in all development regions, with highest decrease in growth rate of Eastern Development Region. It should be noted that this deceleration in population growth could also be the result of undercounting and over-counting of population during censuses.

Table 9: Population Distribution and Growth by Development Regions Nepal, 1981 – 2011

Development	Distribution of Population (%)				Average Annual Growth Rate (%)			
Region	1981	1991	2001	2011	1971-81	1981-91	1991-2001	2001-11
Eastern	24.49	24.05	23.09	21.93	2.86	1.83	1.84	0.84
Central	32.68	33.44	34.09	36.45	2.42	2.33	2.61	1.84
Western	20.83	20.39	19.74	18.60	2.49	1.88	1.92	0.75
Mid-West	13.02	13.04	13.01	13.39	2.77	2.11	2.26	1.63
Far-West	8.78	9.08	9.47	9.63	3.25	2.44	2.26	1.53
Total	100	100	100	100	2.66	2.08	2.25	1.35

Source: CBS 2002, 2003, 2011

During, 1971-81, Eastern Development Region had annual growth rate of 2.86 percent, which decreased to 1.83 percent in the following decade 1981-91. On the contrary, growth rate of Central Development Region came down to 2.33 percent from 2.42 percent in the same decade.

During the decade 1991-2001 highest growth rate was recorded for Far-Western Development Region (2.66 percent), while the second highest rate of growth was recorded for Central Development Region (2.61 percent). Similarly, during the decade 2001-2011, the growth rate in all development regions decreased, wherein the highest amongst all was recorded for Central Development Region (1.84 percent) and the lowest for Western Development Region (0.75 percent).

1.10 Growth Rate and Distribution of Population
1.10.1 Growth Rate and Distribution of Population by Districts
The table 10 (below) presents the distribution and growth rate of population by districts. According to the census of 2011, Kathmandu has the largest population of 1744240, whilst Manang has the least, 6538.

Moreover, the below table also provides area of the districts as well as population density per square kilometer. Kathmandu district has the highest density with 4416 persons per square kilometer, whereas the lowest population density was observed in Manang district with 3 persons per square kilometer.

Table 10: Distribution and Growth Rate of Population by Districts, Nepal 1981-2011

Population District	1981	1991	oo oo	2011	Area in sq. Kms.	Population Density per sq km 2011	Average Annual Growth Rate2001-2011
Taplejung	120780	120053	134698	127446	3646	35	-0.55
Panchthar	153746	175206	202056	191817	1241	155	-0.52
Ilam	178356	229214	282806	290254	1703	170	0.26
Jhapa	479743	593737	688109	812650	1606	506	1.66
Morang	534692	674823	843220	965370	1855	520	1.35
Sunsari	344594	463481	625633	763487	1257	607	1.99
Dhankuta	129781	146386	166479	163412	891	183	-0.19
Terhathum	92454	102870	113111	101577	679	150	-1.08
Sankhuwasabha	129414	141903	159203	158742	3480	46	-0.03
Bhojpur	192689	198784	203018	182459	1507	121	-1.07
Solukhumbu	88245	97200	107686	105886	3312	32	-0.17
Okhaldhunga	137640	139457	156702	147984	1074	138	-0.57
Khotang	212571	215965	231385	206312	1591	130	-1.15
Udayapur	159805	221256	287689	317532	2063	154	0.99
Saptari	379055	465668	570282	639284	1363	469	1.14
Siraha	375358	460746	572399	637328	1188	536	1.07
Dhanusha	432569	543672	671364	754777	1180	640	1.17
Mahottari	361054	440146	553481	627580	1002	626	1.26
Sarlahi	398766	492798	635701	769729	1259	611	1.91
Sindhuli	183705	223900	279821	296192	2491	119	0.57
Ramechhap	161445	188064	212408	202646	1546	131	-0.47
Dolakha	148510	173236	204229	186557	2191	85	-0.91
Sindhupalchok	234919	261025	305857	297798	2542	113	-0.27
Kavrepalanchowk	307150	324329	385672	381937	1396	274	-0.10
Lalitpur	199688	257086	337785	468132	385	1216	3.26
Bhaktapur	144420	172952	225461	304651	119	2560	3.01
Kathmandu	426281	675341	1081845	1744240	395	4416	4.78
Nuwakot	210549	245260	288478	277471	1121	248	-0.39
Rasuwa	30241	36744	44731	43300	1544	28	-0.33
Dhading	236647	278068	338658	336067	1926	174	-0.08
Makawanpur	243411	314599	392604	420477	2426	173	0.69
Rautahat	332526	414005	545132	686722	1126	610	2.31
Bara	318957	415718	559135	687708	1190	578	2.07
Parsa	284338	372524	497219	601017	1353	444	1.90

Chitawan	259571	354488	472048	579984	2218	261	2.06
Gorkha	231294	252524	288134	271061	3610	75	-0.61
Lamjung	152720	153697	177149	167724	1692	99	-0.55
Tanahun	223438	268073	315237	323288	1546	209	0.25
Syangja	271824	293526	317320	289148	1164	248	-0.93
Kaski	221272	292945	380527	492098	2017	244	2.57
Manang	7021	5363	9587	6538	2246	3	-3.83
Mustang	12930	14292	14981	13452	3573	4	-1.08
Myagdi	96904	100552	114447	113641	2297	49	-0.07
Parwat	128400	143547	157826	146590	494	297	-0.74
Baglung	215228	232486	268937	268613	1784	151	-0.01
Gulmi	238113	266331	296654	280160	1149	244	-0.57
Palpa	214442	236313	268558	261180	1373	190	-0.28
Nawalparasi	308828	436217	562870	643508	2163	298	1.34
Rupandehi	379096	522150	708419	880196	1360	647	2.17
Kapilvastu	270045	371778	481976	571936	1738	329	1.71
Arghakhanchi	157304	180884	208391	197632	1193	166	-0.53
Pyuthan	157669	175469	212484	228102	1309	174	0.71
Rolpa	168166	179621	210004	224506	1879	119	0.67
Rukum	132432	153554	188438	208567	2877	72	1.01
Salyan	160734	181785	213500	242444	1462	166	1.27
Dang	266393	354413	462380	552583	2955	187	1.78
Banke	197152	285604	385840	491313	2337	210	2.42
Bardiya	198544	290313	382649	426576	2025	211	1.09
Surkhet	167111	225768	288527	350804	2451	143	1.95
Dailekh	165612	187400	225201	261770	1502	174	1.50
Jajarkot	99312	113958	134868	171304	2230	77	2.39
Dolpa	22043	25013	29545	36700	7889	5	2.17
Jumla	68797	75964	89427	108921	2531	43	1.97
Kalikot	79736	88805	105580	136948	1741	79	2.60
Mugu	35287	36364	43937	55286	3535	16	2.30
Humla	28721	34383	40595	50858	5655	9	2.25
Bajura	81801	92010	108781	134912	2188	62	2.15
Bajhang	124010	139092	167026	195159	3422	57	1.56
Achham	185962	198188	231285	257477	1680	153	1.07
Doti	153135	167168	207066	211746	2025	105	0.22
Kailali	257905	417891	616697	775709	3235	240	2.29

Kanchanpur	168971	257906	377899	451248	1610	280	1.77
Dadeldhura	86853	104647	126162	142094	1538	92	1.19
Baitadi	179136	200716	234418	250898	1519	165	0.68
Darchula	90218	101683	121996	133274	2322	57	0.88

Note: These are adjusted figures and take into account the boundary changes of the districts.
Source: CBS 1995, 2002, 2012.

1.10.2 Districts with highest and lowest population

The table below presents ten most populated and ten least populated districts respectively. As presented in the table 11, Kathmandu along with districts in Eastern and Central Terai are the most populated districts in Nepal. These 10 districts share about one third of the total population (Thapa, A.2013).

Table 11: Ten Most Populated Districts 1991-2011

SN	1991			2001			2011		
	District	**Population**	**Percent**	**District**	**Population**	**Percent**	**District**	**Population**	**Percent**
1	Kathmandu	675341	3.65	Kathmandu	1081845	4.67	Kathmandu	1,744,240	6.58
2	Moran g	674823	3.65	Morang	843220	3.64	Morang	965,370	3.64
3	Jhapa	593737	3.21	Rupendehi	708419	3.06	Rupendehi	880,196	3.32
4	Dhanusa	543672	2.94	Jhapa	688109	2.97	Jhapa	812,650	3.07
5	Rupendehi	522150	2.82	Dhanusa	671364	2.90	Kailali	775,709	2.93
6	Sarlahi	492798	2.67	Sarlahi	635701	2.75	Sarlahi	769,729	2.91
7	Sapatari	465668	2.52	Sunsari	625633	2.70	Sunsari	763,487	2.88
8	Sunsari	463481	2.51	Kailali	616697	2.66	Dhanusa	754,777	2.85
9	Siraha	460746	2.49	Siraha	572399	2.47	Bara	687,708	2.60
10	Mahottari	440146	2.38	Sapatari	570282	2.46	Rautahat	686,722	2.59

Source: CBS, 1995, 2003, 2012. Population Report 2014

These districts have remained in their current position in each census and shared about 29, 30 and 33 percent of total population in 1991, 2001 and 2011 census respectively. Since 1991, populations of these districts have been increasing every successive census.

The ten least populated districts fall under Mountain region of Nepal. The lists of the districts that come under this category have remained same since the census of 1991. As presented in the table, these districts shared 2.76, 2.85 and 2.39 percent of the total population in the census 1991, 2001, and 2011 respectively.

Table 12: Ten Least Populated Districts 1991-2011

S.N.	1991			2001			2011		
	District	Popn	% to total popn	District	Popn	% to total popn	District	Popn	% to total popn

1	Manag	5363	0.03	Manag	9587	0.04	Manag	6,538	0.02
2	Mustang	14292	0.08	Mustang	14981	0.06	Mustang	13,452	0.05
3	Dolpa	25013	0.14	Dolpa	29545	0.13	Dolpa	36,700	0.14
4	Humla	34383	0.19	Humla	40595	0.18	Rasuwa	43,300	0.16
5	Mugu	36364	0.20	Mugu	43937	0.19	Humla	50,858	0.19
6	Rasuwa	36744	0.20	Rasuwa	44731	0.19	Mugu	55,286	0.21
7	Jumla	75946	0.41	Jumla	89472	0.39	Terhathum	101,577	0,38
8	Kalikot	88805	0.48	Kalikot	105580	0.46	Solukhumbu	105,886	0.40
9	Bajura	92010	0.50	Solukhumbu	170686	0.74	Jumla	108,921	0.41
10	Solukhumbu	97200	0.53	Bajura	1087781	0.47	Myagdi	113'641	0.43

Source: CBS, 1995, 2003,2012. Population Report 2014

1.11 Population Density

Nepal's three different ecological regions, namely Mountain, Hill and Terai, differ from each other in terms of climate, topography as well as population distribution. Census data from different time intervals indicate that the population density of these regions has increased over the years. Terai witnessed high density than Mountains and Hills in this regard.

Table 13: Population density (person per sq. km.) by ecological zones & development regions, Nepal, 1981-2011

Zones/Regions		Eastern	Central	Western	Mid Western	Far Western	Total
Mountain	Area sq.km.	10438	6277	5819	21351	7932	51817
	1981	32.41	65.82	3.43	11.35	36.42	25.14
	1991	34.40	75.03	3.37	12.20	41.95	27.85
	2001	38.47	88.39	4.22	14.48	50.15	32.57
	2011	38	82	3	18	58	34
Hill	Area sq.km.	10749	11805	18319	13710	6762	61345
	1981	116.94	178.60	117.41	76.03	89.37	116.76
	1991	132.95	226.98	132.15	88.95	99.18	137.25
	2001	152.87	300.10	152.47	107.44	118.15	167.11
	2011	149	375	153	123	128	186
Terai	Area sq.km.	7269	9328	5260	7317	4845	34024
	1981	290.70	255.97	182.11	91.67	88.23	192.71
	1991	365.72	325.18	252.87	127.14	139.62	253.58
	2001	453.93	421.75	333.32	168.22	205.28	329.59
	2011	525	505	398	201	253	392
Total	Area sq.km.	28456	27410	29398	42378	19539	147181

	1981	130.32	179.10	106.43	46.14	67.56	102.01
	1991	156.25	225.61	128.26	56.87	85.95	125.63
	2001	187.82	293.02	155.49	71.10	112.15	157.30
	2011	204	352	168	84	131	180

Source: CBS 2002, 2012.

Population density of Nepal in 1981 was 102 persons per square kilometer, which is increased to 157 in a period of 20 years. Similarly, in Terai only 193 persons per square kilometer resided in 1981, which increased to 330 in 2001. Mountains had 25 persons per square kilometer in 1981, which increased to 33 after 20 years in 2001. Likewise, the Hills reached 167 from 117 in the interval of 20 years.

As for population density by development regions, the highest was observed in Central Development Region (293), whist the lowest in Mid-Western Development Region (71).

1.12 Sex Ratio

The sex composition of a population is indicated by sex ratio, which is calculated as a ratio of total number of males to that of females multiplied by 100. Thus, it shows the number of males per 100 females. In normal, populations' sex ratio of 103-105 is obtained at birth. This indicates that for every 100 female babies born nearly 105 male babies are born. As the age increases i.e. by the age of five, the sex ratio is considered to be more or less equal as infant and child mortality is higher for male babies. As the age increases, sex ratio gets in favor of females as mortality for males are higher than females.

The sex ratio at birth is around 105 male births for every 100 female births and existing higher risk of death among females than males in the country, low sex ratio can only be explained by the possibility of a large volume of temporary male emigration.

Table 14 shows that females have outnumbered males slightly, largely because adult males go abroad in search of livelihood. However, the censuses of 1971 and 1981 counted more males.

Table 14: Sex Ratio by Ecological Regions, Nepal, 1952/54 - 2011

		Sex Ratio(per 100 female)					
Ecological Regions	1952/54	1961	1971	1981	1991	2001	2011
Mountain			100.79	104.71	98.43	98.39	93.8
Hills	95.95	94.26	98.02	102.14	95.34	95.84	91.4
Terai	100.10	102.14	106.39	108.33	103.85	103.77	96.7
Nepal	96.80	97.05	101.37	105.02	99.47	99.80	94.2

Source: CBS, 1995, 2002, 2012.

The censuses of 1991, 2001 and 2011 yielded more females than males which resulted in overall sex ratio less than 100. This substantial decline in sex ratio during 1981-2011 remained unexplained, for there is no reliable evidence(s) which explains such change in the sex ratio. Moving of male population to foreign lands for work can be speculated; again a large exodus could hardly be possible.

Table 15: Sex Ratio of Population by Ecological & Development Regions, Nepal, 1981-2011

Ecological Zones	Year	Development Regions					
		Eastern	Central	Western	Mid Western	Far-western	Total
Mountain	1981	102	107	108	107	102	105
	1991	96	100	109	103	94	98
	2001	97	99	116	103	96	98
	2011	91	91	116	102	92	94
Hill	1981	101	106	100	100	92	102
	1991	97	102	88	96	92	95
	2001	97	103	87	97	94	96
	2011	90	101	81	90	87	186
Terai	1981	108	107	109	107	116	108
	1991	103	106	103	102	101	104
	2001	102	107	102	101	103	104
	2011	94	102	95	94	94	97
Nepal	1981	105	107	103	103	105	105
	1991	100	104	93	99	96	99
	2001	100	105	93	99	98	100
	2011	92	101	87	93	91	94

Source: CBS, 1995, 2002, 2012.

1.13 Age Structure

The proportion of people at different age groups determines whether population of a particular country is young or old, or getting older or younger. In general, a population with more than 35 percent under age 15 is considered young and population with more than 10 percent aged 65 and above is considered old.

Age structure is affected by the fertility, mortality and migration. However, under normal situation, the effect of mortality and migration is smaller and proportion of population at each age group is mainly affected by fertility. Distribution of population by five year age group is shown for males and females based on census data in table 16.

Table 16: Percentage Distribution of Population by Five-year age groups, Nepal, 1981-2011

Age Groups	1981		1991		2001		2011		
	Male	Female	Male	Female	Male	Female	Male	Female	Total
0-4	15.5	15.3	14.9	14.4	12.29	11.95	10.23	9.18	9.69
5-9	14.5	14.6	15.5	14.8	14.38	13.87	12.73	11.50	12.10
10-14	11.9	10.8	13.1	12.1	13.50	12.73	13.73	12.54	13.12
15-19	9.0	8.6	9.5	9.9	10.44	10.57	11.23	10.91	11.07
20-24	8.3	9.5	7.9	9.3	8.33	9.40	8.13	9.63	8.90
25-29	7.4	8.1	7.0	7.8	7.23	7.95	7.14	8.52	7.85
30-34	6.1	6.9	6.0	6.5	6.39	6.71	6.00	7.07	6.55
35-39	6.0	5.9	5.6	5.5	5.73	5.79	5.76	6.33	6.06
40-44	4.9	5.1	4.5	4.7	4.75	4.82	5.14	5.32	5.23
45-49	4.3	3.9	4.1	3.9	4.13	3.99	4.48	4.38	4.43
50-54	3.8	3.4	3.3	3.1	3.46	3.28	3.94	3.66	3.80
55-59	2.4	2.2	2.7	2.3	2.80	2.49	3.21	2.97	3.09
60-64	2.5	2.4	2.3	2.3	2.31	2.27	2.87	2.85	2.86
	3.4	3.1	3.6	3.4	4.26	4.16	5.41	5.13	5.28

Source: CBS, 1995, 2002, 1012.

Table 16 presents Nepal's population composition primarily as young people and it has remained same since 1960s. About 35 percent of its present population is under 15 years of age. Similarly, about 57 percent of the population is in the age group 15-59. This age structure indicates approximately three person is in the working ages (15-59 years) have to care for two persons with age less than 15 years old and aged 60 years or more. This age structure of Nepalese population is mainly due to declining fertility and mortality.

Based on the present age structure, large share of resources should be spent on basic facilities targeting young people, such as education, nutrition and health. Given the fact that young people hold large share of the total population, it makes perfect sense to spend majority of resources for the wellbeing of young because population momentum of the country is still very high, indicating that the population will continue to grow for quite some time even if the fertility were to reach replacement level.

From the Table it can be seen that percentage of 10-14 age group population is highest in the 2011 population census. Under normal situation age group 0-4 should have the largest population. The age structure of the population in the census year 2001 is shown in the figure 3.
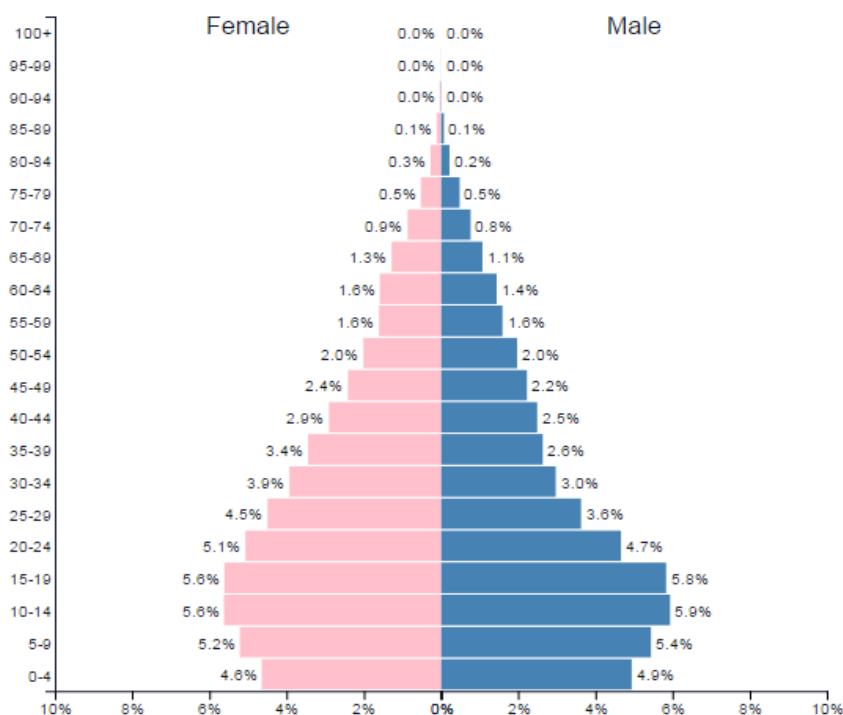
1.13.1 Distribution of Women aged 15-49, by five year age groups.

Fertility has direct influence upon population growth rate. A large number of births will take place will take place given a fixed fertility rate if there are more women in the reproductive age group. As the age group of women increases, the proportion of women in each group decreases. However, in the 1981 census the number of women in the age group 20-24 was greater than the number of women in the age group 15-19. This could be due to age misreporting in the censuses of Nepal.

About 52 percent of women are in the reproductive age in Nepal. Almost every woman marries and that too at early age. Thus higher proportion of married women coupled with higher fertility levels contribute to high rate of population growth.

The proportion of women in the reproductive age group has increased slightly over the last 10 years. This could be mainly due to declining fertility whereby the proportion of younger population less than 10 year of age has declined.

Table 17: Population distribution by region

State	Total Population	Male	Female	Households
1	4534943	2166536	2368407	992445
2	5404145	2717938	2686207	932308
3	5529452	2747633	2781819	1270797

4	2397855	1088228	1309627	576870
5	4736008	2253253	2482755	930718
6	1339584	657566	682018	254193
7	2552517	1217887	1334630	469971

1.13.2 Adolescents and Youth

Nepal still has an unacceptably high fertility rate compared to other developing countries. Because of its high levels of fertility over the last few decades and its very recent fertility decline, Nepal is faced with a large adolescents and youth population in its population composition. The adolescents and youth population as they enter into their reproductive phase embody potential population growth for next three/four decades. These populations constitute population momentum in the future that has serious implications for provision of schooling, health services and other basic amenities of life for the coming decades.

Adolescence is a transitional stage of physical and mental human development that occurs between childhood and adulthood. This transition involves biological (i.e. pubertal), social, and psychological changes, though the biological or physiological ones are the easiest to measure objectively. Historically, puberty has been heavily associated with teenagers and the onset of adolescent development. Adolescence is the second decade of life and it is a period of rapid development, major physical change take place and differences between boys and girls are emphasized. Adolescents are often thought of as a healthy group. Nevertheless, many of them do die prematurely due to accidents, suicide, violence, pregnancy related complications and other illnesses that are either preventable or treatable. In addition, many serious diseases in adulthood have their roots in adolescence. For example, tobacco use, sexually transmitted infections including HIV, lack of nutrition and exercise habits, lead to illness or premature death later in life (WHO).

Youth is the time where a person's life is in between childhood and adulthood. The majority (almost 85%) of the world's youth live in developing countries, with approximately 60 percent in Asia alone. A remaining 23 percent live in the developing regions of Africa, and Latin America and the Caribbean. By 2025, the number of youth living in developing countries will grow to 89.5%. Therefore, it is necessary to take youth issues into considerations in the development agenda and policies of each country.

If one were to look for the proportionate share of population in these groups, one would find that adolescents in Nepal cover 23.62 percent of the total population i.e. nearly a quarter of the population. It should be noted that for a period of nearly three decades this group of the population will be in the reproductive age and will be bearing children. If we were to look at the proportion of population in the youth category we would find that 19.38 percent i.e. nearly a fifth of the total population is in this group. It should be noted that this group is already in the reproductive age group and already contributing to population growth. If we are to control the rate of population growth through addressing fertility then these groups

need to be targeted for the population related programs. In general, young people (10-24 years) constitute of almost 33 % of the total population of Nepal.

CHAPTER II

FERTILITY AND ITS PROXIMATE DETERMINANTS

2.1 Fertility

Fertility is one of the major factors determining the structure, distribution and growth of any population. Other effective demographic processes are mortality and net migration. Among these factors, fertility determines the age structure of a population. Compared to other demographic processes, the study of fertility is complex because it is affected by host of factors including biological as well as behavioral. Countries' fertility rate has many short -term and long term political, social and economic effects. For example, the demand for social services and medical care, political views and voting patterns, the financing of pay -as - you- go social security systems are all determined by the present and past fertility rates of the population.

Fertility refers to the number of live births, and is more easily measured for women because they actually give birth to babies. Marital fertility is the term which covers the number of live births to married women. Natural fertility refers to populations where women make no effort to limit the number of their children using birth control. One simple measure of fertility is to take the average of mean live births to women a particular age.

The most common measurement of fertility is the Total Fertility Rate (TFR). The TFR is the average number of children that would be born alive to a woman during her lifetime, if she was to bear children at each stage according to the prevailing age- specific fertility rates. The TFR is obtained by summing the age-specific rates in a particular calendar year across all childbearing ages. Therefore the TFR shows cross sectional (that is at births occurring in a specific period of time, normally one year) picture of fertility and consists of values from many generations of women who are at different childbearing stages in any given year. An alternative measure of fertility is the Generational Fertility Rate (GFR) (also referred to as the Longitudinal Fertility Rate). The GFR is the sum of the age-specific fertility rates lifetime of any birth cohort. Therefore it represents the actual number of births that a particular cohort of women experienced over their reproductive lifetime.

It can be said that there are broadly two ways of approaching the study of fertility: period and cohort. Period analysis looks at fertility cross-sectional that is at births occurring in a specific period of time, normally one year. Cohort Analysis on the other hand looks over time, at their reproductive history. In spite of the general theoretical preference for cohort measures, the literature suggests that period influences tend to be more powerful than cohort influences in explaining fertility behavior.

It is important to understand what causes the changes in fertility, so as to produce accurate predictions for the future. Demographers have developed different measures of fertility for

its analysis. However, we will mainly focus on four indicators; namely Crude Birth Rate (CBR), Age Specific Fertility Rate (ASFR), Children Ever Born (CEB) and Total Fertility Rate (TFR).

2.1.1 Crude Birth Rate

The Crude Birth Rate is defined as the number of live births per thousand persons in a given area for a particular year. Although, simple to calculate and easy to understand, it is a crude measure, because it uses persons from all age groups and both the sexes involve in the denominator. Age/sex structure of the population has an important bearing on the Crude Birth Rate, it is ignored altogether. For example, even if two countries have the same age-specific fertility rates, their crude birth rates may be substantially different if their age/sex compositions are different. Despite being a crude measure, it is one of the most commonly used summary measures for level and trend analysis of fertility.

Fertility measures including CBR are calculated either through indirect methods or through direct methods. In the absence of vital registration and survey data, indirect method of fertility estimation is usually used. These methods are based on stable population, which utilizes the age-structure of population and other available demographic parameters for the estimation of fertility and mortality indicators. Once the survey data are available, direct method of fertility estimates are commonly used.

Demographic surveys carried out before 1991 have indicated some problems of data quality, especially omission and displacement of vital events. Because of this, till 1986, different censuses and surveys provided fertility estimates based on indirect method [i.e. stable population estimates or different versions of P/F ratio methods. P/F ratio may be defined as the ratio of present vs. past (cumulative fertility).

Table 18 provides estimates of CBR over time for Nepal. It indicates that CBR in Nepal was high till the mid eighties. After the mid-eighties, CBR has been gradually declining. The Nepal Demographic and Health Survey, 2011 has indicated that the CBR is around 24.3 per thousand in Nepal. Although, this means a decrease of around 4 points during the last 5 years, this CBR is still considered to be quite high.

Table 18: Birth Rate by various sources, Nepal, 1952/54 - 2016

S.N	Sources	Years	Crude birth rates (per 1000 population)
1	United Nations, ESCAP	1952-54	45.0
2	Vaidhyanathan and Gaige	1954	48.7
3	Krotki and Thakur	1961	47.0
4	CBS(Census data)	1971	42.0
5	Nepal Fertility Survey, MOH	1976	45.5
6	CBS(Census data)	1981	44.0
7	Nepal FP/MCH Project, MOH	1981	42.9
8	CBS Demographic Sample Survey	1986	40.7
9	CBS(Census data)	1991	41.6

10	Nepal Family Health Survey, 1996	1994-96	37.0
11	Nepal Demographic Health Survey, 2001	1998-2000	33.5
12	Nepal Demographic Health Survey, 2006	2003-2005	28
13	Nepal Demographic Health Survey, 2011	2008-2010	24.3
14	Population Reference Bureau	2016	22
15	Nepal Demographic and Health Survey, 2016	2016	22.4

2.1.2 Age Specific Fertility Rates (ASFRs)

The ratio of children born to a specific age group of women to the number of women in the risk of bearing children is Age Specific Fertility Rates (ASFRs). These are more refined measure of fertility as the age/sex structure of a population is taken into account. Thus, international comparisons of ASFRs can easily be made while CBR described earlier and should not be compared internationally unless standardized for the age/sex structure of the population. Commonly, five-year age groups are considered while calculating ASFR.

There is an inverted U-shaped relationship between fertility and the age of women. In other words, during early part of reproductive life fertility is low. It increases to a maximum value during the twenties and then declines when women get older. Table 19 presents ASFRs for Nepalese women aged 15 to 49 from 1971 to 2016.

The age pattern of fertility indicates that Nepalese women have the highest fertility in the early part of childbearing period. For example, in 2008-2010, of the one thousand women in the age range 20-24, 187 women give births in a given year while the corresponding figure for women in the age range 35-39 is only 36. If the ASFR for the period 2008-2010 and 2016 are compared, it is seen that fertility has declined for all the ages except for age group 15-19 and 20-24.

Table 19: Age Specific Fertility Rates, Nepal, 1971-2010

Age group	1971	1976	1981	1984-86*	1989-91*	1994-96*	1998-2000*	2003-05	2008-10	2016
15-19	0.074	0.145	0.066	0.099	0.101	0.127	0.110	0.098	0.081	0.088
20-24	0.267	0.290	0.230	0.261	0.263	0.266	0.248	0.234	0.187	0.127
25-29	0.310	0.295	0.266	0.230	0.230	0.229	0.205	0.144	0.126	0.124
30-34	0.261	0.269	0.245	0.200	0.169	0.160	0.136	0.084	0.071	0.059
35-39	0.196	0.169	0.206	0.114	0.117	0.094	0.081	0.048	0.036	0.018
40-44	0.109	0.075	0.142	0.068	0.055	0.037	0.034	0.016	0.014	0.006
45-49	0.043	0.023	0.099	0.049	0.026	0.015	0.007	0.002	0.005	0.002

ASFRs are based on births that occurred three years prior to the survey Source: CBS 1995; MOH1997; MOH 2002, 2012.
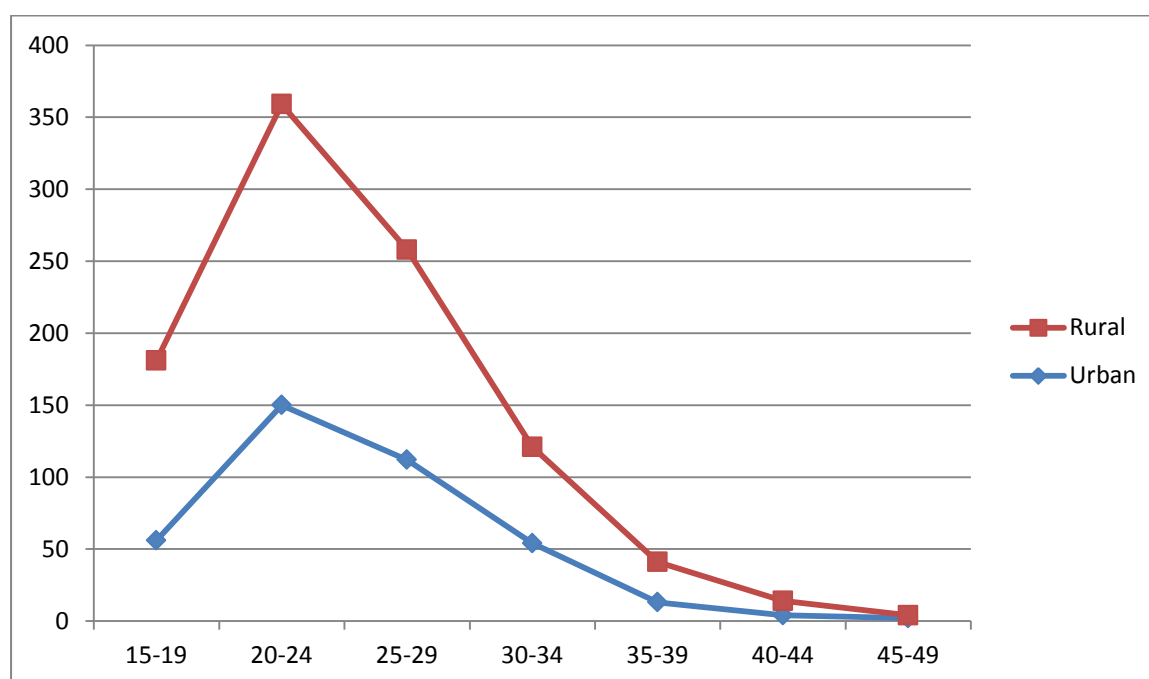
Source: NDHS, 2016

The figure above clearly shows that ASFR in rural parts of Nepal is much higher than that of urban areas, mostly due to early marriage and lack of education.

2.1.3 Total Fertility Rate (TFR)

Another measure commonly used to describe the level of fertility is Total Fertility Rate (TFR). Verbally TFR is defined as the number of children of a woman would bear during her childbearing period under prevailing age specific fertility rates (i.e. ASFRs). The TFR is calculated as the sum of ASFRs. As we have used ASFR for 5 year age groups, the sum of ASFRs need to be multiplied by 5 to obtain the TFR. Although, defined as a cohort measure, in fact, it is a synthetic cohort measure based on period data. It is the most commonly used summary measure of fertility as it is free from age distribution of a population. This is also used to compare fertility levels between different places. This measure is also widely understood and used by policy makers and planners. Table 20 provides the different estimates of TFR from 1971 to 2016.

Table 20: Total Fertility Rate, Nepal- 1971-2016

S.N	Data Source	Year	Total Fertility Rate
1	CBS Census, 1971	1971	6.3
2	Nepal Fertility Survey 1976, MOH	1975-1976	6.33
3	Nepal Contraceptive Prevalence Survey 1981, MOH	1980-1981	6.27
4	Nepal Fertility and Family Planning Survey 1986, MOH	1984-86	5.1
5	Nepal Fertility Family Planning and Health Survey 1991, MOH	1989-91	4.8
6	Nepal Family Health Survey 1996, MOH	1993-95	4.6
7	Nepal Demographic and Health Survey 2001, MOH	1998-2000	4.1
8	Nepal Demographic and Health Survey, 2006	2003-2005	3.1
9	Nepal Demographic and Health Survey, 2011	2008-10	2.6
10	Population Reference Bureau	2016	2.3

| 11 | Nepal Demographic and Health Survey, 2016 | 2016 | 2.3 |

* These rates are based on births occurring 3 years preceding the survey and are direct estimates.
Source: CBS 1995; MOH1997; MOH 2002a, MOHP, 2006, 2012.

Table 20 shows that the estimate of TFR for Nepal was almost constant till the eighties and started to decline thereafter reaching to just 2.3 in 2016 from 6.3 in 1971. The latest report from Nepal Demographic and Health Survey 2016 has provided an estimate of TFR for Nepal to be 2.3 and although a detailed analysis of causes of decline in fertility has not been done, possible causes for this decline after mid-eighties could include a) increased use of family planning methods b) increased age at marriage c) improved level of education d) increased urbanization and e) spousal separation due to conflict and employment etc.

Replacement Level of fertility is the average number of children sufficient to replace their parents. The replacement level of fertility is measured by GRR (Gross Reproductive Rate) and NRR (Net Reproductive Rate). If the NRR=1, then we called it as the replacement level of fertility. Actually it is the level of fertility at which women in the same cohort have exactly enough daughters on average to replace themselves in the population.

Population momentum refers to the tendency of the population to continue to grow after replacement level of fertility has been achieved. A population that has achieved replacement of below replacement level of fertility may still continue to grow for some decades because past high fertility leads to a high concentration of people in the youngest ages. Total births continue to exceed the total deaths as these youth becomes parents. Eventually, however, this large group becomes elderly then deaths increase to equal or out number of births. Thus it may take two or three generations before each new birth is upset by a death in the population.

TFR is usually used to measure the levels of fertility in any place. If the TFR is 2, then the fertility level is said to be at replacement level of fertility, however the exact level replacement fertility can only be measured by the values of Gross Reproduction Rate (GRR) and Net Reproduction Rate (NRR).

2.1.4 Fertility Trends

The total fertility rate (TFR) is a constructed measure of the number of children a women would have if she completed her reproductive years at the prevailing age -specific fertility rates. Figure 5 shows the trends in TFR in Nepal over the last 25 years , as measured in the three years prior to the survey from 1986 to 2006 , the TFR fell by 39 percent (from 5.1 to 3.1). However, the rate of decline slowed as fertility approached replacement level, from 3.1 in 2006 to 2.6 in 2011.

TFR
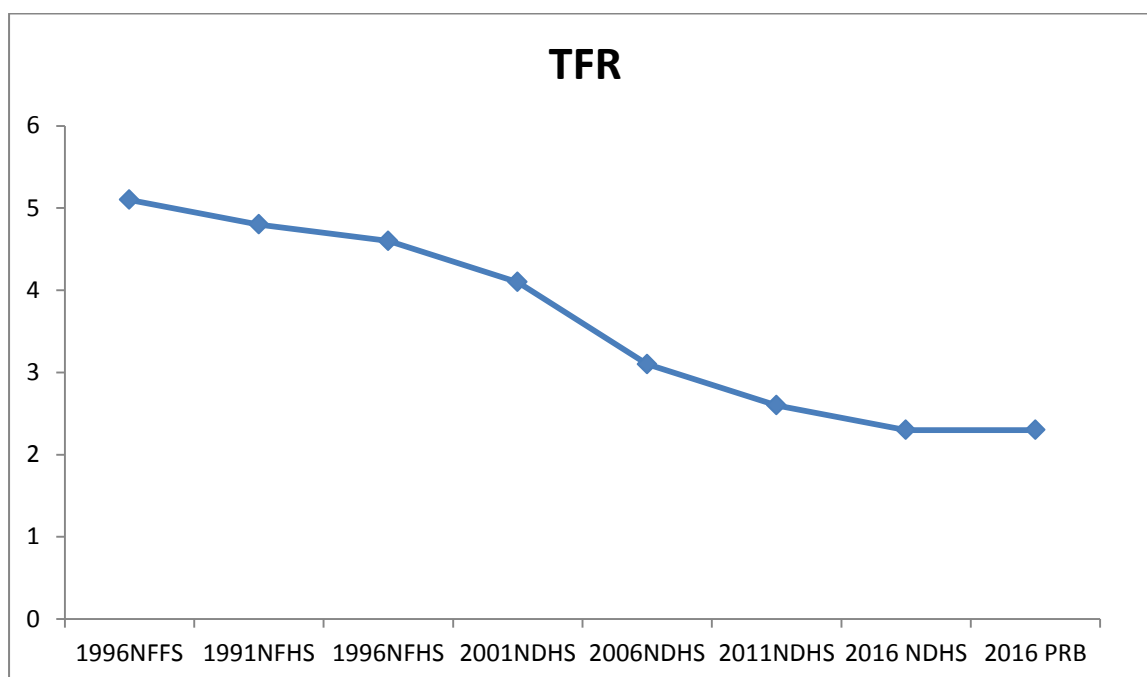
The figure above shows that the trend in TFR has declined exponentially from 1996 till 2016. Improved education, communication and greater access to modern methods of contraception are some of the reasons for the decline. Extended spousal separations due to international migration of Nepalese in search of employment in foreign countries, especially the Gulf countries and other Southeast Asian countries may be another contributing factor for the fertility decline. A decline in the ideal number of children, increasing age for marriage, job opportunity for women and increase of safe abortion services are other factors that could potentially affect fertility.

2.2 Fertility Differentials

The change in fertility level by any specific phenomenon or characteristics is called fertility differential. During the early phase of fertility transition, the differentials in fertility emerge and large differentials can be observed for some key socio-economic variables. Table 2.4 provides fertility differentials by place of residence, ecological region, development region and education. In Table 2.4, mean number of Children Ever-Born (CEB) by women aged 40-49 have also been displayed. Mean number of children ever-born for women 40-49(or 45-49) can be regarded as a cohort measure of TFR. It should be noted that some women may have given births to their children quite early, thus, they might misreport live births, which might have resulted in death soon after birth. Following differentials in TFR can be clearly seen, when one looks at the NDHS 2006 data on TFR:

1. The TFR in the Terai region is similar to that observed in the Hill region while the TFR in the mountain region is around one child higher.
2. By development regions the TFR in the eastern, central and western regions is similar (2.5) and mid western region has the highest TFR (3.2) and far western region has a TFR 2.8.
3. Women with SLC and above have a TFR of 1.7, which is less than half of the rate for

29

women with no education (3.7).

4. Similarly, urban women have lower fertility (on an average by two births) than their rural counterparts. It should be noted that the urban TFR is under replacement level of fertility.

Table 21: Level of TFR and Mean Children Ever Born [Mean CEB] 40-49) by Background Characteristics Nepal, 1994-1996 and 2008-2010

Background Variables	TFR				Mean CEB 40-49			
	1994-1996	1998-2000	2003-2005	2008-2010	1994-1996	1998-2000	2003-2005	2008-2010
Place of residence								
Urban	2.9	2.1	2.1	1.6	4.6	4.5	3.7	3.3
Rural	4.8	4.4	3.3	2.8	5.8	5.5	5.1	4.4
Ecological Region								
Mountain	5.6	4.8	4.1	3.4	6.2	6.1	5.4	4.8
Hill	4.5	4.0	3.0	2.6	5.6	5.4	4.6	4.2
Terai	4.6	4.1	3.1	2.5	5.7	5.3	5.0	4.2
Development Regions								
Eastern	4.1	3.8	3.1	2.5	5.4	4.9	4.7	4.0
Central	4.6	4.3	3.0	2.5	5.6	5.4	4.7	4.2
Western	4.7	3.5	3.1	2.5	5.5	5.3	4.6	4.0
Midwestern	5.5	4.7	3.5	3.2	6.6	6.4	5.6	5.0
Far Western	5.2	4.7	3.5	2.8	6.2	6.0	5.6	4.9
Educational Status								
None	5.1	4.8	3.9	3.7	5.8	5.6	5.1	4.6
Primary	3.8	3.2	2.8	2.7	5.3	4.5	4.0	4.0
Secondary	2.5*	2.3	2.3	2.1	3.7*	3.7	3.3	2.9
SLC and above	-	2.1	1.8	1.7	-	2.6	2.6	2.2
Total	4.6	4.1	3.1	2.6	5.7	5.4	4.9	4.3

Source: MOH, 1997, 2002, 2006, 2011

Comparison of TFR differentials for the period 1998-2000, 2003-2005 and 2008-2010 suggest that the differentials by socio-economic variables have increased substantially over the years. This is an indication of declining fertility trend in Nepal as well as faster decline in fertility for the advantaged group of population as indicated by lower fertility for educated women as well as women living in urban areas.

Table 21 also provides the mean number of children born to women aged 40-49. Similar differentials in the mean number of children born to women aged 40-49 can also be seen. However, the differentials are smaller and increase in the differentials over the last five years is also smaller.

Moreover, it should be noted that the mean number of children ever born to these women (40-49) is considerably higher than the TFR discussed earlier. Let's not forget that TFR is a synthetic cohort measure based on period data, while the mean number of children ever-born to women (40-49) is a cohort measure. TFR is based on the recent data on ASFRs, while the mean number of children ever-born to women is based on the ASFRs prevalent during the

last 25-30 years. As the fertility was higher in earlier period, it is natural that the cohort TFR measure is also higher.

2.3 Proximate Determinants of Fertility

The description of fertility analysis is the outgrowth of pioneering work of Davis and Blake (1956) on social structure and fertility and Henry (cf.1972) and (CF Sheps and Menken, (1973) on mathematical modeling of reproduction. Their work has been expanded and extended by the likes of Easterlin (1975) and Bongaarts (1982, 1983): Bongaarts and Menken (1983); Bongaarts and Potter (1983) and Bulatao and Lee (1983). In the general accepted framework, fertility is governed by two types of proximate determinants or intermediate variables. Those affecting the exposure to the risk of child bearing and those affecting the rate of fertility during the period of exposure, equivalently and interval births in that period.

Davis and Blake (1956) produced a classification of 11 intermediate variables which have a direct effect on fertility. Socio-economic, bio-social and other factors can have only indirect effect in fertility. The intermediate variables fit into three categories: the intercourse variables, the conception variables; and the gestation variables. Each intermediate variable may have a negative (minus) or positive (plus) effect on fertility. For example, if contraception is used in a society, this has a minus effect. If contraception is not used, this has plus effects.

Bongaarts (1978, 1982) and Bongaarts and Potter (1983) refined Davis and Blake's framework into 7 important factors, which were termed as the proximate determinants of fertility to understand variations in level of fertility between populations. The 7 proximate determinants are:

- Proportion of married women among all women of reproductive age
- Contraceptive use and effectiveness
- Duration of postpartum infecundability (or postpartum insusceptibility)
- Induced abortion
- Fecund ability (including frequency and timing of intercourse)
- Prevalence of permanent sterility
- Spontaneous intrauterine mortality

Out of the 7 proximate determinants of fertility, Bongaarts (1982) showed that 4 determinants are most important in terms of explaining variations in fertility levels of populations.

- Proportion of women married or sexual union (as proxy of % of women exposed to sexual intercourse.
- Contraceptive use and effectiveness
- duration of postpartum infecundability (or postpartum insusceptibility)
- Induced abortion.

These 4 proximate determinants are of most importance because they differ greatly between populations and because fertility is highly sensitive to changes. In certain situations, one or more of the other proximate determinants may play an important role, e.g. high levels of primary and secondary sterility in parts of Africa. Also sexual activities are often not confined only within marriage.

2.4 Nuptiality

In societies, where child bearing takes place mostly within marriage, timing of marriage marks the beginning of women's exposure to child bearing. In other words, age of marriage in most of the societies begin a woman's exposure to the risk of child bearing. Age of marriage is a major determinant of the duration and tempo of fertility in a population. Consequently, age of marriage and proportion of women who've never married are important proximate determinants of fertility (Bongaarts and Potter, 1983).

> Nuptiality refers to Marriage, separation, divorce, widowhood and remarriage in Demography. Their importance arises partly from their relationship with the age at which sexual relation begins and end and partly with the formation and dissolution of families and households.

The Nepalese society is characterized by early and nearly universal marriage. Marriage usually takes place early and by the age of 30 almost every woman is already married. In populations, where use of contraception is low, early marriage leads to longer exposure to child bearing. Therefore, early and universal marriage practice in Nepal results in long-term social and economic consequences including higher fertility.

Table 22: Percentage of Women Never Married by Age, Nepal, 1961-2011

Age group	1961	1971	1981	1991	2001	2006	2011
15-19	25.7	39.3	49.2	52.7	66.1	67.7	71.0
20-24	5.3	7.9	13.1	12.8	21.0	17.9	22.6
25-29	1.9	2.6	5.4	3.7	5.6	4.4	7.0
30-35	1.0	1.4	3.1	1.9	2.6	1.6	2.0
35-39	0.8	1.1	2.6	1.3	1.8	1.4	1.4
40-44	0.7	0.9	2.5	1.1	1.5	1.3	1.2
45-49	0.6	0.8	2.9	0.9	1.2	1.2	1.3

1961-91 data are from censuses and 2001-2011 data are based on NDHS.
Source: CBS 1995, 2002; MOH 2002 and 2006, 2011

2.4.1 Widow/Widower

In Nepal, almost all of the childbearing takes place within marriage. Therefore proportion of population widower or widow will also have an effect on fertility. Data on widowhood for both men and women have been presented in Table 23. The table indicates that from 1961 to 2011 the number of both widow and widower have gone down significantly. This indicates that mortality for adult population has declined over the years. For example, in 1961, percentage of male widower was 4.8, which decreased to 1.3 by 2001. Among women, in 1961, percentage widow was 14.3, which decreased to 3.7 percent by 1991. The census of 2011 indicated that of the total male population 10 years or older, only 1.6 percent is widowers while this figure is 4.6 for women aged 10 years or older. This sharp decline in proportion of widow and widower is due to fall of mortality among adult population. Proportionately more women are widowed compared to males for all age categories. This could be partly explained by a) age difference between males and females at the time of marriage; as husbands are older it is more likely that proportionately more women become

widows b) a substantial proportion of males remarry when they are widowers, while very few women remarry when they are widowed and c) during reproductive years female mortality could also be higher, as depicted by a high maternal mortality.

Table 23: Percentage of widow/widower, 10 years and above, Nepal, 1961 - 2011

Sex	Census Years					
	1961	1971	1981	1991	2001	2011
Male	4.8	3.7	2.4	3.0	1.3	1.6
Female	14.3	10.1	5.5	7.2	3.7	4.6

Source: CBS 1995, 2002. 2012

Divorce and separation between husbands and wives are another important variable, which affects fertility. Although the proportion of men and women divorced or separated is increasing over time, this figure is still too low to have any significant effect on fertility.

2.4.2 Age at First Marriage

In Nepal, with parental consent, legal minimum age at marriage for both girl and boy has been set at 18 years. If the boys and girls want to marry on their own then the minimum legal age at marriage for both girls and boys is 20 years. In many ethnic groups, this was hardly followed in the beginning and the mean age at marriage was quite low then. In some societies, girls are still married at younger ages indicating that the above mentioned legal provision is yet to be practiced to a full extent.

As discussed earlier, the increase in the proportion of men and women remaining single for different age group indicates that the mean age at marriage for men and women is increasing over the years.

The trend of age at marriage since 1961 to 2001 is provided in the figure 2.3. It should be noted that the age at marriage provided below is calculated from the census data and is based on persons remaining single for different age categories. These means are thus called singulate mean age at marriage. The data on singulate mean age at marriage in the population census 2011 has not yet come out. So the following table shows the trend up to 2001 census. Figure 2.3 indicates that the age at marriage for both the males and the females has been increasing gradually over the years. The 1991-2001 decade has shown a remarkable change in the singulate mean age at marriage. Perhaps, this increase is due to increasing urbanization and education (including literacy) among men and women. Although data have not been presented here, the NDHS, 2011 has shown that education and urban residence are the key variables associated with higher ages at marriage among Nepalese men and women.
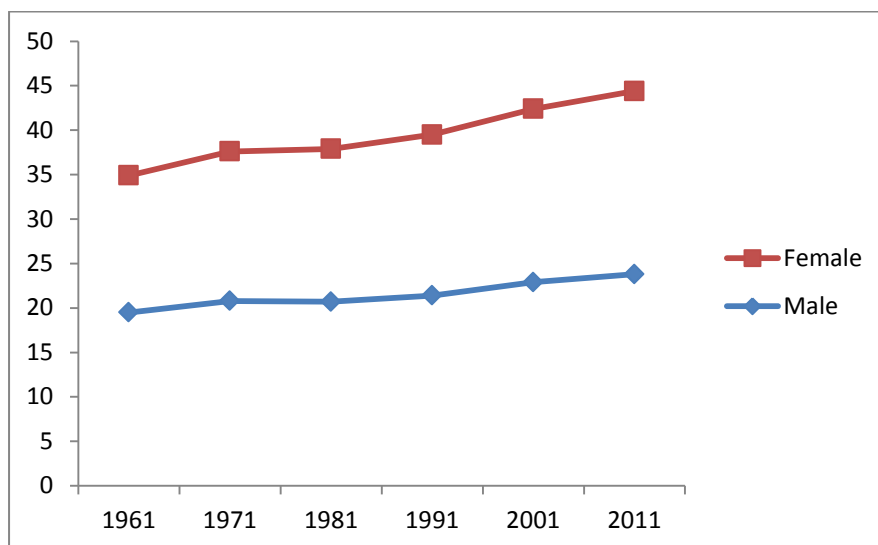
Source: CBS 1995, 2003

2.1 Effect of Changes in Marital Status on Fertility:

The above discussions have shown that, among women the singulate mean age at marriage is increasing (15 in 1961 to 20 years in 2001) and the proportion of widowed is decreasing (14.3percent in 1961 to 4.6 percent in 2011) .Similarly singulate mean age at marriage has been increasing and widower has been decreasing among men in Nepal over years.

The increase in age at marriage has a negative impact on fertility for two basic reasons. First women who marry later have a shorter reproductive life span and second the factors that affect the age at marriage also affect the desired family size norms thereby reducing fertility. For example, if a woman marries later because she is studying then her fertility will also be lower as her desired family size is smaller.

On the other hand, as most all of the births take place within marriage, decrease in the proportion widowed in the reproductive ages will increase the number of women at risk of child bearing. It is of interest to know the balancing effect of these two opposite forces operating on fertility. From the analysis of 1961 and 1991 census figures, it is observed that fertility was lower by 8.1 percent because of increased age at marriage, while it increased by about 2.2 percent due to declining widowed (CBS, 1995). In other words, the effect of increasing the age at marriage on fertility is much higher than the fertility increasing effect of lowering widowhood in Nepal.

2.5 Family Planning

Family planning emerged as one of the major components of Nepal's planned development activities in 1968 with the implementation of the Third Development Plan (1965-1970) and launching of the Nepal Family Planning and Maternal and Child Health Project (FP/MCH) under the Ministry of Health. Unit then, family planning activities were undertaken by the Family Planning Association of Nepal (FPAN) , a nongovernmental organization established

in 1959 to create awareness among the people about the need for and importance of family planning.

In fact, Nepal was one of the first countries of South Asia, where information about family planning was available through a non-governmental program. Initially family planning program was integrated with maternal child health services. Since the nineties, as all the health services were brought together, family planning has become an integral part of the country's health services.

The objectives of the National Family Planning Program includes gradually reducing the population growth rate through the promotion of a small family norm to the population in general and the rural population more specifically , working towards satisfying the demand for family Planning services providing high -quality of services, and reducing unmet need. Moreover, the National Health Policy (1991) related to the National Reproductive Health and Family Planning (RH/FP) Program aims at increasing the coverage of the family planning services to the village level through health facilities and activities, such as a) hospitals, b) primary health care (PHC) centers, c) Health posts (HP), d) Sub health posts (SHP), e) PHC outreach clinics and f) mobile voluntary surgical contraception (VSC) camps. This health policy also attempts to sustain adequate quality of family planning services through adequately trained manpower as well as supplies.

Currently, besides the governmental programs, different NGOs and INGOs are also providing family planning services as well as information education and communication services related to the family planning. Some of these institutions are a) Nepal Family Planning Association b) Care Nepal c) Plan international d) Nepal Red Cross society e) ADRA and f) Mary Stops etc.

At the same time, the health policy also aims at mobilizing NGOs, social marketing organizations, and private practitioners to complement and supplement the efforts of the government. The governmental family planning programs have trained and fielded community-level volunteers (TBAs, FCHVs) for the promotion of condom distribution and the re-supply of oral pills. Intensified IEC activities are also being carried out utilizing different media to increase awareness on RH/FP in the community. Moreover, through active involvement of FCHVs and Mothers' Groups, it is expected that a high level of awareness will be reached in the community levels.

In Nepal family planning services are provided using a cafeteria approach; which means that different methods of contraception are made available to most of the health institutions and a client is to choose the method that suits his or her objectives. It is expected that this approach will not only increase the prevalence of contraceptive use but also reduce the fertility. This approach is also based on client's right and option.

2.6.1 Targets

Nepal's Family Planning programs have the target of reducing the TFR from 3.1 per women in 2006 to 2.75 per women by the end of 12th Interim Plan (2013) and to 2.1 in 2021. Millennium Development Goals (MDG) has targeted to reduce TFR to 2.5 per women by the year 2015. The achievements on fertility targets of 12th plan have already been met and Nepal is in track to achieve MDG target since its' TFR has reduced to 2.6 per women in 2011 (NDHS, 2011).

In order to meet the fertility targets mentioned earlier, the contraceptive prevalence rate (CPR) has been envisaged to increase to 57 percent of currently married women of reproductive age (MWRA) by the end of 12th plan, however Nepal is quite behind in achieving this target since it has reached to only 50 percent by the year 2011 (NDHS, 2011). However, 62 percent of women living with their husbands are using contraceptive methods and only 20 percent of women have used contraception whose husbands are outside for more than 1 year (Khanal, M.N. et al., 2013). This data on contraception indicates that the contraceptive prevalence rate is quite below of 12th plan target is due to spousal separation. The long-term target is to increase the CPR to 65 percent by 2017.

2.6.2 Summary of findings in family planning

Below, we discuss the summary of findings in family planning obtained from the NDHS 2011 survey.

2.6.2.1 Knowledge of Contraception

In Nepal, the year 1976 marks the beginning of the first national level family planning and fertility survey. Since then a survey is being carried out at five year intervals. The first survey was the Nepal Fertility Survey, which was conducted in 1976 and the latest survey was conducted in 2011 which is known as Nepal Demographic Health Survey (NDHS 2016).

There has been a five-fold increase in the percentage of currently married women, who have heard about modern methods of contraception in the last 30 years (from 21 percent in 1976 to nearly 100 percent in 2006 and in 2011). This high level of knowledge is a result of the successful dissemination of family planning messages through the mass media as well as interpersonal communication established through mother groups, FCHVs and TBAs.

2.6.2.2 Demand for Contraception

Unmet need for family planning has been defined as the proportion of women who want no more children or want children only after two years but are not using any form of contraception. On the other hand, current users of family planning methods are categorized as having a met need for family planning. The total demand for family planning is defined as the sum of these two components. The Fertility, Family Planning and Health Survey of 1991, Nepal Family Health Survey of 1996 and all rounds of NDHS (2001, 2006, 2011 and 2016) provide data on met and unmet need of contraception. These data have been summarized in Table 24. From the table, it is clear that the total demand for family planning has been increasing over the years. In 1991 it was 51 percent, which increased to 67 percent in 2001 and 76.3 in 2016. In a like-wise manner, there has been a nearly 72 percent demand increased

for contraceptive methods and has again increased to 77 percent demand in 2011. Because of the increase in CPR over the years the proportion of unmet need has decreased during the period 1996 and 2001. However, NDHS 2016 shows that it is still around 23.7 percent indicating that the family planning programs should target these groups to make their family planning demand met.

Table 24: Demand for contraceptives among currently married women aged 15-49, Nepal, 1991-2011

Years	Unmet need for contraception	% currently using contraception(met need)	Total demand for contraception
1991	27.7	22.8	50.5
1996	31.4	28.5	59.9
2001	27.8	39.3	67.1
2006	24.6	48.0	72.6
2011	27	49.7	76.7
2016	23.7	52.6	76.3

Sources: MOH, 1993,1997,2002,2007, 2012, NDHS 2016

If the programs were successful in fulfilling the demand for family planning then the CPR would increase to 67 percent. In fact, the family planning programs should have a two-pronged strategy in this area. One is to work towards fulfilling the unmet demand of contraception and the other is to increase the demand for family planning by decreasing the family size norm through intensive IEC activities. Out of the total demand, the demand for spacing is estimated to be 15.3 percent (5.4 percent use family planning to space, plus 9.6 have unmet need for spacing).

2.6.2.3 Current Use of Contraception

The current use of contraception or Contraceptive Prevalence Rate (CPR) is expressed as the percent of currently married women who report using a method at the time of the interview. The level of modern contraceptive use in Nepal has increased gradually in the last two decades. This trend has been shown in Table 25 and Figure 7. The current use of contraceptives has gone up from 3 percent in 1976 to 49.7 percent in 2011. Of this, percent sterilization accounts for 23 percent points and the users of temporary methods of contraception account for about 26.7 percent points. Among methods, female sterilization has become most popular with 15.2 percent points, whereas male sterilization (7.8 percent) has not gained similar popularity.

Table 25: Current use of Contraception among non-pregnant women (percent) Nepal 1976 - 2011

Method	1976	1981	1986	1991	1996	2001	2006	2011	2016
	NFS					NDHS		NDHS	NDHS
Any modern method	2.9	7.6	15.1	24.1	28.8	38.9	44.2	43.2	42.8
Female sterilization	0.1	2.6	6.8	12.1	13.3	16.5	18.0	15.2	14.7
Male sterilization	1.9	3.2	6.2	7.5	6.0	7.0	6.3	7.8	5.5

Pill	0.5	1.2	0.9	1.1	1.5	1.8	3.5	4.1	4.6
Injectables	0.0	0.1	0.5	2.3	5.0	9.3	10.1	9.2	8.9
Condom	0.3	0.4	0.6	0.6	2.1	3.2	4.8	4.3	4.2
Norplant				0.3	0.5	0.7	0.8	1.2	3.3
IUD	0.1	0.1	0.1	0.2	0.3	0.4	0.7	1.3	1.4

Source MOH 2002, 2006, 2012, 2016

Among the temporary methods of contraception, Depo-Provera accounts for 9 percent points indicating that it is the most popular temporary methods of contraception. Although, one expects a larger proportion of CPR to come from temporary methods, it is still lower than the permanent methods. However, surveys have indicated the increasing trend in the use of temporary methods of contraception in Nepal. This is an indication that more and more women are using contraception to space rather than limit births.

Figure 7: Contraceptive Prevalence Rate, Nepal, 1976 to 2016
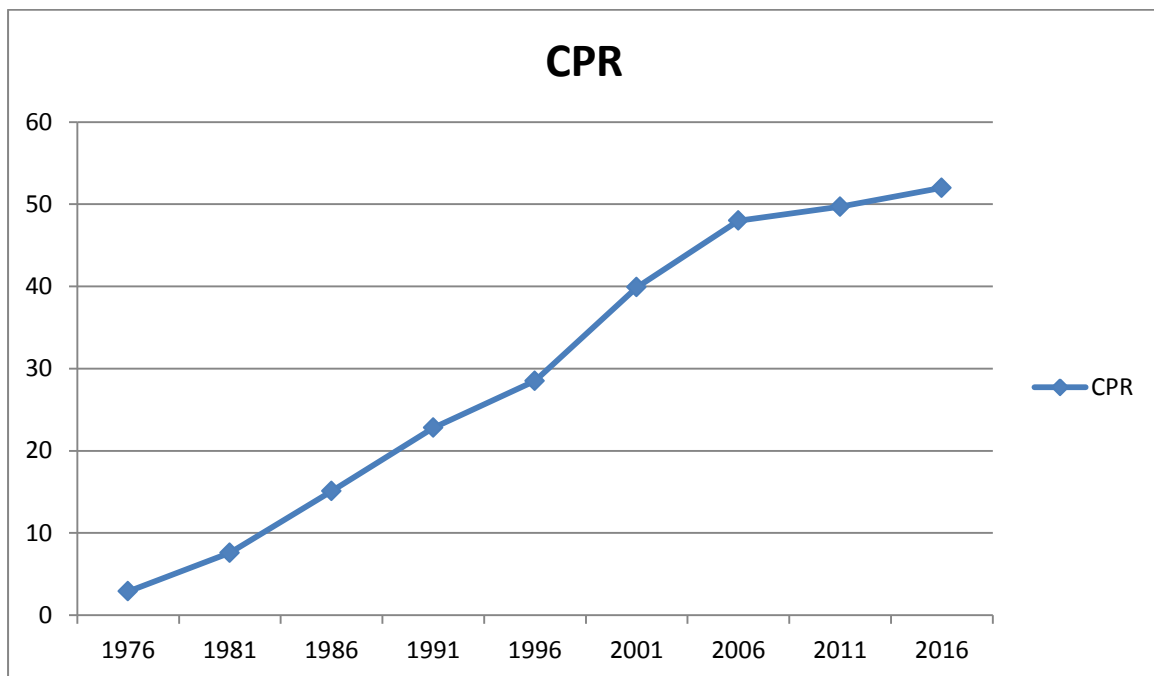
Although the uses of family planning methods have been increasing over the years, CPR in Nepal is still low. Serious efforts need to be carried out to increase the demand for the family planning services and to fulfill the unmet need for the family planning services. If family planning programs are to make a bigger dent on fertility then the IEC programs should bring down the family size norms.

2.6 Breastfeeding

Breastfeeding is another important proximate determinant of fertility. Although breastfeeding in Nepal is almost universal and prolonged, most women are not aware of its contraceptive effect. Breastfeeding increases the length of post-partum amenorrhea, thereby providing protection against pregnancy for some time after the birth of the child.

Nepal Demographic Health Survey 2011 indicated that breast-feeding is nearly universal and about 98 percent women breastfed their children after birth, indicating that this proportion has been more or less constant over the years. Differentials in breast-feeding indicate that younger, urban, and educated (literate) women are less likely to breast feed their children than their counterparts.

According to NDHS, 2011, the median duration of any breastfeeding in Nepal is 33.6 months, which is similar to the figure from the 2006 NDHS. The mean duration of breastfeeding for all children is 28.8 months. The median duration of exclusive breastfeeding for all children is 4.2 months, and the mean duration is 5 months. These figures are higher than those reported in 2006, when the median duration of exclusive breastfeeding was 2.5 months and the mean duration was 4 months.

The fertility reducing effect of breastfeeding arises from its role in lengthening the period of postpartum amenorrhea and consequently in extending the birth interval (in the absence of use of contraception). Studies have shown that the average length of inter-birth interval in Nepal is more than 30 months and there is a direct positive correlation between duration of breastfeeding and birth interval (UNFPA, 1989).

2.7 Abortion

Nepal made abortion legal in September 2002. The government began providing comprehensive abortion care (CAC) services in March 2004. The abortion law allows women to terminate their pregnancy only under certain conditions.[13]

The law prohibits abortions done without the consent of the woman, sex selective abortions, and abortions performed outside the legally permissible criteria. Abortion services are provided at service delivery points with surgical facilities and medicines located at district hospitals, some primary health care centers, health posts, and private hospitals. The Nepal Government has prioritized the national safe abortion program, and significant efforts have been made in the last ten years to expand services.

The 2011 NDHS shows that only 38 percent of women age 15-49 believe that abortion in Nepal is legal. Those who stated that abortion is legal in Nepal were further asked under what circumstances it is legal. Among women who believe that abortion is legal in Nepal, one-third stated that it is legal for pregnancies up to 12 weeks, and one-fifth stated that it is legal for pregnancies of 18 weeks duration if they were a result of rape or incest. Fewer than 10 percent of women each believed that abortion is legal if the mother's life is in danger, if the mother has a physical or mental condition that would make a pregnancy a health risk, or if

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1. Pregnancies of 12 weeks gestation or less for any woman on her own decision,
2. Pregnancies of 18 weeks gestation if the pregnancy is a result of rape or incest, and
3. Pregnancies of any duration with the recommendation of an authorized medical practitioner if the life of the mother is at risk, if her physical or mental health is at risk, or if the fetus is deformed.

there is a fetal abnormality. Nearly two-fifths of women did not know under what circumstances abortion in Nepal is legal. With the legalization of abortion, service providers in Nepal have been trained to conduct safe abortions. NDHS shows that 59 percent of women age 15-49 report knowing a place where a safe abortion can be obtained. Women who know places for safe abortion are more likely to mention the government sector (71 percent) than the private sector (58 percent) or the nongovernment sector (29 percent).

2.8 Ideal Family Size

One approach taken by survey researchers trying to identify attitudes and norms affecting ideal family size is to ask basic questions such as respondents' perception on the most excellent number of children to have, and try to find out why the respondents prefer a particular number. These sorts of questions have been described as meaningless and unreliable by some demographers.

The NDHS 2011 asked women and men aged 15-49 about the total number of children they would like to have in their lifetime. Even though this question is a hypothetical situation, it provides two measures. First, for women and men who have not yet started family, the data provides an idea of future fertility. Second, for older and high-parity women, the excess of past fertility over the ideal family size provides a measure of unwanted fertility.

Both women and men of Nepal prefer a small family size, with only marginal differences between them (2.1 children for women and 2.3 children for men) .Nearly two-thirds of women and men want to have two children, while 13 percent of women and 8 percent of men want to have only one child. Eighteen percent of women and 21 percent of men prefer a three -child family. The proportion of women and men who want four or more children is small (5 percent of women and 6 percent of men want to have four children).

There has been a decline in the mean ideal number of children among currently married women over the last five years, from 2.4 children in 2006 to 2.2 in 2011. This finding could also explain the declining total fertility rate in Nepal.

CHAPTER III

MORTALITY

3.1 Concept

Mortality is the state of being mortal, or susceptible to death; the opposite of immortality. Mortality rate, or death rate, is a measure of the number of deaths (in general, or due to a specific cause) in a particular population, scaled to the size of that population, per unit of time.

Mortality rate is typically expressed in units of deaths per 1,000 individuals per year; thus, a mortality rate of 9.5 (out of 1,000) in a population of 1,000 would mean 9.5 deaths per year in that entire population, or 0.95% out of the total. It is distinct from "morbidity", which is either the prevalence or incidence of a disease, and also from the incidence rate (the number of newly appearing cases of the disease per unit of time).[14]

> *"Mortality refers to deaths that occur within a population. While we all eventually die, the probability of dying within a given period is linked to many factors, such as age, sex, race, occupation, and social class. The incidence of death can reveal much about a population's standard of living and health care."*

Mortality data indicate numbers of deaths by place, time and cause. It is now recommended internationally that statistical report of death at least include information on the age, sex, and usual place of residence of the deceased person as well as the cause, date and place of death and the date of registration. In addition, the United Nations recommends the collection of five characteristics like as marital status, industry and occupation, education, number of children before, and age. WHO's mortality data reflect deaths registered by national civil registration systems of deaths, with the underlying cause of death coded by the national authority. [15]

> *Underlying cause of death is defined as "the disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury", in accordance with the rules of the International Classification of Diseases.*[16]

In the context of Nepal, earlier decline in mortality rate (due to increased access and improved health services) followed by decline in fertility later resulted in relatively high rate of natural population growth. There has been secular decline in mortality during the recent past, but the decline in fertility is slower than the mortality. Consequently Nepal's population is increasing fast.

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[14] Wikipedia. *"Mortality."* https://en.wikipedia.org/wiki/Mortality_rate, 24 June 2017, Web. 27 June 2017.
[15-15] World Health Organization. *"Mortality*" http://www.who.int/topics/mortality/en/, n.d, Web. 27 June 2017.

There are different indicators that determine the trend and level of mortality - some of them are presented in the following section. These indicators are primarily based on two data sources, viz. i) hospital death records and ii) vital registration system. However, vital registration system is not efficient in the context of Nepal. Thus, the mortality indicators discussed in the following sections are either based on Table or Quasi Stable Population Analysis or data based on survey, where both the direct and indirect measures of estimation are employed.

  i)   Crude Death Rate
  ii)   Infant Mortality Rate
  iii)   Child and Under 5 Mortality Rate
  iv)   Maternal Mortality Ratio and
  v)   Life Expectancy

3.2 Crude Death Rate (CDR)

Crude Death Rate (CDR) is defined as the ratio of annual number of deaths to the person years of exposure to death during that period multiplied by a constant (usually 1000). It should be noted that for simplicity and ease of approximation, person-years of exposure is usually approximated by mid-year population.

Like Crude Birth Rate, CDR is widely understood and is very frequently used summary measure of mortality. However, CDR is also heavily affected by age and other compositional structure of the population. For example, it should be noted that age specific death rate at age 15-19 is very low compared to age specific death rate at 0-4 or 60-64 years of age. Therefore, combining all the deaths into one group and calculating the rate for all the population combined, ignores the age composition of the population.

Table 26: Crude Death Rate, Nepal, 1954 – 2012

Source	Estimated duration	Crude death rate		
		Total	Male	Female
1. Vaidhyanathan & Gaige, 1973	1954	36.7		
2. CBS, 1977	1953-61	27.0	28.0	24.8
3. Guvaju, 1975	1961	22.0		
4. CBS, 1977	1961-71	21.4	21.3	22.6
5. CBS, Demographic Sample Survey,1976	1974-75	19.5	18.6	20.4
6. CBS, Demographic Sample Survey,1977	1976	22.2	21.5	22.8
7. CBS, Demographic Sample Survey,1978	1977-78	17.1	17.9	16.2
8. CBS, 1977 (Census data)	1971-81	13.5	12.2	14.9
9. New Era, 1986	1984	10.9	10.8	11.0

10. CBS, Demographic Sample Survey, 1986	1985-86	16.1		
11. CBS Census	1991	13.3	12.9	13.6
12. CBS	1996	11.6		
13. MOPE*	2001*	9.62		
14. MOHP	2006	9.0		
15. CBS	2008	8.3		
16. PRB datasheet	2012	6.0		

*Source: CBS, 1995; CBS, 1998; MOPE, 1998, PRB datasheet, 2012 * Projected Mortality*

The table above presents the different estimations of CDR for Nepal since 1954. The estimates in the table may not present very consistent trend, for most of the estimates are based on stable population techniques. Data from census as well as surveys are also used in these estimates. It should be borne in mind that both of these sources of data suffer from inherent errors.

The table indicates that CDR was a little over 35 in 1950s, which decreased to less than 20 in 1970s and further to 9.6 in 2001. Despite fluctuations in the estimate of CDR, it can easily be concluded from the table that mortality in Nepal has been declining over the years. Moreover, these estimates consistently indicate higher mortality for females than males. Nepal is one of the few countries in the world where female mortality is higher than male mortality. There is no reliable information on Age Specific Death Rates (ASDR) in Nepal, which could provide mortality information for different age groups. The lack of reliable estimates of adult mortality by age has led us to use CDR.

3.3 Infant Mortality Rate

Infant mortality refers to deaths of young children, typically those less than one year of age. It is measured by the infant mortality rate (IMR), which is the number of deaths of children under one year of age per 1000 live births.[17]

Premature birth is the biggest contributor to the IMR. Other leading causes of infant mortality are Birth Asphyxia, Pneumonia, term birth complications such as abnormal presentation of the Fetus Umbilical Cord Prolapse, or Prolonged Labor, Neonatal Infection, Diarrhea, Malaria, Measles and Malnutrition.

One of the most common preventable causes of infant mortality is smoking during pregnancy. Many factors contribute to infant mortality, such as the mother's level of education, environmental conditions, and political and medical infrastructure. Improving sanitation, access to clean drinking water, immunization against infectious diseases, and other public health measures can help reduce high rates of infant mortality.

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[17] Wikipedia, *"Infant Mortality Rate"*, https://en.wikipedia.org/wiki/Infant_mortality, 22 June 2017, Web. 27 June 2017

IMR usually declines with a certain level of socio-economic development as reflected by the above mentioned factors. Therefore, IMR has been commonly considered as an indicator to assess socio-economic development and general health condition of a society. However the adult mortality is relatively lower even in developing countries and a smaller proportion of population is in the older group, a substantial number of deaths occur during the first five years of life. In developing countries where health system is not fully developed, infant death is a substantial part of fewer than five deaths. Therefore, reduction in IMR is a fundamental strategy to achieve a significant reduction in the overall mortality. Moreover, the interdependent relationship between fertility and infant mortality suggests that a reduction in infant mortality will trigger a subsequent decline in fertility. It has also been found that a lower IMR motivates couples to produce less number of children.

Table 27: Infant Mortality Rate, Nepal, 1954 – 2011

Source	Reference Period	Infant mortality rate		
		Total	Male	Female
1. Vaidhyanathan & Gaige, 1973	1954	-	260	250
2. Guvaju, 1974	1961-71	-	200	186
3. CBS, 1974	1971	172	-	-
4. Nepal Fertility Survey, 1976	1976	152	-	-
5. CBS, 1985	1978	144	147	142
6. New Era, 1986	1981	117	136	111
7. Fertility and Family Planning Survey,1986	1983-84	108	117	98
8. Fertility and Family Planning Survey, 1991	1989	102	-	-
9. Census, 1991	1991	97	94	101
10. Nepal Family Health Survey,1996	1993-96	79	-	-
11. Nepal Demographic Health Survey,2001	2001	64	79.2*	75.2*
12. Nepal Demographic Health Survey, 2006	2006	48	60*	61*
13 Nepal Demographic and Health Survey, 2011	2011	46	54*	52*

Source : CBS, 1995; MOH 1997, 2002a, NDHS, 2012
* MR estimates are based on births 10 year prior to the survey

The table 27 indicates that a high IMR of around 250 per thousand live births prevailed in the country during the fifties. In the sixties it was decreased to around 150 to 200 per thousand live births. Since the mid seventies, decline in IMR is secular and during 2001-2005 it has reached 48 per 1000 live births and again reduced to 46 per 1000 live births during the period 2006-2010. The table also indicates that IMR for female babies are slightly lower than that for male babies based on the calculations of IMR based on births 10 years prior to the survey. Infant mortality is affected by various socio-economic and demographic factors. These factors are of particular interest, since these provide clues for the identification of priority

groups in policy formulation and program implementation. Differentials in IMR have been presented in the table above.

Before moving into Table 28, it should be noted that the estimate of IMR from NFHS 1996 and NDHS 2006 presented in table 3.2 were based on births that occurred during the preceding three to five years. The estimate of infant mortality differentials presented in Table 3.3 is based on births that occurred during the preceding 10-year period. Both of these surveys indicate that mother's education, place of residence; birth interval and age of mother have great influence on IMR. IMR for those babies whose mothers age is less than 20 years and are born in the birth interval of less than two years, are much higher than those babies whose mother's are aged 20+ and are born after a birth interval longer than two years. In general the differentials observed during the 1996 survey seem to have decreased till 2011 NDHS. This indicates that decrease in IMR is somewhat faster in groups where IMR used to be higher.

Table 28: Infant Mortality Rates by Socio-economic & Demographic Characteristics, Nepal, 1996-2011. (For ten year Period Preceding the Survey)

Characteristics	NFHS 1996	NDHS 2001	NDHS 2006	NDHS 2011
Residence				
Urban	61.1	50.1	37	38
Rural	95.3	79.3	64	55
Ecological Region				
Mountain	136.5	112	99	73
Hill	87.4	66.2	47	50
Terai	90.9	80.8	65	53
Development Region				
Eastern	79.4	77.5	45	47
Central	86.3	77.4	52	52
Western	84.3	60.1	56	53
Mid-western	114.8	72.9	97	58
Far western	124.3	112.2	74	65
Education				
No education	97.5	84.6	69	62
Primary	80	61	58	53
Secondary	53.4	49.9	35	37
SLC and above -	-		13	31
Age of mother at birth**				
< 20	120.1	108.2	83	69
20-29	79.5	67.6	50	49

30-39	103.9	72.9	62	49
40-49	-	-	91	-
Previous birth interval**				
< 2 yrs	141.4	124.4	96	87
2-3 yrs	78.8	67.8*	57	50
3	-	45.2	38	38
4 +	44.7	38.9	28	26
Sex of Child**				
Male	101.9	79.2	60	54
Female	83.7	75.2	61	52

Refers to two year birth interval. Source: MOH, 1997, NDHS 2001, 2006 and 2011.
**Refers the rates calculated for 10 year period preceding the survey.

3.4 Child and Under 5 Mortality Rate

Child mortality, also known as under-5 mortality or child death, refers to the death of infants and children under the age of five or between the ages of one month to four years depending on the definition.

Many deaths in developing countries go unreported since many poor families cannot afford to register their babies in the government registry. A child's death is emotionally hard on the parents and on their relationship as a couple.

The estimates of these indicators are based on the births that occurred during the last five years. Data on child and under five mortality obtained from NDHS 2011 has been summarized in the table below.

Table 29: Child and under 5 mortality rates for five year periods Preceding the Survey Nepal 2011

Years preceding the Survey	Child Mortality	Under 5 mortality
0-4	9	54
5-9	10	70
10-14	19	87

Source: NDHS 2011, MoHP

The table 29 indicates child mortality 0-4 years preceding the survey is 47 percent of what it was 10-14 years preceding the survey. In other words there has been a remarkable decline in child mortality during the last 15 years; however, in case of under five mortality, the mortality 0-4 years preceding the survey are 62 percent of that was 10-14 years preceding the survey indicating that we need to focus on reducing infant mortality.

Table 30: Child and under 5 Mortality Rates by socio-economic & demographic characteristics, Nepal, (for ten years period preceding the survey)

Characteristics	NDHS 2001		NDHS 2006		NDHS 2011	
	Child Mortality	Under 5 Mortality	Child Mortality	Under 5 Mortality	Child Mortality	Under 5 Mortality
Residence						
Urban	16.7	65.9	10	47	7	65
Rural	35.4	111.9	21	84	10	64
Ecological Regions						
Mountains	51.2	157.4	32	128	16	87
Hill	29.7	93.9	16	62	8	58
Terai	34.8	112.8	21	85	10	62
Development Regions						
Eastern	29.6	104.8	15	60	8	55
Central	36.4	110.9	17	68	8	60
Western	25.1	83.7	18	73	4	57
Mid Western	41.2	111.0	28	122	16	73
Far western	41.7	149.2	28	100	18	82
Education						
No education	39.5	120.7	25	93	12	73
Primary	13.4	73.5	10	67	9	62
Secondary	14.3	63.5	5	40	4	41
S.L.C.+	3.7	14.9	0	13	1	32
Age of the mother at birth of the child						
<20	28.5	133.6	20	102	9	78
20-29	32.6	98.0	18	67	8	57
30-39	42.5	112.3	23	84	13	62
40-49			42	103		
Previous Birth Interval						
< 2 Years	54.8	172.4	37	130	16	102
2-3 Years	40.0*	105.1*	21	78	13	62
3 Years	22.4	66.6	14	52	6	43
4 or more years	20.1	58.2	9	37	7	32
Sex of the Child						
Male	27.8	104.8	21	80	9	63
Female	40.2	112.4	18	78	10	62

*Source MOH 1997, 2002a, NDHS 2006 and 2011. *Figures refer to a 2 year birth interval. ** Includes secondary plus SLC or higher level of education.*

The current (2011) estimate of child mortality in Nepal is 9 indicating that of the 1000 babies surviving to age one, 9 die before they reach the age of five. Similarly, under-five mortality is 54 indicating that of the 1000 children born today, 54 will die before they reach the age of five.

The table 30 presents in detail about the trends and differentials in child and under-five mortality for Nepal obtained from NDHS 2001 through NDHS 2011 surveys. For differentials in infant child mortality, births that occurred during the last ten-year have been taken into account. The factors used by the differentials of infant mortality are also important for child and under- five mortality. The factors are: mother's education, mother's age, previous birth interval and ecological regions etc. The differentials in child and under-five mortality has decreased over the last five years, which means the programs meant for this issue has been successful.

Figure 8: Trends in Childhood Mortality (deaths per 1,000 live births for the 5 years period before the Survey) NDHS, 1996-2011
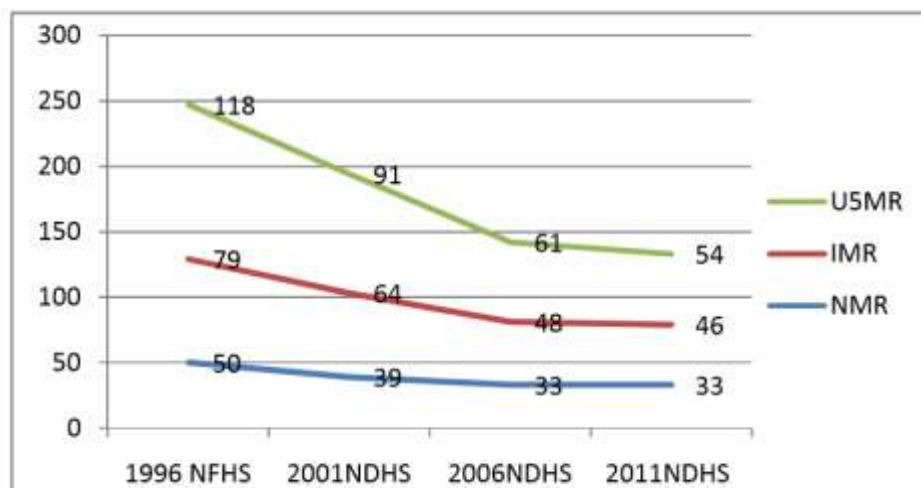
The figure 8 shows the trend of childhood mortality rates of Nepal during 1996 – 2011. Neonatal mortality in the most recent period (2006-2010) is 33 deaths per 1,000 live births - this rate is two and a half times the post neonatal rate (13 deaths per 1,000 live births) during the same period. Thus, the risk of dying for any Nepalese child who survived the first month of life is reduced by two-fifths (i.e., 39 percent) in the remaining 11 months of the first year of life. The infant mortality rate in the five years preceding the survey is 46 deaths per 1,000 live births, and the under-five mortality rate for the same period is 54 deaths per 1,000 live births. This means that one in every 22 Nepalese children dies before reaching age 1, while one in every 19 does not survive to her or his fifth birthday.

The trends of mortality can be gauged mainly in two ways: i) comparing mortality rates for three five-year periods preceding a single survey and ii) comparing mortality estimates obtained from various surveys. However, comparisons between surveys should be interpreted with caution because of variations in quality of data, time references, and sample coverage. In

particular, sampling errors associated with mortality estimates are large and should be taken into account when examining trends between surveys.

Data from the 2011 NDHS show that neonatal mortality has declined by 27 percent over the 15-year period preceding the survey, from 45 to 33 deaths per 1,000 live births. The corresponding declines in post neonatal, infant and under-five mortality over the 15-year period are 48 percent, 34 percent, and 38 percent respectively.

3.5 Maternal Mortality Ratio

Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.[18]

> *Complications during pregnancy and childbirth are a leading cause of death and disability among women of reproductive age in developing countries.*
> - *WHO, n.d*

Maternal mortality is defined as the ratio of maternal deaths and number of live births during the same period multiplied by 100000. The maternal mortality ratio represents the risk associated with each pregnancy, i.e. the obstetric risk.[19] NDHS 2006 collected data on maternal mortality through sisterhood method. Meaning, ever-married women of reproductive age were asked whether they had any sisters, if yes - whether they are still alive, if dead - whether the death was a maternal death. Due to lack of sufficient cases, maternal mortality estimations are not performed frequently.

Results of Sisterhood method show a ratio of 281 deaths per 100000 live births. This ratio is one of the highest in the world indicting that a large number of mothers die due to childbirth related causes. Furthermore, a study conducted in 8 districts of Nepal in 2008/9, revealed maternal mortality ratio of 229 deaths per 100000 live births. Although, the finding of this study was not a national representation, Government of Nepal (GoN) launched number of programs under Family Health Division's Safe Motherhood Program, internalizing its prolonged effect of the society as a whole. The GoN was supported by UNICEF, DFID, USAID, GiZ and other INGOs in this endeavor.

3.6 Life Expectancy

Life expectancy at birth is defined as the average number of years a new born baby will survive if s/he is subjected to the current mortality pattern. Life expectancy like the TFR is

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18-18 World Health Organization, "Maternal Mortality",
http://www.who.int/healthinfo/statistics/indmaternalmortality/en/, n.d, Web. 27 June 2017

also a synthetic cohort measure. This measure of mortality like the IMR is free from distortions of age composition and thus international comparisons can readily be made.

In order to calculate life expectancy, age specific mortality rates are needed, but obtaining such rates is difficult because it requires a survey of large sample size. Furthermore, life expectancy in Nepal is usually estimated based on the census data, employing indirect techniques as the coverage of birth and death registration data is not reliable.

The table 31 depicts estimated life expectancy at birth from 1954 to 2010. Life Expectancy at birth for both males and females which was 27.1 in 1954 is increasing gradually over the years.

Table 31: Expectation of Life at Birth, Nepal, 1954 – 2010

Source	Estimated duration	Life Expectancy		
		Male	Female	Total
1. Vaidhyanathan & Gaige, 1973	1954	27.1	28.5	-
2. CBS, 1974	1953-61	35.2	37.4	-
3. CBS, 1977	1961-71	37.0	39.9	-
4. Gubhaju, 1982	1971	42.1	40.0	-
5. Demographic Sample Survey, 1977	1976	43.4	41.1	-
6. CBS, 1986	1981	50.9	48.1	-
7. CBS, 1987	1983	51.8	50.3	-
8. CBS, 1993	1991	55.0	53.5	-
9. CBS, 2001	2001	60.1	60.7	60.4*
10 CBS 2006	2006	63	64	63
11 CBS 2010	2010	63.6	64.5	64.1
12 PRB, 2013	2013	66	69	68

Estimates are based on projection.
Source: CBS, 1995; MOPE, 1999. CBS 2002 2006, 2010,PRB, 2013.

Significant improvement in Life Expectancy of Nepalese can be seen in the above table. This is largely due to the improvement of health facilities that has reduced death rates, especially among infant and children during the last decade.

CHAPTER IV

MIGRATION

4.1 Concept

Migration is the movement of people from one place to another for the purpose of taking up permanent or semi permanent residence usually across the boundary. An example of "semi permanent" residence would be the seasonal movements of migrant farm laborers. People can either choose to move "voluntary migration" or forced to move "involuntary migration" (NGS, 2005). [20]

Migration and development are interlinked with one-another. Migration can contribute to human development, especially if the rights of movers are improved (UNDP, 2009). Migration is the third basic factor affecting change in population of an area along with fertility and mortality.

4.2 Key migration terminologies[21]

Assimilation - Adaptation of one ethnic or social group – usually a minority – to another. Assimilation involves the subsuming of language, traditions, values, mores and behavior or even fundamental vital interests. Although the traditional cultural practices of the group are unlikely to be completely abandoned, on the whole assimilation will lead one group to be socially indistinguishable from other members of the society. Assimilation is the most extreme form of acculturation.

Assisted Voluntary Return - Administrative, logistical, financial and reintegration support to rejected asylum seekers, victims of trafficking in human beings, stranded migrants, qualified nationals and other migrants unable or unwilling to remain in the host country who volunteer to return to their countries of origin.

Asylum seeker - A person who seeks safety from persecution or serious harm in a country other than his or her own and awaits a decision on the application for refugee status under relevant international and national instruments. In case of a negative decision, the person must leave the country and may be expelled, as may any non-national in an irregular or unlawful situation, unless permission to stay is provided on humanitarian or other related grounds.

Border management - Facilitation of authorized flows of persons, including business people, tourists, migrants and refugees, across a border and the detection and prevention of irregular entry of non-nationals into a given country. Measures to manage borders include the imposition by States of visa requirements, carrier sanctions against transportation companies bringing irregular migrants to the territory, and interdiction at sea. International standards require a balancing between facilitating the entry of legitimate travelers and preventing that of travelers entering for inappropriate reasons or with invalid documentation.

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20 National Geographic Society (NGS), "Human Migration Guide", 2005. 27 June 2017.
[21] International Organization for Migration (IOM), "Key Migration Terms", https://www.iom.int/key-migration-terms, n.d, Web. 27 June 2017.

Brain drain - Emigration of trained and talented individuals from the country of origin to another country resulting in a depletion of skills resources in the former.

Brain gain - Immigration of trained and talented individuals into the destination country. Also called "reverse brain drain".

Capacity building - Building capacity of governments and civil society by increasing their knowledge and enhancing their skills. Capacity building can take the form of substantive direct project design and implementation with a partner government, training opportunities, or in other circumstances facilitation of a bilateral or multilateral agenda for dialogue development put in place by concerned authorities. In all cases, capacity building aims to build towards generally acceptable benchmarks of management practices.

Circular migration - The fluid movement of people between countries, including temporary or long-term movement which may be beneficial to all involved, if occurring voluntarily and linked to the labor needs of countries of origin and destination.

Country of origin - The country that is a source of migratory flows (regular or irregular).

Emigration - The act of departing or exiting from one State with a view to settling in another.

Facilitated migration - Fostering or encouraging of regular migration by making travel easier and more convenient. This may take the form of a streamlined visa application process, or efficient and well-staffed passenger inspection procedures.

Forced migration - A migratory movement in which an element of coercion exists, including threats to life and livelihood, whether arising from natural or man-made causes (e.g. movements of refugees and internally displaced persons as well as people displaced by natural or environmental disasters, chemical or nuclear disasters, famine, or development projects).

Freedom of movement - A human right comprising three basic elements: freedom of movement within the territory of a country (Art. 13(1), Universal Declaration of Human Rights, 1948: "Everyone has the right to freedom of movement and residence within the borders of each state."), the right to leave any country and the right to return to his or her own country (Art. 13(2), Universal Declaration of Human Rights, 1948: "Everyone has the right to leave any country, including his own, and to return to his country. See also Art. 12, International Covenant on Civil and Political Rights. Freedom of movement is also referred to in the context of freedom of movement arrangements between States at the regional level (e.g. European Union).

Immigration - A process by which non-nationals move into a country for the purpose of settlement.

Internally Displaced Person (IDP) - Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an

internationally recognized State border (Guiding Principles on Internal Displacement, UN Doc E/CN.4/1998/53/Add.2.). See also de facto refugees, displaced person, externally displaced persons, and uprooted people.

International minimum standards - The doctrine under which non-nationals benefit from a group of rights directly determined by public international law, independently of rights internally determined by the State in which the non-national finds him or herself. A State is required to observe minimum standards set by international law with respect to treatment of non-nationals present on its territory (or the property of such persons), (e.g. denial of justice, unwarranted delay or obstruction of access to courts are in breach of international minimum standards required by international law). In some cases, the level of protection guaranteed by the international minimum standard may be superior to that standard which the State grants its own nationals.

Irregular migration - Movement that takes place outside the regulatory norms of the sending, transit and receiving countries. There is no clear or universally accepted definition of irregular migration. From the perspective of destination countries it is entry, stay or work in a country without the necessary authorization or documents required under immigration regulations. From the perspective of the sending country, the irregularity is for example seen in cases in which a person crosses an international boundary without a valid passport or travel document or does not fulfill the administrative requirements for leaving the country. There is, however, a tendency to restrict the use of the term "illegal migration" to cases of smuggling of migrants and trafficking in persons.

Labor migration - Movement of persons from one State to another, or within their own country of residence, for the purpose of employment. Labor migration is addressed by most States in their migration laws. In addition, some States take an active role in regulating outward labor migration and seeking opportunities for their nationals abroad.

Migrant - IOM defines a migrant as any person who is moving or has moved across an international border or within a State away from his/her habitual place of residence, regardless of (1) the person's legal status; (2) whether the movement is voluntary or involuntary; (3) what the causes for the movement are; or (4) what the length of the stay is. IOM concerns itself with migrants and migration- related issues and, in agreement with relevant States, with migrants who are in need of international migration services.

Migration - The movement of a person or a group of persons, either across an international border, or within a State. It is a population movement, encompassing any kind of movement of people, whatever its length, composition and causes; it includes migration of refugees, displaced persons, economic migrants, and persons moving for other purposes, including family reunification.

Migration management - A term used to encompass numerous governmental functions within a national system for the orderly and humane management for cross-border migration, particularly managing the entry and presence of foreigners within the borders of the State and the protection of refugees and others in need of protection. It refers to a planned approach to the development of policy, legislative and administrative responses to key migration issues.

Naturalization - Granting by a State of its nationality to a non-national through a formal act on the application of the individual concerned. International law does not provide detailed

rules for naturalization, but it recognizes the competence of every State to naturalize those who are not its nationals and who apply to become its nationals.

Orderly migration - The movement of a person from his or her usual place of residence to a new place of residence, in keeping with the laws and regulations governing exit of the country of origin and travel, transit and entry into the destination or host country.

Push-pull factors - Migration is often analyzed in terms of the "push-pull model", which looks at the push factors, which drive people to leave their country (such as economic, social, or political problems) and the pull factors attracting them to the country of destination.

Receiving country - Country of destination or a third country. In the case of return or repatriation, also the country of origin. Country that has accepted to receive a certain number of refugees and migrants on a yearly basis by presidential, ministerial or parliamentary decision.

Refugee - A person who, "owing to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country. (Art. 1(A)(2), Convention relating to the Status of Refugees, Art. 1A(2), 1951 as modified by the 1967 Protocol). In addition to the refugee definition in the 1951 Refugee Convention, Art. 1(2), 1969 Organization of African Unity (OAU) Convention defines a refugee as any person compelled to leave his or her country "owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country or origin or nationality." Similarly, the 1984 Cartagena Declaration states that refugees also include persons who flee their country "because their lives, security or freedom have been threatened by generalized violence, foreign aggression, internal conflicts, massive violations of human rights or other circumstances which have seriously disturbed public order."

Remittances - Monies earned or acquired by non-nationals that are transferred back to their country of origin.

Repatriation - The personal right of a refugee, prisoner of war or a civil detainee to return to his or her country of nationality under specific conditions laid down in various international instruments (Geneva Conventions, 1949 and Protocols, 1977, the Regulations Respecting the Laws and Customs of War on Land, Annexed to the Fourth Hague Convention, 1907, human rights instruments as well as customary international law). The option of repatriation is bestowed upon the individual personally and not upon the detaining power. In the law of international armed conflict, repatriation also entails the obligation of the detaining power to release eligible persons (soldiers and civilians) and the duty of the country of origin to receive its own nationals at the end of hostilities. Even if treaty law does not contain a general rule on this point, it is today readily accepted that the repatriation of prisoners of war and civil detainees has been consented to implicitly by the interested parties. Repatriation as a term also applies to diplomatic envoys and international officials in time of international crisis as well as expatriates and migrants.

Resettlement - The relocation and integration of people (refugees, internally displaced persons, etc.) into another geographical area and environment, usually in a third country. In the refugee context, the transfer of refugees from the country in which they have sought

refuge to another State that has agreed to admit them. The refugees will usually be granted asylum or some other form of long-term resident rights and, in many cases, will have the opportunity to become naturalized.

Smuggling - "The procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State Party of which the person is not a national or a permanent resident" (Art. 3(a), UN Protocol Against the Smuggling of Migrants by Land, Sea and Air, supplementing the United Nations Convention against Transnational Organized Crime, 2000). Smuggling, contrary to trafficking, does not require an element of exploitation, coercion, or violation of human rights.

Stateless person - A person who is not considered as a national by any State under the operation of its law" (Art. 1, UN Convention relating to the Status of Stateless Persons, 1954). As such, a stateless person lacks those rights attributable to national diplomatic protection of a State, no inherent right of sojourn in the State of residence and no right of return in case he or she travels.

Technical cooperation - Coordinated action in which two or several actors share information and expertise on a given subject usually focused on public sector functions (e.g. development of legislation and procedures, assistance with the design and implementation of infrastructure, or technological enhancement).

Trafficking in persons - "The recruitment, transportation, transfer, harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation" (Art. 3(a), UN Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, Supplementing the UN Convention against Transnational Organized Crime, 2000). Trafficking in persons can take place within the borders of one State or may have a transnational character.

Xenophobia - At the international level, no universally accepted definition of xenophobia exists, though it can be described as attitudes, prejudices and behavior that reject, exclude and often vilify persons, based on the perception that they are outsiders or foreigners to the community, society or national identity. There is a close link between racism and xenophobia, two terms that can be hard to differentiate from each other.

Life time migration is one who has moved from his place of birth to the present place of destination where he is enumerated at the time of the census irrespective of the number of times he migrates.

Migration Stream is the number of migrants identified on the basis of their volume within a given period of time from one geographical area to another such as mountain to hill, hill to Terai or Terai to mountain and hill and mountain to Terai. Another typical migration stream is usually measured on the basis of migration from rural to rural, urban to rural and urban to rural areas.

In migrants are defined as those internal migrants who have migrated to the destination from the origin. All migrants who may have migrated and settled in the destination from various origins are called in-migrants in the destination.

Out-migrants are those internal migrants who have left their place of origin and migrate to different destination areas. For the place of origin, they are defined as out-migrants.

Net Migration is the difference between out migration and in migration In any defined geographical areas within a specified period of time.

Gross Migration indicates the magnitudes of total mobility in a defined geographical area within a specified period of time.

Period Migration refers to those people whose place of residence is different from the place of enumeration for the specified period.

4.3 Types of migration[22]

Internal migration: When a people move to new home within a state, country, or continent it is known as Internal Migration.

External migration: When a people move to new home in a different state, country, or continent it is known as External Migration.

Emigration: Emigration is the act of leaving one country to move to another (e.g., Pilgrims emigrated from England).

Immigration: Immigration is the act of moving into a new country (e.g., Pilgrims immigrated into America).

Population Transfer: Population transfer is the movement of large groups of people from one region another, usually based on ethnicity or religion by state policy or international authority. This is also known as an involuntary of forced migration.

Impelled Migration (also called "reluctant" or "imposed" migration): When an individual leave country not because they are forced to leave but because of unfavorable situations such as warfare, political problems, or religious persecution is known as impelled migration.

Step Migration: Step migration is a series of shorter, less extreme migration from a person's place of origin to final destination- such as moving from a farm, to a village, to a town, and a family to a city.

Chain Migration: Chain migration is a series of migrations within a family or defined group of people. A chain migration often begins with one family member who sends money to bring other family members to the new location. Chain migration results in migration fields- the clustering of people from a specific region into certain neighborhoods or small towns.

Return Migration: Return migration is the voluntary movements of immigrants back to their place of origin. This is also known as circular migration.

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[22] National Geographic Society (NGS), "Human Migration Guide", 2005. 27 June 2017.

> **Seasonal Migration:** Seasonal migration is the process of moving for a period of time in response to labor or climate conditions (e.g., farm workers following crop harvests or working in cities off-season; "snowbirds" moving to the southwestern United States during winter) (NGS, 2005).

4.4 Impacts of migration[23]

> Human migration affects the population patterns and characteristics, social and cultural patterns and processes, economics, and the physical environments. As people move, their cultural traits and ideas diffuse along with them, creating and modifying cultural landscapes.
>
> **Diffusion:** Diffusion is the process through which certain characteristics (e.g., cultural traits, ideas, and diseases) spread over space and through time.
>
> **Relocation Diffusion:** Relocation diffusion is the spread of an ideas, cultural traits, etc. that move with people from one place to another and do not remain in the point of origin.
>
> **Expansion Diffusion:** The spread of an ideas, cultural traits, etc., that moves with the people from one place to another but are not lost at the point of origin is known as Expansion Diffusion, such as language.
>
> **Cultural Markets:** Cultural Markets are those structures or artifacts (e.g., buildings, spiritual places, architectural style, signs, etc.) that reflect the cultures and histories of those who constructed or occupy those (NGS, 2005).

4.5 Approaches to Migration Studies

Movement of people across national, regional and local boundaries is certainly nothing new. Bands of human beings have been wandering the earth following food supplies, exploring, conquering and building civilizations since the beginning of human history. In practice periphery to core migration is still the dominant focus of most migration studies. Push factors encourage people to leave origin/residential area, while pull factors attract people to receiving destination areas. Availability of land was important pull factor in 18th century and 19th century but now day's better employment opportunities have been dominate pull factor. There are several theoretical approaches to migration studies which are as follows.

    i)   The neoclassical equilibrium Approach,
    ii)   The Structuralist/Marxist Approach,
    iii)   The Demographic Approach,
    iv)   Early theories of Assimilation,
    v)   Contemporary Theories of Assimilation and Adoption,
    vi)   The Migration system framework,
    vii)   The Structuration Approach and
    viii) The household Strategies Approach.

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[23] National Geographic Society (NGS), "Human Migration Guide", 2005. 27 June 2017.

i) The Neoclassical Equilibrium Approach

This approach is related to push approach. It explains that individuals are rational decision-makers who base their migration decision on a careful consideration of the various costs and benefits associated with migration to a particular place. Assess the available information in their search for 'best' destination and migrated in order to maximize their economic return.

Economical costs and benefits of migration there are also many structural factors that influence individual migration decisions and the flow of migrants should contribute towards an economic equilibrium since conditions in origin and destination will become equal. Field of economics has provided explanatory model for migration and sociologist/Anthropologists characterizes this approach the "equilibrium perspective" and free market is celebrated for its efficiency and ability to allocate resources.

ii) The Structuralist/Marxist Approach

This approach is partly a response to the difficulties of applying the equilibrium model in developing countries and takes into account the historical origin of the costs and benefits confronted by the potential migration. This tries to look at the underlying Structures that connect sending and receiving areas across a variety axes. This approach is highly critical of both free market and mercantilist prospective of migration due to long term problems caused by capitalism. It also focuses on the major transformations that have been accruing in the world e.g. Sub-controlling is method of directly trapping into cheap migrant labor.

This approach concluded that migration is caused due to unequal historical between host and sending areas. Government act on behalf of capitalist is securing sources of inexpensive labor and that suppress their population in order to attract global investment capital.

iii) The Demographic Approach

The Demographic Approach of migration studies is mainly related in migration and its effect on population. The impact of migration is population distribution both in origin and destination place. Population pressure and population density encourage or discourages people for migration. Likewise the manpower of the population is also affected by migration because migration is selective process that usually economically active people migrate and numbers of male are greater than the female. (Distribution/redistribution, Population pressure, Population Density, Manpower availability, lack of manpower).

iv) Early theories of Assimilation

This theory is a sociological perspective that emerged in the early 20th century. This approach put the crucial question for the field is what happens once migrants arrive at their destinations. There are several problem created related with race and ethnicity, caste and religion. This approaches, discusses and study when heterogeneous types of people encounter one another. Migrants are wants to resist moving towards assimilation. Race and Mode of the ethnic incorporation are essential factors that need to be considered when comparing the assimilation experiences of different migrants groups.

v) Contemporary Theories of Assimilation and Adoption

This theory advocates that the socio-economic differences between ethnic groups. It complains that early theory of assimilation did not especially deal with the dynamic process of migration. Attempted to rectify is the situation by paying greater attention to the different possible outcomes of assimilation process. And migration simply refers to the end stage of a process of group adaptation of integration. Then at first acculturation, is being familiarize themselves with language culture and institutions as their destination.

vi) The Migration system framework

This approach, migration system framework focuses that migration as the result of interaction between 'macro-structures' and 'micro structure'. Here macro structures are large-scale institutional factors such as the integration of the world economy, and the laws affecting migration. And micro structures mean the informal network, beliefs and practices of migrants.

vii) The Structuration Approach

This approach specially takes into account the responses of individuals to structural constraints and opportunities. It is integration of individual and structural approaches. And household is the unit of analysis for this view.

viii) The household Strategies Approach

This approach focuses the member of household, and search when and where household member are living now.

4.6 Reasons for Migration

Migration is a complex process and has been a feature of human societies for many centuries. There are many reasons why people choose to migrate, including: Poverty, Armed conflict, Social strife, Political turmoil, Economic hardships, etc. The figure 9 (Motivations for Migration) helps to understand reasons for migration better.

Figure 9: Motivations for Migration

Motivations for Migration

	Push factors	Pull factors
Economic and demographic	Poverty Unemployment Low wages High fertility rates Lack of basic health and education	Prospects of higher wages Potential for improved standard of living Personal or professional development
Political	Conflict, insecurity, violence Poor governance Corruption Human rights abuses	Safety and security Political freedom
Social and cultural	Discrimination based on ethnicity, gender, religion, and the like	Family reunification Ethnic (diaspora migration) homeland Freedom from discrimination

Source: World Bank

4.7 An overview of Internal Migration

Moving of people from one place to another within a same country is Internal Migration. Volume of internal migration depends on the size of the defined geographical area. For example, area can be defined as a ward of a VDC and any movements between wards could be regarded as migratory movement. Likewise, the geographic area could also be defined as a VDC or a district or Terai, Hill and Mountains. It should be noted that the larger the geographic area smaller the migratory movements.

Till 1950s, Terai area was infested with high prevalence of Malaria. Till then internal migration from Hills and Mountain Region to Terai area was very limited. After the successful control of Malaria in the Terai region migratory movement from Hill and Mountain areas to Terai started to increase. Major factors in this migratory movements included harsher condition in the Hills and Mountains for example- limited supply of arable land, lack of employment and educational opportunities, and lack of infrastructural facilities in these areas. Moreover, availability of arable land in Terai immediately after the control of malaria and better infrastructural facilities, increased migration from Hills and Mountains to Terai. This migratory movement of people from Hills and Mountains to Terai was also facilitated by the resettlement program set up by the government in the late sixties.

In 1971, the number of people migrated within the country was 445128, which accounted for 3.9 per cent of the total population. It increased to 929,585 in 1981, comprising 6.2 per cent of total population. Hence, in the decade the volume of migration increased by 108.8 per cent. In 1991, volume of internal migration increased by 32.1 per cent as compared to a decade back, to make the number of migrants to 1,228,356, which is 6.6 per cent of total population. In 2001, the number of migrants within the country was 1,727, 350 which was 7.46 percent of the total population, which was an increase by 40.6 percent compared to 1991 census.

The following table shows that during 1971-2001; nearly all the migrants in Terai came from the Hills. By the time of 1971 census, Terai gained a population of 399,925, as result of migration of people from Mountains and Hills. The census of 1981, 1991 and 2001 showed these figures to be 686,178; 915,578 and 1,085,862 respectively. The figures presented indicate increasing of migration trend from Hills and Mountains to Terai. Increasing migration on Terai can be explained by the pull factors such as: a) resettlement program b) availability of fertile arable land c) employment opportunities and d) better communication and transportation facilities.

22 percent of the total population of Nepal was internal migrants, according to one of the study conducted by Central Department of Population Studies in 1996. Similarly, the study also revealed that migration rate was found high among females. It does not necessarily mean females are more mobile than males rather it could be due to marriage migration. Additionally, mobility of people was also found to be highly affected by education related activities. Age group 15-39 were found be more mobile.

Place of Enumeration	Total	Place of Birth			Net migration
		Mountain	Hill	Terai	
(1971) Mountain	9,698 (2.2%)	-	9,258	440	-39,959
Hill	25,366 (5.7%)	15,667	-	9,699	-3,59,966
Terai	4,10,064 (92.1%)	33,990	3,76,074	-	+3,99,925
Total	4,45,128 (100)	49,657 (11.2%)	3,85,332 (86.6%)	10,139 (2.3%)	0
(1981)					
Mountain	35,619 (3.8%)	-	33,423	2,196	-2,61,467
Hill	1,69,923 (18.3)	1,34,254	-	35,669	-4,24,711
Terai	7,24,043 (77.9%)	1,62,832	5,61,211	-	+6,86,178
Total	9,29,585 (100)	2,97,086 (32%)	5,94,634 (64%)	37,865 (4%)	0
(1991)					
Mountain	36,674 (3.0%)	-	32,003	4,671	-1,61,655
Hill	1,73,968 (14.2%)	76,503	-	97,465	-7,53,923
Terai	10,17,714 (82.8%)	1,21,826	8,95,888	-	+9,15,578
Total	12,28,356 (100)	1,98,329 (16.1%)	9,27,891 (75.5%)	1,02,136 (8.3%)	0
(2001)					
Mountain	40319 (2.3%)	-	33,895	6,424	-255,103
Hill	360,171 (20.9%)	125,597	-	234,574	-830,759
Terai	1,326,860 (76.8%)	169,825	1,157,035	-	+1,085,862
Total	1,727,350 (100.0)	295,422 (17.1%)	1,190,930 (68.9%)	240,998 (14.0%)	0
(2011)					
Mountain	45,169 (2.2%)	-	37,672	7,497	-349,132
Hill	588,815(28.2%)	213,714	-	375,101	-722,456
Terai	1,454,186(69.6%)	180,587	1,273,599	-	+1,071,588
Total	2,088,170 (100.0)	394,301 (18.9%)	1,311,271 (62.8%)	382,598 (18.3%)	0

Source: Population and Housing Census 2011 database, CBS, 2014

4.8 An overview of International Migration

International migration occurs when peoples cross state boundaries and stay in the host state for some minimum length of time. International migratory movements may be classified as temporary or permanent movement of individuals or families, movement of whole nations or

tribe, movements of citizens or aliens, movement of voluntary or forced and movement for study, work and others purpose.

International migration is a global phenomenon that is growing in scope, complexity and impact. Migration is both a cause and effect of broader development processes and an intrinsic feature of our ever globalizing world. While no substitute for development, migration can be a positive force for development when supported by the right set of policies. The rise in global mobility, the growing complexity of migratory patterns and its impact on countries, migrants, families and communities have all contributed to international migration becoming a priority for the international community.[24]

Due to open boarder with International migration in Nepal has been a matter of great concern. Unrecorded movement of Nepalese and Indians across Nepal-India border and the role of remittance in the economy mean that the implications of short-term and circular movement (international) are far reaching. Internal and international migrations are not comparable in terms of their impact in the economy and polity in the country.

International migration can be further categorized into two categories, viz. i) emigration (going abroad) and ii) immigration (entry of aliens).

Emigration

Nepalese males from Mountain and Hill regions started emigrating for employment in British India after the 1916 agreement between Nepal and British India. Entry into military jobs under British Government in India was the Pushing Factor for Nepalese males in this context. Initially this number was rather small, it started gaining momentum in the later years. According to 1981 census, 2.7 per cent of Nepal's population i.e., 4, 02,977 persons had immigrated to India between 1971-1981, out of which 89.3 per cent were from the Mountain and the Hill regions.

1991 census of 1991 revealed the number of emigrants increased to 6, 58,337 between the period 1981¬1991. This was a 63.4 per cent increase over the period 1971-81, which amounts to 3.6 per cent of the total population of the country. Nearly 9 out of 11 of these emigrants went to India (89.2). The percentage distribution for other countries and areas are: 0.76 to other countries of South Asia, 3.05 per cent to other Asian countries, 0.96 to Arabian countries, 0.97 to Europe, 0.33 to North America, and 0.9 per cent to rest of the countries. However, 4.64 per cent of emigrants' destination was not stated. Of these emigrants from Nepal, nearly two third had gone out for employment.

The census of 2001 revealed that the number of emigrants in 2001 were 762181. Persons immigrating to India constituted nearly 68 percent of the total emigrants followed by Saudi

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[24] United Nations Department of Economic and Social Affairs (UNDESA), "International Migration", http://www.un.org/en/development/desa/population/theme/international-migration/, n.d, Web. 27 June 2017.

Arabia with 8.9 percent. Figures for Qatar and Hong Kong are respectively 3.2 and 1.6 percent. Other countries accounted for nearly 18 percent.

In the same way, the population census of 2011 highlighted the total number of people residing outside the country who emigrated in 2001. The striking number was 1,921,494, which is 152 percent more than that emigrated population.

Similarly, the figure of emigrated population in 2011 accounts 7.25 percent of total population. In 2011, one in every four households (25.42%) reported that at least one member of their household is absent or is living out of country and 44.81 percent of absent population is from the age group 15 to 24 years. This indicates the popularity (or force) of foreign residence among young population in Nepal. Among absentee population, 87.6 percent were male while only 12.4 percent were females.

Immigration
Immigration is the international movement of people into a destination country of which they are not natives or where they do not possess citizenship in order to settle or reside there, especially as permanent residents or naturalized citizens, or to take-up employment as a migrant worker or temporarily as a foreign worker.

Immigration is an important component of international migration. The history of immigration in Nepal dates back to its early settlement and the process of state formation. Nepal's historical and cultural linkages with India and the ethnic and caste diversity in contemporary Nepal are lucid examples of immigration into Nepal. Indians remain foremost group among total immigrants in Nepal due to open border with India and the free flow of citizens.

1961 population census for the first time reported data on foreign born population and foreign citizens (nationals) in Nepal. All subsequent decennial censuses have reported this information. A total of 337,620 foreign born population was in Nepal, which constituted 3.6 percent of the total population of the country. Over the past four decades census data have portrayed erratic trend on the volume of foreign born population in the country. Between 1961 and 2001, an overall increase by 80 percent is evident. Data on foreign citizens in Nepal demonstrate a similar situation as that presented by the foreign born population in the country. However, the number is far lower than the former ones.

Census year	Foreign born population	Foreign born as % of total	Foreign citizens in Nepal	Foreign citizen as % of total	Total population
1961	337,620	3.59	110,061	1.17	9,412,996
1971	337,448	2.92	136,477	1.18	11,555,983
1981	234,039	1.56	483,019	3.21	15,022,839
1991	439,488	2.38	90,427	0.49	18,491,097
2001	608,093	2.67	116,571	0.59	22,736,934
2011	479625	1.8	138910	0.6	26,494,504

Source: CBS, Population Censuses

The latest census (2011) recorded the proportion of foreign citizens in the country to be only 0.6 percent of the total population. Between 1991 and 2001 the number of foreign born population in the country increased by 38.4 percent. Even the proportional share of foreign born population has increased although by a small percentage points i.e., from 2.38 to 2.67.

4.9 Determinants of Migration

According to the population census of 2001, the five major reasons for migration are: trading, agriculture, employment, study/training and marriage.

The table 34 (below) shows the percentage distribution of internal and international migrants by reasons. The category in other reasons comprised Marriage (27%), agriculture (15.8%), employment (10.6%), study and training (9.3%) and trading (6%). The dominant reason for migration of females was marriage (47.1%). As a result of this, all other reasons for migration were dominantly in favor of males because males did not report marriage as one of their reasons for migration. Among the inter-district migrants, similar proportions in terms of gender were reported by the 2001 census. However, when the reason in other category for both sexes and especially, marriage for females assumed such a high proportion that other reasons were significantly underrated in the response during the census operation. One high proportion but not unusual is the reason of marriage among foreign born females (65.8%).

Table 34: Percentage Distribution of Internal and Foreign Migrants by Reasons of Residence, Nepal, 2001

Reasons	Percent	Inter-District Migrants	Foreign Born
Trading	6.03	5.53	8.43
Agriculture	15.79	18.08	4.77
Employment	10.58	11.50	6.13
Study/Training	9.33	10.34	4.47
Marriage	26.95	22.99	45.99
Others	31.32	31.55	30.21
Total Number	3,537,155	2,929,064	608,092

Males			
Trading	10.26	8.61	22.24
Agriculture	21.25	22.84	9.66
Employment	20.65	21.13	17.12
Study/Training	13.89	14.69	8.06
Others	33.96	32.72	42.91
Females			
Trading	2.87	2.97	2.49
Agriculture	11.71	14.12	2.66
Employment	3.05	3.49	1.40
Study/Training	5.92	6.72	2.92
Marriage	47.10	42.13	65.79
Others	29.35	30.58	24.74

Source: CBS, 2002

4.10 Consequences of Migration

Migration entails both Positive and Negative consequences apparently. Consequences of migration in the context of Nepal can be understood through the following:

Positive effects

Flow of adolescent and youths is high from less developed to more developed countries and there are some positive effects and the exit of job seekers may ease domestic pressures linked to excess labor supply. Secondly, migration may empower young women and reinforce equitable gender norms along with provide both education and job opportunity for young girls and contribute delaying in marriage and ultimately reduce fertility rate of a nations. Moreover, the inflow of remittances may contribute to economic growth and poverty reduction in countries of origin and may also stimulate investment in human capital and as result, is more likely to have higher quality of next generation. In addition, Diasporas can be a source of technology transfer, investments and venture capital for countries of origin. Finally, the physical or 'virtual' return of skilled workers translates into increases in local human capital, skills transfer and foreign network connections.

Importance of Migration from Development Perspective

- Migration across borders has accelerated in response to rapid movements of capital and goods and services, accompanied by unprecedented growth in communication and transportation technologies across the world.
- International migration can have important benefits for home country development and contribute to the welfare of host societies, developed livelihood of the community, reduced poverty at the individual level, investments fund can be provided and structures, ideologies, and support networks can be reinforced for development activities.

- Moreover, it can reduce income disparities across countries through an equalizing effect on the income of the countries of origin.
- The possibility of remittance reduced vulnerability of families, greater empowerment for women, and impact of social institution.
- Furthermore it can increase the supply of entrepreneurship and small business, accelerate the growth per capita income, increase saving, investment and human capital formulation, increase creativity and diversity, accelerate the pace of innovation the international mobility of labor, if managed properly, could perhaps help in reducing poverty and inequality.
- Remittances are an important resource for the reduction of poverty which is the largest share of migrants financial transfers is sent back to support family members and relatives.
- Apart from sending remittances, migrants also save some money while abroad, which they bring with them on return and benefits are gained from the temporary presence of highly skilled professionals (brain circulation).

Negative effects

This is true that there are some positive effects of adolescents and youth migration but on the other hand there is some risk for the origin countries from adolescents and youth migration. First of all, origin countries loss highly skilled workers and a reduction in the quality of essential services and economic growth and productivity decline with educations in the stock of high-skilled labor. Secondly, in places of origin, returns on public investments in education are lower. The absence of parents may increase the vulnerability of youth left behind, and adolescents commonly experience difficulties in their social relations and will isolate themselves in a small peer groups who are in a like situation. The absence of parents may increase the vulnerability of youth left behind, and adolescent's community experience difficulties in their social relations. Youth left behind by their parents commonly experience increased demands as they must assume responsibilities previously assumed by their parents. This can lead to declines in academic performance and exit from school altogether. Remittances coupled with limited parental supervision may be linked to a higher probability of risky behavior among youth left behind Migration may expose youth- especially young women-to higher risks of abuse, discrimination and exploitation.

However, host countries will be sufferer by losing the young manpower and brain drain. It can increased foreign direct investment (FDI), for more developed countries which are usually countries of destination, the interaction between migration and development could increase efficiency in the use of global resources.

Considering the both positive and negative effects of migration, government of Nepal set up various policies and strategy during the period of periodical plans and has been shown in the table 35:

Plan Period	Policies/Strategies	Remarks
First Plan(1956-1961)	• No explicit migration policies	. First modern resettlement program with US assistance to settle victims of 1955 flood and natural disaster
Second Plan (1962-1965)	• Focus on resettlement in Inner Terai	. Establishment of Resettlement Company under Ministry of Food and Agriculture (1963)
		. Planned resettlement in a few Terai districts e.g. Jhapa, Nawalparasi, Banke
Third Plan(1965-1970)	. Introduction of family planning as population policy	. Establishment of Resettlement Department under Ministry of Food and Agriculture (1968)
	• No explicit policies on migration	• Resettlement on designated forest land with Regional Offices in Terai
		. Project induced internal migration
Fourth Plan(1970-1975)	. Control immigration	. Formation of Taskforce on population policy
	. Population policy as public policies having	. Transfer of Resettlement Company and
	impact on population growth and distribution	Resettlement Department to the Ministry of Forest
	. Continuation of family planning related policies	
Fifth Plan (1975-1980)	. Control immigration	. Initiation of Vital Registration System
	. Planned management of migration to Terai and urban areas	. Formation of Population policy Coordination Board (1975) and National Commission on Population (1978)
	• Planned migration to resource rich low density areas e.g., Western Terai	
	. Urban development in backward regions	
	. Fertility reduction policies	
Sixth Plan (1980-1985)	. Regulate migration from the Hills to Terai	. No program details on migration policies
	. Promote resettlement in the Hills	. Reorganization of National Commission on Population in 1982
	. Control immigration	. Formulation of National Population Strategy 1983
	. Reduction of growth rate	
Seventh Plan(1985-1990)	. Pursual of National Population Strategy, 1983	. Integration of population in rural development, cooperative and resettlement programs
Eighth Plan (1992-1997)	. Regulation of internal migration	. No program details on migration policies

		Fertility reduction related policies (through integration with other activities)		Dissolution of National Commission on Population
				Creation of Ministry of population and Environment and Ministry of Women and Social Welfare
Ninth Plan(1997-2002)	.	Regulation of international migration	.	Formulation of Population Perspective Plan (proposed)
Tenth Plan (2002-2007)	.	Management of migration along with adoption of partnership approach on population management	• •	Formulation of Population Perspective Plan Integration of population in developmental Activities
The Three Year Interim Plan (2007/08-2009/10)	•	To manage migration Coordination, research are and development of small town have been emphasis	•	Updating of Population Perspective Plan Integration of population in development
The three Interim Plan 20010/2013				

Sources: Population Perspective Plan, 2010

4.11 New Policy Direction for Migration

- Considering positive as well as negative effects of migration and the foresaid conceptual framework of migration management it can be concluded that policy makers have recognized and appreciated the contribution migration has made for sustainable development and poverty reduction. More importantly, there is an urgent need to formulate migration and remittance policy to make a balance between least developed and developed countries.

- Migration management should be given an important place in any strategy for achieving international development frameworks. Countries of origin and countries of destination respectively should be treated as the labor mobility in kind resources for development and that can narrow existing inequalities between and among states. Therefore, it is necessary to incorporate circular migration, virtual migrant and temporary migration into policy planning.

- While, the skilled migrant workers should be treated as an asset of nation, the remittance gathered must be mobilized in productive sectors rather than in consumption sectors. Thus, it should be desirable to integrate migration management approaches more explicitly and coherently within a broader context of economic and social development frameworks.

- The international community is focusing on benefits for home country development as the most significant link between migration and development. Such initiatives should be promoted at all levels (national as well as international).

- Many middle income countries are currently developing migration management structures that encourage and support their migrants throughout the entire migration process and thus a cooperative approach to migration management could help

developing countries to limit and reverse unsustainable forms of migration and receive the support of countries of destination for the sustainable development of their human resources.

Table 36: Summary of positive and negative impacts of remittances

POSITIVE IMPACTS	NEGATIVE IMPACTS
Are net addition to resources; raise the immediate standard of living of recipients	Are unpredictable and always rises various direct and indirect costs. Moreover, Intangible cost like fear, anxiety also rises from the migration.
Poverty Reduction	Measuring the remittances is complex
Are potential source of savings and investment capital formation for development	Are spent on consumer goods, which increases demand, increases inflation, and pushes up wage levels
Permit imports of capital goods and raw materials for industrial development	Result in little or no investment in capital-generating activities. Most of the amount spent on consumption areas.
Ease foreign exchange constraints and improve balance of payments	High import content of consumption demand increases dependency on imports and exacerbates balance of payments problem
Improve income distribution	Replace other sources of income, thereby increasing dependency, eroding good work habits, and heightening potential negative effects of return migration
	Spent on "unproductive" or "personal" investment (e.g., real estate, housing,)
	Create envy and resentment and induce consumption spending among non-migrants
	Possibly to transfer various types of diseases like as HIV aids and so on

Economic disparities and demographic changes are powerful push and pull factors affecting the movement of people. There are numerous factors behind a decision to migrate, such as employment opportunities, economic disparities, family reunification, poverty, environmental degradation, armed conflict, demographic pressures, and natural disasters. On the other side, globalization has played the catalytic roles for international migration in the present world. In order to encourage the return of highly skilled migrants, governments should develop certain incentive schemes to attract and retain professionals and skilled manpower.

CHAPTER V

URBANIZATION

5.1 Concept

Urbanization refers to the population shift from rural to urban areas, "the gradual increase in the proportion of people living in urban areas", and the ways in which each society adapts to the change. It is predominantly the process by which towns and cities are formed and become larger as more people begin living and working in central areas.[25]

The world is undergoing the largest wave of urban growth in history. More than half of the world's population now lives in towns and cities. It is predicted that by 2050 about 64% of the developing world and 86% of the developed world will be urbanized. Much of this urbanization will unfold in Africa and Asia, bringing huge social, economic and environmental transformations.[26]

> *"Urbanization is the physical growth of urban areas as a result of rural migration and even suburban concentration into cities, particularly the very large ones. Urbanization is closely linked to modernization, industrialization, and the sociological process of rationalization. Urbanization can describe a specific condition at a set time, i.e. the proportion of total population or area in cities or towns, or the term can describe the increase of this proportion over time. So the term urbanization can represent the level of urban relative to overall population, or it can represent the rate at which the urban proportion is increasing."*

Urbanization is going to be a significant in the years to come in Nepal. The rapid increase in number of economically active population in rural area, their improved literacy status and aspiration for employment in the non-agricultural sector will induce urbanization. However, analysis of urbanization and urban growth in Nepal is confounded by definitional inconsistencies both over time and space. By any definition, Nepal's level of urbanization is low and the country falls among one of the least urbanized countries of the world.

5.2 Benchmarks for Urbanization in Nepal

In the context of Nepal, populations residing in designated urban areas are categorized as urban population, while those living in rural area are rural population. Urban areas in Nepal are referred by various names based on size and concentration of population and sometimes the functional dominance in the national and local economy. Shahar, Nagar Panchayat and Nagarpalika are the common Nepali terms used to denote urban places.

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[25] Wikipedia, "Urbanization", https://en.wikipedia.org/wiki/Urbanization, 21 June 2017, Web. 28 June 2017.
[26] United Nations Population Fund (UNFPA), "Urbanization Overview", http://www.unfpa.org/urbanization, n.d, Web. 2017.

These nomenclatures are variously used in the population censuses carried out at various times. It is generally defined as the percentage of total population living in urban settlements. In other words, urbanization is the growth in the proportion of persons living in urban settlements. In the context of Nepal, urban settlements are the designated urban areas. The latest legal instruments i.e., Municipality Act 1992 and Local Self-governance Act 1999 recognize further subdivision in the definition of municipality. Based on the population size, annual revenue and level of infrastructure facilities available in the municipalities, they are categorized as metropolitan (Mahanagarpalika), sub-metropolitan (Upa-mahanagarpalika) and municipality (Nagarpalika). While providing municipal status to a settlement, a regional dimension is recognized in terms of population size. The requirements for the Hill are lower than that for the Terai.

Government of Nepal (GoN) has set a benchmark, presented in table 37, in order to declare certain areas as urban or rural:

Table 37: Benchmarks for Urbanization

Source and year	Criteria adopted		Observation
	Population Size	**Other Criteria**	
Population Census 1952/54	More than 5,000	"Prominent settlements"	No formal definition
Population Census 1961	More than 5,000	Urban facilities such as high school, college, judicial, administrative office, bazaar, mills, factories, communication facilities	
Nagar Panchayat Ain 1962	No less than 10,000	*Nagar Panchayat*	Some *Nagar Panchayats* had less than 10,000 population *Nagar panchayats* were conceived as unit of local self-government
Amendment 1976	9,000 or more	*Nagar Panchayat*	All regional development centers were considered as urban even if some discrepancies were observed
Municipality Act 1992: Local Self-governance Act 1999	Regionalism in designating urban area e.g., In Hills: more than 10,000, In Terai: more than 20,000	**Stature as municipality** Annual revenue Hills: NRs.500, 000 or more Terai: NRs 5 million or more Minimum urban facilities electricity, road, drinking water, communication and other similar facilities	Categorization of designated urban areas e.g., Nagarpalika *having minimum criteria* **Upa-mahanagarpalikla** With a population of more than 100,000; annual revenue at least NRs.100 million and infrastructure for national/international sport events, city hall, etc. **Mahanagarpalika** with a population of more than 300,000; annual revenue at least NRs. 400 million and infrastructure for international sport events, university, specialized services etc.

Adopted from Pandey J.P et. a.l (2013)

5.3 Growth of Urban Population in Nepal

The system to keep record of urban population came into practice only since census 1952/54. The total population living in the 'Shahar' area was only 238,275, which is only 2.9 percent population of the country. This proportion increased to 13.9 percent in 2001, which is 3.2 million. As per the census 2011, 17 percent (4,523,820) of the total populations were residing in 58 municipalities. By 2016, urban centers account for 42 percent of the total population, according to Economic Survey 2015-16. Presently, there are 263 municipalities in Nepal of which only 58 existed until 2014.[27]

5.4 Urbanization Trend in Nepal

The table below presents growth of urban places along with population since the 1952/54 population census. Figures in table 38 shows that there is only one municipality with population more than 3,00,000 in 2011. In 1971, municipalities with less than 20,000 population was 9. Number of urban places has increased from 10 in 1952/54 to 58 in 2011. Recent update claims that there are 263 municipalities in Nepal. [28]

Table 38: Distribution of Urban (Municipalities) by size of Population, Nepal, 1971- 2011

Size of Population	Number of Municipalities					Population				
	1971	1981	1991	2001	2011	1971	1981	1991	2001	2011
Less than 20,000	9	7	8	8	4	102638	90573	217901	136390	71763
20,000-49,999	5	13	14	34	27	149849	457569	293888	1032245	831127
50,000-99,999	1	2	8	11	17	59049	173419	517419	788937	1182522
1,00,000-299,000	1	1	3	5	9	150402	235160	666511	1270307	1435123
3,00,000 or more					1					1003285
Total	16	23	33	58	58	461938	956721	1695719	3227879	4523820

Source: Central Bureau of Statistics (Population census 1971,1981,1991,2001 and 2011

Fluctuation in urbanization trends can be seen over the years. While, the highest (107 percent) urban population growth was recorded during 1971- 1981, the lowest (77 percent) was recorded in 1981-1991. Likewise, the growth rate which reached 90 percent again during 1991-2001, declined to 40 percent in the decade 2001-2011 subsequently.

During 2001-2011, the urban population increased by 3.1 percent of total population and reached 17 percent of the total population. It should be noted that this data of urban population is based on 58 municipal areas; the percentage of urban population increases if newly declared municipal areas are also considered.

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[27] Wikipedia, "List of cities in Nepal", https://en.wikipedia.org/wiki/List_of_cities_in_Nepal, 26 June 2017, Web. 28 June 2017.
[28] Wikipedia, "List of cities in Nepal", https://en.wikipedia.org/wiki/List_of_cities_in_Nepal, 26 June 2017, Web. 28 June 2017.

Growth of urban population is attributable to several factors: natural increase, non-urban to urban migration, international migration and boundary expansion including reclassification. In Nepal, the major contribution to the increase is attributed to migration and urban reclassification. Particularly, boundary and administrative reclassification have major impact in the overall increases of the urban population.

Table 39: Population of Nepal by rural-urban residence, 1952/54 – 2011

Census year	Urban population	Total population	Urban population as percent of	
			Total population	Rural population
1952/54	238,275	8,256,625	2.9	3.0
1961	336,222	9,412,996	3.6	3.7
1971	461,938	11,555,983	4.0	4.2
1981	956,721	15,022,839	6.4	6.8
1991	1,695,719	18,491,097	9.2	10.1
2001	3,227,879	23,151,423	13.9	16.2
2011*	4523820	26494504	17.0	20.59

Population based on 58 municipalities at the time of data collection in 2011 census
Source: Population censuses

5.5 Urbanization in Kathmandu Valley[29]

The Kathmandu Valley is one of the fastest-growing urban agglomerations in South Asia (Muzzini & Apericio, 2013; MoUD, 2015):

- In the 2011 census, the population of Kathmandu Metropolitan City was 1,003,285 (CBS, 2012: p.3). UN DESA (2014: p.367) updates this to 1,142,000 in 2014, and projects a population of 1,183,000 in 2015, rising to 1,855,000 by 2030 (ibid: p.338)
- The urban growth rate for Kathmandu Metropolitan City between 2010 and 2015 was 3.94 per cent (UN DESA, 2015: p.393).
- Kathmandu Valley has 29 per cent of the country's total urban population, with Kathmandu Metropolitan City alone accounting for 22.2 per cent (MoUD, 2015: p. 6). However, the addition of 133 municipalities by 2014 lowers this figure to 24 per cent of the total urban population, with Kathmandu Metropolitan City alone accounting for 9.7 percent (ibid).
- The percentage of the total population residing in Kathmandu Metropolitan City in 2015 will be 4.2 per cent, rising to 5.6 per cent in 2030 (UN DESA, 2015: p.393).

Kathmandu Valley's boundaries are also expanding quickly due to urban sprawl:

- Annual population growth in 2011 was high in the peripheral municipalities of Kirtipur (5 percent) and Madhyapur Thimi (5.7 per cent) (Muzzini & Apericio, 2013: p.34).
- Population growth in peri-urban areas (which are officially classified as rural space) in 2011 was also high at 4.8 per cent per year (ibid).

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[29] Shivit Bakrania, "Urbanization and Urban Growth in Nepal", 29 October 2015. 28 June 2017.

5.6 Geographical Pattern of Urbanization

Of 75 districts in total, only 43 districts have designated urban areas. 13 districts have more than one urban area. Amongst the five development regions, the central development region has the largest share of urban population as well as the largest number of urban places. Similarly, the Hills are the most urbanized region while the Mountains are the least urbanized, on the basis of geographical regions.

Kathmandu is the most urbanized district in Nepal. While, Kathmandu has the highest urban population of 66 percent, Sarlahi has the least of 2.9 percent. Similarly, other districts in the country with significant urban population are: Bhaktapur has 53%, Kaski (52%), Lalitpur (48%), Chitwan (27%) and Sunsari (25%).

Table 40: Population and growth rate of urban population by municipalities, Nepal, 1991-2011

Municipality	District	Census Year			Popn Difference (1991-2001)	Popn Difference (2001-2011)	Av. growth rate (2001-2011)
		1991	2001	2011			
Ilam	Ilam	13,197	16237	19427	3,040	3190	1.79
Bhadrapur	Jhapa	15,210	18145	18646	2,935	501	0.27
Damak	Jhapa	41,321	35009	75743	-6,312	40734	7.72
Mechinagar	Jhapa	37,108	49060	57909	11,952	8849	1.66
Biratnagar	Morang	1,29,388	166674	204949	37,286	38275	2.07
Dharan	Sunsari	66,457	95332	119915	28,875	24583	2.29
Inarwa	Sunsari	18,547	23200	28923	4,653	5723	2.20
Itahari	Sunsari	26,824	41210	76869	14,386	35659	6.23
Dhankuta	Dhankuta	17,073	20668	28364	3,595	7696	3.17
Khandbari	Sankhuwasabha	18,756	21789	26658	3,033	4869	2.02
Triyuga	Udaypur	37,512	55291	71405	17,779	16114	2.56
Rajbiraj	Saptari	24,227	30353	38241	6,126	7888	2.31
Lahan	Siraha	19,018	27654	33927	8,636	6273	2.04
Siraha	Siraha	21,866	23988	28831	2,122	4843	1.84
Janakpur	Dhanusha	54,710	74192	98446	19,482	24254	2.83
Jaleshwor	Mahottari	18,088	22046	24765	3,958	2719	1.16
Malangwa	Sarlahi	14,142	18484	25143	4,342	6659	3.08
Kamala Mai	Sindhuli	19,266	32838	41117	13,572	8279	2.25
Bhimeswor	Dolakha	19,266	21916	23337	2,650	1421	0.63
Banepa	Kavrepalanchok	12,537	15822	24894	3,285	9072	4.53

Dhulikhel	Kavrepalanchok	9,812	11521	16263	1,709	4742	3.45
Panauti	Kavrepalanchok	20,104	25563	28312	5,459	2749	1.02
Lalitpur	Lalitpur	1,15,865	162991	226728	47,126	63737	3.30
Bhaktapur	Bhaktapur	61,405	72543	83658	11,138	11115	1.43
Madhyapur-Thimi	Bhaktapur	31,970	47751	84142	15,781	36391	5.67
Kathmandu	Kathmandu	4,21,258	671846	1003285	250,588	331439	4.01
Kirtipur	Kathmandu	31,338	40835	67171	9,497	26336	4.98
Bidur	Nuwakot	18,694	21193	27953	2,499	6760	2.77
Hetauda	Makwanpur	53,836	68482	85653	14,646	17171	2.24
Gaur	Rautahat	20,434	25383	35370	4,949	9987	3.32
Kalaiya	Bara	18,498	32260	43137	13,762	10877	2.91
Birgunj	Parsa	69,005	112484	139068	43,479	26584	2.12
Bharatpur	Chitwan	54,670	89323	147777	34,653	58454	5.03
Ratnanagar	Chitwan	25,118	37791	46607	12,673	8816	2.10
Gorkha	Gorkha	20,633	25783	33865	5,150	8082	2.73
Byas	Tanahu	20,124	28245	43615	8,121	15370	4.34
Putalibazar	Syangja	25,870	29667	31338	3,797	1671	0.55
Waling	Syangja	16,712	20414	24199	3,702	3785	1.70
Lekhnath	Kaski	30,107	41369	59498	11,262	18129	3.63
Pokhara	Kaski	95,286	156312	264991	61,026	108679	5.28
Baglung	Baglung	15,219	20852	30763	5,633	9911	3.89
Tansen	Palpa	13,599	20431	31161	6,832	10730	4.22
Ramgram	Nawalparasi	18,911	22630	28973	3,719	6343	2.47
Butwal	Rupandehi	44,272	75384	120982	31,112	45598	4.73
Siddhartha Nagar	Rupandehi	39,473	52569	64566	13,096	11997	2.06
Kapilvastu	Kapilvastu	17,126	27170	30890	10,044	3720	1.28
Ghorahi	Dang	29,050	43126	65107	14,076	21981	4.12
Tulsipur	Dang	22,654	33876	52224	11,222	18348	4.33
Nepalgunj	Banke	47,819	57535	73779	9,716	16244	2.49
Gularia	Bardiya	30,631	46011	57232	15,380	11221	2.18
Birendra Nagar	Surkhet	22,973	31381	52137	8,408	20756	5.08
Narayan	Dailekh	15,758	19446	21996	3,688	2550	1.23
Dipayal Silgadhi	Doti	12,360	22061	26508	9,701	4447	1.84

Dhangadhi	Kailali	44,753	67447	104047	22,694	36600	4.34
Tikapur	Kailali	25,639	38722	56983	13,083	18261	3.86
Bhimdatta	Kanchanpur	62,050	80839	106666	18,789	25827	2.77
Amargadhi	Dandeldhura	16,454	18390	22241	1,936	3851	1.90
Dasarath Chand	Darchula	18,054	18345	17427	291	-918	-0.51
Total Urban Population	2287487	3227879	4523820	940392	1295941	3.38	

Source: CBS 1998, 2002 and 2012

5.7 New Municipalities

The table below presents updated list (as of March 2017) of municipalities of Nepal.

Table 41: Municipalities of Nepal

SN	MUNICIPALITIES	DISTRICT	POPULATION
Metropolitan City			
1.	Kathmandu	Kathmandu	975453
2.	Pokhara Lekhnath	Kaski	414141
3.	Lalitpur	Lalitpur	284922
4.	Bharatpur	Chitawan	280502
5.	Biratnagar	Morang	214663
6.	Birgunj	Parsha	204816
Sub Metropolitan City			
7.	Ghorahi	Dang	156164
8.	Janakpur	Dhanusha	153614
9.	Hetauda	Makawanpur	152875
10.	Dhangadhi	Kailali	147741
11.	Tulsipur	Dang	141528
12.	Itahari	Sunsari	140517
13.	Nepalgunj	Banke	138951
14.	Butwal	Rupandehi	138741
15.	Dharan	Sunsari	137705
16.	Kalaiya	Bara	123659
17.	Jeetpur Simara	Bara	114185
Municipality			
18.	Mechinagar	Jhapa	111797
19.	Budhanilkantha	Kathmandu	107918
20.	Gokarneshwor	Kathmandu	107351
21.	Bheemdatta	Kanchanpur	104599
22.	Birendranagar	Surkhet	100458
23.	Tilottama	Rupandehi	100149
24.	Tokha	Kathmandu	99032

25.	Lahan	Siraha	91766
26.	Triyuga	Udayapur	87557
27.	Chandragiri	Kathmandu	85198
28.	Madhyapur Thimi	Bhaktapur	83036
29.	Siraha	Siraha	82531
30.	Birtamod	Jhapa	81878
31.	Bhaktapur	Bhaktapur	81728
32.	Tarkeshor	Kathmandu	81443
33.	Sundar Haraincha	Morang	80518
34.	Suryabinayak	Bhaktapur	78490
35.	Godawari	Lalitpur	78301
36.	Godawari	Kailali	78018
37.	Baraha	Sunsari	77408
38.	Kapilvastu	Kapilvastu	76394
39.	Ghodaghodi	Kailali	75586
40.	Lamki Chuha	Kailali	75425
41.	Banganga	Sunsari	75242
42.	Damak	Jhapa	75102
43.	Tikapur	Kailali	73084
44.	Lumbini Sanskritik	Rupandehi	72497
45.	Chandrapur	Rautahat	72059
46.	Kohalpur	Banke	70647
47.	Vyas	Tanahun	70335
48.	Ratnanagar	Chitwan	69848
49.	Barahathawa	Sarlahi	69822
50.	Gaur	Rautahat	68476
51.	Barbardiya	Bardiya	68012
52.	Rajbiraj	Saptari	67262
53.	Shivaraj	Kapilvastu	66781
54.	Gulariya	Bardiya	66679
55.	Gaushala	Mahottari	66673
56.	Belbaari	Morang	65892
57.	Kirtipur	Kathmandu	65602
58.	Bhadrapur	Jhapa	65543
59.	Nagarjun	Kathmandu	65420
60.	Dudhauli	Sindhuli	65302
61.	Kamalamai	Sindhuli	65064
62.	Bodebarsain	Saptari	65048
63.	Buddhabhumi	Kapilvastu	64949
64.	Shiva Sataxi	Jhapa	64596
65.	Bardibas	Mahottari	63912
66.	Inaruwa	Sunsari	63593
67.	Siddharthanagar	Rupandehi	63483
68.	Pathari Shanischare	Morang	62440
69.	Kawasoti	Nawalparasi	62421

70.	Krishnanagar	Kapilvastu	62370
71.	Mahalaxmi	Lalitpur	62172
72.	Kageshwori Manohara	Kathmandu	60237
73.	Arjundhara	Jhapa	60204
74.	Ishworpur	Sarlahi	59986
75.	Rajapur	Bardiya	59553
76.	Ramgram	Nawalparasi	59455
77.	Lalbandi	Sarlahi	59395
78.	Gaindakot	Nawalparasi	58836
79.	Jaleshwar	Mahottari	58549
80.	Nilkantha	Dhading	58515
81.	Baglung	Baglung	57823
82.	Rapti	Chitwan	57107
83.	Suryodaya	Illam	56691
84.	Krishnapur	Kanchanpur	56643
85.	Duhabi	Sunsari	56269
86.	Katari	Udayapur	56146
87.	Khairhani	Chitwan	56094
88.	Bansgadhi	Bardiya	55875
89.	Saina Maina	Rupandehi	55822
90.	Banepa	Kavrepalanchowk	55628
91.	Changunarayan	Bhaktapur	55430
92.	Sunwal	Nawalparasi	55424
93.	Bardghat	Nawalparasi	55382
94.	Ratuwamai	Morang	55380
95.	Pokhariya	Parsa	55338
96.	Gauriganga	Kailali	55314
97.	Maharajgunj	Kapilvastu	54800
98.	Urlabari	Morang	54696
99.	Mahagadhimai	Bara	54474
100.	Bidur	Nuwakot	54351
101.	Madhyabindu	Nawalparasi	54140
102.	Punarbas	Kanchanpur	53633
103.	Belauri	Kanchanpur	53544
104.	Devdaha	Rupandehi	53523
105.	Gauradaha	Jhapa	53033
106.	Rangeli	Morang	52013
107.	Bhajani	Kailali	51845
108.	Ramdhuni	Sunsari	51752
109.	Haripurwa	Sarlahi	51355
110.	Waling	Syanja	51143
111.	Golbazar	Siraha	51137
112.	Sunbarsi	Morang	50758
113.	Garuda	Rautahat	50451
114.	Tansen	Palpa	50405

115.	Mirchaiya	Siraha	50079
116.	Simraunghad	Bara	49939
117.	Dakneshwari	Saptari	49788
118.	Bedkot	Kanchanpur	49479
119.	Balara	Sarlahi	49452
120.	Kalyanpur	Siraha	49288
121.	Gorkha	Gorkha	49272
122.	Phidim	Pancthar	49201
123.	Chaudandigadhi	Udayapur	48578
124.	Ilam	Ilam	48536
125.	Shuklagandaki	Tanahun	48456
126.	Lamahi	Dang	47655
127.	Nagarain	Dhanusha	47625
128.	Kshireshwar Nath	Dhanusha	47453
129.	Dhangadimai	Siraha	47449
130.	Rupakot Majhuwagadhi	Khotang	46903
131.	Shuklaphanta	Kanchanpur	46834
132.	Paunauti	Kavrepalanchowk	46595
133.	Malangwa	Sarlahi	46516
134.	Chautara Sangachowkgadhi	Sindhupalchowk	46501
135.	Madhuwan	Bardiya	46437
136.	Sabaila	Dhanusha	45879
137.	Bhanu	Tanahun	45792
138.	Hanumannagar Kankalini	Saptari	45734
139.	Dhanushadham	Dhanusha	45665
140.	Manthali	Ramechhap	45416
141.	Khadak	Saptari	45367
142.	Melamchi	Sindhupalchowk	45343
143.	Putalibaazar	Syanja	44876
144.	Thakurbaba	Bardiya	44361
145.	Haripur	Sarlahi	44342
146.	Surunga	Saptari	44221
147.	Hariban	Sarlahi	43928
148.	Gurbhakot	Surkhet	43765
149.	Godaita	Sarlahi	43429
150.	Sheet Ganga	Argakhanchi	43373
151.	Kolhabi	Bara	43036
152.	Shahidnagar	Dhanusha	43007
153.	Devchuli	Nawalparasi	42603
154.	Belaka	Udayapur	42356
155.	Kalika	Chitwan	41742
156.	Thaha	Makawanpur	41623
157.	Dullu	Dailekh	41540
158.	Bheriganga	Surkhet	41407
159.	Sandhikharka	Argakhanchi	41079

160.	Mithila	Dhanusha	41030
161.	Bagmati	Sarlahi	40399
162.	Kankai	Jhapa	40141
163.	Belkotgadhi	Nuwakot	39888
164.	Kushma	Parbat	39600
165.	Besishahar	Lamjung	39356
166.	Mahakali	Kanchanpur	39253
167.	Purchaundi	Baitadi	39174
168.	Bideh	Dhanusha	38877
169.	Pyuthan	Pyuthan	38449
170.	Palungtar	Gorkha	38174
171.	Panchkhal	Kavrepalanchowk	37997
172.	Madi	Chitwan	37683
173.	Ganeshman Charnath	Dhanusha	37300
174.	Galyang	Syanja	36967
175.	Dhankuta	Dhankuta	36619
176.	Bangad Kupinde	Salyan	36052
177.	Kanchanrup	Saptari	35898
178.	Rampur	Palpa	35396
179.	Chhedagad	Jajarkot	35295
180.	Parashuram	Dadeldhura	34983
181.	Dasharth Chand	Baitadi	34575
182.	Nijgadh	Bara	34335
183.	Bagchaur	Salyan	34118
184.	Saphebagar	Achham	33788
185.	Shaarda	Salyan	33730
186.	Aathabiskot	Rukum	33601
187.	Bheri	Jajarkot	33515
188.	Beni	Myagdi	33498
189.	Bungal	Bajhang	33224
190.	Galkot	Baglung	33097
191.	Shambhunath	Saptari	33012
192.	Dipayal Silgadhi	Doti	32941
193.	Musikot	Rukum	32939
194.	Deumai	Ilam	32927
195.	Musikot	Gulmi	32802
196.	Ropla	Rolpa	32759
197.	Mandan Deupur	Kavrepalanchowk	32659
198.	Bhumikasthan	Argakhanchi	32640
199.	Mai	Ilam	32576
200.	Resunga	Gulmi	32545
201.	Mangalsen	Achham	32331
202.	Panchapuri	Surkhet	32231
203.	Dhulikhel	Kavrepalanchowk	32162
204.	Letang	Morang	32053

205.	Shikhar	Doti	31801
206.	Shandananda	Bhojpur	31610
207.	Bhimeshwar	Dolakha	31480
208.	Jaimani	Baglung	31430
209.	Bhimad	Tanahun	31362
210.	Khandbari	Sankhuwasabha	31177
211.	Dhunibeshi	Dhading	31029
212.	Swargadwari	Pyuthan	30940
213.	Patan	Baitadi	30435
214.	Lekbesi	Surkhet	30295
215.	Halesi Tuwachung	Khotang	29532
216.	Namobuddha	Kavrepalanchowk	29519
217.	Aathbis	Dailekh	29227
218.	Ramechhap	Ramechhap	28612
219.	Sidhhicharan	Okhaldhunga	28374
220.	Panchadeval Binayak	Achham	27485
221.	Chaurjahari	Rukum	27438
222.	Chainpur	Sankhuwasabha	27308
223.	Bhojpur	Bhojpur	27204
224.	Narayan	Dailekh	27037
225.	Sundarbazar	Lamjung	26861
226.	Barhabise	Sindhupalchowk	26700
227.	Phungling	Taplejung	26406
228.	Dhorpatan	Baglung	26215
229.	Chamunda Bindrasaini	Dailekh	26149
230.	Chapakot	Syanja	26042
231.	Triveni Nalgad	Jajarkot	25597
232.	Bheerkot	Syanja	25583
233.	Shankharapur	Kathmandu	25338
234.	Mahalaxmi	Dhankuta	24800
235.	Phalebas	Parbat	24687
236.	Daxinkaali	Kathmandu	24296
237.	Kamalbazar	Achham	23738
238.	Madhya Nepal	Lamjung	23385
239.	Melaili	Baitadi	22545
240.	Jaya Prithvi	Bajhang	22191
241.	Pakhribas	Dhankuta	22078
242.	Sailya Shikhar	Darchula	22060
243.	Budhiganga	Bajura	21677
244.	Aamargadhi	Dadeldhura	21245
245.	Mahakali	Darchula	21231
246.	Solududhkunda	Solukhumbu	20399
247.	Khadachakra	Kalikot	20288
248.	Chayanath Rara	Mugu	20078
249.	Myanglung	Terathum	19659

250.	Chandannath	Jumla	19047
251.	Budhinanda	Bajura	18776
252.	Rainas	Lamjung	18527
253.	Triveni	Bajura	18363
254.	Dharmadevi	Sankhuwasabha	18235
255.	Panchkhapan	Sankhuwasabha	17521
256.	Laligurans	Terathum	16970
257.	Badimalika	Bajura	16818
258.	Raskot	Kalikot	16272
259.	Tilagufa	Kalikot	15766
260.	Jiri	Dolakha	15515
261.	Madi	Sankhuwasabha	14470
262.	Tripura Sundari	Dolpa	10104
263.	Thuli Bheri	Dolpa	8370

Source: Wikipedia, as of 26 June 2017

5.8 Urban Population Density[30]

According to the 2011 census, the average urban population density in Nepal is 1,381 per square kilometer, which compares to the total population density of 180 per square kilometre (CBS, 2012). The population density is growing particularly quickly in the Kathmandu Valley, along the main highways, and close to the border with India (Muzzini and Apericio, 2013: p.2). In Kathmandu Valley, several urban centers had densities above 10,000 people per square kilometer in 2011. This includes Kathmandu (19,726), Lalitpur (14,574) and Bhaktapur (12,462) (CBS, 2014; MoUD, 2015: p.6). Madhyapur Thimi and Kirtipur in the Kathmandu Valley have densities of 7,474 and 4,445 respectively. Several urban centers in the hills and Tarai have relatively high densities, including Pokhara (4,626) and Banepa (4,454) in the hills, and Birgunj (6,420) and Biratnagar (3,439) in the Tarai (CBS, 2014; MoUD, 2015: p6).

5.9 Urbanization and Development

Urbanization and development have been synonymous concepts to the extent that higher levels of urbanization lend to higher levels of development. The structural changes in the economy that accompany the process of urbanization, and the demand and sustainability of higher levels of services and facilities that is possible with higher levels of income contribute to make urban areas locations with better levels of living. All human development and economic development indicators tend to be higher in urban than in rural areas. Past decades have witnessed an increasing rural to urban migration. This will continue to be the case as the transport infrastructure continues to expand, as the pressure on limited land resources in the rural sector increases, as literacy rates rise in rural areas and as the search for gainful employment opportunities in the nonfarm sector gathers increased momentum. Sustainable development in Nepal requires that the pressure on rural environmental resources be reduced,

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[30] Shivit Bakrania, "Urbanization and Urban Growth in Nepal", 29 October 2015. 28 June 2017.

that minimum infrastructural and service facilities be provided to a rising population, and that opportunities for employment in the nonagricultural sector be enhanced so that an increasing population can be absorbed in this sector. Urban development is inescapable in this context. Also, urban areas provide employment, marketing opportunities, and inputs and services to the rural hinterland and provide the basis for diversifying agricultural production and increasing agricultural productivity.

5.10 Challenges of Urbanization

Although urbanization is the driving force for modernization, economic growth and development, the country needs to care for impacts on human health, livelihoods and the environment due to urbanization and the implications of rapid urbanization and demographic trends for employment, food security, water supply, shelter and sanitation. Reducing the urban poverty, access to basic services and attaining sustainable development by preserving environment and planning for it are major challenges of fast growing urbanization in Nepal (Basnet, 2011). Some of the challenges resulted from urbanization are:

i) *Environment Protection*
As a result of population growth and urbanization, the environmental pollution due to increasing number of vehicles, deforestation and wastes generated from households has become a concern and management of such problems protecting economic activities in urban areas has become a challenge.

ii) *Housing and settlement*
In developing countries, one-quarter of urban housing units are temporary structures and many of them has been built building regulations. The Slum and squatters settlements of the poor are in the concerned category in terms of urban management. On the other hand, most of the urban areas in Nepal have been symbolizing unplanned and unmanaged settlements as a result of more and more sufferings of a divergent nature among the urban dwellers of our country. Extreme pressure on housing, growth of slums and the pressure on and urban services social consequences, resulting in increased violence and crime, social degradation; cultural consequences: entry of alien culture, loss of national cultural identity; political consequences such as criminalization of politics etc are negative consequences of urbanization.

iii) *Health Services*
The health of urban dwellers is assumed to be better than that of rural dwellers, because urban areas usually have better health care facilities results in lower level of fertility, mortality and high rates of in-migration. But in large cities, child mortality may be higher among children who live in low quality and slum housings relating to poverty and access to quality health services because authorities do not reach to informal settlements for political and administrative reasons and thus these areas are not eligible for services. The range of disorders and deviancies associated with urbanization is enormous and includes psychoses, depression, sociopathy, substance abuse, alcoholism, crime, delinquency, vandalism, family

disintegration, and alienation (Basnet, 2011). Therefore, the urban poor usually suffer most from a lack of basic services and need to be addressed in policies.

iv) *Poverty*

Poverty has been linked with rapid urbanization in Nepal as more and more people move to cities and urban areas. They are unable to cope with the combined pressure of rising populations and limited resources thereby trying to find affordable solutions, which often are inadequate, temporary and insecure .The general understanding is that a poor is person, who is in isolation and handicapped, incapacitated and unable to meet daily needs or depended on the others to fulfill his or his family's requirements, feels unsecure future.

In developing countries, at least one urban resident in every five lives below the poverty line and 30 percent of poor people live in urban areas worldwide.

In Nepal, about 15 percent urban people live under poverty line. Urban poverty is a substantial problem due to the high urbanization rate of poor. The situation of poor inhabitants of slums is often worse than in rural areas. Despite these findings, the rural areas gain more attention and resources. Economic consequences leading to income inequality and poverty, ill effects of globalization, gender inequality and isolation from opportunities are associated with poverty including both rural and urban, however the prevalence is even more in urban slums. A critical feature of globalization is new lines and forms of stratification between places, people and groups. In particular, it is manifested in much greater income inequalities. In all the regions, where the absolute number of poor has increased, a majority of them are in urban areas that have been the key drivers of the global economy.

v) *Education and Employment:*

The quality of education is not the same all over the country in Nepal. In big cities the quality of education provided from private schools and colleges is assumed to be better than that provided from public schools and colleges. Employment opportunities are also assumed to be available in the cities and the cities are being the potential markets to buy labor force. Therefore in search of good education and earnings, including in private and service sectors, many people are in the pace of migration to urban areas. The migration stream is in big cities like Kathmandu, Pokhara, Biratnagar, Bharatpur, Dharan, Nepalgunj, Dhangadhi etc. which seems to be higher in Terai cities due to high productivity Terai as well. In this scenario of migration stream in big cities and Terai based cities, the management of urbanization with sophisticated settlements and opportunities of education, employment, infrastructure development has been challenging and seem to be more exigent in the future.

5.11 Current and Proposed Programs on Urbanization

Information on proposed projects for the next 10 – 20 years is limited. Current programs focusing on broader development sectors such as local governance, infrastructure, and water and sanitation are associated with urban development. They are a response to the increasing

service delivery demands due to urbanization. Choe and Pradhan (2010) state that the Kathmandu Valley urban region has received the most attention from international agencies.

i) Government programs

Local Governance and Community Development Program – II (LGCDP II)

The LGCDP II (July 2013 – July 2017) is the government's flagship program for supporting the improved functioning of local governance, including municipalities. Its goal is to contribute towards poverty reduction through better local governance and community development. The program provides a framework for strengthening decentralization and devolution, and improving local governance for the effective delivery of basic services and the empowerment of citizens. It is supported by several international agencies, including the Asian Development Bank (ADB), the World Bank, the European Union, the UK Department for International Development (DFID), Denmark, GIZ, the Japan International Cooperation Agency (JICA), Norway, the Swiss Agency for Development and Cooperation (SDC), USAID, and several UN agencies (MoFALD, 2013: p.20).

It has four stated outcomes (MoFALD, 2013: pp.20-25):

- Citizens and communities hold their local governance actors accountable: This entails empowering citizens, especially women, children and disadvantaged groups, by engaging them in local level planning, monitoring and oversight processes.
- Responsive local bodies: This involves expanding the availability of local body fiscal resources to enable them to deliver better public goods and services.
- Efficient and effective local services: This involves improving access to and the quality of local infrastructure and other socio-economic services administered by local bodies.
- Strengthened policy and institutional framework for devolution, sub-national governance and local service delivery: This entails improving and updating the policy and institutional framework for devolution, sub-national governance and local service delivery.

Town Development Fund

The Town Development Fund (TDF) was established in 1997 as an autonomous financial intermediary for providing funds to municipalities. It aims to alleviate urban economic and social poverty through long-term financing in social infrastructure and revenue generating projects. It also supports the technical, managerial and financial capabilities of municipalities in the formulation, implementation and evaluation of urban development plans and programrs (TDF, 2014).

The TDF has financed a wide range of urban infrastructure projects in municipalities with the support of the government, GIZ, the World Bank and the ADB. It has recently created an open access fund where municipalities can bid for funding on a competitive basis (ibid).

ii)   *International agencies*
    Asian Development Bank
    Choe and Pradhan (2010) state that the ADB is the largest contributor to urban
    infrastructure, development and planning in Nepal. ADB's Country Partnership Strategy
    2013-2017 (ADB, 2013a) lists 'urban services' as one of its three core sector priorities,
    with a total budget of US $ 270 million. The ADB will focus on water supply and
    sanitation services, and other municipal infrastructure and services, including related
    reforms and institutional strengthening. Another priority area is urban transport planning
    and management (ibid).

    ADB's urban sector projects in Nepal are:
    - The Kathmandu Valley Water Supply Improvement Project (April 2015 to
      December 2020), which aims to improve the efficiency and the reliability of the
      water supply system through expanding reservoirs, and providing water
      connections to the poor and households headed by women (ADB, 2015a).
    - The Third Small Towns Water Supply and Sanitation Sector Project (September
      2014 to June 2019), which supports the government in providing water supply and
      sanitation services to select small towns in Nepal. It funds physical investments in
      infrastructure and nonphysical investments in the strengthening of policy,
      regulatory and institutional capacity, and service delivery and project management
      (ADB, 2014a)
    - The Kathmandu Valley Wastewater Management Project (April 2013 to June
      2019) invests in the rehabilitation and expansion of the sewerage network, the
      modernization and expansion of wastewater treatment plants, and the
      improvement of wastewater management (ADB, 2013b).
    - The second Small Towns Water Supply and Sanitation Sector Project (September
      2009 to March 2016) has three components: developing an efficient, effective, and
      accountable urban water supply and sanitation sector by establishing and
      implementing policies, establishing service standards, and enhancing sector
      coordination; the development of safe, accessible, and adequate water supply and
      sanitation facilities in about 20 small towns; and strengthening the capacity for
      project management and operation (ADB, 2009).
    - The Melamchi Water Supply Project (December 2000 to December 2016) aims to
      alleviate the chronic water shortage in Kathmandu Valley and comprises
      infrastructure development, social and environmental support, institutional
      reforms, and project implementation support (ADB, 2008).
    - The Nepal Integrated Urban Development Program (February 2012 to December
      2017) aims to provide the population in Dharan, Janakpur, Nepalgunj, and
      Siddharthanagar municipalities with better access to infrastructure and services in
      a socially inclusive manner. This includes improvements in drainage systems,
      solid waste management facilities, urban roads and community development
      programrs (ADB, 2015b).

- The Kathmandu Sustainable Urban Transport Project (November 2010 to June 2015) aims to deliver a more efficient, safe, and sustainable urban transport system through upgrading the public transport network and improved traffic management (ABD, 2010b).
- The Far Western Region Urban Development Project (December 2014 to March 2017) provides technical assistance to assess the improvements required for urban services in select municipalities in the Far Western Development Region (ADB, 2014b).
- The Secondary Towns Integrated Urban Environmental Improvement Project (July 2010 to June 2016) aims to develop reliable, affordable, and effective municipal infrastructure, and to strengthen the capacity of municipalities and the central government for project management and operations in Biratnagar, Birgunj, Butwal, Panauti, Dhulikhel and Banepa (ADB, 2010a).

Germany

GIZ currently supports a Capacity Development of New Municipalities project (July 2015 to June 2017). This assists the MoFALD and the MoUD in capacity development to improve service delivery in newly established municipalities (GIZ, 2015).

Japan

Urban development is not a priority area in Japan's Country Assistance Policy for Nepal. However, urban infrastructure and environment are alluded to under the priority area of 'building social infrastructure and institutions for balanced and sustainable economic growth' (JICA, undated a).

Current urban-related projects include:
- Technical assistance for urban transport improvement in Kathmandu (2014-2015) (JICA, 2015).
- Grant aid for Tribhuvan International Airport modernisation project (2013) (ibid).
- Technical assistance towards the Project for Hydro-microbiological Approach for Water Security in Kathmandu Valley (2014-2019). This project aims to enhance the management system for potable water resources, including improving water quality (JICA, undated b).
- JICA are supporting the Melamchi Water Supply Project through the provision of a loan for the construction of a water treatment plant (JICA, undated c).

United Kingdom

DFID is implementing the Nepal Local Governance Support Program (November 2013 to July 2017). This program of support is not specific to urban areas, but does aim to improve local government accountability, including municipalities, and to improve local infrastructure and services. Part of the program supports the LGCDP II. NGOs are also being supported to improve service delivery, infrastructure and

accountability in 18 of Nepal's most challenging and poorly performing districts (DFID, 2014).

United Nations

The UN Development Assistance Framework (2013-17) for Nepal cites two outcome areas which contain components relevant to urbanization and urban development (UN, 2012):

- Vulnerable and disadvantaged groups get improved access to basic essential social services and programs in an equitable manner (in both urban and rural areas): The UN is providing assistance to the Ministry of Physical Planning, Works and Transport Management (MPPWTM) and MoUD in the areas of water, sanitation and hygiene, and shelter. UNICEF and UN-Habitat are supporting initiatives that increase the use of safe and sustainable drinking water and sanitation facilities. UN-Habitat is also working with municipalities to ensure the adoption and implementation of effective urban sector policies related to water, sanitation, shelter and the livelihoods of disadvantaged communities (UN, 2012, p.22).
- People living in areas vulnerable to climate change and disasters benefit from improved risk management and are more resilient to hazard-related shocks: This includes strengthening national and local government capacity to reduce risk and adapt to climate change (UN, 2012: p.35). The UN expects to ensure that municipalities have relevant planning by-laws, building codes, climate change policies and programs, and emergency response mechanisms in place by 2017 (ibid).

UN-Habitat

UN-Habitat provides support in water and sanitation, shelter, slum upgrading, climate change and urban transport (UN-Habitat, undated).

- Urban Land, Legislation and Governance: Catalytic Support to Land Issues (2013-2015): Pilot initiatives in Surkhet, Nawalparasi and Morang districts are supporting the government in land management and land use planning to mitigate land related conflicts in association with UNDP and the IOM. (ibid).
- Urban Planning and Design: Green Homes – Promoting Sustainable Housing in Nepal (20132015): In association with the EU and other partners, this project promotes environmentally friendly products and services to reduce pollution, promote green jobs and reduce urban poverty (ibid).
- Urban Basic Services: Global Sanitation Fund (2010-2017): This program aims to help the government achieve the national goal of universal sanitation coverage by 2017 (ibid).

The World Bank

The World Bank's Country Partnership Strategy (2014-18) does not list urban governance or development as a strategic priority and is reducing its engagement in urban development (WB, 2014). Current projects include:

- The Pro-Poor Urban Regeneration Pilot Project (October 2013 to September 2017): The project pilots a pro-poor, community-based approach for urban regeneration in Lalitpur City. It funds a grant facility to improve local services and public spaces, promote local heritage and develop income-generating activities linked to cultural industries in distressed neighborhoods (WB, 2013a).

- The Urban Governance and Development Program: Emerging towns project (May 2011 to July 2016): The project aims to improve the delivery of basic services and priority infrastructure in emerging municipalities, including Mechinagar, Dhankuta and Itahari in the East, and Lekhnath, Baglung and Tansen in the West (WB, 2011).

CHAPTER VI

EDUCATION, LANGUAGE, REGLIGION & CASTE/ETHNICITY

6.1 Education and Literacy

Before Democracy (1950), common citizens in Nepal did not have access to education. Higher education in Nepal was in a very deprived condition. Provision of education for all Nepali citizens was introduced by the new political system after democracy arrived in Nepal. Since then, Nepal has targeted to increase literacy rate along with educational attainment of the people in each plan.

Very limited studies have been conducted at the national level to assess education status of Nepali citizens – this situation of lack of proper data leaves census data as the only reliable source available in terms of literacy in Nepal. Previous censuses have defined literacy as "the ability to read and write", which was redefined by census 1991. The new definition incorporated the ability to read and write with understanding and to perform simple arithmetic calculations (CBS, 1995). The literacy rate has increased gradually over the last 45 years. The questions on literacy were asked to the persons of 5 years and above in 2001, while the same was asked only to those who were 6 years and above in previous censuses. The trend of literacy has been shown in table 42.

Table 42: Literacy trend in Nepal, 1952/54 - 2011

Year	Male	Female	Total
1952/54	9.5	0.7	5.3
1961	16.3	1.8	8.9
1971	23.6	3.9	13.9
1981	34	12	23.3
1991	54.5	25	39.6
2001	65.5	42.8	54.1
2011	75.1	57.4	65.9

* Source: CBS, 1995; MOE 2000, CBS 2002. 2011

From a very low level of literacy in 1950s, overall literacy rate (for population) aged (5 years and above) has increased from 5.3 percent in 1952/54 to 65.9 percent in 2011. This indicates that Nepal has made a substantial progress in increasing literacy over the years. Male literacy is 75.1 percent compared to female literacy rate of 57.4 %. The highest literacy rate is reported in Kathmandu district (86.3%) and lowest in Humla (47.8%) and indicating geographical disparity in education.

6.2 School Education

Despite of the progress made in literacy rate, there is a huge gap (18 percent) between male (75.1 %) and female (57.4 %) in 2011 – this gap between male and female needs to be addressed at the earliest.

There is a huge disparity among boys and girls in the dropout rates from school education. Among different causes of drop outs, marriage was reported as the major cause for school dropouts among girls. Similarly for boys, the main cause of dropout from school education was economic problem. Nepal Adolescents and Youth Survey 2011 indicated that among boys drop outs, 34% leave their schools due to economic problems, followed by 25% (family problems), while for girls dropouts, 35% leave schools due to marriage followed by 23% (family problems). On the other side of the coin, the quality of education has been decreasing since few years. The following figure (10) shows the trend of SLC results from 2008 to 2012:

Figure 10: Trend of SLC results from 2008 to 2012

Figure 6.2: Trend in SLC pass of Nepal ,2008-2012
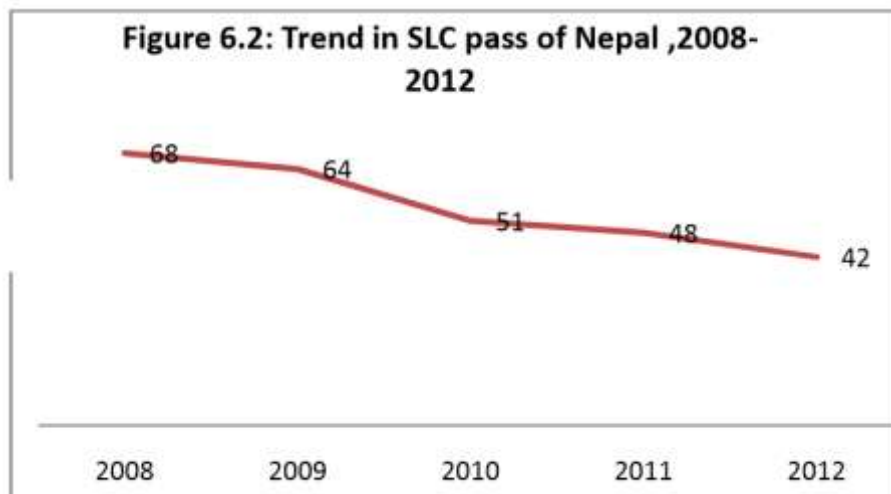
* Source Economic Survey, 2012

In the SLC result, there is a large gap between public and private schools. The figure 11 shows the trend of gaps between private and public schools during 2011 - 2014.

Figure 11: SLC Result of Public and Private school from 2011-2014
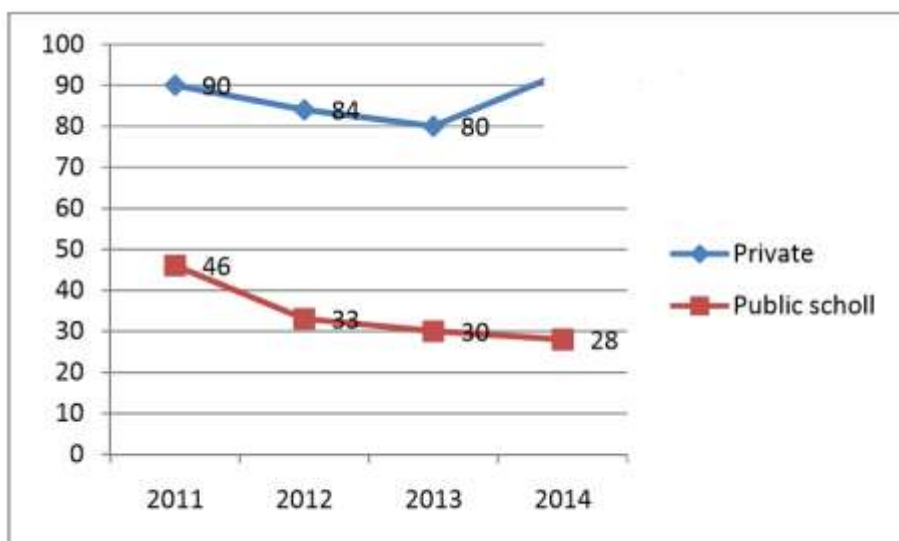
Source: OCE, Nepal 2014

6.3 Language

Nepal is a home for multiple religions and ethnicity that have their own mother tongue. The 2011 National census lists 123 Nepalese languages spoken as a mother tongue (first language) in Nepal. Most belong to the Indo-Aryan and Sino-Tibetan language families.

The official language of Nepal is Nepali, formerly called Khaskura then Gorkhali. According to the 2011 national census, the percentage of Nepali Bhasi people is about 44.6%. Maithili is the second largest Nepalese language and according to 2011 Census, the percentage of Maithil people is 11.57%. [31]

Data on language spoken at home is usually analyzed through mother tongue. A mother tongue is defined as one spoken by a person in his/her early childhood. The 1952/54 census collected information on 36 languages but tabulated only 24. The 1961 census collected information on 52 languages but tabulated only 36 mainly because of limited number of cases for some languages. After 1971, census only 20 or fewer languages are being tabulated by different variables. However, the National Language Policy Advisory Commission has listed 60 living languages in the kingdom. Data on mother tongue retrieved from 2001 and 2011 census are presented in table 43.

Table 43: Population Distribution by Mother Tongue, Nepal 2001 and 2011

Mother Tongue	Census 2001		Census 2011	
	Number	Percent	Number	Percent
Nepali	11053255	48.61	11826953	44.64
Maithali	2797582	12.3	3092530	11.67
Bhojpuri	1712536	7.53	1584958	5.98
Tharu(Dagaura/Rana)	1331546	5.86	1529875	5.77
Tamang	1179145	5.19	1353311	5.11
Newar	825458	3.63	846557	3.20
Magar	770116	3.39	788530	2.98
Awadhi	560744	2.47	501752	1.89
Bantawa	371056	1.63	132583	0.50
Gurung	338925	1.49	325622	1.23
Limbu	333633	1.47	343603	1.30
Bajjika	237947	1.05	793416	2.99
Urdu	174840	0.77	691546	2.61

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[31] Wikipedia, "Languages of Nepal", https://en.wikipedia.org/wiki/Languages_of_Nepal, 24 June 2017, Web. 28 June 2017.

Rajbanshi	129883	0.57	122214	0.46
Sherpa	129771	0.57	114830	0.43
Hindi	105765	0.47	77569	0.29
Chamling	44093	0.20	76800	0.29
Santhali	40193	0.18	49858	0.19
Chepang	36807	0.16	48476	0.18
Danuwar	31849	0.14	45821	0.17
Dhangar/Jhangar	28615	0.13		0.00
Uranw/Urau*			33651	0.13
Sunuwar	26611	0.12	37898	0.14
Bangla	23602	0.10	21061	0.08
Marwari/Raj asthani	22637	0.10	25394	0.10
Majhi	21841	0.10	24422	0.09
Thami	18991	0.08	23151	0.09
Kulung	18686	0.08	33170	0.13
Dhimal	17308	0.08	19300	0.07
Angika	15892	0.07	18555	0.07
Yakkha	14648	0.06	19558	0.07
Thulung	14034	0.05	20659	0.08
Sangpang	10810	0.05	18270	0.07
Bhujel/Khabas	10733	0.05	21715	0.08
Darai	10210	0.04	11677	0.04
Khaling	9288	0.03	14467	0.05
Kumal	6533	0.03	12222	0.05
Thakali	6441	0.03	5242	0.02
Chhanttyal	5912	0.03	4283	0.02
Sanketic(Nepali Symbolic sign)	5743	0.03	4476	0.02
Tibetan	5277	0.02	4445	0.02
Dumi	5271	0.02	7638	0.03
Jirel	4919	0.02	4829	0.02
Wambule/umbule	4471	0.02	13470	0.05
Puma	4310	0.02	6686	0.03
Yholomo	3986	0.02	10176	0.04

Nachhiring	3553	0.02	10041	0.04
Dura	3397	0.02	2156	0.01
Meche	3301	0.01	4375	0.02
Pahari	2995	0.01	3458	0.01
Lepcha/Lapche	2826	0.01	7499	0.03
Bote	2823	0.01	8766	0.03
Bahing	2765	0.01	11658	0.04
Koi/Koyu	2641	0.01	1271	0.00
Raji	2413	0.01	3758	0.01
Hayu	1743	0.01	1520	0.01
Byangshi	1734	0.01	480	0.00
Yamphu/Yamphe	1722	0.01	9208	0.03
Ghale	1649	0.01	8092	0.03
Khadiya	1575	0.01	238	0.00
Chhiling	1314	0.01	2046	0.01
Lohorung	1207	0.01	3716	0.01
Punjabi	1165	0.01	808	0.00
Chinese	1101	0.00	242	0.00
English	1037	0.00	2032	0.01
Mewahang	904	0.00	4650	0.02
Sanskrit	823	0.00	1669	0.01
Kaike	794	0.00	50	0.00
Raute (Khamchi)	518	0.00	461	0.00
Kisan	489	0.00	1178	0.00
Churauti (Musalman)	408	0.00	1075	0.00
Baram/Maramu	342	0.00	155	0.00
Tilung	310	0.00	1424	0.01
Jero/Jerung	271	0.00	1763	0.01
Dungmali	221	0.00	6260	0.02
Criya	159	0.00	584	0.00
Lingkhim	97	0.00	129	0.00
Kusunda	87	0.00	28	0.00
Sindhi	72	0.00	518	0.00

Munda	67	0.00		0.00
Koche*			2080	0.01
Haryanwi	33	0.00	889	0.00
Magahi	30	0.00	35614	0.13
Sam	30	0.00	401	0.00
Kurmali	23	0.00	227	0.00
Kagate	13	0.00	99	0.00
Dzonkha	10	0.00	80	0.00
Kuki	9	0.00	29	0.00
Chhintang	8	0.00	3712	0.01
Mizo	8	0.00	32	0.00
Nagamise	6	0.00	10	0.00
Lhomi	4	0.00	808	0.00
Assamese	3	0.00	476	0.00
Sadhani	2	0.00	122	0.00
Rai*			159114	0.60
Tajpuriya*			18811	0.07
Khash*			1747	0.01
Athpariya*			5530	0.02
Ganagai*			3612	0.01
Achhami*			142787	0.54
Kham*			27113	0.10
Malpande*			247	0.00
Dhuleli*			347	0.00
Arabi*			8	0.00
Spanish*			16	0.00
Russian*			17	0.00
Doteli*			787827	2.97
Belhare*			599	0.00
Phangduwali*			290	0.00
Waling/Walung*			1169	0.00
Sure*l			287	0.00
Baitadeli*			272524	1.03

Bankariya*			69	0.00
Bhajhangi*			67581	0.26
French*			34	0.00
Lhopa*			3029	0.01
Dolpali*			1667	0.01
Jumli*			851	0.00
Dailekhi*			3102	0.01
Sonaha*			579	0.00
Dadeldhuri*			488	0.00
Bajureli*			10704	0.04
Darchuleli*			5928	0.02
Manange*			392	0.00
Gadhawali*			38	0.00
Unidentified languages	168340	0.75	68891	0.26
Total	22736934	100.00	26494504	100.00

Source: CBS 2002, 2012.

* New languages registered in 2011 census.

The 2001 census records 92 different languages spoken in Nepal with a 93rd category as "unidentified". Data indicate that the major language spoken in Nepal are Nepali (48.6 percent) , Maithili (12.3 percent) , Bhojpuri (7.5 percent), Tharu (5.9 percent), Tamang (5.2 percent), Newari (3.6 percent),Magar (3.4 percent), Awadhi (2.5 percent), Bantawa (1.6 percent), Gurung (1.5 percent), Limbu (1.5 percent) and Bajjika (1.1 percent). Other languages constitute less than one percent of the population.

The 2011 population census has recorded 123 languages spoken as mother tongue. Nepali is spoken as mother tongue by 44.6 percent (11,826,953 persons) of the total population followed by Maithili (11.7%; 3,092,530 persons), Bhojpuri (6.0%; 1,584,958 persons), Tharu (5.8%; 1,529,875 persons), Tamang (5.1%; 1,353,311 persons), Newar (3.2%; 846,557 persons), Bajjika (3.0%; 793,418 persons), Magar (3.0%; 788,530 persons), Doteli (3.0%; 787,827 persons) and Urdu (2.6%; 691,546 persons).

6.3.1 Distribution of Language Families by Place of Residence
The table 44 depicts the percentage distribution of population by language families of Nepal.

Table 44: Population Distribution of rural and urban population by mother tongue (1991 - 2001)

Language Families	1991	2001

	Rural	Urban	Rural	Urban
Indo-European	91.99	8.01	87.00	13.00
Sino-Tibetan	84.87	15.22	82.00	18.00
Austro-Asiatic	97.97	2.10	96.30	3.70
Dravidian	-	-	95.28	4.72
Not stated/Unknown	93.05	6.95	83.89	16.11

About 92 percent of the population who fall in Indo-European language family resided in rural areas in 1991 which reduced to 87 percent in 2001. Similar kind of trend can be observed for other language families also.

6.4 Religion

Hinduism is the major religion in the state and profoundly influences its social structure, while Buddhism (Tibetan Buddhism) is practiced by some ethnic groups (for example Newar) in forms which are strongly influenced by Hinduism; Kiratism otherwise is the grassroots native religion of populations belonging to the Kirati ethnicity. Islam and Christianity have made inroads and are the religious identity of small populations. Nepal is constitutionally a Hindu kingdom with legal provisions of no discrimination against other religions.

Table 45: Population Distribution by Religion, 1961 – 2011

RELIGION	CENSUS YEAR					
	1961	1971	1981	1991	2001	2011
Hindu	87.69	89.39	89.50	86.51	80.62	81.34
Buddhist	9.25	7.50	5.32	7.78	10.74	9.04
Islam	2.98	3.04	2.66	3.53	4.20	4.38
Kirat	-	-	-	1.72	3.60	3.04
Christian	-	0.02	0.03	0.17	0.45	1.41
Jain	0.01	0.05	0.06	0.04	0.02	0.01
Prakriti*	-	-	-	-	-	0.46
Bon*	-	-	-	-	-	0.04
Others	-	-	2.43	0.14	0.39	0.007
Unspecified	0.06	-	-	0.10	-	0.23
Total	100.00	100.00	100.00	100.00	100.0	100.0

Source: CBS 1995, 2002, 2012

* New religions registered in 2011 census.

6.5 Ethnicity

Nepal is a home to people of many different national origins. As a result, people of Nepal do not equate their nationality with ethnicity, but with citizenship and allegiance. Although citizens make up the majority of Nepalese, non-citizen residents, dual citizen, and expatriates may also claim a Nepalese identity. Nepalese are descendants of migrants from parts of India, Tibet, and parts of Burma and Yunnan, and much further traces origin to Central Asia, along with indigenous peoples.[32]

While the 1991 census has recorded 60 caste and ethnic groups, the National Ethnic Groups Development Committee has identified 65 such groups. The census of 2001 has listed 103 caste/ethnic groups including "unidentified group". The 2011 census has recorded 125 caste/ethnic groups in Nepal.

The major caste/ethnic group identified by the 2001 census area Chhetri (15.8percent) Brahmin Hill (12.7percent), Magar (7.1percent), Tharu (6.8percent) Tamang (5.6percent) Newar (5.5percent), Muslim (4.3percent) Kami (3.9 percent), Yadav (3.9 percent) Rai (2.8 percent), Gurung, (2.4 percent) Damai/Dhobi (1.7 percent). Other caste ethnic group constitutes less than 2 percent of the population and their list can clearly be seen in table 46.

Table 46: Population Distribution by Caste/Ethnicity, 2001 and 2011

Caste /Ethnic Group	Number (2001)	Percent	Number (2011)	Percent
Chhettri	3593496	15.80	4398053	16.60
Brahman-Hill	2896477	12.74	3226903	12.18
Magar	1622421	7.14	1887733	7.12
Tharu	1533879	6.75	1737470	6.56
Tamang	1282304	5.64	1539830	5.81
Newar	1245232	5.48	1331933	5.03
Muslim	971056	4.27	1164255	4.39
Kami	895954	3.94	1258554	4.75
Yadav	895423	3.94	1054458	3.98
Rai	635151	2.79	620004	2.34
Gurung	543571	2.39	522641	1.97
Damai/Dhobi	390305	1.72	472862	1.78
Limbu	359379	1.58	387300	1.46
Thakurl	334120	1.47	425623	1.61
Sarki	318989	1.40	374816	1.41

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[32] Wikipedia, "Demographics of Nepal", https://en.wikipedia.org/wiki/Demographics_of_Nepal, 23 May 2017, Web. 28 June 2017.

Teli	304536	1.34	369688	1.40
Chamar, Harijan, Ram	269661	1.19	335893	1.27
Koiri	251274	1.11	306393	1.16
Kurmi	212842	0.94	231129	0.87
Sanyasi	199127	0.88	227822	0.86
Dhanuk	188150	0.83	219808	0.83
Musahar	172434	0.76	234490	0.89
Dusad/Paswan/Pasi	158525	0.70	208910	0.79
Sherpa	154622	0.68	112946	0.43
Sonar	145088	0.64	64335	0.24
Kewat	136953	0.60	153772	0.58
Brahman-Terai	134496	0.59	134106	0.51
Baniya	126971	0.56	138637	0.52
Gharti/Bhujel	117568	0.52	118650	0.45
Mallah	115986	0.51	173261	0.65
Kalwar	115606	0.51	128232	0.48
Kumal	99389	0.44	121196	0.46
Hajam/Thakur	98169	0.43	117758	0.44
Kanu	95826	0.42	125184	0.47
Rajbansi	95812	0.42	115242	0.43
Sunuwar	95254	0.42	55712	0.21
Sudhi	89846	0.40	93115	0.35
Lohar	82637	0.36	101421	0.38
Tatma	76512	0.34	104865	0.40
Khatwe	74972	0.33	100921	0.38
Dhobi	73413	0.32	109079	0.41
Majhi	72614	0.32	83727	0.32
Nuniya	66873	0.29	70540	0.27
Kumhar	54413	0.24	62399	0.24
Danuwar	53229	0.23	84115	0.32
Chepang(Praja)	52237	0.23	68399	0.26
Haluwai	50583	0.22	83869	0.32
Rajput	48454	0.21	41972	0.16
Kayastha	46071	0.20	44304	0.17

Budhaee	45975	0.20	28932	0.11
Marwadi	43971	0.19	51443	0.19
Santhal/satar	42698	0.19	51735	0.20
Dhagar/Jhagar	41764	0.18	37424	0.14
Bantar/Sardar	35839	0.16	55104	0.21
Barae	35434	0.16	80597	0.30
Kahar	34531	0.15	53159	0.20
Gangai	31318	0.14	36988	0.14
Lodha	24738	0.11	32837	0.12
Rajbhar	24263	0.11	9542	0.04
Thami	22999	0.10	28671	0.11
Dhimal	19537	0.09	26298	0.10
Bhote	19261	0.08	13397	0.05
Bing/Binda	18720	0.08	75195	0.28
Bhediyar/Gaderi	17729	0.08	26375	0.10
Nurang	17522	0.08	278	0.00
Yakkha	17003	0.07	24336	0.09
Darai	14859	0.07	16789	0.06
Tajpuriya	13250	0.06	19213	0.07
Thakali	12973	0.06	13215	0.05
Chidimar	12296	0.05	1254	0.00
Pahari	11505	0.05	13615	0.05
Mali	11390	0.05	14995	0.06
Bangali	9860	0.04	26582	0.10
Chhantel/Chhantyal	9814	0.04	11810	0.04
Dom	8931	0.04	13268	0.05
Kamar	8761	0.04	1787	0.01
Bote	7969	0.04	10397	0.04
Brahmu/Baramu	7383	0.03	8140	0.03
Gaine	5887	0.03	6791	0.03
Jirel	5316	0.02	5774	0.02
Adibasi/Janajati	5259	0.02		0.00
Dura	5169	0.02	5394	0.02
Churaute	4893	0.02		0.00

Badi	4442	0.02	38603	0.15
Meche	3763	0.02	4867	0.02
Lepcha	3660	0.02	3445	0.01
Halkhor	3621	0.02	4003	0.02
Punjabi/Sikh	3054	0.01	7176	0.03
Kisan	2876	0.01	1739	0.01
Raji	2399	0.01	4235	0.02
Byasi/Sauka	2103	0.01	3895	0.01
Hayu	1821	0.01	2925	0.01
Koche	1429	0.01	1635	0.01
Dhunia	1231	0.01	14846	0.06
Walung	1148	0.01	1249	0.00
Jaine	1015	0.00		0.00
Munda	660	0.00	2350	0.01
Raute	658	0.00	618	0.00
Yehlmo	579	0.00	10752	0.04
Patharkata/Kuswadiya	552	0.00	3182	0.01
Kusunda	164	0.00	273	0.00
Lhomi*			1614	0.01
Kalar*			1077	0.00
Natuwa*			3062	0.01
Dhandi*			1982	0.01
Dhankar/Dharikar*			2681	0.01
Kulung*			28613	0.11
Ghale*			22881	0.09
Khawas*			18513	0.07
Rajdhob*			13422	0.05
Kori*			12276	0.05
Nachiring*			7154	0.03
Y amphu*			6933	0.03
Chamling*			6668	0.03
Aathpariya*			5977	0.02
Sarbaria*			4906	0.02
Bantaba*			4604	0.02

Dolpo*			4107	0.02
Amat*			3830	0.01
Thulung*			3535	0.01
Mewahang Bala*			3100	0.01
Bahing*			3096	0.01
Lhopa*			2624	0.01
Dev*			2147	0.01
Sangpang*			1681	0.01
Khaling*			1571	0.01
Topkegola*			1523	0.01
Loharung*			1153	0.00
Terai others*			103811	0.39
Dalit/Janajati Others	173401	0.76	156582	0.59
Unidentified Caste/Ethnicity	231641	1.02	15277	0.06
Foreigner*			6651	0.03
Total	22734934	100	26494504	100

Source: CBS 2002, 2012.
*New caste/ethnicity registered in 2011 census.

The Population and Housing census of 2011 identified 125 caste/ethnic groups (presented in table 46). Among the caste/ethnicity identified, Chhetri constituted 16.6 percent followed by Hill Brahmans (12.18%), Magar (7.12%), Tharu (6.56%), Tamang (5.81%), Newar (5.03%), Kami (4.75%), Muslim (4.39%), Yadav (3.98%) and Rai (2.34%).

ECONOMICALLY ACTIVE POPULATION

7.1 Concepts, Definitions and Theoretical Backgrounds[33]

While persons of all ages consume goods and services, only certain segment of the entire population is engaged in producing such goods and services. Some do not engage at all, whereas others supply their labor partially or fully in the production.

Economically Active population also known as Labor Force is defined as that part of the population that supplies and willing to supply its labor for the production of economic goods and services during the time reference period chosen for investigation. The labor force differs from the concept of working age population. Working age population is the number of persons in the population in a specified age group e.g. 15-64 years or 15 to 59 years. Furthermore, the Economically Active Population is that part of the manpower which actually engages or attempts to engage in the production of goods and services (Shryock H. and Seigel S, 1971).

A person who is involved and/or willing/available to involve, for the minimum specified time during the specified reference period, in the production of goods and services is considered as Economically Active for the period.

The economically active population is generally defined to "comprise all those persons who contribute to the supply of labor for the production of goods and services disregarding whether they actually employed at the time of enumeration or not (CBS, 1977:149 as cited in Shrestha, 2003).

7.1.1 Measures of the Economically Active Population

As described in Hussmanns et al. (1990, p. 47), "the international standards identify two measures of the economically active population without excluding other possibilities: the Usual Active Population measured in relation to a long reference period such as a year; and the Currently Active Population, measured in relation to a short reference period such as one week or one day". The currently active population is the most widely measure of EAP and the term labor force is used synonymously.

7.1.2 Different Forms of Employment

The labor force is defined as the sum of the unemployed and the employed. It is worth repeating the various forms of employment. The employed include people aged 15 and over who, during the reference week worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and

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[33] International Labor Organization, "ILO Projections of the Economically Active Population-
Revised Methodology of the 2011 Edition", April 2012. 29 June 2017.

own account workers); or who worked for one hour or more without pay in a family business or on a family farm (i.e. contributing family workers); or who had a job, business or farm, but were not at work for various reasons (holiday, sickness, strike, etc..).

In brief, employment is of a dichotomous nature and covers people working a few hours per week, as well as those working a very large number of hours per week and cumulating several jobs. The employed can also be people engaged only in production of goods for own final use (subsistence work). In this regard, the international definition does not yet allow for the precise measurement of subsistence workers and there are large differences in terms of country practices regarding the treatment of this group in the labor force (see ILO 2011). Subsistence work can be extremely important in poor agrarian areas.

It is important to note that work in unpaid household services is not counted as employment, largely explaining differences in labor force participation rates by gender.

7.1.3 Labor Force Participation Rates (LFPR)

The labor force projections are obtained by the product of two separate projections: a projection of the population (POP) of country i at time $t+h$ (t and h are respectively the projection origin and horizon) for the age group a (say the [20- 24]) and sex s, and a projection of the labor force participation rate (LFPR) for the same subgroup of the population.

$$LF_{i,t+h,a,s} = LFPR_{i,t+h,a,s} \cdot POP_{i,t+h,a,s}$$

$$\text{where: } LFPR_{i,t+h,a,s} = \frac{LF_{i,t+h,a,s}}{POP_{i,t+h,a,s}}$$

The decomposition of the projection exercise into two phases has several advantages. Firstly, the determinants of the changes in population and the LFPR are not the same and can be identified. The determinants of the changes in population are primarily due to changes in fertility, mortality and migration flows, while the changes in the LFPR can be the result of many factors, including changes in labor demand. Secondly, the LFPR varies by definition between 0% and 100%, which is very convenient, since some logistic transformations can be applied to the LFPR in order to ensure that projected values within the 0- 100% interval are obtained.

7.1.4 The Determinants of LFPR

At the macroeconomic level, what is observed are average aggregated activity rates for the whole population or subgroups of it (male, female, prime age, youth, etc.). These data are derived from labor force or household surveys or from population censuses. As seen previously, the variable "participation rate" is of dichotomous nature: either you participate or you do not. The average number of hours the population is ready to work is not captured by macro- economic data.

The determinants of the participation rate can be broken down into structural or long- term factors, cyclical factors and accidental factors. Structural factors include policy and legal determinants (e.g., flexibility of working- time arrangements, taxation, family support, retirement schemes, apprenticeships, work permits, unemployment benefits, minimum wage) as well as other determinants (e.g., demographic and cultural factors, level of education, technological progress, availability of transportation).

Some key findings regarding female labor force participation rates (LFPR):
- In countries where working- time arrangements are more flexible, there is a higher LFPR of female workers than in other countries.
- Taxation of second earners (relative to single earners) usually has a negative impact on female LFPR.
- Childcare subsidies and paid parental leave usually have a positive impact on female LFPR.
- In countries where the proportion of unmarried women is higher, there is usually a higher female LFPR than in other countries.
- Cultural factors such as strong family ties or religion have a strong impact on LFPR for some subgroups of the population. For example, in many countries, religious or social norms may discourage women from undertaking economic activities.

These structural factors are the main drivers of the long- term patterns in the data. Changes in policy and legal determinants (e.g., changes in retirement and pre- retirements schemes) can result in important shifts in participation rates from one year to another.

Cyclical factors refer to the overall economic and labor market conditions that influence the LFPR. In other words, demand for labor has an impact on the labor force. In times of strong slowdown or recession, two effects on the participation rates, with opposite signs, are referred to in the literature: the "discouraged worker effect" and the "additional worker effect".

The "discouraged worker effect" applies to persons not working but available for work, but who stopped to search for a job in the last four weeks. During times of recession, this effect is very important for younger people, who have usually more problems finding a job than more experienced workers. As noticed by the OECD (2010), in times of discouraging labor market conditions, the length of studies usually increases and the LFPR of younger age groups is more sensitive to severe downturns where there is easier access to post-secondary education.

The "additional worker effect" applies more to female or older workers who enter (or re- enter) the labor market in order to compensate for the job losses and decreased earnings of some members of the family or the community.

Also according to a recent OECD study, in times of severe downturns, the changes in the LFPR of older persons depend on financial incentives to continue working as compared to taking retirement.

Lastly, there are accidental factors such as wars and natural disasters that also affect LFPR, usually in a temporary manner.

7.2 Measurement Approaches

Generally, it isn't easy to set up a scheme that determine whether who is economically active. This implied for standard for judging which activities constitute productive work. Some consistent criteria are required to as active.

A person(s) who practice some profession or occupation or seek employment in labor force approach for specific period of time (a week, a month or even a year) is economically active. There are three approaches for collecting information on the economically active population (EAP), which are as follows:

  a) Gainful Worker Approach (GWA),
  b) Labor Force Approach (LFA), and
  c) Labor Utilization Approach (LUA)/Labor Utilization Framework (LUF).

7.2.1 The Gainful Worker Approach (GWA)

An approach based on the idea that each person has more or less a stable functional role either as a wage earner or as a housewife or student etc. is Gainful Worker Approach (GWA). This approach basically counts occupation of the person. Thus, persons seeking work for the first time are not considered by this approach.

Unemployment and underemployment are of secondary consideration for this approach, and no reference period is considered during data collection. The only benefit of this approach is that the resulting data are not influenced by any seasonal variation, because there is no reference period or if there is one it is too long, such as a year. The weakness of this approach is that part of the labor force which should have been included (i.e., the 'new workers') is normally excluded from the labor supply in view of the fact that they had no 'occupation' to report.

7.2.2 Labor Force Approach (LFA)

The Labor Force Approach (LFA) was first introduced in 1930s in USA in order to correct deficiencies of GWA. This approach basically is an economic concept, designed to capture labor supply for economic goods and services. It includes both the employed and the unemployed. It specifies a minimum age and a definite time reference period. Though the LFA attempts to correct some of the shortcomings of the GWA by introducing the concepts of activity and specific time reference, its main drawback is that the data are likely to be affected by temporary and seasonal conditions at the time when the census is taken.

7.2.3 Labor Utilization Approach (LUA)

The Labor Utilization Approach (LUA) came into practice when large numbers of persons were underemployed in developing countries. This approach was designed to measure the

extent of underemployment. It uses the same approach as LFA, in terms of minimum age limits and the reference period, but this approach adopts the category classification that is different from the previous approach. There are two categories in this approach, viz. i) adequately utilized and ii) inadequately utilized. The second category (inadequately utilized) has sub-categories, which are: a) unemployment (b) inadequate hours of work (c) inadequate of income (d) inadequate mismatch between education/training and occupation. Persons falling to categories (b), (c) and (d) are the underemployed; LFA, on the other hand includes them as employed.

7.3 ILO Framework

Economically Active Population (EAP) is generally referred to as those persons who are employed along with those who are not but are willing and able to work or those who are actively looking for jobs (Lauterbach, 1977). The international criterions and guidelines for the measure of the economically active population are set out in the International Labor Organization Convention (ILOC) and the International Conference of Labor Statisticians Resolution (ICLSR). As Hussmanns, Mehran and Verma (1992) say:

> *... the 'economically active population comprises all persons of either sex who furnish the supply of labor for the production of goods and services as defined by the United Nations systems of national accounts and balances, during a specified time reference period. According to these systems, the production of goods and services includes all production and processing of primary products, whether for the market, for barter or for own consumption, the production of all other goods and services for the market, in the case of households which produce such goods and services for the market, the corresponding production for own consumption (p. 11).*

The Economically Active Population (EAP) is made up of people who, during a specified time, contribute to or are available to contribute to the production of economic goods and services as defined by the United Nations System of National Accounts (SNA). Production activities, "consists of processes or activities carried out under the control and responsibility of institutional units that use inputs of labor, capital, and goods and services to produce outputs of goods and services" (UN SNA, 1993, p.137). The EAP provides the supply of labor for economic production in an economy.

International standards, without denying other possibilities, identified two particularly useful terms, 'economically active population' and 'usually active population', which are measured in relation to a long reference period such as a year; and the 'currently active population' is measured in relation to a short reference period such as one week or one day (Hussmanns, Mehran and Verma, 1992, p.11). The measurement of the EAP involves three basic issues, namely i) the scope of the population to be covered, ii) the dividing line between activities and non-economic activities and iii) a measurement framework for applying this dividing line to that population.. The ILO has engineered a framework for measuring labor force (currently economically active population). The framework has been presented in figure 12.
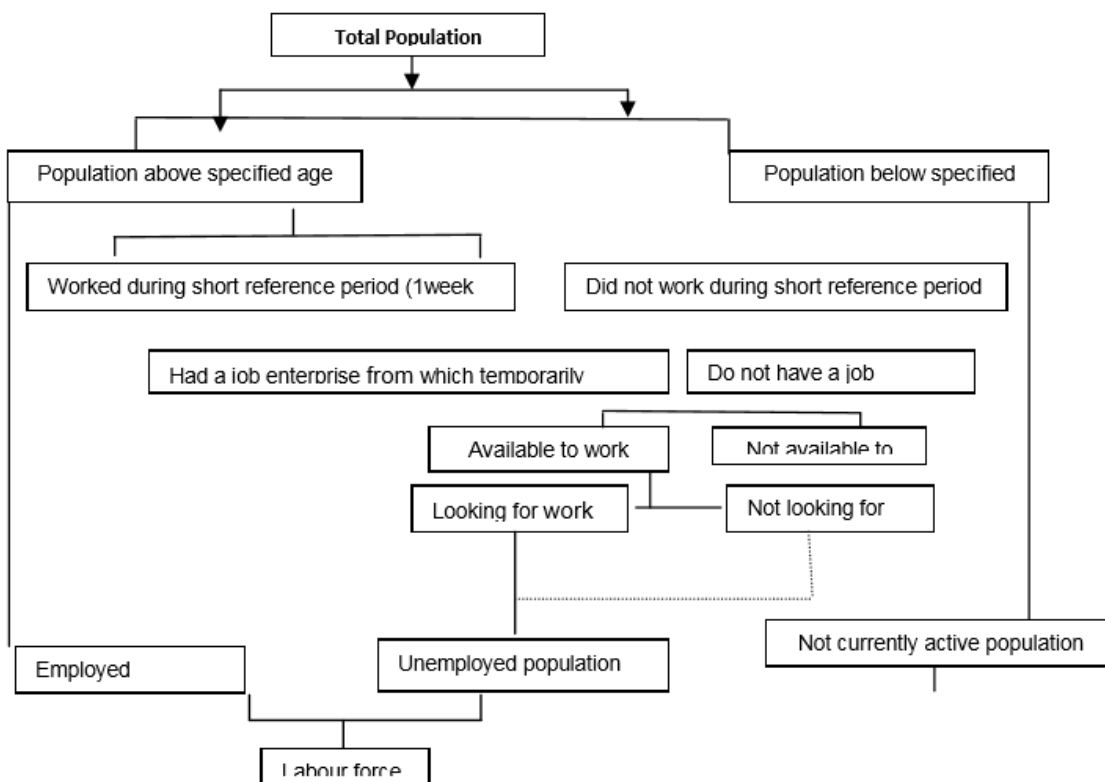
(Relaxed definition)

The figure above illustrates the relationship between the total census population, the labor force (currently economically active population), the employed population, the unemployed population, and the population not in the labor force. An employed member of the economically active population (EAP) is "a person who, during the referenced period, performs any activity to produce goods or services of the type that falls within the economic production boundary defined by the SNA, or who is temporarily absent from an activity of this type" (United Nations/International Labor Office, 2010, p.48).

The ILO strongly recommends using its framework for measuring Usually Active Population for economic related data in census. The framework makes use of data collected during the reference period of one year and on the basis of specified definition, classifies total population of specified age in groups and sub-groups. The recommended framework for measurement of the "Usually Active Population" is presented in figure 13.

Figure 13: ILO Framework for Measurement of the "Usually Active Population"
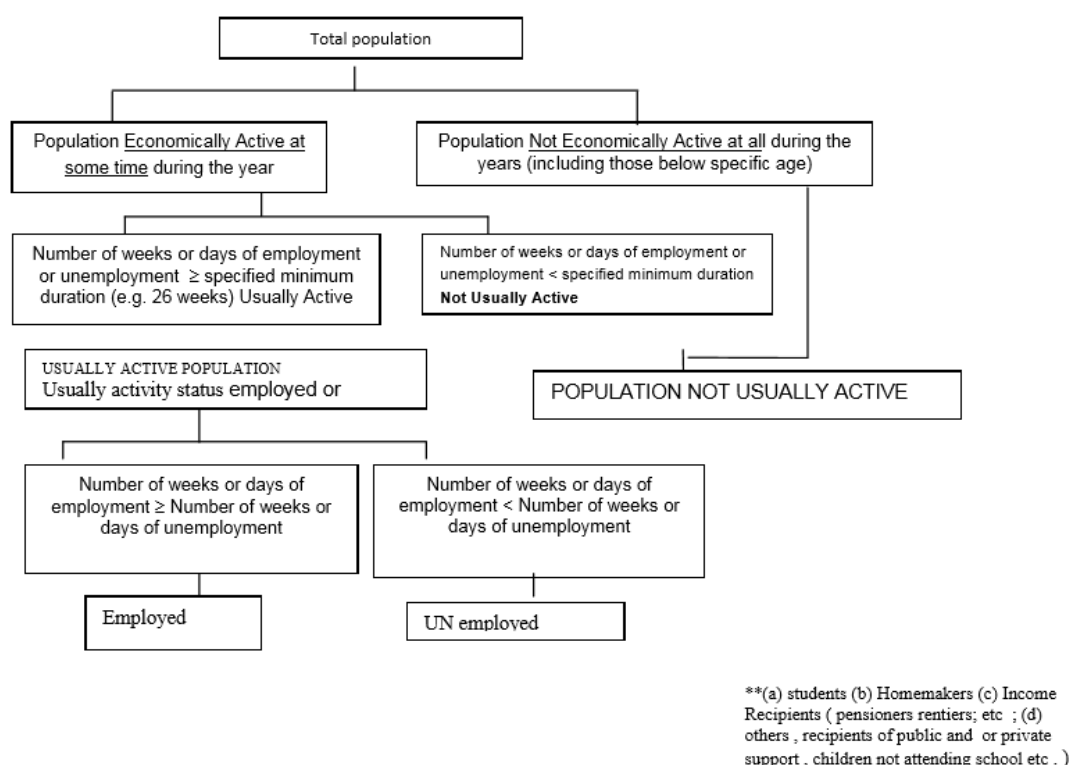
Source: ILO, 1990. Nepal Population Report 2014

The framework is a fundamental base for classifying national workforce and could be used to arrange population in various groups and sub-groups. The framework is useful to standardize the population statistics and also enables to compare with population of other nation(s) similarly classified.

In order to correctly apply the definitions of employment, unemployment and economically active population in surveys of households or individuals, it is essential to have a clear understanding of the concept and boundary of economic activity. The concept of economic activity adopted by the 13th International Conference of Labor Statisticians (13th ICLS) for the measurement of the economically active population is defined in terms of production of goods and services as formulated by the United Nations System of National Accounts (SNA). Therefore only those persons who contribute or are available to contribute to the production of goods and services falling in the SNA production boundary should be counted as economically active (Hussmanns, Mehran and Verma, 1992).

Population censuses of Nepal have been collecting information on economic activity of individuals, in various fashions, since the start of census, although documentations were done only since 1952/54. In addition, in the year 1998/99 Central Bureau of Statistics (CBS) conducted Nepal Labor Force Survey for the first time in Nepal. In the survey, definition and coverage of work (production of goods and services) was used as per the SNA 1993 definition. The survey produced, for the first time, a comprehensive report (CBS, 1998/99)

on economic activity of population of Nepal by using both labor force (reference period – one week) and usual activity (reference period – one year) concept.

The censuses of 1961, 1971 and 1981 defined economically active person as those who had worked at least for eight months either at a single stretch or at the intervals, either for pay , profit or remuneration in cash or kind during the year preceding the day of census enumeration. 1991 census , if a person worked for any length of time 12 months during the twelve months preceding the census data , he /she was treated as economically active. His or her duration of work was recorded into one in the following four duration-groups: viz. i) eight months and over, ii) six to seven months, iii) three or five months and iv) less than three months. This type of information was collected for the first time in 1991 census.

The 2001 census has widened the definition considered by allowing anyone to count as economically active if they did any work at all during the last 12 months. For the sake of defining work activities the population census 2001 adopted the ILO standards, which in turn are based on the UN 1993 System of National Accounts. In the history of population census , it is for the first time in 2001 population census separate tables on economically active and usually economically active are presented .The census ,2011 followed the definition of 2001 census defined the economic activity of people in accordance the system of national accounts (SNA). These questions were asked to the individuals who were 10 years of age and above at the time of enumeration and activity were asked in reference to 12 months prior to the enumeration.

The minimum age of a person to be considered for economic activity classification also differed from census to census. Data for economically active population were collected in 1952/54 census for all persons, including those less than 15 years of age. The lower age limit in1952/ 54 censuses were not clear. But 1961 census, economically active data were collected for person aged 15 and above. However in the subsequent censuses -1971 and 1981and 1991, 2001, and 2011 data were collected for population age 10 and above.

Additionally, in the year 1998/99 Central Bureau of Statistics (CBS) conducted Nepal Labor Force Survey for the first time in Nepal. In the survey, definition and coverage of work (production of goods and services) was used as per the SNA 1993 definition. The survey produced, for the first time, a comprehensive report (CBS, 1998/99) on economic activity of population of Nepal by using both labor force (reference period - one week) and usual activity (reference period - one year) concept.

System of National Accounts has defined kind of goods and services produced that are counted as economic work activities and kind of services that are not counted as economic work activities. Also, production boundary for goods and services has widened in 1993 compared to 1968 definition. "Report on the Nepal Labour Force Survey 1998/99" provides some examples for economic and non-economic work activities as defined by SNA -

7.3.1 Activities that are considered Economic work:

- *Work activities performed outside home*
  - a) Wage job
    - o Workers employed in factories, business enterprises, farms, shops, service undertakings, and other economic units engaged in production of goods and services intended for sale on the market.
    - o Employees of the government, other social and cultural institutions, hotels, restaurants, transport and communication.
    - o Politicians who get remuneration, lawyers, doctors, shopkeepers, farmers etc.

  - b) Any business operated by person
    - o Managing one's own business or farm even though not involved in producing the output.

- *Home based Activities:*
  - o Agricultural activities – growing or gathering field crops, fruits and vegetables, producing eggs, milk and food. Hunting animals and birds, catching fish, crabs and shellfish. Gathering berries or other uncultivated crops. Burning charcoal.
  - o Milling and other food processing – Threshing and milling grain, making butter, ghee and cheese, slaughtering livestock, curing hides and skins, preserving meat and fish. Making beer and alcohol.
  - o Handicrafts – Collecting thatching and weaving material, making mats, weaving baskets and mats, making clay pots, weaving cloths, dressmaking and tailoring, making furniture.
  - o Construction and major repairs – constructing of dwellings, farm buildings, clearing land for construction, major renovation of dwelling, private road, wells and other private facilities.
  - o Fetching water and cutting and/ or collecting of firewood,
  - o Other Activities – Activities of a member of a religious order such as a monk, or a priest, cooking food for laborer's working on one's farm when food is provided as part of laborer's wage.

7.3.2 Non-Economic Work Activities

Production of services for own household consumption is not considered as Economic work, such as – cooking /serving food for the household; cleaning utensils/ house; shopping for the household; caring for the old, sick, infirm; child caring (including feeding, caring, taking to school etc.); minor household repairs; and other voluntary and/or community services are non-economic activity.

7.4 Dimension of Economically Active Population

Several dimensions are associated with the measurement of the economically active population (EAP) of Nepal. The general trends on the size, composition, and growth of the

EAP, activity rate of the population by sex, age group, ecological and regional distribution, rural and urban distribution of the activity rate, and industrial and occupational distribution, are the major aspects that need to be analyzed. The description is preceded by a brief overview of the main conceptual coverage found in the measurement.

There are a number of key conceptual aspects inherent in the measurement of the EAP of Nepal. These aspects include structure of the question asked to collect the information on economic activity over the specified reference period, approaches followed to measure the EAP, etc.

The Central Bureau of Statistics (CBS) framed questions in order to (a) measure the economic activity of the population, (b) classify them as economically active, not active, (c) to know the occupational and industrial involvement, and status of work, and (d) to identify reasons for not being usually active. These questions were asked to all persons 10 years of age and above of each household.

7.5 Conceptual Elements Gripped in the Measurement of Nepal's EAP

A number of key features are associated with the measurement of the EAP of Nepal. A few of them are summarized in table 47.

Table 47: Main features associated with measurement of EAP in different censuses

CENSUS							
	1952/1954	1961	1971	1981	1991	2001	2011
Approach	Labor force and gainful work approach	Labor force and gainful work approach	Blending of labor force and gainful work approach	Gainful work approach and labor force approach	Gainful work approach and labor force approach	Blending of labor force and gainful work approach	Blending of labor force and gainful work approach
Definition	Economically active population was one who was either working or had job but temporarily absent or looking for work at the time of census	Worked at least for 8 months either at a single stretch or at intervals, either for pay, profit or remuneration in cash or kind during the year preceding the day of census	same as in 1961	Same as in 1961	Worked for any length of time during the 12 month preceding the census date	worked for any length of time during the 12 months preceding the census date	same as in 2001
Minimum age	15 years and above	15 years and above	10 years and above	10 years and above	10 years and above	10 years and above	10 years and above
Reference period	At the time of census enumeration	8 months in the course of the year preceding the census	8 months in the course of the year preceding the	8 months in the course of the year preceding the	During last 12 months	During last 12 months	During last 12 months

			census	census			
Inclusion and exclusion	Included all job seekers under EAP excluded- unpaid family worker	Excluded out of work at the time of enumeration Had worked less than and months included -unpaid family workers			Data on duration of work collected for the first time	Data on duration of work collected Inclusion of extended economic activities	Data on duration of work collected Included information on extended economic activities.

7.6 General Trends of EAP

The table 48 shows the increment in total population, population aged more than 10 years and economically active population by sex from the population census 1952/54 to 2011.

Table 48: Growth of population and economically active population by sex, 1952/54-2011

	Total population		Total population		Economically Active Population	
Sex and year	Number	% increase	Number	%increase	Number	%increase
Bothe sexes						
1952/54	8235079		7225607		4153455	
1961*	9412996	14.3	5659931	-5.7	4306839	3.7
1971	11555983	22.8	8178620	44.5	4852524	12.7
1981	15022839	30	10517888	28.6	6850886	41.2
1991	18491097	23.1	1297712	23.4	7339586	7.1
2001	22736934	22.9	16770279	29.2	10637243	44.9
2011	26494504	16.5	20,495,515	22.2	11108915	4.4
Males						
1952/54	4050607		4153455		2460492	
1961*	4636033	14.4	2724757	-34.4	2563915	4.2
1971	5817203	25.5	4140624	52	3434288	33.9
1981	7659336	31.6	5351614	29.2	4479944	30.4
1991	9220974	20.4	6419484	20	4375583	-2.3
2001	11359378	23.2	8330576	29.8	5971024	36.5
2011	12849041	13.1	9898908	18.8	6064134	1.6
Females						
1952/54	4184472		3072152		1692963	
1961*	4776963	14.2	2935174	-4.5	1742924	3

1971	5738780	20.1	4037817	37.6	1418236	-18.6
1981	7327503	27.7	5130274	27.1	2370942	67.2
1991	9270123	26.5	6558128	27.8	2964003	25
2001	11377556	22.7	8439703	28.7	4666219	57.4
2011	13645463	19.9	10822774	28.2	5044781	8.1

7.7 Crude and Refined Activity Rate General

Population censuses of Nepal have been collecting economic activity data on Usual Activity basis (using reference period of one year). The table 49 illustrates the percentage of economically active population from the year 1971-2001

Table 49: Economically Active Population 10+ Years of Age by Sex, Nepal, 1971-2011

	Crude Activity Rate (CAR)			Refined Activity Rate (RAR)		
	Male	**Female**	**Both sexes**	**Male**	**Female**	**Both sexes**
1952/54	60.74	40.45	50.43	59.23	55.1	57.48
1961	55.3	36.48	45.75	94,00	59.38	76.09
1971	59.03	24.71	41.99	82.084	35.12	59.33
1981	58.48	32.36	45.60	83.71	46.21	65.14
1991	47.45	31.97	39.69.	68.16	45.2	56.56
2001	52.56	41.01	46.78	71.68	55.29	63.43
2011	-	-	-	80.9	79.4	80.1

Source: Population Monograph of Nepal 2003; National Report 2002; Nepal Living Standard Survey 2010/11, CBS.

From the table above (49), it can be concluded that in the case of males, the activity rate remained the same from 1971 to 1981, but dropped remarkably in 1991. The reason for this could be changes in job expectation of people after restoration of democracy in 1990. On the other hand, as for females, response was low in 1971; the activity rate increased in 1981, stayed almost the same in 1991 and increased again in 2001.

While the economic activity of both male and females increased in 2011, the rates of females have increased remarkably. Women's participation in formal and informal sectors of employment after Loktantra may have greater influence on this increasing females' rate. Similarly, the GoN has prioritized Social Inclusion and Women Empowerment, which further accelerates females' involvement in economic activities.

The national population censuses and Nepal labor force surveys are the major source of economic activity data in Nepal, but the concept and definition used are inconsistent from

one-another. For instance - the minimum duration of work was at least 8 months in 1971, which in 1981 changed less than 3 months.

Figure 14: Sex-wise Refined Activity Rate
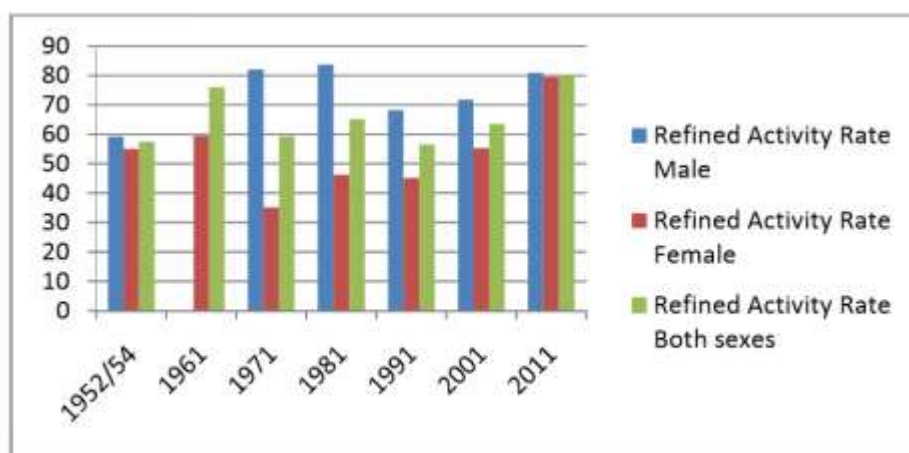
The production boundary used in 1991 has been widened in 2001 and so forth. No attempts were made to allocate as well as compare proportion of economically active population. Neither, the attempt was made to standardize data to Nepal context, nor with the international standards. Due to such reasons, the economic activity data generated by the census might have been undervalued.

7.8 Population and Housing Census 2011

The following structured questionnaire was designed to data on economic activity of population during census 2011. Each response category of work activity was defined in line with SNA 1993. Computation of month was on an average basis.

What work (Name) usually did during the last 12 months?		*What work (name) usually was done? (Occupation)*	*Where did (name) work? (Industry)*	*What was the status of employment of (name)?*	*What was the reason for usually not working during the last 12 months by (name)?*
Agriculture	months			1.Employer	1.Student
Salary/wage	months			2.Employee	2.Housework
Own economic enterprise....	months			3.Own account workers	3.Aged
Extended economic work	month			4.Unpaid family workers	4.Pension

116

		months				5.Physically and mentally handicapped
Seeking work ...		months				5.Physically and mentally handicapped
Household work		months				6.Sickness of chronic illness
Study (student)		months				7. Others
No work		Months.				
Total		12 months				

The above presented questionnaire was designed to gather data on economic activity of individuals aged 10 years and above. Persons who are seeking work, who are students or who have remained jobless for whole year are considered as economically non active population.

Table 50: Economically Active and Not Active Population Age 10 years and Over by Sex and Type of Residence, 2011

Area of Residence	Sex	Total Population		Economically Active at Some time, 2011				Not Usually Active	Not Economically Active at all
				Population	Usually Active				
		Number	%	Total	Total	Employed	Unemployed		
Nepal	Both sex	20,495,515	100.0	54.19	49.05	48.25	0.80	5.14	45.81
	Male	9706199	100.0	62.47	59.22	57.98	1.24	3.24	37.5
	Female	10789316	100.0	46.75	39.9	39.51	0.39	6.84	53.26
Rural	Both sex	16840134	100.0	56.33	50.57	49.81	0.74	5.76	43.67
	Male	7891604	100.0	63.49	59.77	58.59	1.18	3.72	36.51
	Female	8948530	100.0	49.97	42.42	42.06	0.36	7.55	50.03
Urban	Both sex	3655382	100.0	44.42	42.15	41.11	1.04	2.27	55.58
	Male	1814596	100.0	57.96	56.8	55.29	1.51	1.16	42.04
	Female	1840786	100.0	31.07	27.7	27.13	0.57	3.37	68.93
Mountain	Both sex	1330157	100.0	67.46	58.49	58.15	0.34	8.97	32.54
	Male	629947	100.0	68.0	60.08	59.55	0.53	7.92	32.0
	Female	700210	100.0	66.97	57.05	56.89	0.16	9.92	33.03
Hill	Both sex	8919076	100.0	57.4	51.87	51.18	0.69	5.33	42.6
	Male	4131067	100.0	61.55	57.77	56.67	1.10	3.78	38.45

	Female	4788009	100.0	53.46	46.79	46.45	0.34	6.67	46.56
Terai	Both sex	10246284	100.0	49.82	45.37	44.42	0.95	4.45	50.18
	Male	4945187	100.0	62.52	60.32	58.87	1.45	2.20	37.48
	Female	5301097	100.0	38.01	31.42	30.95	0.47	6.59	61.99

Source: Population Census, 2011

The distribution shows that population nearly less than three-fifth (55 %) of population are active and slightly less than half (45 %) are Not Economically Active at all. The classification is based on usual activity for which reference period is one-year preceding the census.

Relatively small proportion of work force of Urban and Terai are found active, below national average, compared to work force of the other areas, Mountains and Hills. Proportion of females of the area reporting economically active are even smaller. The census revealed that less than half of urban residents are found active against 56 percent economically active in rural areas.

Gender disparity is obvious in employment situation: females in the Terai (62 %) are not economically active compared to their male counter parts and females of other areas. The overall unemployment rate estimated by the Nepal Labor Force Survey 1998/99 was 1.8 percent, while the rate estimated by the Nepal Living Standard Survey 1995/96 was 4.9. Significant difference was seen in unemployment rate between those two surveys, which might be due to the definition of economic work activity they have adopted. Both the surveys adopted their own definitions.

CHAPTER VIII

ADOLESCENTS AND YOUTH

8.1 Introduction

Today's adolescents and youth are 1.8 billion strong and one quarter of the world's population. They are shaping social and economic development, challenging social norms and values, and building the foundation of the world's future. Maturing earlier than previous generations, both physically and socially, adolescents and youth have high expectations for themselves and their societies, and are imagining how the world can be better. Connected to each other, as never before through new media, they are driving social progress and directly influencing the sustainability and the resilience of their communities and of their nations.

Adolescents, youth and young people are important age groups from various perspectives as they enter the economic as well as socio-cultural sectors. It is said that young people shape the future of a nation. World Health Organization (WHO) defines adolescence as a period of life between 10-19 years of age. Similarly, youth is defined as a period between 15-24 years and young people is defined as a term that covers both adolescence and youth (10-24 years) (WHO, 1992).

The youth are dynamic and vibrant segment of the society not for their energy and enthusiasm but also considered as major source of nation's building .Therefore, a country need to be concerned with the development of every aspect such as education, health, wellbeing of all population from their birth to death based on life cycle approach. One of the aspects to be concerned is the distribution of population by their age group and among them a particular group needs to be focused who are in transition phase of childhood to adulthood and their every action and activities are concerned with the future of a country which groups are said to be adolescents and youths.

Around the world, the terms, youth, Adolescents, Young person and juvenile are interchanged, often meaning the same things. Definition of specific age range that constitutes youth varies. The most common International definition used by the United Nations is the youth are those populations between the ages 15-24 years. Similarly from economic point of view, the World Bank defines the age of youth as between the ages of 15-24 years. Following, for world health organization the age of Youth is between 10-24 years. The Commonwealth Youth Program (CYP) defines youth as people over old to less than 30 years old. The definition of youth contrast in each sector, however, as national level, youth is defined in some countries from as 10 years to as old as 40 years.

Use and meanings of the terms 'young people', 'youth', and 'adolescents' vary in different societies around the world, depending on political, economic and socio-cultural context. UNFPA uses the following United Nations definitions to describe different groups of young people:

Adolescents: 10-19 year olds (early adolescence 10-14; late adolescence 15-19)

Youth: 15-24 year olds

Young People: 10-24 year olds

The national census of 2011 enumerated a total population of 8,765,475 young people (10-24years) in the country. Of this number, 4,513,673 were females (51.5%) and 4,251,802 were males (48.5%) (CBS-2011). Adolescents (10-19 years) make up 24.2% of the total population of Nepal. Similarly youth (15-24) make up almost 20% of the total population of Nepal. Young people (10-24 years of age) make up almost one third (33%) of the total population. The distribution of young people across the country by region shows that a significant number of youth live in the Central Development Region, about 36% of the total population of young people, and about one tenth (10%) live in Far-Western Development Region.

Similarly, the majority of young people (82%) live in rural areas and almost half of the young people of the country live in the Tarai. About 90% of adolescents can read and write. Ninety per cent of the population (10-14 years) is studying, which declines to 70% and 29% in the age groups 15-19 years and 20-24 years respectively. Employment is low, only 1%, 9% and 21% in the age groups 10-14 years, 15-19 years and 20-24 years respectively, are in a paid/salaried job. In the age group 10-14 years, only 3% of the population are economically active, which increases to 20% in the age group 15-19 years and almost 50 % in the age group 20-24 years.

Source: Population Monograph - Vol II - CBS 2014

8.2 Adolescence and Youth - Characteristics

The oxford dictionary defines adolescence as ' The period following the onset of puberty during which a young person develops from a child into an adult.' Adolescence is a period of life with specific health and developmental needs and rights. It is also a time to develop knowledge and skills, learn to manage emotions and relationships, and acquire attributes and abilities that will be important for enjoying the adolescent years and assuming adult roles.

All societies recognize that there is a difference between being a child and becoming an adult. How this transition from childhood to adulthood is defined and recognized differs between cultures and over time. In the past it has often been relatively rapid, and in some societies it still is. In many countries, however, this is changing.

Adolescence is a transitional stage of human's physical and psychological development that occurs during the transitional period between childhood and maturity. This physical and psychological development involves biological (i.e. pubertal), social, and mental changes, though the biological or physiological ones are the easiest to measure objectively (MoHP).
In studying adolescent development, adolescence can be defined biologically, as the physical transition marked by the onset of puberty and the termination of physical growth; cognitively, as changes in the ability to think abstractly and multi-dimensionally; or socially, as a period

of preparation for adult roles. Major pubertal and biological changes include changes to the sex organs height, weight, and muscle mask as well as major changes in brain structure and organization. Cognitive advances encompass both increases in knowledge and in the ability to think abstractly and to reason more effectively.

"Youth is best understood as a period of transition from the dependence of childhood to adulthood's independence and awareness of our interdependence as members of a community. Youth is a more fluid category than a fixed age-group." – UNESCO

It is the time when a person's life is in between adolescence and adulthood. The ability of young people to safely and successfully navigate their transition to adulthood is diversified by age, sex, marital status, schooling levels, residence, living arrangements, migration, and socio-economic status. Although young people are all in transition, their experiences are by no means similar. Programming for the diversity of young people can yield better results in helping young people grasp opportunities and overcome challenges with positive results. Adolescents include the age range of 10 to 19 years. Youth includes the age range of 15 to 24 years. These are globally accepted definitions, although there may be regional and country specific variations. Young people refer to adolescents and youth ranging in age from 10 to 24 years (UNFPA).

8.3 International Effort for Adolescents and Youth

Amidst unprecedented global challenges, last year, the United Nations adopted the Sustainable Development Goals, a historic, ambitious and universal agenda for people, planet and prosperity. Whether or not we are able to achieve these goals will depend on how we impact the life of a 10 year old adolescent girl today, who will become a 24 year old young woman by 2030, the target year for the goals. There are 1.2 billion adolescents aged 10-19 years in the world today, and how they navigate this crucial life-stage will determine not only their futures but also the success of the Sustainable Development Agenda. If they emerge as educated, healthy and productive adults, they will form the bedrock of resilient, prosperous and sustainable communities.

Out of 7.2 billion people, 1.8 billion are young people between 10 and 24 years old, 90 per cent of whom live in developing countries, and more than two-third in Asia region where they tend to make up a large proportion of the population. The global community, with the Cairo Program of Action at the International Conference on Population and Development (ICPD) and again at the Fourth International Conference of Women (ICW) in Beijing resolved to protect and promote the rights of adolescents/ youths to sexual and reproductive health information and services (UN, 1994, 1995). Realizing difficult to implement all activities of ICPD, United Nations decided MDGs with goals and targets related to adolescents' and youth aiming better schooling , health, or more productive employment ultimately to meet the goal 1 eradicating extreme poverty and hunger. The table 51 shows the seven out of the eight Millennium Development Goals target youth outcomes.

	Sustainable Development Goal
Goal 1	End poverty in all its forms everywhere
Goal 3	Ensure healthy lives and promote well-being for all at all ages
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable

Various policies and programs have been done to protect the rights of young people. It envisions a world in which girls and boys have optimal opportunities to develop their full potential, to freely express themselves and have their views respected, and to live free of poverty, discrimination and violence.

Some policies and programs are:

- Empower adolescents and youth with skills to achieve their dreams, think critically, and express themselves freely.

- Promote health, including by giving them access to sexual and reproductive health information, education, commodities and services.

- Connect young people to livelihood and employment programs.

- Uphold the rights of young people, especially girls and marginalized groups, to grow up healthy and safe to receive a fair share of social investments.

- Encourage young people's leadership and participation in decisions that affect them, including the development plans of their societies.

UNFPA is one of the agencies having holistic, multi-sectoral, collaborative approach reflects a vision that sees the lives of young people in totality rather than fragments. At the policy level, the Fund frames adolescent and youth issues within the larger development context of poverty reduction. At the program level, it advocates for an essential package of social protection interventions for youth that includes education, sexual and reproductive health services and support for establishing livelihoods. At both levels, the Fund encourages intergenerational alliances that pair the energy, perspectives and motivation of young people with the experience and know-how of adult coaches and facilitators.

8.4 National Effort for Adolescents and Youth

In Nepal, the youth affairs seem to be more political than on social issues. During the time of Panchayat system, a separate youth organization at the national level was constituted. After the restoration of multiparty democracy 2046, most of the political parties have formed their youth wings, including students' front in order in order to mobilize them in their party affairs. In this backdrop, state machinery looks more or less reluctant in overall youth development because of inadequate thrust on this sector. Political leaders are mobilizing the youth mainly in the political activities, rather than in the social activities. We have had a separate ministry in the name of culture, youth and sports, which was short lived. Merger and of division ministries have become common political phenomena in Nepal. In 2064 Ministry of youth and sport has been established aiming to mobilize the youth especially for development activities in the context of Nepal.

The government has established youth information center and District Sports Development Committee. Besides Ministry is launching various programs like as, youth partnership in each districts and international youth day program. Now the MOYS has been completed ongoing evaluation of Local level Youth Partnership Program and trying to formulate evidence based policy and program for the mobilization of youth in the development activities.

Table 52: Various policies and strategies developed by various ministries

Year	Description Policies and Strategic
Policies and strategies developed by Ministry of Youths and Sports	
2066	National Youth Policy
2067	National Sports Policy
Policies and strategies developed by Ministry of Health	
1998	National Reproductive Health (RH) Strategy: Identifies ARSH as one of the pillars
2000	National Adolescent Health and Development Strategy Empower adolescents with information and skills to protect themselves Targeted health services and counseling for adolescents Creating safe and supportive environments at various levels
2000	Essential Health Care Service (EHCS) Package: Adolescent reproductive health services are a sub-set of reproductive health services
2005	National Health Communication Strategy for FP and MCH (2005-2010): Adolescents are a target group
2006	National AIDS strategy 2006 - 2011: Youth are a target group

2010	National Health Sector Program (NHSP) II (2010-2015): Target of introducing AFSs into 1000 public health facilities
2011	National ASRH communication Strategy (2011-2015)

Despite these activities, other line ministries like as Ministry of Health, Ministry of Education, Ministry of Agriculture and other line Ministries are launching various program for youth, though it is not integrated approach. Similarly many NGO and INGO along with civil societies are activated both in central level and local level.

8.5 Adolescents and Youth Growth Rate

Youth is the time where a person's life is in between childhood and adulthood. The majority (almost 85%) of the world's youth live in developing countries, with approximately 60 percent in Asia alone. A remaining 23 percent live in the developing regions of Africa, and Latin America and the Caribbean. By 2025, the number of youth living in developing countries will grow to 89.5%. Therefore, it is necessary to take youth issues into considerations in the development agenda and policies of each country.

Table 53: Population trend among adolescents and youth (2001-¬2011)

Age Group	Sex	2001		2011		Average annual growth rate 2001-2011
		Population	% of total population	Population	% of total population	
10-14	Male	1533806	13.26	1764630	13.73	1.40
	Female	1448126	12.50	1710794	12.53	1.67
	Total	2981932	12.88	3475424	13.12	1.53
15-19	Male	1185826	10.25	1443191	11.23	1.96
	Female	1203176	10.38	1488789	10.91	2.13
	Total	2389002	10.32	2931980	11.07	2.05
20-24	Male	946742	8.19	1043981	8.12	0.98
	Female	1070026	9.23	1314090	9.63	2.05
	Total	2016768	8.71	2358071	8.90	1.56
Total adolescents and youth (young) population	Male	3666374	31.71	4251802	33.09	1.48
	Female	3721328	32.12	4513673	33.07	1.93
	Total	7387702	31.91	8765475	33.08	1.71
Total population of the country	Male	11563921	100.00	12849041	100.00	1.05
	Female	11587502	100.00	13645463	100.00	1.63

| | Total | 23151423 | 100.00 | 26494504 | 100.00 | 1.35 |

Source: Central Bureau of Statistics Adopted from Pandey J.P et. a.l (2013)

Nepal's population reached 26,494,504 on 22 June 2011 with the slowest population growth rate at 1.35 per annum since 1961. The adolescents and youth population has reached 8,765,475 in 2011 with an average annual growth rate 1.71 percent in the decade 2001-2011. The average annual growth rate of adolescents is higher than the national average annual population growth almost in each category of age sex composition except in case of males in the age group 20-24 years. The annual growth in this category might be due to the fact that many of the youths who fall in this category have been migrated out of the country either for education or for seeking jobs in international markets. If one looks for the proportionate share of population in adolescents and youth, one would find that adolescents and youth population in Nepal covers 33.1 percent of the total population which is a slight increase in proportion from 2011 census.

8.6 Analysis of adolescents, youth and young population

Adolescents (10-19 years of age) make up almost a quarter (24.2 %) of the total population of Nepal. Similarly youth (15- 24 years of age) make up almost one-fifth (19.97) % of the total population of Nepal. Young people

(10-24 years of age) make up one third (33.1%) of the total population of Nepal. This is summarized in table 54 below.

Table 54: Proportion of adolescents, youth and young people by place of residence against total population, Nepal, 2011

Area	Adolescents		Youth		Young	
	Number	Percentage	Number	Percentage	Number	Percentage
Rural	5,379,072	24.48	4,248,791	19.34	7,216,597	32.85
Urban	1,028,332	22.73	1,041,260	23.02	1,548,878	34.24
Nepal	6,407,404	24.18	5,290,051	19.97	8,765,475	33.08

Source: Population Monograph Vol II - CBS 2014

The table 55 shows the percentage of adolescents, youth and young people by their place of residence (urban or rural). An average of 24% of the total population is adolescents. In rural areas, the percentage of adolescents is higher than in urban areas (24.5 % and 22.7% respectively). This is different for youth and young population where there is a higher percentage in urban areas. Majority of adolescents, youth and young people reside in rural areas of Nepal (84%, 80% and 82% respectively). Less than one fifth live in urban areas. An overwhelming proportion of young people live in rural areas (82.3%).

Table 55: Frequency of type of residence of adolescents, youth and young people, Nepal, 2011

Place of residence	Adolescents		Youth		Young	
	Number	%	Number	%	Number	%
Urban Area	1028332	16.1	1041260	19.7	1548878	17.7
Rural Area	5379072	83.9	4248791	80.3	7216597	82.3
Total	6407404	100	5290051	100	8765475	100

Source: Population Monograph Vol II - CBS 2014

Table 56: Trend in settling patterns in urban areas over the last 60 years

Category	Sex	1961	1971	1981	1991	2001	2011
Adolescents	Male	20.96	21.5	20.9	22.6	23.9	25.0
	Female	18.76	19.1	19.4	22.0	23.3	23.5
Youth	Male	16.69	17.4	17.3	17.4	18.8	19.4
	Female	17.22	17.5	18.1	19.2	20.1	20.5
Young People	Male	28.85	29.5	29.2	30.5	32.3	33.1
	Female	27.61	27.9	28.9	31.3	32.7	33.1

Source: Population Monograph Vol II - CBS 2014

There has been an increasing ratio of adolescents, youth and young people in the total population structure of Nepal over the last 60 years. The proportion has increased in every category. It is most significant in young people (10-24 years). In 1961, males living in urban area made up 21% of the total population, while 19%. of the total population were females. Over the last 5 decades, this proportion has increased by almost 4 percentage points.

Similarly, male youth made up 17% of the total population in 1961, which has increased to 19.4% in 2011. The percentage of female youth has also increased from approximately 17% to 20.5% in 2011.

Figure 15: Proportion of adolescents by development region
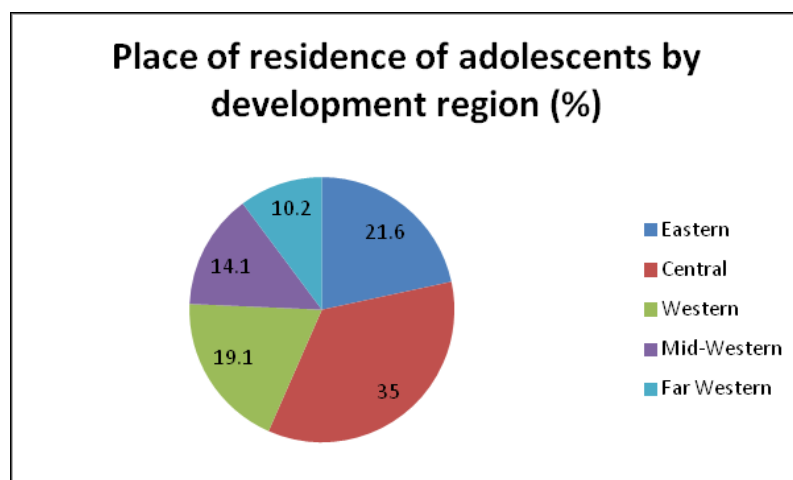
Source: Population Monograph Vol II - CBS 2014

8.6.1 District having highest and lowest proportion of adolescents, youth and young people.

The highest number of adolescents, youth and young people (AYYP) live in Kathmandu district, the capital of Nepal (367,853, 435,968 and 601,647 respectively) representing 5.7%, 8.2% and 6.9% of the total adolescents, youth and young people (AYYP) in the country. The lowest number (smallest in terms of population) of adolescents, youth and young people (AYYP) live in Manang district of Nepal (1,129, 1,203 and 1,761 respectively) less than 0.01% of the total population of adolescents, youth and young people in Nepal. Further analysis was undertaken to see whether there is a similarity in the percentage of adolescents, youths and young people among the 75 districts. Table 7.9 lists the top five districts with the highest numbers of adolescents, youth and young people in Nepal.

Table 57: Five districts with the highest percentage of adolescents and youth and young population, Nepal- 2011

Adolescent		Youth		Young	
District	%	District	%	District	%
Ramechhap	27.40	Kathmandu	24.99	Kailali	35.91
Khotang	26.82	Bhaktapur	22.96	Kanchanpur	35.67
Salyan	26.78	Kaski	22.94	Bardiya	35.60
Sindhuli	26.67	Lalitpur	22.55	Salyan	35.51
Kanchanpur	26.40	Chitwan	22.05	Dang	34.91
National Average		National Average		National Average	
24.18%		19.97%		33.08 %	
Districts with more than national Average: 48		Districts with more than national Average: 30		Districts with more than national Average: 35	

Source: Population Monograph Vol II - CBS 2014

The national average of adolescent youth and young people of the total population is about 24%, 20% and 33%. Based on this figure, 48 districts have more than the national average of adolescents, 30 districts have more than the national average of youth and 35 districts have more than the national average of young people. The ratio of adolescents, youth and young people differs from the national average by 3.22 percentage points in Ramechhap, 5.02 percentage points in Kathmandu for youth and 3.83 percentage points in Kailali for young people. This diversity and fluctuation requires further analysis in future censuses. More than a third of districts (27) have fewer adolescents than the national average. Sixty per cent of districts (45) have less youth than the national average and more than half of the districts (40) have less young people than the national average. The difference compared to the national average is as high as 7.46 percentage points for adolescents (Mustang), 3.61 percentage points for youth (Mahottari) and 8.09 percentage points for Mustang.

8.7 Districts with the lowest percentage of adolescents, youth and young population in Nepal.

Table 58: Five districts with the lowest percentage of adolescents and youth and young population, Nepal

Adolescent		Youth		Young	
District	%	District	%	District	%
Mustang	16.72	Mahottari	16.36	Mustang	24.99
Manang	17.27	Mustang	16.45	Manang	26.93
Lalitpur	20.74	Rautahat	16.81	Humla	29.75
Kathmandu	21.09	Siraha	16.98	Mahottari	30.13
Bhaktapur	21.40	Bajura	17.04	Saptari	30.32
National Average: 24.18		National Average: 19.97		National Average: 33.08	
District with less than national average: 27		District with less than national average: 45		District with less than national average: 40	

Source: Population Monograph, Vol 2nd page 279

More than a third of districts (27) have fewer adolescents than the national average. Sixty per cent of districts (45) have less youth than the national average and more than half of the districts (40) have less young people than the national average. The difference compared to the national average is as high as 7.46 percentage points for adolescents (Mustang), 3.61 percentage points for youth (Mahottari) and 8.09 percentage points for Mustang.

8.8 Absent Population and International Migration

Previously mentioned population figure excludes 1,921,494 persons who were recorded as absentee population, a significant increase from 762,181 in 2001, the highest proportion (44.81 percent) of which represents youth of 15 to 24 years. This reflects increasing trend of labor migration from the country over the last decade.

While economic benefits from remittance inflows have been evident in terms of reduction in the national poverty incidence, income from remittance are spent mostly for consumption by recipient households and very little on capital formation. Use of remittance for sustained economic development, together with social implications and human rights of labor migration need to be explored further. On the other side, about 35 percent of population is under 14 years and youth aged 15 to 24 years constitutes about 20 percent of the total population, the largest young cohort in Nepal's census history.

The fact that the 57 percent of the population represents working age population (aged 15 to 59 years), Nepal enjoys unique opportunity to reap potential benefits of demographic dividend in the next few decades, a situation that represents more working age population versus less number of dependent populations. Nevertheless, an increase of 60 years and

above population from 6.5 percent in 2001 to 8.1 percent in 2011 entails that aging is gradually becoming an emerging population issue that deserves policy attention.

8.9 Education

Education plays significance role to reduce adolescent fertility rate, mortality rate and to rise living standards of the people, along with life expectancy of the population. Since 1951, various efforts have been adopted to increase the level of education and special attention has been paid after the restoration of democracy. However, many hundreds of adolescents and youth of Nepal have not completed a full course of quality primary education that would prepare them to participate in secondary education. This may be more challenging for females than males, young men are also at-risk of leaving school too early.

8.9.1 Literacy rate

In the context of Nepal, the number of adolescents, youths and young people of Nepal who are can read and write as recorded by the national census of 2011. There is a visible difference (to a figure of more than 100,000) between females who can read and write compared to their male counterparts. Nearly double the number of males can read and write compared to females (CBS, 2014).

Table 59 presents the number and percentage of adolescents having various level of education. The census data shows that there is no substantial difference in level of education male and female adolescents. Table 8.6 presents nearly forty percent (40 %) of male adolescents and 38 percent of female have completed primary level of education. Similarly, 42 percent of male and 41 percent have completed secondary level respectively. The percentages of adolescents both male and female who have competed graduate level are very low, less than 1 percent. The table below shows the literacy rates for males and females.

Table 59: Number and percentage of adolescents having various levels of education

Level of education	Male		Female	
	N	%	N	%
Primary	1271010	39.62	1202783	37.59
Secondary	1362348	42.47	1315191	41.11
SLC + intermediate	333588	10.40	302625	9.46
Graduate + post graduate	8812	0.27	8474	0.26
Total	2975758	92.77	2829073	88.42

Source: Population monograph, Volume 2nd 2014
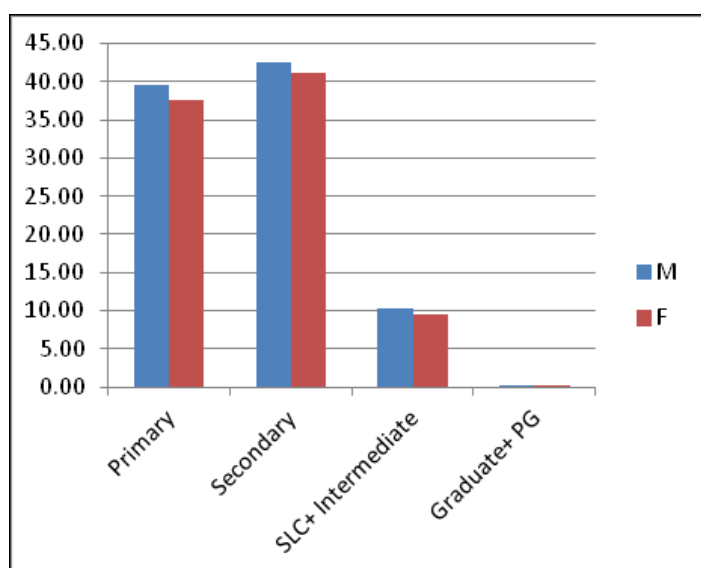
Source: Population Monograph- Vol II- CBS 2014

8.10 Marital Status

Nepal is a country with a tradition of high marriage rates. Marriage is considered almost universal in the Nepalese context. In the past, the tradition was marrying boys and girls off at an early age, so, it was rare to find any person who was not married after the age of 20 years. However, the law has restricted the marriage of children and legally allows marriage only after the age of 18 years for girls and 20 years for boys.

Table 60 presents the percent distribution of male and female A&Y by marital status according to age group, place of residence, caste/ethnicity and level of education. Twenty three percent of female A&Y were married monogamously as against eight percent of male A&Y. Two third of girls are married in aged 20-24 years, similarly for the boys the proportion is one third.

Table 60: Percent distribution of male A&Y by marital status according to selected background characteristics, Nepal

Background characteristics	Never married	Monogamy	Polygamy	Remarriage	Married but not Gaunna	Divorced	Living together	Total	N
Age group									
10-14	99.97	0.00	0.00	0.00	0.03	0.00	0.00	100.00	3,459
15-19	95.42	4.21	0.04	0.00	0.33	0.00	0.00	100.00	2,298
20-24	66.93	32.32	0.14	0.14	0.15	0.21	0.11	100.00	1,351
Rural-Urban									
Rural	91.59	8.13	0.05	0.02	0.17	0.05	0.00	100.00	5,655
Urban	94.68	5.07	0.00	0.07	0.07	0.00	0.11	100.00	1,453
Region									

Eastern	95.82	4.18	0.00	0.00	0.00	0.00	0.00	100.00	1,575
Central	92.56	7.36	0.00	0.00	0.08	0.00	0.00	100.00	1,980
Western	92.60	6.61	0.07	0.00	0.65	0.07	0.00	100.00	1,391
Mid-Western	86.46	13.10	0.21	0.11	0.00	0.12	0.00	100.00	832
Far Western	88.21	11.52	0.00	0.15	0.00	0.12	0.00	100.00	678
Kathmandu Valley	93.22	6.54	0.00	0.00	0.00	0.00	0.23	100.00	654
Ecological Region									
Mountain	87.13	12.33	0.17	0.00	0.00	0.37	0.00	100.00	492
Hill	92.19	7.60	0.06	0.06	0.00	0.03	0.05	100.00	3,133
Terai	92.96	6.73	0.00	0.00	0.31	0.00	0.00	100.00	3,484
Caste/Ethnicity									
Dalit	87.81	11.55	0.00	0.26	0.14	0.25	0.00	100.00	737
Disadvantaged Janajatis	92.07	7.79	0.00	0.00	0.06	0.00	0.09	100.00	1,764
Disadvantaged Non-Dalit Terai Caste Groups	90.36	8.81	0.00	0.00	0.83	0.00	0.00	100.00	1,042
Religious Minorities	94.58	5.42	0.00	0.00	0.00	0.00	0.00	100.00	248
Relatively Advantaged Janajatis	96.35	3.65	0.00	0.00	0.00	0.00	0.00	100.00	519
Upper Caste Groups	93.20	6.67	0.10	0.00	0.00	0.04	0.00	100.00	2,800
Educational Level									
No education	84.73	15.27	0.00	0.00	0.00	0.00	0.00	100.00	384
Primary	95.54	4.19	0.07	0.04	0.13	0.03	0.00	100.00	2,364
Secondary	92.88	6.81	0.04	0.04	0.20	0.04	0.00	100.00	2,800
SLC and above	87.85	11.86	0.00	0.00	0.13	0.06	0.10	100.00	1,561
Nepal	**92.22**	**7.50**	**0.04**	**0.03**	**0.15**	**0.04**	**0.02**	**100.00**	**7,109**

Source: Nepal Adolescents and Youth Survey, 2010/11

Majority of both male and female A&Y are either never married or monogamous. The magnitude of polyandry, remarriage, married but not *gaunna,* separated, widow, and living together is trivial. The short time span of five years for both late adolescents 15-19 years and youth of 20-24 years does not allow us to generalize various events of family life cycle in its full form

8.11 Engagement in activities

Adolescents and youth are age groups that explore career possibilities and set out their path for the future. The demand for higher levels of education and advanced skills puts pressure on adolescents to pursue higher education on one hand. While there is also pressure to enter the

job market at the earliest possible opportunity. The national census of Nepal 2011 looks into these aspects and the tables and graphs below detail the findings.

Table 61: Current status of engagement of young people by age bracket and major activities, Nepal 2011

Engaged in	10-14 years	15-19 years	20 -24 years
	%	%	%
Study	90	70	29
Earning salary wage	1	9	21
Seeking job	1	3	6

As seen in table 8.9 above, 90% of people in the age group 10-14 years are pursuing their studies. This ratio drops to 70% in the age group 15-19 years and sharply drops to 29% in the age group 20-24 years. In contrast, although very gradually, engagement in work (depicted as earning a salary or wage) increases from 1% to 9% and 21% for the three age groups respectively. Similarly, 1%, 3% and 6% respectively are looking for job.

8.12 Economic activity

As adolescents and youth have the potential for economic activity, it is natural that their engagement in economic activity is observed. The census of 2011 collected information on the economic activity for different age groups. Data on the economically active young people for each age group is presented in Table 62.

Table 62: Percentage of economically active young people in various age groups

Category	10-14 years	15-49 years	20-24 years
Percentage of economically active population	3.2	19.9	49.4

As seen from Table 8.8 economic activity seems to increase visibly with an increase in age. In the age group 10- 14 only 3.2% are economically active, in the age group 15-19 it is almost 20% and in the age group 20-24 years it reaches almost 50%. The percentage of young people engaged in economic activity as a cumulative figure reaches 73% by 24 years.
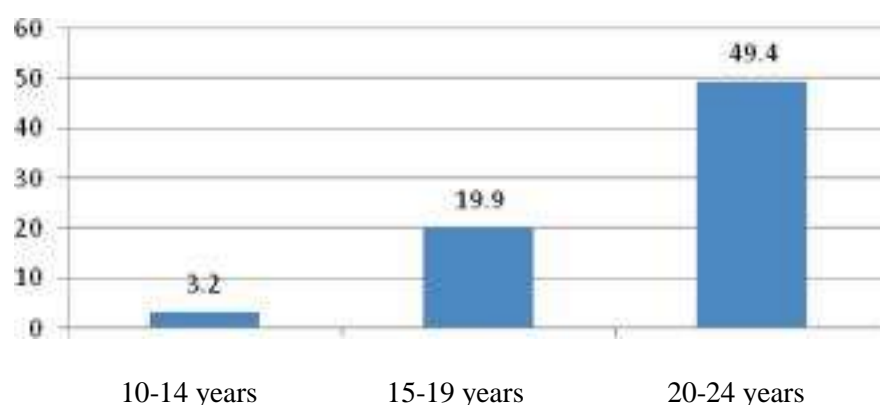
Source: Population Monograph Vol II, CBS- 2014

8.13 Adolescent Health

8.13.1 Adolescent and Fertility

It should be noted that this group of the population is a potential population for reproduction since most of them begin consensual union in this period. Census 2011 report shows that 11.5 percent of the populations are married below the age of 14. Nearly half (48.9 percent) of the married population aged 10 years and above were married between 15 and 19 years (58.2 percent among females and 37 percent among males). Child and early marriages are high especially among girls, which has serious social and health ramifications that hinder women and child development. Therefore, there is a need for continued policy and program intervention to address this issue. If we are to control the rate of population growth through addressing fertility then these groups need to be targeted for the population related programs The adolescent fertility rate measures the number of births per 1,000 women ages 15 to 19. Although the number of births among adolescent girls is declining around the world, adolescent childbearing remains common in many countries. Early childbearing poses serious consequences to the health and development of young girls. The risk of maternal death and disability is higher for adolescents than for women in their 20s. At the same time, early childbearing often limits girls' opportunities for education, training, and livelihood development. Adolescent childbearing is more common in developing countries.

8.13.2 Sexuality and HIV/AIDS

Despite a shift toward later marriage in many parts of the world, 82 million girls in developing countries who are now aged 10 to 17 will be married before their 18th birthday. In some countries, the majority of girls still marry before their 18th birthday. These include India (50 per cent), Nepal (60 per cent) and Niger (76 per cent). Worldwide, some 14 million women and girls between ages 15 and 19 — both married and unmarried — give birth each year. Pregnancy is a leading cause of death for young women aged 15 to 19 worldwide, with complications of childbirth and unsafe abortion being the major factors. For both physiological and social reasons, girls aged 15 to 19 are twice as likely to die in childbirth as

those in their twenties. Girls under age 15 are five times as likely to die as those in their twenties.

Adolescence and youth (ages 15 to 24) is the time when the majority of people become sexually active. Comprehensive knowledge of HIV—being able to correctly identify two ways to prevent sexual transmission of HIV, reject the two most-common local misconceptions about HIV, and know that a healthy-looking person can transmit HIV—is increasing around the world. However, many young people do not have the information or means to protect themselves from HIV. In countries with high prevalence, like Kenya and Haiti, less than half of all females ages 15 to 24 have sufficient knowledge of HIV and in Mali, less than one-quarter of all young men and young women have comprehensive knowledge. While young women face a higher risk for becoming infected with HIV, males are more likely than females to have comprehensive knowledge of HIV.

Adolescents have been traditionally ignored by public sector programs and budgets, which tend to focus on children (under 10), and then on adults. Investing in adolescents is an opportunity to ensure that the earlier investments made in childhood come to fruition for the benefit of national development. Otherwise, accomplishments in improved child educational and health status may be undermined. Since the 1990s, many international agreements and forums have brought more attention to the needs of adolescents and young people.

Because young people today are typically entering puberty at a younger age and getting married later than in the past, they face a longer period between sexual maturity and marriage. Many young people are raised in the age of global telecommunications and globalization of a 'youth culture' spread through the mass media. They often get information, including about sexuality and health, from sources outside of the family, whereas once the family was the traditional institution for imparting social norms about these issues.

This largest-ever generation of adolescents is approaching adulthood in a world their elders could not have imagined. Globalization, the AIDS pandemic, global warming, electronic communications and a changing climate have irrevocably altered the landscape. The scenario is mixed. As young people share ideas, values, music and symbols through mass media and electronic technology, a global youth culture has emerged. Many young people are organizing themselves and networking through formal and informal channels. But more than half of young people live in poverty, on less than $2 per day. Often they lack access to the technology and information. Many also face social inequality, poor schools, gender discrimination, unemployment and inadequate health systems. They deserve better. And investing in them is an investment in the future leaders of families, communities and nations.

Young people tend to have higher levels of educational attainment than in the past, but they also require better education and more skills to compete in today's world, and overcome social exclusion and poverty. Despite the historical progress in school enrolment, millions of adolescents are outside the school system, or forced to abandon their schooling due to poverty or HIV/AIDS, among other reasons.

Conclusion

Adolescence is difficult to define in precise terms, for several reasons. First, it is widely acknowledged that each individual experiences this period differently depending on her or his physical, emotional and cognitive maturation as well as other contingencies. Reference to the onset of puberty, which might be seen as a clear line of demarcation between childhood and adolescence, cannot resolve the difficulty of definition and Nepal adopted UN definition.

Nepal's population is still young and if this population is well managed and utilized Nepal can reap benefits from this population by utilizing this demographic bonus. The young populations (10-24 years) make up almost one third of the total population of Nepal and are a major contributor in various walks of life. Adolescents make up almost a quarter (24%) of the total population of Nepal. There are rising aspirations and very little has been done in the area of youth development in Nepal. This proportion has been increasing in every inter-censual period. It can be said that this provides Nepal with a population bonus or economic dividend, if placed and used correctly. Therefore, Nepal need to prepare proper education, employment and health policies concerning on this young population.

CHAPTER IX

AGEING

9.1 Introduction

There are three ages (states) that play a vital role in shaping the personality of a person after he/she is born. They are Chronicle age, Biological age and Mental age. The time duration from birth is called the 'chronicle age,' of the person. The advancement in this age is accompanied by a steady growth in other ages. The growth of biological age (state) results in the development in the physique of the person in terms of height, weight, and subsequently in body mass. Mental age (state) grows with gradual advancement in intelligence levels of the person (Singh, M. L., 2014). However, at the end of middle age, physical and mental health depreciate and show symptoms of aging, with a deterioration in their physical appearance, declining muscles and the appearance of wrinkles on their faces, becoming bald headed or hair becoming completely white.

The worldwide population aged 60 years and older will surpass from approximately 770 million in 2010 to an estimated one billion in 2020, and 20.0% of these people will be concentrated in developing countries. It is particularly important the increase of the oldest old (people older than 80 years old) and the relatively higher percentage of elderly women, these two phenomena will be present in almost every country and represent an important economic and social effect. Thus, needs to be addressed and proper attention should be given to the elderly people.

This above mentioned phenomena is a result of attaining low levels of fertility and mortality and long life. However, this achievement requires vital social and economic adjustments to current and expected future demographic realities. In particular, population aging raises critical issues for countries, states and cities in areas such as economic growth, employment and retirement, pensions, health care and social support services. Moreover, growths of aging population are creating demographic imbalances and humanitarian, social and economic problems in many countries especially developed countries.

Aging refers to the increasing inability of the body to maintain itself and to perform the functions it once did. As the body begins to decline, our abilities withstanding the stresses and strains of life are diminished by developing more ailments to heal and more time to recover.

The old age is a relative concept. Demographers consider 65 years of age as the old age for international comparison of elderly people. The World Assembly on Aging adopted, as its main focus of concern, the population aged 60 or over as elderly population. The age 60 is also a convenient one for its statistical analysis. The United Nations considers 60 years as the boundary of old ages. The age cutoff or the elderly population varies across the countries and overtime.

9.2 Global perspective on need of why Population Aging Issues matter

The dispersal of family members, leading to the breakdown of joint/extended family and the new status and role of women is making the caring of the elderly population very difficult. It is imperative that the elderly should not be deprived of their independence, their sense of responsibility, their personality and their feelings that the family and community neglect them. Any breakdown of these basic components can affect their mental health, which in turn can reduce their physical and psychological activity, leading to rapid health deterioration and untimely death.

In a few decades, the loss of health and life worldwide will be greater from non-communicable or chronic diseases (e.g., cardiovascular disease, dementia and Alzheimer's disease, cancer, arthritis, and diabetes) than from infectious diseases, childhood diseases, and accidents. Aging population management, if not achieved soon, can lead to excess of inactive population in a country.

Figure 18: Population (Projected) of young children and older people from 1950-2050
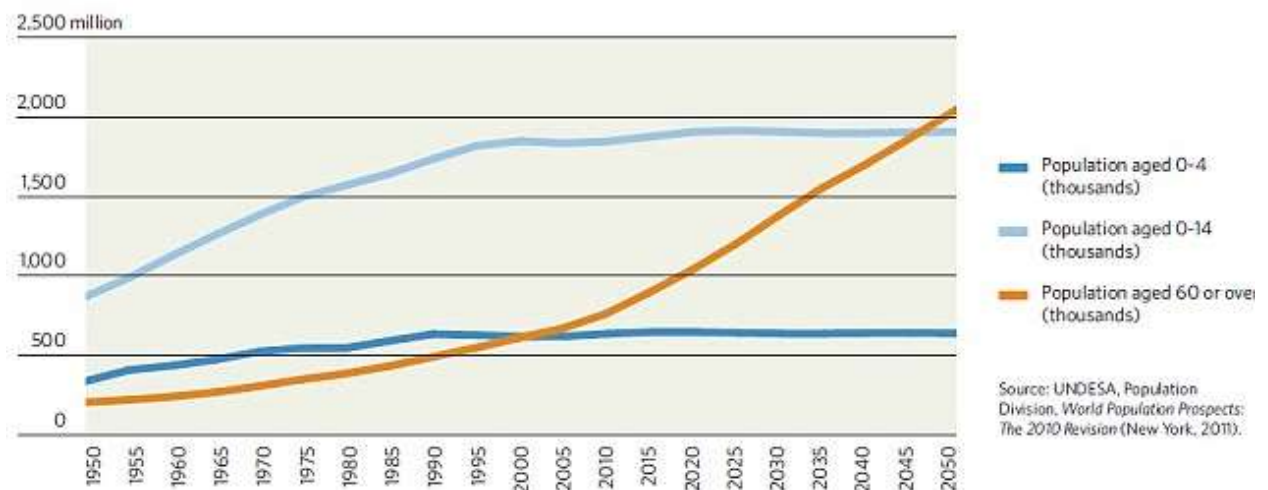
Figure 18 shows that the population of older people is projected to rise exponentially starting from 2020, mostly due to improvement in health facilities and increased life expectancy and decrease in birth rate and mortality rates.

Demographically, age of senior citizens can be classified into two clusters (a) active life (b) care life. Active life is productive age recognized up to 75 years and care life is 75 and beyond this. There is no retirement to be member of political parties, social workers and consultant and thus, many retired person has been practicing in consultant services to maintained their capacity and healthy environment.

9.3 National perspective on why Population Aging Issues matter

Aging is an emerging social issue for Nepal because fertility has started going down in recent years, the mortality is declining fast and the life expectancy is continuing to increase for both sexes in Nepal. It is important to understand the aging issue in proper demographic and national context.

The definition of old age itself varies across the country and that variation also affects the social position of the aged. The age of 60 or 65 is equivalent to retirement age in most developed countries, and is said to be the beginning of old age. The age of 60 as a cut-off point is consistently employed in third world countries to define the elderly. However, the retirement in civil servants varies in Nepal. Nepal Government has fixed 58 years for retirement in general administration cadre, and 2 years more in health care than this. Moreover, in judiciary service court and university services, the retirement age is fixed at 63 years. The retirement age of the chief justice and other justices of the Supreme Court along with other constitutional bodies are 65 years in Nepal. There is no retirement to member of political parties, social workers, and consultant and thus many retired person has been practicing in consultant services along with teaching to maintain their capacity and healthy environment. However, in the agriculture sector such a distinction for the retirement age is not evident.

Aging population is 12.3 in the world, slightly lower in Asia and lower in Nepal than Asia. If the percentage remains the same the aging population will be increased nearly 18 percentage in Nepal which would be unbearable for Nepal due to the higher dependency and demand for health care services. In this situation, many care program need for the people with Parkinson, Alzheimer's, and depression.

Table 63: Elderly population reported in different censuses of Nepal, 1981-2011

Age	Census years				Growth in	Growth rate per year
	1981	1991	2001	2011	Times in 1981 - 2011	
60+	857061	1071234	1477379	2154410	2.51	3.07
65+	489566	639589	956471	1397583	2.85	3.50
75+	144197	185165	295459	447981	3.13	3.78

The table 63 shows that the elderly population in Nepal has, on average, increased by 2.51 to 3.13 fold in 2011 from those reported in 1981, with an annual growth rate of 3.07 % for persons aged 60 years and above, 3.50 % for persons aged 65 years and above, and 3.78 % for persons aged 75 years and above. In absolute number, the volume of the elderly population aged 60 years and above is reported as 8, 57,061 in 1981 that has increased to 21,

54,410 by 2011. Similarly, the population of elderly persons aged 65 years and above increased from 4, 89,566 in 1981 to 13, and 97,583 by 2011. Likewise, the old population i.e. aged 75 years and above increased from 1, 44,197 to 4, 47,981 during the 30 year interval between 1981 and 2011.

9.4 Status

This rapid increase in the proportion and absolute number of aged people among the total population will impact on socio-economic and health policies and the culture in future society of Nepal. The elderly population growth rate per year is always more than total population growth rate of the population in Nepal (Table 64).

Table 64: Growth rate of total and the elderly population, 1952/54-2001

Census Year	Inter-Census Growth Rate Percent of Total Population	Elderly Population Growth Rate Percent
1961	1.65	1.79
1971	2.07	2.42
1981	2.66	3.26
1991	2.1	2.26
2001	2.25	3.5
2011	1.35	3.5
2016	1.24	3.5

Sources: PRB, 2016; CBS, 2014

In Nepal, aging is an emerging recent social issue because fertility has started going down in recent years, the mortality is declining fast and the life expectancy is continuing to increase for both sexes. It is important to understand the aging issue in the proper demographic and national context. Growth of population 60 years of age and over is found accelerated in the last 20 years although it was increasing albeit slowly since earlier times such as since 1961.

According to the 2011 population census, the proportion of population 60 and above is 8.1% (2.2 million, CBS. 2012) which was only 6.5% (1.5 million) in 2001 (CBS and UNFPA, 2002), 5.8 million in 1991 (CBS. 1993), 5.7 million in 1981 (CBS. 1984), 5.6 million in 1971 (CBS. 1975), and 5.2 million in 1961 (CBS. 1968) (Figure 19).This rapid increase in the proportion and absolute number of aged people among the total population will impact on socio-economic, health and culture of the future society of Nepal.
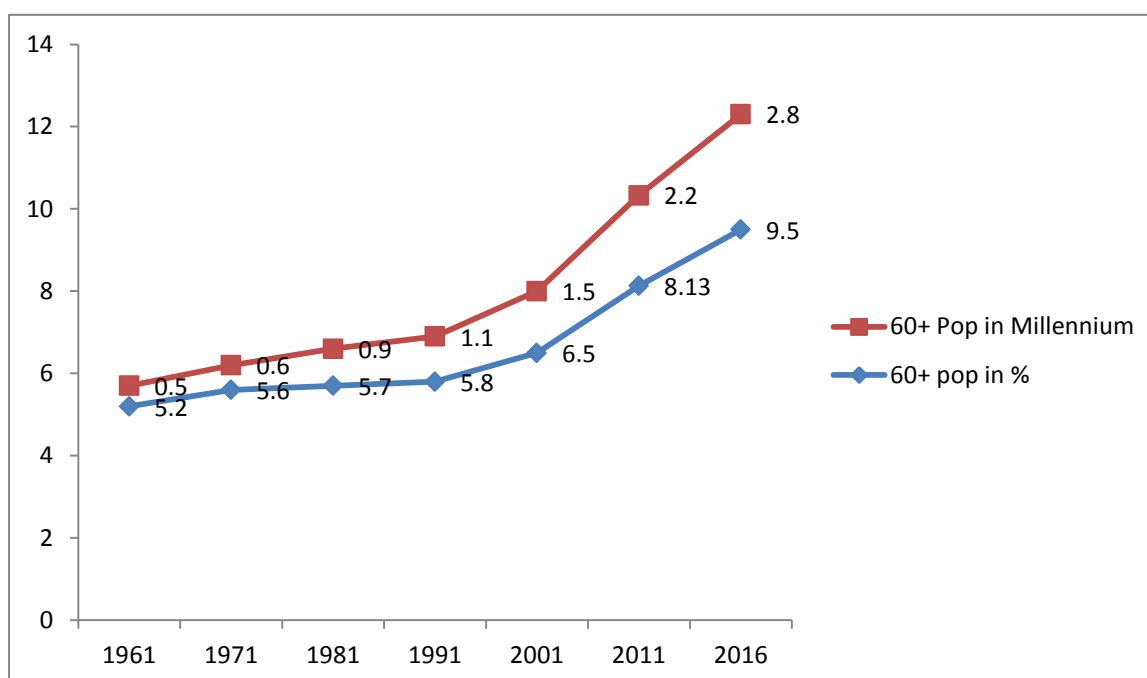
Source: CBS, 2012; CBS and UNFPA, 2002; CBS, 1993; CBS, 1984; CBS, 1975 and CBS, 1968.

9.5 Distribution of the elderly population by sex for ecological zones, Nepal, 1991-2011 censuses

In Nepal, 2011 population census shows that the aging population in Nepal is 2154410 which are 8.14% of total population. Table 65 presents the percent distribution of elderly population by sex for ecological zones from 1991 to 2011. The percentage distribution of elderly in 1991, 2001 and 2011 by sex makes it clear that elderly females outnumber the males in urban areas and vice versa in rural areas of Nepal. Also it can be noted that the percentage of elderly population is higher in rural areas than in urban areas.

Table 65: Percent distribution of the elderly population by sex for ecological zones, Nepal, 1991-2011 censuses

Age	Mountain		Hill		Terai	
	Male	Female	Male	Female	Male	Female
60+ in 1991	6.6	6.0	6.4	6.1	5.4	5.4
60+ in 2001	7.2	7.1	7.1	6.9	6.0	5.9
60+ in 2011	8.6	8.9	8.7	8.6	7.9	7.4

Source: Pantha and Sharma, 2003, Vol. 1, p. 73, CBS 2012.

Figure 20: Aging population of Nepal by sex 1952/54 - 2011 (in percent)
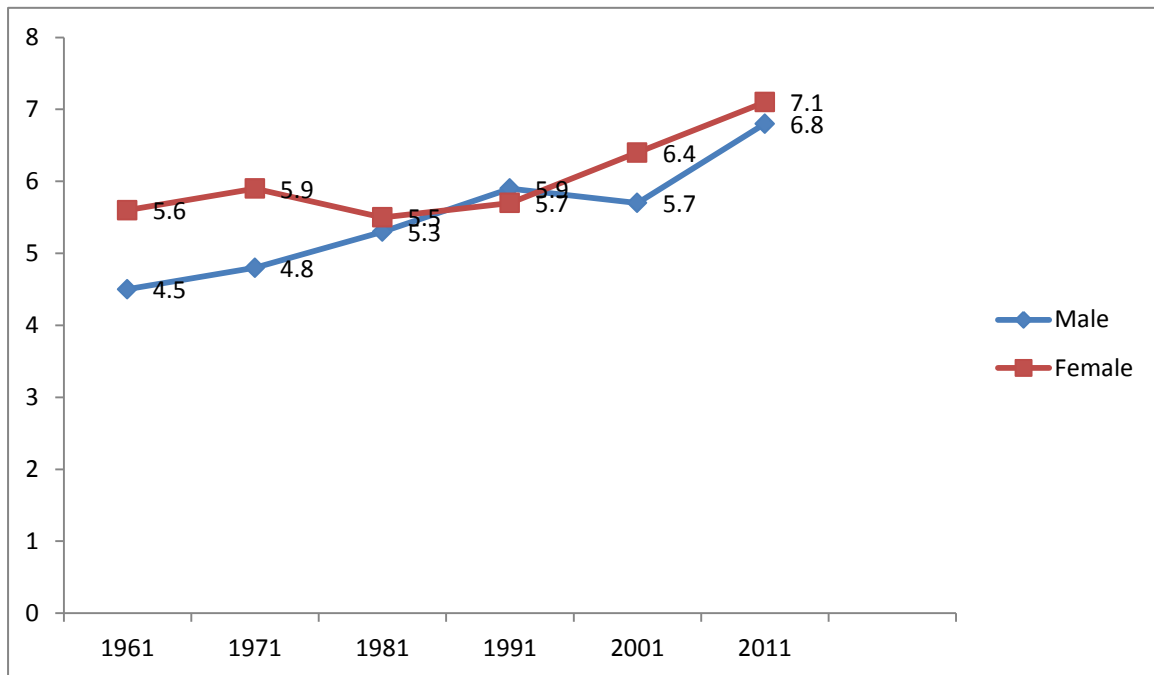
Sources: CBS, 2014

Figure 21: Population under 5 Children and 60 above (in 2001-2050)
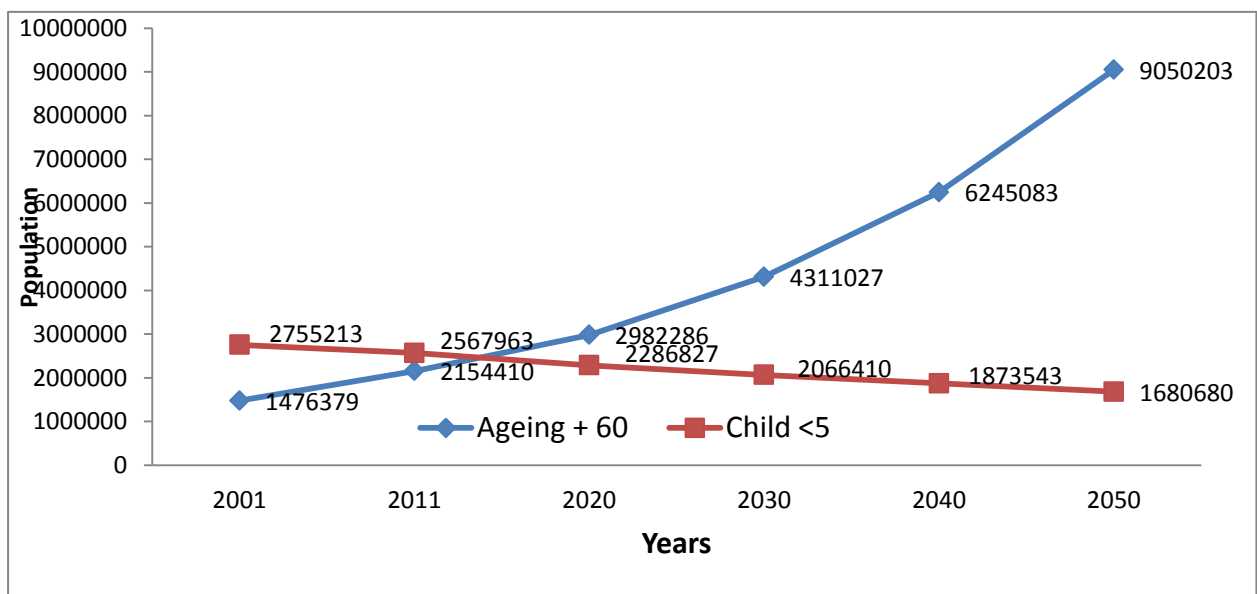
9.6 Percentage change in population by age group

The figure 22 shows the change in percentage of world population by age and also forecasts the population till 2100. It can be seen that population of 60+ is projected to grow from 12% in 2013 to 27% in 2100.

141

World Population change by Age group from 2013 to 2100 (in percentage)
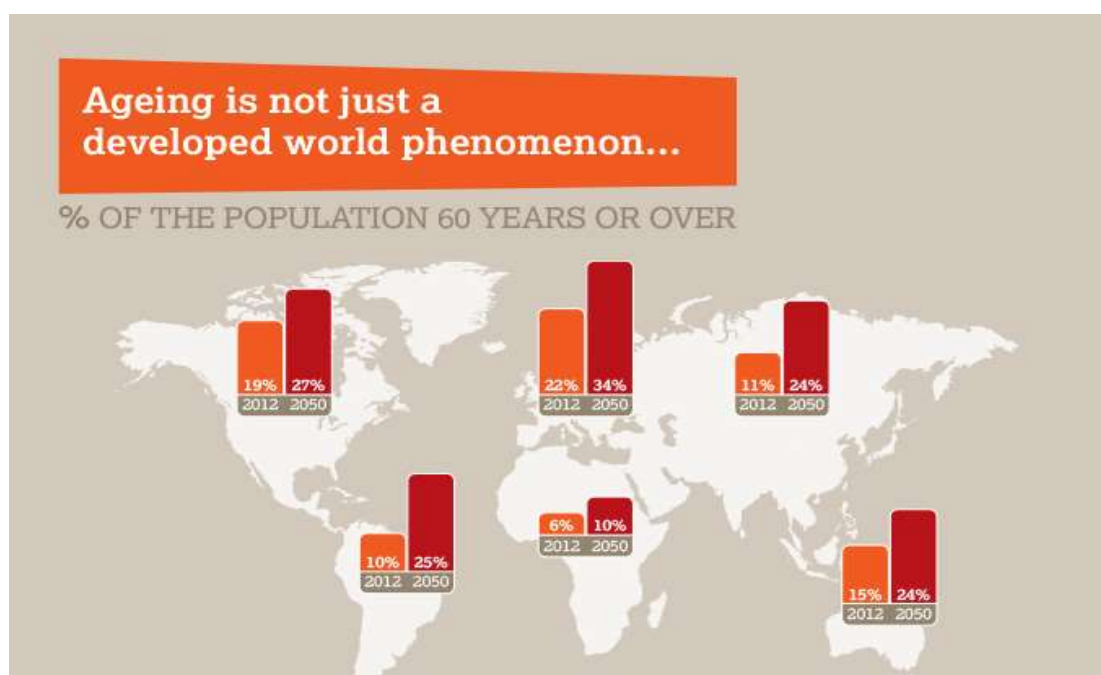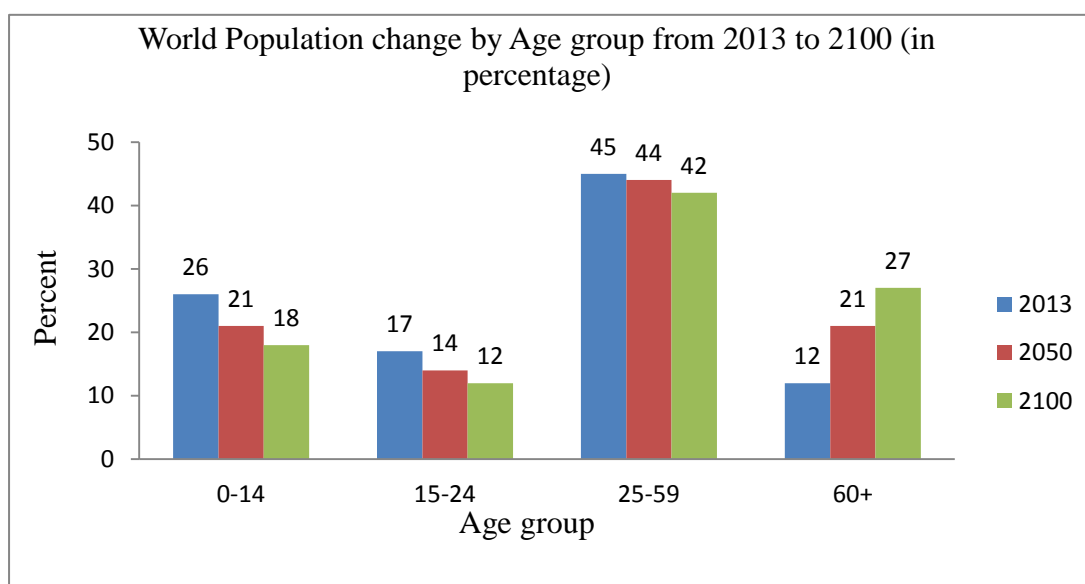
Source: UNFPA, 2012

9.7 International conferences on aging

Table 66: List of International conferences on aging

Date	Place and description
1982	The First World Assembly on Aging adopted the Vienna International Plan of Action on Aging which was endorsed by the United Nations General Assembly in its Resolution 37/51. The plan recommended the promotion of training and research as well as the exchange of knowledge and information in order to provide an international basis for social policies and action.
1991	The UN General Assembly adopted the UN Principles of Older Persons. Provide 18

	Principles, a broad base framework for action, organized into five clusters: independence, participation, care, self-fulfillment and dignity of older persons.
1998	*Macau Plan of Action on Aging was passed*
1999	*The "International Day of Older Persons" was celebrated.*
2002	*The second World Assembly on Aging, Madrid, adopted an International Plan of Action on Aging with 19 articles & some recommendations organizing in three priority directions (a) older persons and development (b), advancing health and well being into old age (c) ensuring enabling and supportive environment.*
2009	*Strategic Framework for Active Healthy Aging in the South East Asia Region, Colombo, Sri Lanka. It has focused for the established geriatric center.*
2004	*Global Aging: Sustaining Development, Singapore*
2006	*North-South Challenge, Copenhagen, Denmark*
2008	*Shaping Today Tomorrow, Canada*
2009	*Aging in Place, Age Friendly Cities and the Application of technology, Akita, Japan*
2010	*Climate for Change – Aging into the Future, Mel born, Australia*
2012	*Rights of older persons in the region, India*

The UN General Assembly meetings have urged developing countries in particular, to consider policies and programs for older persons as part of overall development policies.

To materialize the commitments expressed in various regional and international conferences by Nepal as well as in various national development plans our responsibility for senior citizens has become more serious.

9.8 Current practices and their implication for aging in Nepal

Table 67: Summary of the current practice for Aging in Nepal

Area	Date	Theme
Constitution arrangement	2009	Social security in direction policy
	2006	Rights of social security (women, child, old)
Policies	2009	Addressed by Nepal Health Sectors Reforms II
	2009	Knowledge of the elderly people
	2008	Increase in old age pension from Rs 100 to 500
	2006	Subsidiary policy and social security (putting the last first), started from eighth five year plan
	2001	Senior citizen policy and working plan
	1992	Mobilization of NGO or Civil society
	2002	10 Percent pension increase to the civil servants who reach 75 years old
	1998	• Strong commitment to Madrid International plan on aging • Regional macro plan of action on aging
Demography	2008	Active life of aging population reduced from 75 to 70 years
Program	2009	• Mobilization of civil society Awareness program in Local Level Population Management • Geriatric Hospital in Patan Hospital as for pilot project for clinical treatment.

Institution	1872	• Established Pashupati Bridhashram (shelter for older people) • Established Ashram for old people
Research	2009	• Very few research and innovation activities has been conducted in clinical aspects • Research has been conducted in collaboration of WHO

9.8.1 Senior Citizens Policy and working policy 2058 *(Jeshtha Nagrik Sambhadhi Ain)*, 2063 (2007).

i.   To recognize the knowledge, skill and expertise of the senior citizens to utilize in development plans and programs.

ii.   To enact new legislation or amend or review the existing one necessary to legally guarantee social security of the senior citizens and their rights and their rights and interests.

iii.   To initiate programs to orient a person, family, institution, association, and stakeholders to give respect to senior citizens in the family and society; to give concessions and prizes to persons or associations carrying out such works; and to prepare the text materials for teaching in different institutions that increase emotional honor and respect to senior citizens.

iv.   To introduce a national pension scheme, create a social security fund, initiate programs like the elderly home, day care centers, senior citizen clubs, old age allowance, mobile health clinics and systematize the programs operated so far.

v.   To establish a central level committee for integrating, coordinating and monitoring the programs related to senior citizens. The local bodies coordinate senior citizen programs in each district (Senior Citizen Policy-2058).

9.8.2 Senior Citizens – National work Plan

To implement senior citizens policies the following working policies/programs/ activities shall be pursued in short term, medium term and long term development plans. The long term goal/objective of senior citizen functional policy is to make old age secured and easy, developing the capacity of elderly utilizing their knowledge, skills, experiences and expertise in various spheres of nation building whilst providing them social and economic security with a life in dignity. These programs/activities have been sub-divided into 7 different aspects and 52 work plans: economic aspect consisting of 6, social security -11, Health services and nutrition -9, Participation and engagement -8, Education and entertainment aspect – 5, Legislation enactment 2 and miscellaneous 11 work plans.

A) Economic Aspect

i.   Allowances shall be provided to the weak and socially insecure senior citizens and a study shall also be conducted to provide other facilities (2062BS onwards).

ii.   The old age allowance distribution process shall be made simple, easy and regular (continuing since 2062/63).

iii. While formulating a local level project, arrangement shall be made to provide some percent of old age allowances from the income to be generated from the local source (during X & XI Plan Period).

iv. National pension scheme shall be prepared and proposed to implement in the context of extensive social insurance system (during X & XI Plan Period).

v. The disaggregated data base of senior citizens shall be prepared and updated (2064 onwards regularly).

vi. A study shall be conducted to provide an income generating opportunity to involvement age group 60-74 years elderly people according to their capacity, skill, knowledge and interest (2062/63 onwards).

B) Social Security

i. Senior citizens consultation service center shall be established in various places to hear grievances of distressed and neglected elderly and make proper suggestions for promoting security system based on family (2062/63 onwards).

ii. Rehabilitation and reunion service shall be provided to internally displaced senior citizens and those in emergencies (X plan onwards).

iii. Old age homes shall be established, improved and run in five development regions (2062 onwards, continuously)

iv. Day care centers will be established and run (continuity to established organizations)

v. Home service shall be provided to very poor, very old, and disabled senior citizens in health and other basic services (2064/65 onwards, continuously)

vi. Free legal advice/help and consultation services shall be provided to poor and needy senior citizens for their economic, social security and dignity (2063 onwards)

vii. Senior Citizen Welfare Fund will be established/run/improved for the social security of the elderly people (During X plan period)

viii. Non governmental and private organizations shall be encouraged to establish and operate the paid elderly homes (From 2065 till XI plan period)

ix. Inter generational understanding shall be promoted (2062 onwards, continuously)

x. Audio visual materials shall be produced and seminars conducted to develop positive attitude towards the elderly (2062 onwards, continuously)

xi. Seats shall be reserved and exemptions in charges shall be given to the elderly in the means of transport and communication (2062/63 onwards, continuously)

C) Health Services and Nutrition

i. Arrangement for concessional medical treatment for elderly shall be made n governmental and private hospitals and health centers (From 2062/63 to X plan period.

ii. A study shall be conducted and a report produced on the health condition and nutritional status of the senior citizens (From 2062/63, within one year)

iii. Geriatric wards shall be established and run along with trained health professionals/manpower in central/regional/zonal hospitals (From 2062/63 to X plan period)

iv. Awareness programs shall be conducted to develop a healthy state via preventive measures and healthy behavior in senior citizens (2062/63 onwards, continuously)

v. Free clinics and health camps shall be organized for the elderly (2062/63 onwards, continuously)

vi. Health related materials shall be freely distributed among the elderly (2062 onwards, continuously)

vii. Training shall be provided to elderly care takers in elderly homes/day care centers (2062 onwards, continuously)

viii. Concept of health insurance system shall be developed and family health insurance system shall be promoted (2063 onwards, continuously)

ix. A study on elderly female special health and nutritional status shall be conducted and health services shall also be provided (2063 onwards, continuously served)

D) Participation and Engagement

i. Coordination and monitoring committee to coordinate programs relating to the elderly in central and district level shall be established. (2062 till 2063)

ii. Senior citizens shall be engaged in local community development activities (2063 onwards, continuously)

iii. An arrangement shall be made in the service in which the elderly retired from the service because of the age so that they can remain in the same service up to the involvement age if they desire so (2064 onwards)

iv. Supervision and monitoring will be regularly conducted to coordinate and improve the work efficiency among the institutions working on senior citizens (2062 onwards, continuously)

v. Existing practice of working for many consecutive hours a day in the employment and service sectors shall be made suitable for the elderly by making the time division gradually flexible

vi. A study shall be conducted on the possible areas of transferring the elderly skills

vii. The information and the data on elderly skill, capacity, and expertise shall be collected, updated and shared (2064 onwards, continuously)

viii. The income generating activities according to their skills and interests shall be promoted in the elderly homes/day care centers (2062/63 onwards, continuously)

E) Educational and Entertainment Aspects

i. Organizations or stakeholders shall be motivated to provide entertainment and other special exemptions/discounts to senior citizens (2062/63 onwards).

ii. The established senior citizen clubs shall be used for advocacy in favor of the elderly people along with entertainment, place of speech delivery and study (2062/63 onwards).

iii. Activities like training and seminars shall be conducted to prepare for retirement age, old age, rights for the elderly and development (2062/63 onwards).

iv. Gerontology subject contents shall be introduced in higher education and university (2062/63 onwards).

v. Elderly care, respect, honor, freedom, participation contents shall be included in school curricula and elderly volunteer service programs shall also be developed and extended.

F) Legislation enactment

i. Act, regulation relating to the right and interest of the senior citizen shall be studied and amended (During 2063/64)

ii. Legislation shall be enacted to replace the existing system of imprisonment with parole and probation system for elderly of the secured group (2063/64 onwards, continuously)

G) Miscellaneous

i. Data-base of the elderly people with outstanding achievements in different fields of life shall be compiled, updated and communicated (2063 onwards, continuously)

ii. Consideration shall be given to percentage of aging population while formulating a long term plan in every sector (2063/64 onwards, continuously)

iii. National programs shall be proposed regarding senior citizens for international aid (During X plan period)

iv. The organizations, institutions or stake holders working on senior citizens shall be rewarded on their performance (2062 onwards, continuously)

v. The implementation status of the senior citizen National work plan shall be evaluated (2063 onwards every year).

vi. Senior citizen related programs shall be included while formulating local level annual work plans (2063 onwards, continuously)

vii. Community awareness programs shall be conducted by organizations, politicians, lawyers, professors, civil servants, journalists and others regarding the care, security, respect, rights, etc. of the elderly (2063 onwards, continuously)

viii. Easy access shall be provided for elderly to public places, buildings, transportation and other physical environment (2063 onwards, continuously)

ix. Information network system regarding elderly shall be established at governmental and non-governmental level.

x. Governmental and non-governmental associations and institutions providing special exemptions in health care, transportation, recreation and in other fields shall be motivated (During X and XI plan period)

xi. The capacity of the governmental and non-governmental associations, institutions and stake holders related to the elderly shall be built up (2062/63 onwards)

The major implementing agencies are Ministry of women, children and social welfare; local development; finance; health and population; home; information and communication;

education and sports; labor and transportation; culture, tourism and civil aviation; physical planning and construction; justice, law and parliament. However, the rules and regulations have not yet been implemented for "Jeshtha Nagarik Sambandhi Ain, 2063".

9.9 Characteristics of older Population

- The major causes of disability and health problems in old age are non-communicable diseases including the "four giants of geriatrics," namely: memory loss, urinary incontinence, depression and falls or immobility, as well as some communicable diseases and injuries.
- Increasing life expectancy raises the question of whether longer life spans result in more years of life in good health, or whether it is associated with increased morbidity and more years spent in prolonged disability and dependency
- As population age, health expenditures tend to grow rapidly since older persons usually require more health care in general and demand for more specialized services to deal with their more complex pathologies.
- The world's crude death rate, the ratio of annual total deaths to the total population, is increasing because population aging shifts the age distribution towards the older ages, which are subject to higher risk of mortality.
- Deaths will increasingly be concentrated at older age.
- Non -communicable diseases are the main causes of disability and death among older persons. The disability-adjusted life years (DALY) measure the burden of disease, injury and death in a given population. DALYs are calculated as the sum of the years of life lost (YLL) due to premature death and the years lost due to disability (YLD) resulting from disease or injury.
- Population aging could drive increase in health expenditure and many older persons in developing countries still need to work to finance their consumption.
- In most countries, older persons are net giver of familial support.
- Assets are a major source of old-age support in countries with limited public transfer system.

Sources: United Nations Department of Economic and Social Affairs I Population Division

9.10 Challenges of aging population

Health and Older People: Health economists argue that as individuals grow older, the overall stock of health begins to depreciate and thus, there is a direct relationship between age and demand for medical care. However, this concept is not taken seriously by policy makers.

Improvement of health and modern technology has contributed to increase the life expectancy of Nepalese people but has also increased the financial burden to an individual as well as community due to higher cost of treatment for elderly people. It is thus a challenge to bring efficiency in medical cost of aging people. As older population grows, the people with functional capacity will decrease due to different diseases like Alzheimer's and Dementia.

The growth of the older segments of the population will lead to a reduction in the size of the workforce and a simultaneous growth in the percentage of the population over retirement age.

Mindset of Younger Population: Younger people are much more interested to work in formal sectors rather than informal or agricultural sectors. The rural to urban migration and international migration is increasing with expectation of high remittance and better education. This has created a gap in the agricultural sector of the nation. The elderly are unable to manage their land and household activities. As a result, agriculture production is decreasing day by day and questioning the food security and nutrition status in Nepal. Various surveys show that people below poverty line is decreasing but characterized by greater spatial inequalities, poverty, stagnant economy, illiteracy and poor health status.

Bridging the gap between senior citizens and younger generation: Dispersal of family members, leading to breakdown of joint/extended family and migration to foreign lands from the country, has led to difficulty in caretaking of the elderly population. It is very important that the elderly should not be deprived of their independence, their sense of responsibility, their personality and happiness. Any breakdown of these basic components can affect their mental health, which in turn can reduce their physical and psychological activity, leading to rapid health deterioration and untimely death. Skill transfer programs and intergenerational activities might solve the problem but these are yet to be achieved.

Utilization of elderly experience in productive sectors: Elderly people are pride of the nation. They are considered as living history and property of the nation. They are rich in experience, knowledge and skills that can be useful for the younger generation for continuity of the traditional skills. Utilizing their expertise and and experience in productive sectors has remained a challenge for decades.

Establishment of Geriatric ward: The periodical plan of Nepal has conceptualized to establishment of geriatric ward in Nepal. The term geriatric refers a medical specialty concerned with the physiology, psychology and pathologic change s of the individual in later maturity and includes study and treatment of health problems of his age group. In the absence of knowledge it is being challenging issue in Nepal.

> *Dominant theories of gerontology suggest that the status of the elderly people is high in agricultural communities and societies where extended family system touches on the rudiments of aging, and the elderly status begins to decline with modernization (Cogso Will, 1986).*
>
> *The elderly remain as an inseparable part of the society and therefore their needs, problems and prospects require a holistic solution and not a fragmented approach. The most important concern is how best to provide economic and social security and support for the elderly.*

Conclusion

The aging population should be perceived as an accomplishment rather than burden. The elderly people have long experience and remain as an inseparable part of the society and therefore their needs, problems and prospects require a holistic solution and not a fragmented approach. However, changing Nepalese life style from traditional ways to western ways may pose serious problem of aging in Nepal in decades to come. Therefore there is an urgent need to make precise, concrete plan and policy to change the attitude of family members, policy makers, planners, and professional in the community towards elderly people. Older population management lurks as an emergency for mankind in a few years, if not today.

CHAPTER X

POVERTY IN NEPAL

10.1 Introduction

Poverty can be defined in a number of ways. The most common is the cost-of basic-needs (CBN) approach, in which poverty lines are calculated to represent the level of per capita expenditure required to meet the basic needs of the members of a household, including an allowance for non-food consumption. First, a food poverty line is established, being the amount necessary to meet basic food requirements. Then a non-food allowance is added, an amount equal to the typical non-food expenditure of households whose food expenditure is equal to the food poverty line. Because prices vary among geographical areas, poverty lines can be calculated separately for different regions for which price information is available. Alternatively, as done in case of Nepal, household per capita expenditure can be adjusted using regional price indices to give real per capita expenditure, in which case a single poverty line can be applied across the country. For Nepal, this amount has been calculated as 7696 Rupees per year, in average 2003 Nepalese Rupees. Thus in the CBN approach, poverty measures are functions of household per capita expenditure.

> *Sociologists distinguish between relative and absolute poverty. Absolute poverty occurs when people fail to receive sufficient resources, to support a minimum of physical health, and efficiency often express in terms calories or nutritional levels. Relative poverty is defined by the general standards of living in different societies and what is culturally defined as poor rather than some absolute level of deprivation.*
> *- The Penguin Dictionary*

According to Pokharel, J.C (2012), in the broadest sense, the word poverty implies that something is lacking or inferior .When it is used in the policy realm, it can take on several different meanings and we can say that:

i. The poor are those who do not own resources.
ii. Poverty is a result of a set of complex deprivations where potentials are curbed by scarcity, hunger, disease, unemployment, suffering, voiceless and powerlessness.
iii. Poverty is unequally distributed between individuals, groups, of people and geographies.

Poverty incidence for a given area is defined as the proportion of individuals living in that area who are in households with an average per capita expenditure below the poverty line. *Poverty gap* is the average distance below the poverty line, being zero for those individuals above the line. It estimates how far below the poverty line the poor are on average as a proportion of that line. It thus represents the resources needed to bring all poor individuals up to a basic level.

Poverty severity measures the average squared distance below the line, thereby giving more weight to the very poor. The squared poverty gap takes into account not only the distance separating the poor from the poverty line, but also inequality among the poor, thereby giving more weight to the poorest people than the less poor.

10.2 Population and Poverty

Population trends and dynamics can have an enormous effect on prospects for poverty reduction and sustainable development. Poverty is influenced by – and influences – population dynamics, including population growth, age structure, and rural-urban distribution. All of this has a critical impact on a country's development prospects and prospects for raising living standards for the poor. Investments in better health, including reproductive health, are essential for individual security and for reducing mortality and morbidity, which in turn improve a country's productivity and development prospects.

Poverty is complex phenomenon and its incidence is determine by various factors like level of per capita income, distribution of assets and income, quality of governance , policies and institutions related to education , health , drinking water, environment and other aspects of development. High population pressure contribute to low per capita income, is considered one of the major cause of poverty in many developing countries. With a fixed amount of land and other limited resources, it becomes difficult to fulfill the trends basic needs along with unlimited wants of large growing population. Though, TFR and population growth rate are declining trends due to the higher proportionate of adolescent and youth; population growth momentum could be normal for additional years for less developing countries.

Improvements in education and health are closely linked to demographic modernization. Caldwell's (1986) analysis of low -mortality "outliers" among poor countries argues the mortality the mortality case; the fertility relationship is attested by numerous quantitative studies. Significantly, education and health care precisely the sectors where government action, properly designed, can also most readily serve redistributive ends. High technology in education and hospitals can consume large amount of resources but reach few in the population and rise rather than economic inequality. Thus need to focus to redistribution of resources among various castes/ethnicity and geographical regions.

10.3 Measurement of Poverty

*A) **The Nepal Living Standards Surveys (NLSSs)*** conducted in 1995/96, 2003/04 and 2010/11 by Central Bureau of Statistics (CBS) are the major source of poverty data in Nepal. The NLSS follows the methodology of the World Bank's Living Standard Measurement Survey. It contains an integrated household questionnaire designed to collect data at both the household- and individual-level on socio-demographic characteristics in addition to detailed information about expenditure and food consumption patterns.

The Third Nepal Living Standard Survey conducted in FY 2010/11 had calculated the population living below the poverty line on the basis of household expenses. Factors like rise

in literacy rate, rise in the wage rate in agriculture and non-agriculture sectors, development of commercial vegetable farming, growing urbanization, growth in number of economically active human resource, and inflow of remittance have been the major attributes in the decline of poverty level by 17 percent in a span of 14 years from FY 1996/97. 7.3 While estimating incidence of poverty by using interrelationship between the poverty and Gross National Disposable Income method in the period prior to conducting poverty survey, the poverty incidence stood at 24.4 percent in FY 2011/12 while it is estimated at 23.8 percent FY 2012/13.

B) Nepal Demography and Health Survey: Food security refers to the availability of food and one's access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation (Hunt, 2009). In 1996, the World Food Summit defined food security as "the situation when all people at all times have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (Food and Agriculture Organization of the United Nations, 2002). Common to most definitions of food security are the elements of availability, access (physical and economic), utilization, and stability or sustainability. Food insecurity is rooted in poverty and leads to poor health, low productivity, low income, food shortage, and hunger (Khanal and Dahal, 2010 as cited NDHS, 2011).

The series of questions on food insecurity included in the 2011 NDHS was adopted from the Household Food Insecurity Access Scale indicators developed in USAID's Food and Nutrition Technical Assistance (FANTA) project. However, the questions were modified to be specific to Nepal, with seven of the nine generic questions included and the reference period for assessment extended to 12 months from one month to allow for seasonal variations. The food insecurity scale designed from this methodology provides information on a household's "access" to food, one of the three components of food insecurity— *Availability, Access* and *Utilization.* Household were categorized food secure, mildly food insecure, moderately and severely food insecure households. The study found that 49 percent of households in Nepal are food secure and have access to food year round. Twelve percent of households are mildly food insecure, 23 percent are moderately food insecure, and 16 percent are severely food insecure.

National Population Census usually asks about the house structure with wall, roof and other assets in the household such as television, radio, electricity, sources of drinking water etc. This information is collected to access the poverty structure of the household and living standards of households. The figure may be applicable to estimate poor people throughout the country.

10.4 Nepal in Global Poverty Map

By virtue Nepal belongs to least developed region with high poverty, persistent inequality and deprivation from basic facilities of health, education and economy. Despite the progress Nepal has made in recent days, the stories of poverty and deprivation are still popular and remain popular for other several decades. In Asian context, many countries have comparable

status with Nepal. Except Sri Lanka in the region, around a quarter of population are below poverty line with some countries having higher proportion (Figure 23).
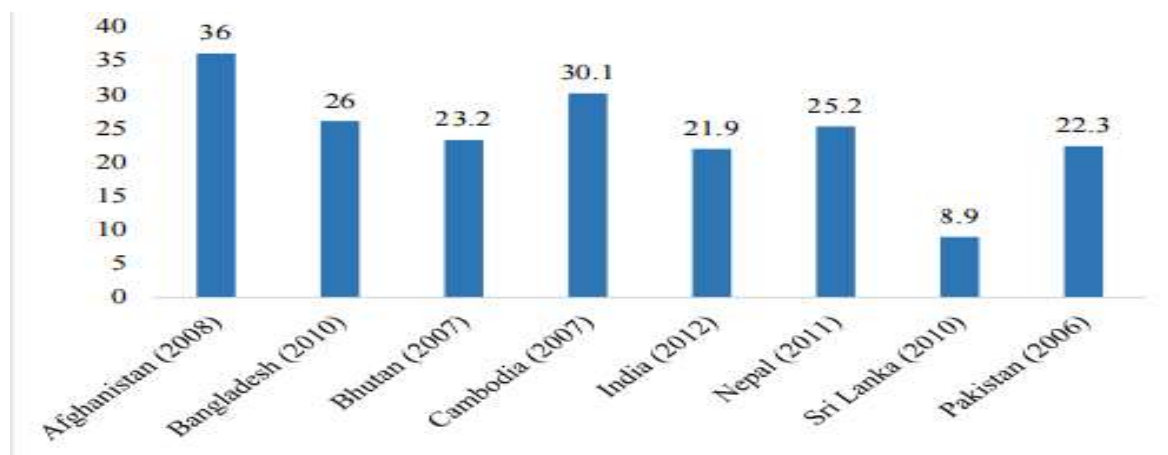
Source: World Bank, 2013

In the region, Afghanistan and Cambodia have higher proportion of population living below the poverty line while other Bangladesh. Bhutan, India, Nepal and Pakistan have similar level of poverty. But the decline may be faster for Bhutan because of recent economic development. Despite having appraising economic growth India and Bangladesh may have to struggle for long time because of large population based and persistent inequality among the population. Although some analyses show that 1 percent investment of GDP in social sector may reduce poverty rate by 0.5 percent in India (Anand, Tulin, & Kumar, 2014) reduction in poverty is influenced by ability of government to ensure the public invest to the poor households.

10.5 Poverty Alleviation Activities

Poverty Alleviation Fund (PAF) is established under PAF Ordinance 2060 (2003) and now it is working under PAF Act 2063 (2006). The purpose and an overriding mission of PAF is to reduce extreme forms of poverty by working under the approaches of demand driven program, direct community funding, community cost sharing as per the guiding principles of targeted to pro-poor, social inclusion, demand drive, direct funding and transparency. The goal of PAF is to reduce the poverty at 10 percent up to FY 2016/17. PAF I was implemented from 2004 to 2009 in 25 districts (6+19). Similarly PAF II is an ongoing from 2008 to 2014, after revision of the project with coverage of a million households in 75 districts with estimated cost of US$109 million; US$100 million by WB and US$9 million by the Government of Nepal.

The fund, as per its 5 guiding principles: *Antodaya*; Social inclusiveness , transparency, demand based ;and direct fund flow to the community ;has been implementing community demand based program in active participation of ultra -poor and backward communities.

program have been conducted by forming community based organizations and institutionalizing them involving targeted poor communities to plan and implement programs and projects on their own in their active participation. The fund has been working in collaboration with the local bodies; NGO, Community organizations and private sector to provide facilities and cooperate in social mobilization works as required. .

Youth and Small Entrepreneur Self-Employment Fund, Employment, Foreign employment, Karnali Employment Program, Western Upland Alleviation Project, Connecting Local Initiatives with Local skills Program and Nepal Food Security Program are other activities of poverty.

10.6 How many are the poor?

Data from 1995-96, 2003-04 and 2010/11 Nepal Living Standards Surveys (NLSS-I, II and III) have provided estimates of poverty incidence in Nepal and their trends during 15 years between these three surveys. Headcount rates suggest that poverty has dramatically declined in Nepal between 1995-96 and 2010-11 (Table 68). In 2010-11, 25 percent of population was poor in Nepal, compared to 42 percent in 1995-96 and 31 percent in 2003-04.

Poverty in Nepal over all has declined by about 17 percentages over the course of fifteen years. The incidence of poverty in urban areas was more than halved during 1995/96-2003/04 (it declined from 22 to 10 percent) however it has been increased to 15 percent in the year 2010/11. Poverty in rural areas has declined appreciably, from 43 percent in 1995/96 to 35 percent in 2003/04 and 27 percent in 2010/11.

Table 68: Nepal 1995-96, 2003-04 and 2010-11, Poverty Measurement

	Headcount rate (P0)			Poverty Gap Index (P1)			Squared Poverty Gap Index (P2)		
	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11
Nepal	41.76	30.85	25.16	11.75	7.55	5.43	4.67	2.7	1.81
Urban	21.55	9.55	15.46	6.54	2.18	3.19	2.65	0.71	1.01
Rural	43.27	34.62	27.43	12.14	8.5	5.96	4.83	3.05	2.00

Trends of poverty gap and squared poverty gap observed with the headcount rates show an even faster decline (in percent terms). Both measures confirm that the incidence of urban poverty remained lower than that of rural poverty through-out the eight-year period; they also suggest that urban areas experienced greater reductions than rural areas in the depth and severity of poverty. The incidence of poverty in 2010-11 varied considerably across different parts of the country, ranging from a low of 8.7 percent in urban hill to 42.2 percent in mountain region and 36.8 percent in rural mid and far western hills. Table 69 shows that urban Hill is the least poor region with a poverty incidence of 9 percent. The depth and severity is also the lowest for this region. Within urban areas, poverty ranges from 9 percent in urban Hills to 22 percent in urban Terai. Within rural hills, poverty ranges from 16 percent in Eastern region to 37 percent in mid and Far Western region. Within rural Terai, poverty

ranges from 21 percent in Eastern region to 31 percent in mid and Far Western region. Within each of the development region except the Eastern, hills have higher poverty rates than Terai. The depth and severity of poverty is highest in rural hills of Western and Mid-Far- Western region.

Table 69: Poverty by analytical domains

	Incidence			Distribution	
Region	Head count rate	Poverty gap	*Poverty gap squared*	*Of the poor*	*Of the population*
Place of Residence					
Urban	15.46	3.19	1.01	11.7	19.0
Rural	27.43	5.96	2.00	88.3	81.0
NLSS regions					
Mountains	42.27	10.14	3.54	11.8	7.0
Kathmandu	11.47	2.77	1.00	2.6	5.7
Urban hill	8.72	1.75	0.54	1.5	4.4
Urban Terai	22.04	4.31	1.29	7.5	8.6
Rural hills-Eastern	15.93	2.91	0.82	4.0	6.3
Rural hills-Central	29.37	8.52	3.70	10.8	9.3
Rural hills-Western	28.01	5.31	1.75	10.5	9.5
Rural hills-Mid and Far Western	36.83	8.89	3.13	13.3	9.1
Rural Terai-Eastern	20.97	3.67	0.91	9.6	11.6
Rural Terai-Central	23.13	4.14	1.08	13.9	15.1
Rural Terai-Western	22.31	4.40	1.35	5.9	6.6
Rural Terai-Mid and Far Western	31.09	7.17	2.47	8.5	6.9
Development regions					
Eastern	21.44	3.81	1.01	19.8	23.3
Central	21.69	4.96	1.76	30.8	35.7
Western	22.25	4.27	1.38	16.9	19.2
Mid-western	31.68	7.74	2.69	16.4	13.0
Far-western	45.61	10.74	3.77	16.0	8.8
Ecological belts					
Mountain	42.27	10.14	3.57	11.8	7.0

Hill	24.32	5.69	2.09	42.8	44.2
Terai	23.44	4.52	1.31	45.4	48.7
Nepal	25.16	5.43	2.47	8.5	6.9

Source: Nepal CBS, 2014

Table 69 also shows that poverty rates declined across all development regions. At around 21-22 percent, the Eastern, Central and Western regions continued to have a poverty incidence below the national average in 2010-11, while the Mid- and Far-Western regions continued to be above the average (32 and 46 percent, respectively). In terms of poverty incidence across the belts of Nepal, the Terai belt has the lowest poverty rate at 23 percent, compared with 42 percent in the Mountains and 24 percent in the Hills.

Table 70: Poverty head count rate by regions

	Poverty Head count Rate		
	1995-96	**2003-04**	*2010-11*
Place of Residence			
Urban	21.6	9.6	15.46
Rural	43.3	34.6	27.43
Development regions			
Eastern	38.9	29.3	21.44
Central	32.5	27.1	21.69
Western	38.6	27.1	22.25
Mid-western	59.9	44.8	31.68
Far-western	63.9	41.0	45.61
Ecological belts			
Mountain	57.0	32.6	42.27
Hill	40.7	34.5	24.32
Terai	40.3	27.6	23.44
Nepal	41.8	30.8	25.16

Source: Nepal CBS, 2014

10.7 Who are the poor?

A poverty profile describes who the poor are by indicating the probability of being poor according to various characteristics, such as the sector of employment and the level of education of the household head, the demographic composition of a household (i.e.,

household size, number of children, caste-ethnic status), and the amount of land a household possesses.

Table 71: Employment Sector of the Household Head

	Poverty Head count Rate			Distribution of the Poor			Distribution of Population		
	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11
	(A)			(B)			(C)		
Self-employed in									
Agriculture	43.1	32.9	27.23	60.7	66.9	55.2	58.8	62.7	51.0
Manufacturing	41.4	31.2	22.44	3.4	4.5	3.8	3.4	4.4	4.2
Trade	32.2	11.1	13.21	4.3	1.6	4.1	5.6	4.5	7.9
Services	25.3	14.4	19.63	1	1.5	2.0	1.6	3.2	2.6
Wage earner in									
Agriculture	55.9	53.8	47.03	15.7	10.9	6.3	11.7	6.2	3.4
Professional	8.3	2.1	5.55	0.4	0.2	0.7	2.2	2.9	3.3
Other	39.7	28.8	28.25	10.6	10	16.2	11.1	10.7	14.5
Extended economic activity			31.55			5.9			4.7
Unemployed	9.5	2.9	26.65	0.1	0	0.4	0.3	0.2	0.4
Non-active	30.5	26.9	*16.63*	3.9	4.4	*5.3*	5.3	5.1	*8.0*
Total	41.8	30.8	*25.16*	100	100	100	100	O	100

Source: Nepal CBS, 2014

Households headed by agricultural wage laborers are the poorest in Nepal. In 1995-96 the incidence of poverty among this group was almost 56 percent and it declined only slightly to 54 percent in 2003-04 and 47 percent in 2010-11. As a share of the national population this group is small and in decline. Comprising 12 percent of the population and 16 percent of the poor in 1995-96, in 2003-04 this group made up 6 percent of the total population and 11 percent of all poor and in 2010-11, this group comprises 3 percent of the population and 6 percent of the poor.

The second poorest group in Nepal is made up of those who live in households headed by self-employed in agriculture. Unlike agricultural wage households, this group experienced a substantial decline in poverty from 43 to 27 percent between 1995-96 and 2010-11. This is the most populated employment sector category with 67 percent of all poor in 2003-04 and

55 percent of all poor in 2010-11 falling to this category. This group holds 51 percent of the population in 2010-11.

Households whose heads' main occupation is in trade and services experienced a dramatic decline in poverty between 1995-96 and 2003-04, and had a relatively low incidence of poverty (11 and 14 percent, respectively) in 2003-04. However in 2010-11, the poverty in these sectors of employment has slightly increased in comparison to 2003-04. Households headed by professional wage earners comprise categories with the lowest poverty incidence (5.5 in 2010-11). Similarly, households headed by those who are out of the labor force are less poor on average than those in all other employment categories, indicating that both the unemployed and the inactive can afford to stay in these states because they are more likely than the others to have other sources of income.

10.8 Education of the household head

Differences in educational attainment of heads of households are reflected in dramatically different poverty rates. Households with illiterate heads had a 42 percent poverty rate in 2003-04 and 33 percent in 2010-11, which are the highest rates among all education groups. The poverty rate progressively declines as the level of education attainment by a household head increases. Having attended primary school brings down the probability of being in poverty to 27 percent; having attended secondary school brings it down to 12 percent; and having attended higher secondary school brings it down to 7.1 percent in 2010-11.

Table 72: Poverty Measurement by Education Level of the Household Head

	Poverty Head count Rate			Distribution of the Poor			Distribution of Population		
	1995 96	2003-04	*2010-11*	1995-96	2003-04	*2010-11*	1995-96	2003-04	*2010-11*
	(A)			(B)			(C)		
Illiterate	50.9	42	33.48	72.9	70.9	64.9	59.8	52.1	48.8
5 or less years of schooling	35.7	28.2	26.97	15.1	16.8	15.8	17.7	18.4	14.7
6-7 years	28.5	23.3	19.53	6.7	8.1	10.2	9.8	10.7	13.1
8 -10 years	19.8	8.4	12.86	4.5	3.9	5.6	9.6	14.5	11.0
11+ years	11.4	1.6	7.11	0.9	0.2	3.5	3.2	4.3	12.4
Total	41.8	30.8	25.16	100	100	100	100	100	100

Table 72 shows the poverty rates by education level of the household head. Poverty is substantially lower for higher levels of head's education. Households with an illiterate head are more than 4.5 times more likely to be poor than households with a head that has completed 11 or higher. Importantly, education attainments increased in the general

population and the proportion of the population living in households with illiterate heads declined from 60 percent in 1995-96 to 52 percent in 2003-04 and to 49 percent in 2010-11.

10.9 Demographics

There is little difference in the headcount poverty rate related to the age of the household head, a pattern constant across years. There are large differences, however, between male- and female-headed households. While in 1995-96 households headed by females represented 9 percent of the population and had a poverty rate of 42 percent (equal to the Nepal average), in 2003-04 the proportion of the population residing in female-headed households increased to 14 percent of the population and the poverty rate among these households declined to 24 percent (below the Nepal average). Similarly, in 2010-11, the population living in female headed household increased to 27 percent and poverty rate among these households decreased to 23.7 percent points (Table 73) A tentative explanation for this pattern is that households headed by females tend to have a main breadwinner working elsewhere who supports the household by sending remittances. Here an important point to be noted is that from 2003-04 to 2010-11 survey, even though the percent of female headed households had been doubled, there was not improvement in reduction of poverty in this period.

Table 73: Poverty Measurement by Household Head's Age and Sex

	Poverty Head count Rate			Distribution of the Poor			Distribution of Population		
	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11
	(A)			(B)			(C)		
Male 25 year or younger	40.5	32.5	24.49	5	3.5	1.9	5.1	3.3	1.9
Male 26-45 years old	43.8	32.5	27.30	41.5	37.9	35.7	39.6	35.9	32.9
Male 46 years and older	40.2	31.6	24.29	45	47.6	42.6	46.7	46.4	44.2
Female-headed	41.6	23.8	23.69	8.5	11.1	19.8	8.5	14.4	21.0
Total	41.8	30.8	25.16	100	100	100	100	100	100

Both an increase in the number of small children and an increase in the number of household members are related to an increase in the poverty headcount rate (Table 74). The higher level of poverty headcount in larger households or households with more children is, at least in part, related to the fact that the definition of poverty line for Nepal does not incorporate

economies of scale. However, the pattern of slower-than- average poverty reduction rate among households with 2 or more small children or 6 or more family members may attest to structural factors that prevent these households from escaping poverty.

The proportion of the population living in households with 7 or more members has declined from almost 50 in 1995-96 to 37 percent in 2010-11 (Table 74). Given that these households have the highest incidence of poverty of all households both in 1995-96 and 2010-11; this development may have contributed to the overall poverty decline.

Table 74: Poverty Measurement by Demographic Composition

	Poverty Head count Rate			Distribution of the Poor			Distribution of Population		
	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11
	(A)			(B)			(C)		
Number of children 0-6 year old									
0	23.5	13.7	12.31	14.9	14.8	20.4	26.5	33.3	41.8
1	39.9	29.3	25.21	23.8	26.2	29.1	24.9	27.7	29.0
2	49.4	41.6	41.48	32.6	31.6	29.8	27.5	23.4	18.1
3 or more	56.9	54	46.64	28.8	27.4	20.07	21.1	15.6	11.2
Total				100	100	100	100	100	100
Household size									
1	7.7	7.2	3.28	0.1	0.1	0.1	0.5	0.6	0.7
2	14.5	11	7.40	0.8	1.1	1.3	2.3	3	4.4
3	22.9	11.7	7.48	3	2.6	2.8	5.6	6.9	9.4
4	28.1	19.3	12.76	7.1	8.5	8.4	10.5	13.7	16.5
5	35.9	24.9	21.10	13.5	14.5	15.6	15.7	18	18.6
6	43.8	33.5	32.39	17.6	19.6	22.5	16.8	18	17.5
7 or more	49.7	41.4	37.59	57.9	53.6	49.4	48.6	39.9	33.0
Total	41.8	30.8	25.16	100	100	100	100	100	100

10.10 Caste and Ethnicity

Poverty rates in 2010-11- were highest among Hill and Terai Dalits (44 and 38 percent respectively) followed by Middle Terai Castes (29 percent) and Hill Janjatis (28 percent), Table 10.8. The 2010-11 NLSS analyzed poverty rates with disaggregation of Hill and Terai Upper Castes and Dalits which is presented in table 10.8. While the poverty rate among the Terai Janajati was comparable with that of these two groups in 1995-96, it declined to 26 percent in 2010-11- from 53 percent in 1995-96. The poverty rate among the Muslim population declined only slightly, from 44 to 41 percent between 1995-96 and 2003-04 however it is decreased to 20 percent in 2010-11 with remarkable progress in reduction of poverty.

In terms of the distribution of the poor, the Hill Janajati represents a single group with the highest concentration of the poor in 2010-11.Upper Caste (Hill-Terai) households had the third lowest incidence of poverty in 1995-96.. After experiencing the most substantial decline in poverty of all considered groups they became the group with the second lowest poverty rate in 2003-04 and in 2010-11 as well. Overall, 3 caste and ethnic groups - Upper Caste, Muslims, and Newars - have poverty rates below the average in 2010-11.

Table 75: Poverty Measurement by Caste and Ethnicity of the Household Head

	Poverty Head count Rate			Distribution of the Poor			Distribution of Population		
	1995 96	2003-04	2010-11	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11
	(A)			(B)			(C)		
Upper Caste (Hill- Terai)	34.1	18.4	-	26.7	15.7	22.2	32.7	26.3	31
Hill Brahman			10.34			5.2			12.7
Hill chhetri			23.40			16.6			17.8
Terai Brahman			18.61			0.4			0.5
Middle C. Terai	28.7	21.3	28.69	2.9	1.9	17.6	4.2	2.8	15.4
Dalits (Hill-Terai)	57.8	45.5		10.6	10.9	22.1	7.7	7.4	13.3
Hill Dalit			43.63			15.2			8.7
Terai Dalit			38.16			6.9			4.6
Newar	19.3	14	10.25	2.5	3.4	2.5	5.5	7.5	6.2

	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11
Hill Janajati	48.7	44	28.25	19.7	27.8	24.4	16.9	19.5	21.8
Terai Janajati	53.4	35.4	25.93	10.4	9.2	7.3	8.2	8.1	7.1
Muslims	43.7	41.3	20.18	5.7	8.7	3.5	5.4	6.5	4.3
Other	46.1	31.3	12.34	21.4	22.3	0.5	19.4	21.9	0.9
Total	41.8	30.8	25.16	100	100	100	100	100	100

10.11 Land ownership

Land ownership reduces the probability of being poor, a pattern constant across years. Incidence of poverty among households who own no land or own 0.2 ha or less of land is high and is roughly similar to that of households who own 0.2 to 1 ha in 2010-11. Poverty headcount rate had declined more for households with larger landholdings, as compared to the ones with the smaller ones. In addition, the proportion of households with smaller landholdings had increased over time, while the proportion of households with large (2 or more hectares of land) has declined substantially (from 16 percent in 1995-96 to 5 percent in 2010-11 of all households, table 76).

Table 76: Poverty Measurement, by Land Ownership (rural areas only)

	Poverty Head count Rate			Distribution of the Poor			Distribution of Population		
	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11	1995-96	2003-04	2010-11
	(A)			(B)			(C)		
No land			22.7			18.9			21
Less than 0.2 ha. of land	47.7	39.3	29.9	22.9	25.2	20.7	20.8	22.2	17
0.2 - 1 ha. of land	45.0	38.1	28.2	43.7	51.2	49.4	42.0	46.5	44
1 - 2 ha. of land	38.8	27.3	19.1	18.7	16.0	9.8	20.9	20.3	13
More than 2 ha. of land	38.9	23.8	6.5	14.6	7.6	1.2	16.3	11.0	5
Total	41.8	30.8	25.2	100	100	100	100	100	100

10.12 Access to Facilities

Table 77 shows that access to services is also an important correlate of poverty. Households that are closer to facilities are less likely to be poor than the national average. Having good access to higher secondary school, public hospital, paved roads, market centers, agricultural center, cooperative and banks have large effects on poverty.

Households within 30 minutes of	Incidence Head count rate	Distribution of the poor	Distribution of the population
Primary School	24.35	91.5	94.5
Secondary School	20.83	58.2	70.3
Higher Secondary School	17.92	39.1	54.9
Health post/Sub health post	22.00	42.9	49.0
Public hospital	15.59	20.1	32.4
Bus stop	19.03	49.1	64.9
Paved road	17.11	33.6	49.4
Vehicle passable dirt road	24.41	62.3	64.2
Haat bazaar	21.04	33.2	39.6
Market Centre	16.29	28.2	43.6
Agriculture centre	15.34	25.4	41.6
Cooperative	16.99	34.5	51.0
Bank	14.71	22.6	38.6
Nepal	25.16		

10.13 Human Development Index Trends

The Human Development Index, of Nepal is increasing in trend. In 1980 it was 0.241 and sharply increased and reached to 0.340 in 1990. Then after it increased gradually and reached 0.458. This is because of the increase in literacy rate, life expectancy and lower infant mortality. This is a good indication of development but on the other hand, according to the HDR, 2009, people below poverty line have declined to 25 % and inequality has increased by doubled and reached 47.3.
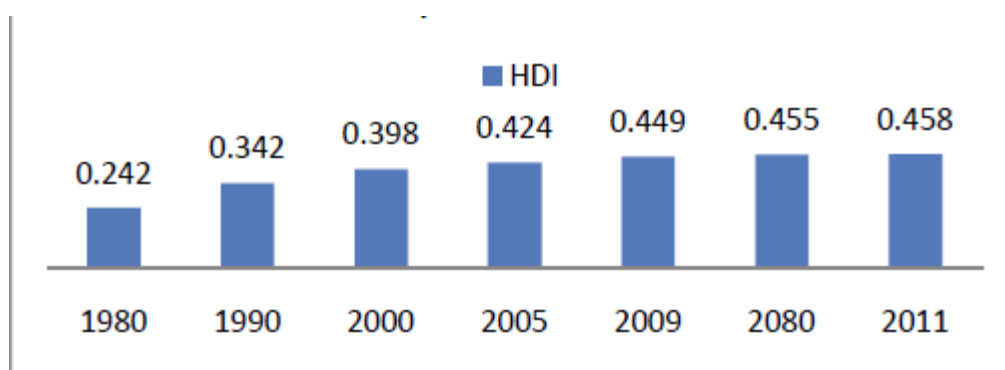
Source: HDR, 2011

10.14 Income Inequality

A very convenient shorthand summary measure of the relative degree of income inequality in a country can be obtained by calculating the ratio of the "area" between the diagonal and the Lorenz curve divided by the total area of the half -square in which curves lies.

Table 78: Gini Coefficient

|	NLSS 1	NLSS11	NLSS111
	1994/95	2003/04	2009/10
Nepal	0.34	.41	.33
Urban areas	-43	-44	.35
Rural Areas	.31	.35	.31

Source: Economic Survey 2011/2012

This ratio is known as the "Gini-Concentration Ratio or more simply , the Gini Coefficient after the Italian statistician C. Ginin , who formulated it in 1912, Gini -Coefficient in NLSS-I 1994/95 was 0.34 which was rose to 0.41 in second survey 2003.04. Through FY 2003/04 witnessed some decline in poverty survey 2003/04. Though FY witnessed some decline in poverty, inequality was found to have increased further. However, in third survey 2009/10, has dropped to 0.32, Gini -coefficient in urban area which was measured at 0.43 during first survey increased to 0.44in second survey and fell to 0.33 in third survey. Likewise, Gini Coefficient 0.31 in the first survey rural areas, which was 0.31 in the first survey, rose to 0.35 in the second survey dropping back to 0.31 in the third survey, which can be clearly understood from the following table

10.15 Unambiguous trend decline in poverty over time

A simple comparison of poverty in 2010-11 (25.2 percent) with the estimate in the past for 1995-96 (41.8 percent) and 2003-04 (30.8 percent) shows that Nepal's poverty is in declining trend. The decline is greater if one were to use unchanged poverty lines over the entire period close to 30 percent point decline in the last fifteen years. The progress in poverty reduction is about the same and significant measured in terms of the old and or new (higher) poverty line.

165

Figure 10.3 shows the trend in poverty over the time using the old 1995-96 poverty line approach (lower line in graph) and new 2010-11 poverty line approach (upper line in graph). It should be old and new poverty line approaches are different approaches of poverty measurement. To make valid comparison of poverty over time requires comparable consumption aggregates similarly constructed that are converted to constant prices using price deflator relevant for the poor. The dotted lines in the figure represent the alternative estimates based on such valid comparisons. As clear from the shape of the lines in graph, the trend of poverty over time does not depend on the method used for the analysis. Under either the old or the new poverty line, the poverty headcount ration declined by approximately 30 percent during 15 years.

Figure 25: Poverty Trend in Nepal: 1995-96 to 2010-11
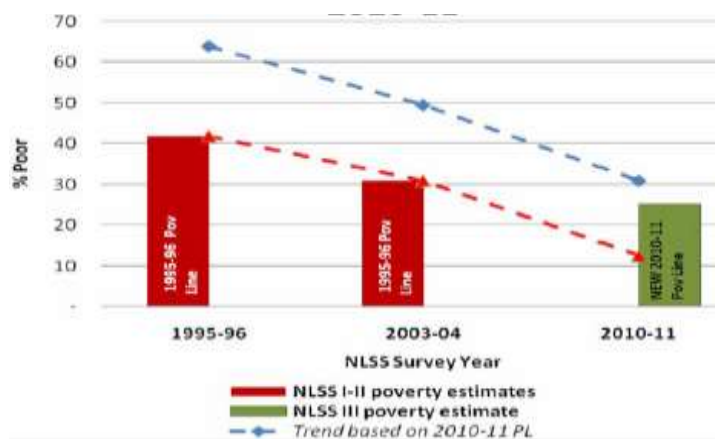
Source: CBS, 2012

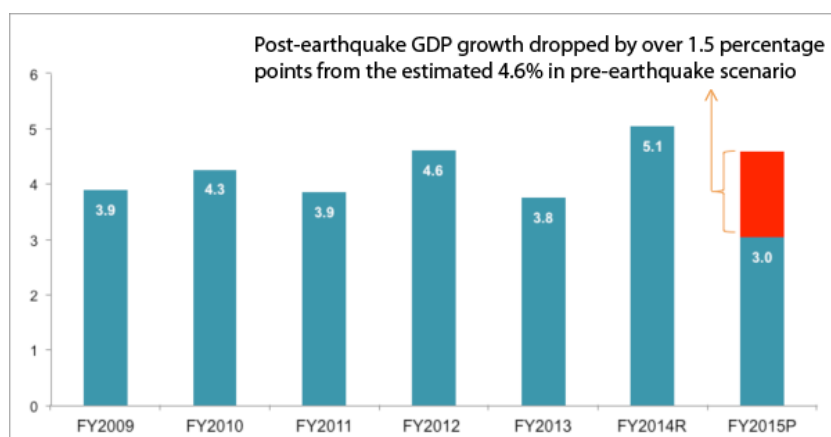## 10.16 Post Earthquake Poverty Impact [34]

After the catastrophic 7.8 magnitude earthquake struck Nepal on 25 April, the government and development partners including ADB had published the definitive report on the tremor's impact. The report was named Post Disaster Needs Assessment, or PDNA.

10.15.1 Impact on GDP growth

The PDNA says the earthquake lowered GDP growth by over 1.5 percentage points from an estimate of 4.6% in a no-earthquake scenario in fiscal year 2015. The earthquake's impact on GDP growth is sizable especially on the services sector, which is now expected to grow by 3.9% compared to 6% in a no-earthquake scenario. Wholesale and retail trade; tourism (including air transport, and hotel and restaurant businesses); real estate, renting and business activities; and education sub-sectors are the most affected.

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[34] Chandan Sapkota, " Final take on economic and poverty impact of Nepal earthquake", https://blogs.adb.org/blog/final-take-economic-and-poverty-impact-nepal-earthquake, July 1, 2015, web. June 30

Post-earthquake GDP growth dropped by over 1.5 percentage points from the estimated 4.6% in pre-earthquake scenario
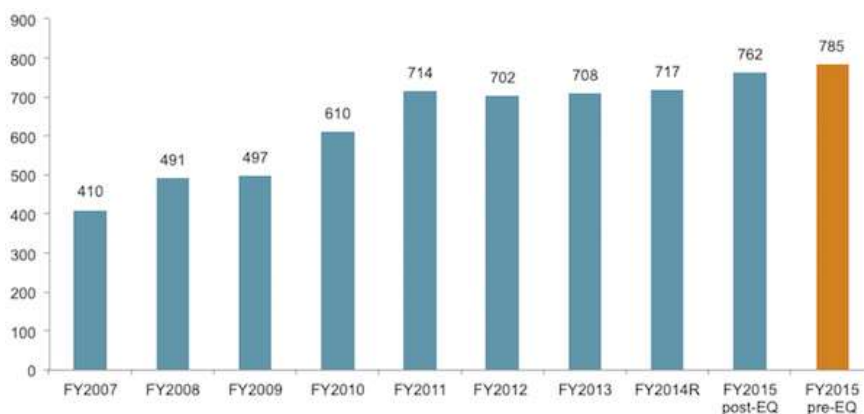
Source: Central Bureau of Statistics.

The slowdown in the industry sector is due to the drastic drop in quarrying, manufacturing and construction. Trade in stones, aggregates, sand and soil extraction has slowed down in affected districts, and the moratorium on construction activity till mid-July 2015 will also affect the sector. In manufacturing, there has been significant physical damage to manufacturing buildings and equipment, there is a labor shortage and also weak demand. Meanwhile, construction has slowed due to the policy to temporarily halt construction activities and the low production of construction materials, among others).

Nepal's GDP is estimated to be $21.6 billion in FY 2015 ($371 million less than what would have been in a no-earthquake scenario). The loss amounts to 1.5% of GDP. About 62% of the total gross value added (GVA) loss is accounted for by the services sector.

10.15.2 Impact on per capita income

The PDNA estimates per capita income will decrease by $23 to $762 in FY2015 compared to the no-earthquake scenario of $785. Real per capita income, which takes inflation into account, is forecast to increase by just 0.6% against 3.6% had there been no earthquake.

Figure 27: Nominal per capita GDP ($)

Source: Central Bureau of Statistics.

10.15.3 Impact on poverty

The report shows that the income shock from the earthquake will likely push an additional 700,000-982,000 people below the poverty line. This translates into an additional 2.5-3.5% of the estimated population in 2015 pushed into poverty on top of the 21% who were estimated to be living below the poverty line. About 50-70% of the additional poor live in the rural central hills and mountains, where the vulnerability prior to the earthquake was already high. The income shock will largely be felt though the loss of income-generating opportunities and livelihoods including death and injuries to primary wage earners and the loss of housing, productive assets like seeds, livestock, and farm equipment, and of durable assets such as assorted household items.

Beyond this monetary-based poverty estimate, a larger impact can be expected when factoring in multidimensional poverty, which includes additional factors such as water and sanitation services, disruption of schools and health services and the possibility of an uptick in food insecurity. The poor and vulnerable are particularly dependent on local infrastructure such as roads, bridges, health posts, and schools for access to labor and commodity markets, and for accumulation of human capital (especially those of children). Reviving local economic activities and the resumption of basic public services along with an accelerated implementation of reconstruction projects will be critical to make up for the set back on poverty reduction caused by the earthquake.

Conclusion

In fact poverty is declining trends but educational attainment, distribution of income, access to services, by geographical and ethical/ caste point of view; poverty is increasing trends and this need to balance in resources distribution within the country. Nepal's poverty is still high and if special programs of economic development are not done, it will be very difficult to reduce the poverty as planned. Remittance has strong impact to reduce poverty, however Nepal's labor force has gone out causing domestic agriculture production down and this scenario indicates that we may be based on imports for our daily meals which may be the obstacle in our goal to reduce poverty.

CHAPTER XI

WOMEN EMPOWERMENT

11.1 Introduction

Women empowerment is the women's capacity to participate as equal partners as men in all walks of life in the society. To achieve the economic and social transformation of women, several laws, rules and action plans have been promulgated are and programs are being implemented in all 75 districts to promote gender equality and women's empowerment. Some improvements have been observed through initiatives such as equal rights to paternal property, social security and social justice. The GDI increases from 0.312 to 0.512 in the 1990s and female /male disparities have also been reduced.

According to Malhotra ,Anju (2003) various terminology like as "women empowerment"," gender equality" "female autonomy" or women status are referring to similar or different concepts have been used to understand the concept and meaning of women empowerment. Despite the similar concepts underlying many of these terms, the concept of women's empowerment can be distinguished from others by two essential elements.

A definition proposed by Kabeer serves as good reference point for conceptualizing and measuring women's empowerment. It contains both the process and agency elements, and also implicitly distinguishes 'empowerment' from the general concept of 'power,' as exercised by dominant individuals or groups. Kabeer (2001) defines empowerment as 'The expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them.' This definition fits well within the referral to empowerment as "the expansion of freedom of choice and action to shape one's life" in the World Bank's Empowerment Sourcebook.

Women's empowerment has been defined to encompass women having a sense of self-worth, access to opportunities and resources, choices and the ability to exercise them, control over their own lives, and influence over the direction of social change (UnitedNations Population Information Network, 1995).

The ICPD (1994) declared that "advancing gender equality and equity and the empowerment of women and the elimination of all kinds of violence against women, and ensuring women's ability to control their own fertility are corner stone of population and development related programs" (United Nations, 1994). In order to implement the commitments made by the state at the international level, laws, relating to the control of human trafficking and gender violence. However, there are some outstanding problems to deal with, such as the inability to spread women empowerment campaign to the community level, the fact that women are not represented in all organs of the state and gap between targeted program and outputs and outcomes. Moreover, the female member of every household have to work at least twelve to fourteen hours in an average day , seven days a week even when the male members of the

same household lounge around or spend their days in gambling (Bista ,D.B, 1994). Educational and health gains have been distributed very unevenly among various castes and ethnic groups, ecological and development regions, and between urban and rural areas. Particularly, Dalit men and women are at the lowest end of all access indicators, while Bahun/Chhetri and Newar figure at the top. The decade-long armed conflict has aggravated the access problem in both education and health. Some of our social norms and values could be barratries for women empowerment. Therefore it is needed to some practical change in social and cultural values of the society. But gradually Nepal has made much progress specially health and education indicators among women in the recent year.

Although various surveys shows that decision making power and other women status in increasing trend but still not developed as the expectation of policy makers and planners. Women's access to fixed assets, property, and credit is still very limited. Discriminatory wage structures and unequal access to earned income have not been reduced, but have actually increased over the last ten years both in agricultural and non-agricultural sectors. Women are concentrated in agriculture. In the non-agricultural sector in general and in the manufacturing sector in particular, women are concentrated at the lower end of the pay scale. Businesses avoid many labour regulations by employing women at piece rates. Traditional discriminatory social structures are transferred to work place, and poor rural women from Dalit and disadvantaged ethnic groups are at the lowest level of the wage ladder.

11.2 Effort for Women Empowerment

Women continue to face legal discrimination regarding the most fundamental rights, such as citizenship and inheritance. Women's representation in political or administrative decision-making bodies has not improved much either, except at the grassroots level in locally elected VDC assemblies and in the national parliament. A number of laws and acts have been passed and enacted to improve the status of women in Nepal which are:

Table 79: Laws/acts on women empowerment in Nepal

Date	Law/Act
May 30, 2006	The House of Representatives resolution in favor of proportionate representation of women in all parts of the State structure calling for guaranteeing at least 33 per cent participation of women for the time being with the aim of achieving proportionate representation ultimately.
Nov 26, 2006	'The Citizenship Act 2006' allows equal rights to women to acquire citizenship
Dec 18, 2006	The House ratified the Optional Protocol to the Convention on the Elimination of All Forms of Discrimination Against Women 1999
Dec 28, 2006	'The National Women's Commission Act 2006' established with the mandate to ensure women's rights
no date	Gender-responsive budgeting and audit systems introduced in the government mechanism

2006	The Government initiative to adopt the Zero Tolerance policy at work places
2007	The Civil Service Act 2007 has been amended whereby 45 percent of seats of open competition are reserved for quota representation, 33 percent of which are for women. Amendments of the Police Regulation 2007 and Armed Police Regulation 2007 reserve 20 percent of seats for women. The Gender Equality Bill of 2006 granted equal inheritance rights to ancestral property to both sons and daughters
no date	The Ministry of Local Development decision to require all Village Development Committees to earmark at least 15% (out of the yearly block grant) for funding projects designed to empower women, children and other disadvantaged groups
no date	CEDAW plan of action to 'guarantee women's RH rights' and BPFA plan of action on 'women and health' guide the concerned ministries to work for ensuring women's rights
no date	The Ministry of Women, Children and Social Welfare conducts regular meetings with Gender Focal Points of sectoral ministries to share new polices, dimensions, legislation and sectoral initiatives in line with gender-responsiveness
no date	A National Coalition Committee representing 34 different GOs, I/NGOs and donor agencies formed to work together on violence against women (including violence during pregnancy)
no date	A Caucus of women Parliamentarians formed
2008	The Parliament passed the Domestic Violence (Crime and Punishment) Act
1985	women's empowerment and gender equality have been integrated since the Sixth Five-Year Plan (1985-1981) of the Government of Nepal
2009	The National Development Strategy paper (2009) and The 'rights-based' approach was introduced in the Tenth Plan (2002-2007).
2010 -2013	The Three-year Development Plan (2010-2013) also has specific recognition of gender equality. The Government of Nepal also developed the National Gender-Based Violence Plan of Action in 2010 and declared 2010 as the Year to combat gender-based violence (GBV).
2013	An approach paper to the thirteen plans (2013-2016) set up objectives, strategies, operating policies, with some expected outcomes. .

Socially, marriage and children continue to determine a woman's life options. Traditional practices such as dowry (*tilak*) have been reinforced by new consumerism, son preference, social acceptance of domestic and public violence against women, polygamy, early widowhood and associated exclusion; practices like keeping mother and infant in a cowshed during delivery and for sometime after delivery *(Chhaupadi),* knee burning, offering a girl child to temple *(Deuki)* and practice of prostitution by women as per the tradition *(Badi)* continue to plague women.

Many efforts have been made to strengthen the capacity of the government machinery to understand and deal with gender mainstreaming, particularly in MWCSW, MOAC,

education, police forces, etc. Gender focal points have been appointed in all ministries and major departments. Notable institutional reforms in the education and health sectors have been the decentralization of management functions to the DDC, VDC, and community levels. Other important institutional reforms include integration of gender issues into the formal and non-formal education system and integration of reproductive health services throughout the public-sector health system.

Most programs/projects have gender sensitization components, providing gender training to personnel at all levels and to local women leaders. Health policies and programs have now been made much more gender sensitive by taking a life cycle and rights approach to women's health and integrating reproductive health services into the regular health system, emphasizing quality of care, local participation and outreach, and broadening the scope of family planning and health programs to include safe motherhood and adolescent health. Notable initiatives have been RHIYA, PARHI, the start of integration of RH into non- formal education, and population and environment and lately ASRH issues in school education.

According to the 2011 NDHS, only 10 percent of women own land, either alone or jointly, compared with 25 percent of men. Among all civil service employees of Nepal in 2011, only 13 percent were women, which in itself are an improvement from only 8 percent in 2005 (Ministry of General Administration, 2011). According to the 2011 NDHS, only 10 percent of women own land, either alone or jointly, compared with 25 percent of men.

11.3 Potential Indicators developed by various authors on women empowerment

Various authors developed various indicators to measure the status of women empowerment. For example, Anju Malhotra (2003) has been presented various indicators in table 80 developed by various authors. These indicators are associated with Economic, socio-cultural, familial, legal, political, and Psychological aspects.

Table 80: Indicators developed by various authors on women empowerment

Dimension	Household	Community	Broader Arenas
Economic	Women's control over income; relative contribution to family support; access to and control of family resources	Women's access to employment; ownership of assets and land; access to credit; involvement /or representation in local trade associations; access to markets	Women's representation in high paying jobs; women CEO's; representation of women's economic interests in macro-economic policies, state and federal budgets

|			
Socio -Cultural	Women's freedom of movement; lack of discrimination against daughters; commitment to educating daughters	Women's visibility in and access to social spaces; access to modern transportation; participation in extra-familial groups and social networks; shift in patriarchal norms (such as son preference); representation of the female in myth and ritual	Women's literacy and access to a broad range of educational options; Positive media images of women, their roles and contributions
Familial/ Interpersonal	Participation in domestic decision-making; control over sexual relations; ability to make childbearing decisions, use contraception, obtain abortion; control over spouse selection and marriage timing; freedom from violence	Shifts in marriage and kinship systems indicating greater value and autonomy for women (e.g. later marriages, self selection of spouses, reduction in the practice of dowry; acceptability of divorce); local campaigns against domestic violence	Regional/national trends in timing of marriage, options for divorce; political, legal, religious support for (or lack of active opposition to) such shifts; systems providing easy access to contraception, safe abortion, reproductive health services
Legal	Knowledge of legal rights; domestic support for exercising rights	Community mobilization for rights; campaigns for rights awareness; effective local enforcement of legal rights	Laws supporting women's rights, access to resources and options; Advocacy for rights and legislation; use of judicial system to redress rights violations
Political	Knowledge of political system and means of access to it; domestic support for political engagement; exercising right to vote	Women's involvement or mobilization in the local political system/campaigns; support for specific candidates or legislation; representation in local government	Women's representation in regional and national government; strength as a voting bloc; representation of women's interests in effective lobbies and interest groups
Psychological	Self-esteem; self efficacy; psychological well-being	Collective awareness of injustice, potential of mobilization	Women's sense of inclusion and entitlement; systemic acceptance of women's entitlement and inclusion

Source: Anju Malhotra (2003) Conceptualizing andMeasuring women'sEmpowerment as a Variable in International Development *Measuring Empowerment: Cross-Discipliner Perspectives" held at the World Bank in Washington, DC*

By using factor analysis Dhakal, M.R. (2010) constructed five indicators like as, initiating power of the pregnant women, job sharing in Kitchen by male people, shopping power of the women, decision making power of the women, supremacy power adopted by male. The NDHS, 2011 use five indicators like as, women involvement in household decision, women membership in community group, women's cash earnings, women ownership household and land and women education to assess the women empowerment indicators but not enough.

11.3.1 Women's' Decision Making Status

First time women decision making status was observed by NDHS, 2001 by considering the indicators decision making own health care, large household purchase , daily household purchase, visit to family and relatives and what food to cook each day were considered the indicators for women empowerment. In 2006, what food to cook each day and daily household purchased was dropped in 2011. Because of this the figure (1) compared by considering only two variables. Since parameters for women empowerment status were varies.

Figure 28: Decision making power of women

Fig. 11.1: Decision making power of women by own health care and visit to family/relative point of view (2001 to 2011)
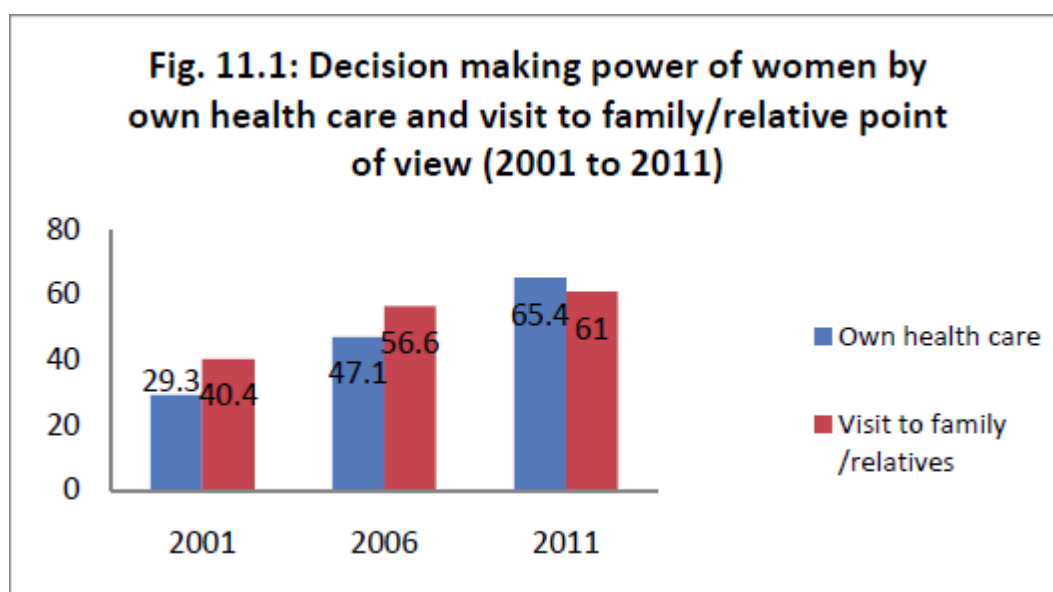
Source: NDHS, 2001, 2006, 2011

11.3.2 Women's Education status

Education is an important indicator of the women development and empowerment. In Nepal literacy levels have increased significantly, particularly during the last two decades. The female literacy rate increased around five times, from 12.0 percent in 1981 to 57.4 percent in 2011 (Table 81). The progress in literacy levels of the younger group is quite significant. The difference in male/female literacy levels has declined by half among the 15-19 age children between 1991 and 2001. But, in the younger age group the progress seems to be much slower, indicating the stickiness of the problem. The benefit of education for girls is indisputable, but not all parents perceive this. There are tremendous gaps in literacy level, school enrolment and the length of time boys and girls stay in school.

	1981		1991		2001		2011*	
Indicators	Male	Female	Male	Female	Male	Female	Male	Female
Urban	61.1	38.2	80.0	51.2	81.2	61.9	89.0	75.2
Rural	32.0	10.3	54.2	20.4	62.6	39.6	72.0	53.8
Nepal	34.0	12.0	54.1	24.7	65.5	42.8	75.1	57.4

Five years and above

Sources: CBS, 2001 and 1995, 2012

Moreover, as education levels increase, the number of women with comparable educational degrees decreases. While 87 women had primary education per hundred men with similar level of education in 2001, about three-fourth had SLC or higher degrees and only about half had graduate or higher degrees (figure 29). The latter ratio had remained virtually unchanged since 1991 to 2001 but vast change has been observed in 2011. Women and girls constituted only 43 percent of all full-time students in 2001.

Figure 29: Educational Achievement- Number of Females per 100 Males, 1981-2011
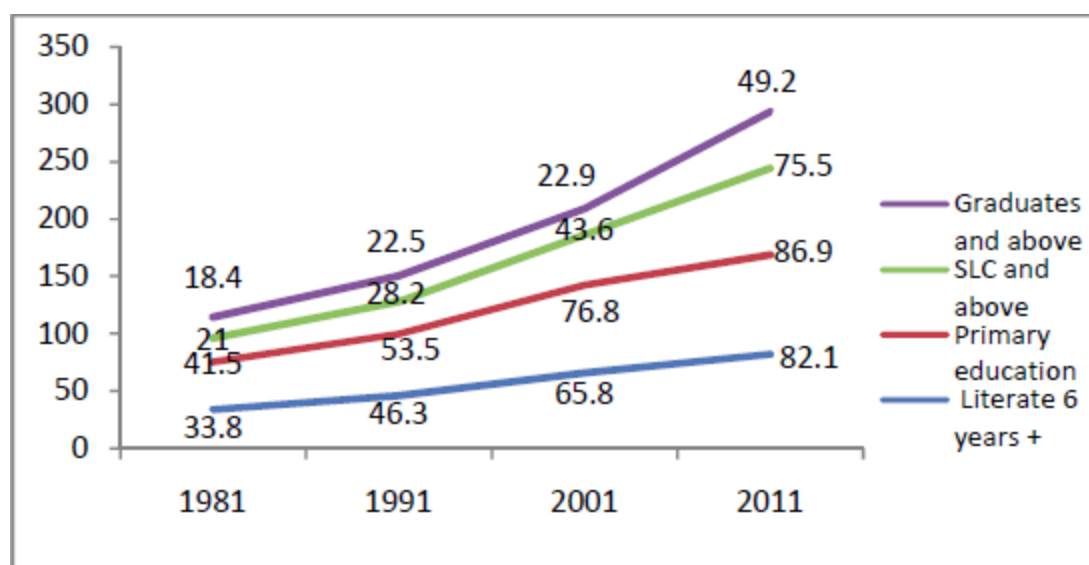
Data for 2011 is considered Five years and above,

Sources: CBS, 2001and 1995, 2012

The Gender Parity Index (GPI) explains the ratio of female to male values (or male to female, in certain cases) of a given indicator. A GPI of 1 indicates parity between sexes; a GPI above or below 1 indicates a disparity in favor of one sex over the other. For gender parity to exist, the GPI value should be within the range of 0.97 and 1.03.

Following sections explain the ratio of female to male enrolment and measure progress towards gender equity in enrolment in the education system by grade and level. It also assesses the learning opportunities available to girls compared to those available to boys. The

shares of enrolment of total, girls is 50.4% at primary level, whereas they are 50.5% at lower secondary, and 50.4% at basic levels. It clearly demonstrates that the gender parity has been achieved in basic education, including primary and lower secondary education (1.02 at primary level, 1.02 at lower secondary level and 1.02 at basic level).

The link between education and reproductive health is two-directional. Educating women benefits the whole of society. It is also the most influential factor in improving child health and reducing infant mortality as well as for the improvement of family health and to reducing fertility rates.

The ICPD has given special attention to women and girls, recognizing that education is a cornerstone of women's empowerment because it enables them to respond to opportunities, to challenge their traditional roles and to change their lives. The ICPD Program of Action also states, "Education is one of the most important means of empowering women with the knowledge, skills and self-confidence necessary to participate fully in the development process."

The conference also emphasized eradication of illiteracy as a prerequisite for human development. Globally, nearly 600 million women remain illiterate today, compared with about 320 million men.

In almost every setting—regardless of region, culture, or level of development—better-educated women are more likely:

- To marry later, use contraception, bear fewer children and raise healthier children;
- To make better decisions for themselves and their children;
- To make greater economic contributions to the household.

One of the strongest statistical correlations in developing countries is between mothers' education and infant mortality: the children of women with more years of schooling are much more likely to survive infancy. Better-educated women have a greater say in decisions about marriage and to plan their family accordingly.

11.3.3 Women's Health

The overall health situation in Nepal has improved in the current decade with the increase in the women's health status. There has been a tremendous improvement in the decline in maternal mortality, infant and child mortality, early child bearing control in frequent pregnancies by family planning services and prenatal care and safe delivery services by spreading medical facilities up to rural areas.

However, the greatest dangers to life faced by women occur during pregnancy and childbirth. This is the reason why researchers argue that safe motherhood is unsafe in Nepal. Malnutrition is another health problem in Nepal and is more severe in the case of women. The situation of women's health in Nepal is discussed more under the heading of Reproductive Health. Some of the indicators of women's health are also presented in this section and discussed.

As shown by the NDHS 2001, for nearly half of the births, mothers received antenatal care from health service providers and the situation has not improved as of NDHS 2006 results as well. This shows that a vast majority of births in Nepal, mothers did not receive any ANC, which puts them at risk. NDHS 2011 reveals that about three-fifth of women receive antenatal care from a skilled provider in their period of pregnancy but only half of the women receive ANC four or more times as recommended by World Health Organization (WHO). On the other hand only 35% women go to the health institution for safe delivery and 36% receive assistance from skilled birth attendant (SBA) at the time of delivery. This indicates that most of the women are still at risk of pregnancy complications and this may result in women's reproductive health and morbidity. For more than 81 percent of births, mothers received two or more doses of TT during pregnancy. This shows that women and children are not totally protected against neonatal tetanus.

This shows that use of health facilities is still way down for average Nepalese women. There could be the two possible reasons for this. First they are not aware of the importance and availability of the services or they may think that the qualities of services at health institutions are not adequate and it will not make any difference for them to a health facility or deliver at home under the supervision of some knowledgeable person.

The nutritional and health condition of Nepalese women and adolescent girls is extremely poor. It is generally manifested in the inadequate intake of calories and protein and in poor access to health services. Many studies have shown that the weight and height of Nepalese women are substantially less than that of women in developed countries.

Anemia is one of the major problems in the case of Nepalese women during their various stages of health cycle. According to NDHS 2011 one-third of women in reproductive age are anemic. However, studies have also shown that this proportion is at the top for the pregnant women (UNICEF/New ERA 1999). Though there have been improvement in the recent past, the high prevalence of anemia among Nepalese women could be one of the causes for high maternal morbidity as well as mortality in Nepal.

11.3. 4 Women's Employment

In Nepal, poverty is a major factor influencing - unemployment, malnutrition, illiteracy, low status of women and limited access to social and health services. All these are associated with low productivity as well as high fertility, morbidity and mortality. For this resource constraint is also a great obstacle. Being predominantly agricultural country, thirty years ago more than 60 percent of her GDP was contributed by agriculture. Now the scenario has slightly changed and the economy is more dependent on non-agriculture sector. The structural changes in economy have contributed towards increasing economic opportunities for women. All of the above factors have greatly influenced the women's employment in Nepal. Most women are employed in family enterprises as family members. Women in Nepal work for longer hours than men have much lower opportunity for gainful employment and possess extremely limited property rights (NESAC, 1998).

During the last few years, the employment of women in the formal activities has significantly increased. As a result, women have lesser amount of time and opportunities to carry out the household activities. This has also shown that the children of the households with working mothers are becoming more deprived of due care and attention, ultimately affecting the growth of the children. So, both of these situation should be groomed properly by the family in order to get a good result by empowering women in the economic activity of the society.

Table 82: Activity Rates by Sex, Nepal 1971-2010/11 (Population 10 years and older)

Year	Male	Female	Total
1971	82.9	35.1	59.3
1981	83.1	46.2	65.1
1991	68.7	45.5	57.0
1996a	75.2	66.4	70.6
1998-99	83.6	79.4	81.4
2001	67.6	48.9	58.2
2003/4	85.0	82.7	83.8
2010/11*	80.9	79.4	80.1
*NLSS III.CBS 1996a figures are based on NLSS data. 1998-99figures are based on NLFS data.			

Source: CBS, 1995, 1997; 1999, 2001, 2003/4; MOH, 1997

11.3.5 Female owned household and fixed assets

Table 83 presents households having fixed assets in female's ownership and female headed households having fixed assets. The Census data 2011shows that the female headed households have increased by 11 point percent from 14.87 % in 2001 to 25.73 % in 2011. However, all female household heads do not have fixed assets. Altogether 19.71 percent of households reported the ownership of land or house or both in the name of the female member of the household irrespective to household head or not. The female household heads having fixed assets, both house and land are 580757 and having land only are 488314. Altogether fixed assets ownership goes to 1069017 number household heads which is just 19.71 percent of the total number of households (5423297). Out of the total households 43666 households did not state about the property in female household owner's name. The fixed assets ownership of female headed household in urban area is 279917 which is 5.16 percent of total and remaining 14.54 percent goes to the rural area family headed households (Pokherel,B 2014) . In the Table 83, households having neither house nor land in women's name are 4310560 and not stated is 43666.

| Households having fixed assets in female's ownership							Female headed households having fixed assets
Area		Total	Both household and land	Land only	Neither house nor land	Not stated	Total
Nepal		54,23,297	5,80,757	4,88,317	43,10,560	43,666	10,69,071 (100)
Place of residence	Urban	10,45,,575	1,73,984	1,05,933	7,56,303	9,355	279917 (26.18)
	Rural	43,77,722	4,06,773	3,82,381	35,54,257	34,311	7,89154 (73.82)

Source: CBS, (2014) Population Monograph vol. 3[r]

11.3.6 Female Recommended Female participant by Public service commission for civil service

The figure 30 shows the female number in civil servants from 2064 /65-2071/72. The female number is 298 in fiscal years 2065/ 2066 and reaches 639 in fiscal year 2071/72. However, the number was decrease in 2066/67 and reach 189 from 298. Similar trend was seems in the fiscal years 2068/69. This is because the lower wanted by Public Service Commission.

Figure 30: Female numbers in Civil servants from 2064-2071-72
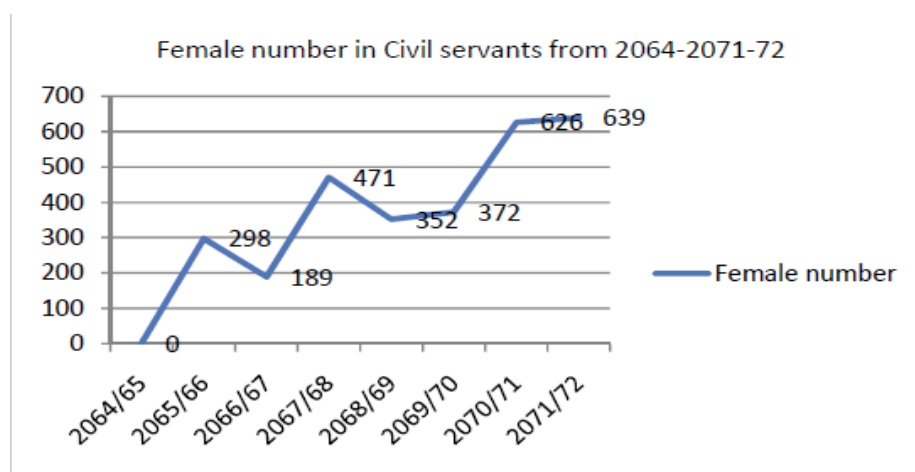
Source: CBS, 2014

Looking at the women status in education, health and employment, the indicators shows some good signs. However, in order to empower women lots of efforts have to be made. With this in view the government is fully committed for women's empowerment largely influenced by UN resolution on women and working with Ministry of Women and Child Welfare. And this of course is a positive direction for the upliftment of women in Nepal.

11.4 Women empowerment and Health outcomes

Empowering women and addressing gender-based discrimination against women have been on the development agenda of the Nepal government and are key to achieving the Millennium Development Goals (MDGs). Women empowerment has important implications for demographic and health outcomes, including, women's use of family planning and maternal health care services. Regarding women empowerment, NDHS, 2011 highlight the key findings.

a) More than half of currently married employed women who earn cash make independent decisions about how to spend their earnings.

b) Only 46 percent of currently married women participate in decisions pertaining to their own health care, major household purchases, and visits to their family or relatives.

c) Contraceptive use increases with women's empowerment.

d) Unmet need for family planning decreases with improvements in women's empowerment.

e) Access to antenatal care, delivery assistance from a skilled provider, and postnatal care within the first two days of delivery increase with increasing women's empowerment.

f) Infant, child, and under-five mortality rates decline with improvements in women's empowerment.

Table 84: Some of the Indicators revealing the Status of Women Empowerment in Nepal

Female Indicators	Status
Female Population	51.5 %
Sex Ratio	94.2
Child Woman Ratio (per 1000 women)	701
Female Head of the Household	25.73
Female Literacy	57.4
Female School Enrollment	71.4
Female in Higher Education (SLC & Above)	30.2
Female Ownership on House	7.5
Female Ownership on Land	10.4

TFR	2.6
GFR	117
CBR	28.0
MMR	170
Life Expectation at Birth	69 years
Never Married	31.12
Female Age at Marriage	19.5 years
Currently using any modern FP Method	43.1
Desire for no more children for those who have 2 children	88
Those taking iron Tablets during pregnancy	79.5
Taking antenatal care from health professionals	58.3
Last birth protected against Neo-natal TT	81.5
Delivery by health professionals & in health facility	35
Vaccinations of children	
Fully immunized	87
BCG & DPT1	96
Polio1	97
Measles	88
None	3
Employed women in	
White collared job	19.1
Other job	63.1
Agriculture	17.8

Source: CBS, 2001, 2012; NDHS, 2011, NPC 2013

Conclusion

Based on the above information, it can be concluded that there is significance progress in women empowerment since periodical plan and this is because of the positive impact of formal, informal/non- formal education conflict, and health outcomes. However, there are so many underlying factors that are hindering for women empowerment and need to address by implanting special package program for women empowerment. Special focus need to be given in women education, health and adolescent girls issues since these factors are directly

linked to women development which in fact related to empowerment. Social inclusion programs also need to be strengthened so that women and even socially excluded women can be benefitted by social and economic inclusion with an attention on elite capture on

CHAPTER XII

POPULATION POLICIES AND PROGRAMS

12.1 Concept of Population Policy

Population policy can be defined as deliberately constructed or modified institutional arrangements and/or specific programs through which governments influence, directly or indirectly, demographic change (Demeny, 2003). It is a guided set of principles formulated for change in behavior of human in population related activities which can influence the future fluctuation of population and its dynamics. Population policies are developed with the current population trend in mind. For e.g. if the population is trending towards high fertility, the policies might be formulated such that it helps to reduce the fertility rate in the future for keeping the population in balance in the long term.

A well-defined policy can have a major influence in overcoming demographic and population challenges of the country. Since the first five year plan was launched in 1956, Nepal has also started incorporating population concerns to the periodic plans of the country. Nepal's population policies have been geared to improve socio-economic situation of the country. Population policies of Nepal have been guided through the periodic plans of the country. Population issues have been addressed in all periodic plans of the country. This clearly indicates that His Majesty's Government of Nepal has been concerned on population dimensions ever since the initiation of planned development process in the country.

Population policy can be classified into direct or indirect. Direct policies affect population variables directly, i.e. government actions taken for the purpose of affecting a demographic outcome. For e.g., fertility reducing policies, which directly affect the future population by decreasing birth rates and ultimately result in less population. Indirect policies are those policies, which do not have a direct bearing on the population variables but have indirect effect on them. It can be said that indirect policies are catalysts for direct policies. For e.g., better health care for mothers result in lower infant death rate which decreases the need to bear more children in rural parts of Nepal.

12.2 Review of National Population Policies

The beginning of population policies in Nepal dates back to 1956 when Nepal launched its first five year plan. Since then, all of the periodic plans have incorporated population related issues, policies and programs in them. The government has realized that population is an integral part of the development process of any country. Outlined below is the review of population policies, strategies, targets and programs embraced by the periodic plans since 1956.

12.2.1 The First Plan (1956 - 61)

The concern for population distribution was initiated from the first plan period itself. The policy of redistributing population from the densely populated hills to sparsely populated terai was introduced. It was aimed to absorb increasing population by reclaiming the terai and inner terai forests for resettlement. Policies concerning providing employment opportunities, improving standard of living without discrimination and creating necessary statistical information were also included in the first plan document. Negative consequences of high population growth on national development were also recognized. In 1959, Family Planning Association of Nepal (FPAN) was established, as the first non-government organization, to deal with the reproductive health and family planning services under the initiatives of few Nepalese Medical Doctors and Social Workers.

12.2.2 The Second Plan (1962-65)

The second three year plan document of the country was oriented towards resettlement programs for absorbing the increased population. The second plan of the country had addressed management aspect of population by having established Nepal Resettlement Company in 1962. Extension of social services and increased employment opportunities through labor intensive schemes were considered as supplementary policies related to population. Similarly, with the objective of bringing equilibrium between population growth and economic output of the country, the policy of family planning was emphasized.

12.2.3 The Third Plan (1965-70)

The population policy of Nepal was initiated formally during the third plan period. Before this, population concerns were incorporated into the plan document without having any explicit policy guidelines on population. In the third plan document, a separate chapter on 'Population and Manpower' was included. Family planning was focused as an integral part of the population policy. The need for population control was first reflected in the third plan document. Since then fertility reduction has remained a common denominator in all population related policies and programs of Nepal. As such, third plan provided an impetus to the development of population policy in the country.

Even though official family planning program, as part of the population policy, can be traced only from 1965 onwards, family planning services were offered in Nepal by the Family Planning Association as early as 1959. In 1968, Nepal Family Planning and Maternal and Child Health Board, a semi-autonomous body under the Ministry of Health was also formed. The board was mandated for taking measures to reduce the CBR from 40 to 38, infant mortality rate from 200 to 150, and to provide maternal and child health services systematically throughout the country. Similarly it was also targeted to decrease the crude birth rate from 39.1 in 1967 to 38.1 by 1970.

12.2.4 The Fourth Plan (1970-75)

Like the third plan, the fourth plan also included a separate chapter on 'Population and Manpower.' The fourth plan reiterated earlier policies of using manpower resources, family planning programs, labor intensive techniques, use of indigenous resources to absorb maximum manpower and the control of population growth. This plan identified some prerequisites for bringing about required changes in the economic and social conditions, cultural patterns and aspirations of common man.

It suggested two ways to reduce birth rate:

  i)   Bringing changes in socio-economic condition and cultural practices of people, and
  ii)   Implement family planning programs at different levels. For this, national, regional and district level targets on family planning were also set.

The plan document observed increased life expectancy due to declining deaths contributed by expansion of modern health care system in the country while birthrates remained high. The plan document had also noticed that decline in deaths and rather stagnant birth rates contributed to rapid increases in population. As such, the fourth plan had set strategies for the reduction of the birth rate through change in socio-economic condition and cultural practices of the people and family planning programs.

12.2.5 The Fifth Plan (1975-80)

The Fifth Plan followed major recommendations of the Task Force mentioned above. The plan realized the undesirable effects of high population growth. It envisaged to reduce birth rate, regulate immigration, promote planned migration, and to develop small towns where there were no urban areas. During this period, a vital registration system was introduced in some districts as a pilot project under UNFPA assistance. A Population Policy Coordination Board was also constituted in this period. Later this organization developed into National Commission on Population (NCP).

12.2.6 The Sixth Plan (1980-85)

This included a chapter on population by dealing with both policy and programmatic issues. Many demographic targets were set and family planning programs were popularized in this period. Internal migration and population distribution management were looked upon in the plan. During the plan period in 1983, National Population Commission developed a National Population Strategy, which was approved by the government of Nepal. This strategy contained both short term and long term strategies. Major policy goals were to reduce TFR from 6.3 to 5.8 by the year 1985, to 4.0 by the year 1990 and to 2.5 by the year 2000. Similarly the Sixth Plan also aimed at reducing the population growth rate of 2.6 percent to 2.2 percent by the year 1985 to 1.6 percent in 1990 and 1.2 percent in the year 2000. Given

the socio-economic situation of the country as well as relatively weak implementation of different population programs, it soon became obvious that most of these targets were overly ambitious.

12.2.7 The Seventh Plan (1985-1990)

During preparation phase of the seventh plan, an assessment was made on the impact of the development policies and programs adopted through the preceding periodic plans. The outcome of such assessment was found to be very gloomy. Population growth continued further and economic development remained sluggish while even the minimum basic needs of the people remained unfulfilled. It was acknowledged that failure to boost the production of traditional export items led to a situation whereby whatever was produced had to be diverted to meet the needs of the growing population. The seventh plan document observed that one of the major challenges that the country faced was to design appropriate steps to tackle the population problem.

Curbing population growth needed to be accorded a high priority. The seventh plan brought into picture the concept of unmet need for contraception. It accorded due priority to unmet need in family planning and at the same time attempted to integrate population programs with other development activities such as agriculture, forest, environment and so on. As it was realized that low status of women in the Nepalese society was an impediment to the control of fertility, a number of activities were proposed to uplift the status of women in the Nepalese society. In the policies, plans were made to mobilize both the local and non-governmental organizations to this effect. In fact the policy document was more comprehensive in dealing with different issues such as a) women and development b) child development c) family planning and the concept of unmet need d) population and development and e) various other social issues. Policies dealing with the control of immigration were also formulated, however, the implementation of these policies was very weak and thus it did not have desired effect on the control of population growth.

12.2.8 The Eighth Plan (1992-97)

This was the first plan after the restoration of democracy in Nepal. The previously drafted eighth plan document aimed to bring down significant reduction in the prevailing high fertility rate, to reduce adverse effect exerted by the uneven population distribution, and to raise the life expectancy. Accordingly, the draft plan targeted to bring down TFR from 5.8 to 4.0, infant mortality rate from 102.1 to 63.6 and to raise life expectancy from 54.3 years to 59.9 years. The annual growth rate of population was to be reduced from 2.6 percent to 2.2 percent. The plan document of the eighth plan previously drafted intended to bring a balance between the population growth and the pace of economic development of the country.

The objectives of the Eight Plan (1992-97) were to bring about a balance between population growth and socio-economic development and the environment. This will naturally result in the helping people fulfill their basic human needs. This was the first plan formulated and implemented after the restoration of democracy in the kingdom. The targets set by the 7th

plan were found to be too ambitious and were accordingly revised in the eighth plan. The revised major targets were:

- To reduce TFR from 5.8 to 4.5.
- To increase the life expectancy from 54.4 to 61 yrs.
- To reduce IMR from 102 to 80 per thousand.
- To reduce child mortality from 165 to 130 per thousand.
- To reduce maternal mortality from 850 to 720.
- To regulate internal migration.

The eighth plan gave priority to the family planning and maternal child health programs, and women's development programs. However, the assessment of the eighth plan suggested that performance of the population programs in the eighth plan was less than satisfactory.

12.2.9 The Ninth Plan (1997-2002)

The ninth plan was developed in the perspective of a 20 years long term plan. The main thrust of this plan was to alleviate poverty and thereby accelerate economic development of the country. It was also realized that the growing population caused environmental degradation and aggravated the problems of development. This required that triangular relationship among population, environment and development should be integrated and utilized for the progress of the country.

Additional emphasis was sought on population management to achieve the goal of poverty alleviation through high employment generations. Similarly, in addition to bringing improvement and extension of services and supply system, it was required to meet the unmet need of family planning services. The ninth plan document incorporated many of the commitments made by Nepal during the International Conference on Population and Development (ICPD) in 1994. The long term objective of the ninth plan was to bring down total fertility rate to the replacement level in the next 20 years. The immediate objectives of the plan were:

- To attract couples towards a two child family.
- To implement various programs to bring down the fertility rate to replacement level in the coming 20 years.
- To ensure qualitative family planning and maternal child health services (FP/MCH services) easily accessible and available.

Specific targets of the Ninth Plan were as follows. Most of the target was met at this plan period.

- To reduce TFR to 4.2, which was achieved as targeted and reached to 4.1 in 2001.
- To increase CPR to 37.0.

- To reduce Infant Mortality Rate (IMR) to 61.5 and under five Mortality (U5MR) to 102.3 per thousand live births. IMR was reduced to 64.4 and U5MR was reached to 91.2 per thousand live births in this period.

12.2.10 The Tenth Plan (2002-2007)

Poverty alleviation has been the overriding objective of the tenth plan to promote faster broad based economic growth, equitable access to social and economic infrastructure and resources for the poor and marginalized groups, and ensure social inclusion. In the context of population related issues, many of the commitments made during ninth plan period have been renewed for the tenth plan period. The progress achieved during the ninth plan period on population and demographic issues is commendable in several areas, however it should be noted that gains have been made from a relatively low base. There is a need to continue further for having more impressive results. The major concerns have been incorporating population issues into the total development process and bringing behavioral change for accomplishing the demographic targets.

Long term Concept

The long term concept on population management of the country has been to achieve the replacement level fertility by 2017 and to contribute towards poverty alleviation through educated, healthy and skilled human resource development for having a prosperous society.

Objectives
The objectives of the tenth plan concerning population management are as follows.

i)   To associate the people into development activities through the development of small and quality family.
ii)   To systematize the migration process.

Quantitative Targets and Achievements
The quantitative targets set for the tenth plan period were as follows:

Table 85: Target of the Tenth Plan and Progress Status 2006

S. N.	Description	Status of the Ninth Plan	Targets of the Tenth Plan		Status in 2006*
			At expected growth rate	At Normal growth rate	
1.	Total Fertility Rate	4.1	3.5	3.6	3.1
2.	Contraceptive Prevalence Rate (%)	39.3	47	46	48

3.	Infant Mortality Rate (per 1000 live births)	64.4	45	47	51
4.	Child Mortality Rate under 5 years (per 1000 live births)	91.2	72		65

* Nepal Demographic and Health Survey, 2006
Source: Ministry of Health and Population, National Planning Commission

Strategies:

The following strategies have been set for accomplishing specified objectives of the tenth plan as stated above.

i) Strategies relating to first objective of the tenth plan, i.e. promoting small and quality family are the followings:
  2) Easy access to reproductive health services, delayed marriage and encouragement in breast feeding.
  3) Public awareness on massive scale has been emphasized in population management.
  4) Special attentions and program has been carried out by targeting on adolescent and youth (10-24 years) groups.
  5) Emphasis has been given on effective population management through the review of population related laws and policy reforms.
  6) Special emphasis towards the enhancement of family and social status of women, skills development and increased employment opportunities for women, women literacy and education for girls.
  7) Formulation and implementation of population education programs and enhancement of educational institutions significantly.
  8) A policy of increasing the participation of local bodies has been pursued as per decentralization concept while undertaking population management programs.
  9) A policy of undertaking population management programs has been adopted on participatory approach as the concept of partnerships with the private and non-government sector.

ii) In accordance to second objective of the plan, both internal as well as external migration will be made systematic.

12.2.11 Three year Interim Plan (2008-2010)
Although the total fertility rate had started to decrease in national level, the total fertility rate in rural areas is higher than that of urban areas. The reason might be duplication in the implementation of population programs and problems of coordination in sectoral agencies. It has not been possible to reduce maternal mortality rate and infant mortality rate as hoped due to superstitious beliefs, early marriages on a customary manner, and bearing children at an early age in rural areas. The migration process has not been properly managed and is still high.

It has not been known to what extent the implementation of the action plans endorsed by international conference with commitments of Nepal has occurred in the Nepalese context. As the number of children and those among the elderly has been found to be high, programs targeting the children and the old have not been formulated and implemented. Effective programs, to reach population management programs to the doorstep of the people, have not been formulated.

Despite different problems and challenges in relation to population management, increasing awareness due to education and communication media is accepted as the major opportunity. Likewise, the policy commitments at the national and international levels have become another positive aspect. Further, a condition prevails for the continuity of different programs being launched in this sector through NGOs and the civil society. In addition to this has continuity of international cooperation in this sector another important opportunity.

Long Term Vision

The long term vision is to provide the help to the Nepalese people live a quality life for all by owning different aspects of effective population management as an integral part of development and human rights. By 2017, the vision is to bring the fertility rate to the level of replacement through the medium of women empowerment and poverty alleviation.

Objectives

Nepal's population policy will be effectively combined with the goal of poverty and hunger reduction. Special objectives are as follows:

- To support poverty alleviation by reducing the population growth rate.
- To integrate population management process with development programs.
- By promoting reproductive and sexual health rights of the females and males,
- To manage the migration process.

Strategies

- Based on the Population Perspective Plan, management of the programs will be gradually carried out in order to provide access to the people at the village level by preparing an action plan related to population.
- Priority will be accorded to public awareness works for the targeted groups in order to develop small families as well as to reduce the population growth rate.
- Special programs targeting the youth (10-24 years) will be launched with priority.
- In order to implement, monitor and evaluate the conducted programs related to population by the government, non-government or the private sector in a coordinated manner, the agencies from all sides, at the central and local levels will be made active. Likewise, at the local level, programs for population management will be extended.
- By reviewing the current policies related to population, population management programs will be made effective through the promotion of male and female

reproductive and sexual health rights. For this, encouragement will be given to small families for the education of women, the importance of family planning, late marriages, breastfeeding, and nutrition reproductive health.

- Programs will be launched directed towards youths, Dalits, Adibasi, Janajatis, women and senior citizens through debates on population and related subjects, and the stakeholders related to population management.
- In order to launch and coordinate population related programs in an effective manner, by enhancing the capacity of the manpower related to population, the arrangement to look at population aspects in the concerned agencies will be done by establishing population units at the local level.
- Institutional reforms will be made on information and statistics for giving emphasis on study and research related to population.
- In order to manage migration, by identifying programs in a coordinated manner, appropriate policies and programs will be formulated and emphasis will be laid on study and research.
- In order to manage internal migration, development of small towns will be emphasized and special attention will be given to urban area management by enhancing the inter-linkages with urban regions.

Policy and Working Policies

To maintain population balance by reducing the population of the country has remained a challenge. Likewise, the fertility rate in urban areas has come down to the level of replacement, while it is still high in the rural regions. In order to strengthen population management the following policies are adopted:

- The programs of population management will be launched at the central and local levels by integrating it with other programs, linking population policy with MDGs and the eradication of poverty and hunger.
- By advancing the concept of small and quality family, in order to decrease population growth promotional measures will be adopted in the rural areas.
- Emphasis will be given to make targeted youth programs result oriented Statistical system will be strengthened for population management from the gender perspective.
- Priority will be given to study and research on population.
- Institutional development will be carried out in order to make adjustments on the population related studies and research carried out by the private and non-government sector within one umbrella.
- Migration will be considered as an important part of population management.
- In order to promote the reproductive and sexual health rights, local level participation will be enhanced for increasing the access to population management programs.
- Forward and backward linkages of population with other aspects and sectors related to it will be established.
- Measures to make studies and research on the different aspects of population will be adopted.

Programs

The programs related to population management to be carried out during the Plan period have been categorized under the following five headings.

Awareness Programs

- To run awareness programs related to population targeting different classes/groups.
- To make diagnosis and consultations to bring positive changes in the conduct of youths.
- To run programs on public awareness in an effective manner also in local languages to inform on matters like:
  - ✓ controlling the impact on women due to terror against them;
  - ✓ motivation for late marriage;
  - ✓ advocating the importance of family planning;
  - ✓ encouraging breast-feeding; and
  - ✓ Sending daughters to schools.

Capacity Enhancement Programs

- To arrange for a fixed person to look after population aspects in local bodies.
- Practical and competency enhancement program related to population management including the promotion of female and male reproductive and sexual health rights will be conducted.
- Orientation programs will be conducted in coordinate and partnership at the central and local levels.
- In order to mainstream population in development, capacity related to gender, population and development will be enhanced.

Encouragement-oriented Programs

- Encouragement programs will be developed for living a small and quality family life through population management programs.
- Programs will be conducted to make necessary statistics and IEC materials available to information centers to be established at the district level by strengthening Population Management Information System (PMIS).

Targeted Programs

- Targeting the adolescent youth (10 – 24 years), adolescent friendly programs will be run for their personality development including reproductive health (also male) and sexual health rights.
- Population management will be diagnosed, by running programs related to population targeting the women, Adibasi Janajatis, Madhesis, Muslims, deprived and other groups.

- Programs will be run especially to provide access to the target group by strengthening the availability of contraceptives.
- To make necessary services available to health institutions by considering the impacts on physical and mental health from terror against women as the major theme of public health.

Policy and Institutional Strengthening Program

- Program to integrate HMIS and PMIS will be run.
- Mechanism to receive information from local bodies will be developed.
- Study on international migration will be made to keep records at entry points in a gradual way.
- Different studies and research will be adjusted with the identification of NGOs/CBOs related to migration.
- Initiatives will be taken for the formation and implementation of actions related to population for the management of urban areas.
- Programs to deliver population information up to the lower level in partnership with government and NGOs at the local level.
- Giving attention to major subject matters of perspective population planning, detailed action plan will be prepared in a coordinated way. In this process, coordination with different stakeholders' agencies will be ensured, by making local bodies focal points.

Expected Outcomes

- With the capacity enhancement of human resources and institutions involved in population management, the institutional system will be strengthened.
- Population management will be made effective by raising awareness related to population among the youth.
- The relevance of the programs will be increased with easy access of the targeted communities particularly Adibasi Janajatis, people with different languages, disadvantaged groups etc. to the population related programs.
- Policy and institutional basis for managing the migration process will be prepared. Quality of programs will be increased with the increase in coordination and partnership between population, health and development program.
- District information centers related to Population management will be strengthened.
- A foundation will be laid to manage migration with the increase in rural urban linkages for initiating the formation and implementation of acts.
- For the management of urban areas, acts, rules and action plans related to population will be prepared. Institutional and systemic foundation will be laid and all the stakeholders would experience the feeling of ownership and will receive the meaning of the programs.

Implementation, Monitoring and Evaluation

The concept of public private partnership will be adopted in order to make the effective implementation of programs related to population as expected. Under this, especially awareness-oriented programs, capacity enhancement programs, targeted programs and incentive and reward programs in the context of NGOs and local women group, youth community and civil society, will be made active partners. The reaction of the targeted groups on the programs will be considered as a base for program reforms. In the context of policy and institutional strengthening at the central level, the role of NPC, MoHP and at the local level concerned offices and stakeholders, will be made further effective, also in the program implementation process. Policy, program and institutional coordination will be given special attention. Likewise, efforts will be made to make monitoring and evaluation result oriented. For this, the review of programs will be institutionalized. Further resources, other inputs and human resources will be effectively mobilized. Reforms after making the right and proper use of such resources will be carried out. For monitoring, the competence of human resources will be enhanced, and will be mobilized as far as possible. Monitoring and evaluation reports will be used as a base for the preparation of annual programs.

12.2.12 Three Years Interim Plan (2010-2013)

The policy and practice of including population management as integral part of planned development had been initiated in the Eighth Plan. According to the Census of 2001, the total population of Nepal was 23,151,423 and annual growth rate was 2.25 percent. As the food production growth does not keep up with the growth of population, it has been obligatory to carry out population management programs in coordination with the development programs.

From the efforts made in the past, reproductive and health services have been expanded in the country. Although this has led to the reduction in the rate of infant, child and maternal mortality, there is much to do from the perspective of population and human resource management. As compared to other countries, rate of population growth is high and average life expectancy of both women and men is low. In the composition of population the largest group is youth which intimates the possibility of continued growth in future.

The trend of urbanization and migration are on the rise. However, employment opportunities are not increased proportionately. The labor force lacks basic skills and competencies. Infrastructure required for socioeconomic development is inadequate. Increasing unemployment among the educated people raises question of relevance, utility and effectiveness of education system. The practice of developing human resources based on systematic projection of human resource requirements of the country across different sectors is yet to be established. On the other hand, there is a rising trend of highly skilled professionals produced by the country through huge investment are leaving the country for overseas employment. Poverty, low rate of economic growth, high dependency ratio, and current rate of morbidity and illiteracy are obstacles on the way to human capital formation. Low rate of economic and human development have slowed the pace of demographic transition. However, expanding infrastructure, increasing literacy and reducing poverty as well as birth and mortality rates are paving way for population management and human

resource development. The Plan visualizes integrated population management programs focusing on all geographic regions and people from all class, caste, ethnicity and gender.

Objectives of the plan:

1) To lower birth rate of Nepal to replacement level by 2022 by enhancing accessibility of people from all class, caste, region and age groups to population management programs.
2) To contribute to socioeconomic development of the country through proper management of population and human resource development.

Strategy

1) Emphasize on balanced regional distribution of population through proper analysis and management of population growth as well as through regulation of migration.
2) Facilitate demographic transition by mainstreaming population in all sectors and aspects of development.
3) Make population management and human resource development mutually reinforcing and synergistic through multi-sectoral collaboration and coordination.
4) Deliver all services and facilities related to population management and human resource development at the doorsteps through one door system and decentralization.

Working Policy

1.1 Appropriate reforms will be initiated at the policy, institutions and programs levels, after reviewing existing policies and programs related to population management to improve coverage and effectiveness.

1.2 Population growth will be managed by promoting the use of contraceptives as well as through education and awareness.

1.3 Efforts will be made to achieve balanced regional distribution of population through balanced distribution of physical infrastructure and socioeconomic services in rural and backward regions, promotion of satellite towns, development of integrated settlements and management of migratory trends.

1.4 Appropriate population policy will be formulated keeping in view with internal as well as international migration.

2.1 By increasing regional investment in infrastructure, education, health, employment as well as inclusive and equitable development, access of people from all class, region, caste, ethnicity and gender to quality services and facilities will be improved.

2.2 Population and human resource development will be integrated and mutually interlinked in all national, regional and local level interventions by identifying potential contribution of different sectors to population management.

2.3 For the personality development of every citizen, enabling environment will be created to engage them in productive work based on her/his talents and interests.

2.4 Appropriate programs will be carried out to reverse the trend of brain drain.

2.5 Awareness will be raised among communities and all stakeholders about inter-linkages between population, environment, resource consumption, poverty reduction and sustainable development.

2.6 Immigration trends will regulate, stemmed or managed based on the number and characteristics of immigrants.

2.7 Population education will be launched as campaign.

3.1 Private, nongovernmental and cooperative sector institutions will be encouraged to contribute to the development of employable skills and human resources particularly in the rural areas.

3.2 Emphasis will be given on capacity building of all institutions working in population management and human resource development at all levels.

4.1 Intensive services related to awareness, reproductive health, mother and child health and family planning will be made available to promote quality families after identifying target groups.

4.2 Special programs will be carried out to address the nutritional needs of children, pregnant women, and mothers of new born babies, senior citizens and vulnerable people.

4.3 Government, nongovernment, private and cooperative sectors will be mobilized in a coordinated way for population management and human resource development.

4.4 Institutional strengthening of national statistical systems will be done to carry out study and research, collect and process data and develop effective information system.

4.5 Based on the results of National Census - 2011, an outline of population management and human resource development plan will be prepared by making sector wise projection of human resources.

Expected Outcome

1) Birth rate would have been reduced with the considerable increase in contraceptive prevalence rate.
2) Strategy for systematic development of human resources would have been prepared and implemented.
3) Access of targeted groups to socioeconomic services and facilities would have been increased thereby promoting human development.
4) Population growth rate would have been reduced.

5) Mortality rate would have been reduced.

Quantitative Targets and Achievements

The quantitative targets set for the three year interim plan (2010/11-2012/13) period and achievements are presented in the following table 86.

Table 86: Targets of the Interim Plan (2010/11-2012/13) and Progress Status

Description	Status of the year 2009/10	Targets of the interim Plan	Status in 2012/13
Total Fertility Rate	3.1	2.75	2.6
Contraceptive Prevalence Rate (%)	48	57	50
Infant Mortality Rate (per 1000 live births)	51	38	46
Child Mortality Rate under 5 years (per 1000 live births)	65	47	54
Maternal Mortality Ratio (per 100000 live births)	229	192	170

Source: National Planning Commission

12.2.13 Thirteenth Plan (2013/14-2015/16)

The population and housing census 2011 has shown that Nepal's population has reached to 2,64,94,504 in the year 2011 with an annual growth rate of 1.35 percent. Other population related indicators are also in decreasing trend for some years. For example, fertility, mortality has been decreasing and health indicators are also in improving pace. On the other hand, international as well as internal migration is noticeably increased and seems to be continuing for some years. Still there are diversified problems in the population sector. The aging population is increasing, labor force is being migrated as a brain drain, spousal separation and female population has been increased and management of adolescents and youth population is of big concern which may result various socio-economic consequences, in this scenario, the government of Nepal has brought an approach paper for an interim plan 2013/14-2015/16 which have following objectives and strategies.

Objectives

- To help in sustainable and balanced social and economic development of the country by effective population management.
- To achieve replacement level of fertility by the year 2022 by equal access to population management programs for all sectors and all age and areas of citizens.

Strategies

- Population composition including Spatial and age-sex distribution will be kept in balance by regulating internal and international migration through the means of population management and analysis.

- Population Management Program will be strengthened to all areas and sectors of development and create environment to ease demographic transition.
- Reproductive right will be established as a basic human right by multilateral co-working and coordination and public awareness programs.
- Population centric development programs will be implemented and different services and opportunities will make available in community and household level of the people.
- Gender equality and social inclusion will be incorporated in population management programs and focused on identified targeted communities and special programs will be implemented in these targeted communities.

Achievements:

- The TFR has decreased to 2.5% per woman.
- Life expectancy has increased to 71 years from 69 years.

12.2.14 Fourteenth Plan (2016/17-2018/19)

The total population of Nepal has reached above 29 Million during the end of 2016 with the annual growth rate of 1.3 percent. The population of below 15 years is less than 31% and people above 60 Years of age are more than 9%. Many other population indicators like birth rate, death rate, fertility etc are in decreasing trend with improvement in health indicators. Internal migration has been unmanageably increasing because of which the 14th Plan has objectives of proper management of internal migration and urban development.

The Approach Paper for the Fourteenth Plan has the following objectives:

- To create a balance between population, environment and development for establishing population as a significant part of overall development.
- To manage urban settlement by management of internal migration.

Goal, Strategy and Expected Outcomes of the Fourteenth Plan

Goal:

- To create a balance between population and economic/social development by conducting programs on population management and reproductive health.

Strategy:

- Population Management Programs will be conducted in coordination with stakeholders and establish population as an integral part of development.
- Increase infrastructural development in rural areas and decrease internal migration.

Expected Outcomes

- Total Fertility Rate will be decreased.
- Ratio of population who use contraceptives will increase.
- Internal migration will be managed to an extent.
- Research and development on interrelationship between Population, Development and Environment will be conducted.

12.2.15 Population Perspective Plan (2010-2031)

The concept of population perspective plan (PPP) was first conceived in the ninth five year plan (1997-2002). The plan was brought in response to reduce fertility to replacement level and alleviating poverty. Though not formally termed as PPP, the ninth plan adopted long term policy to reach replacement fertility along with socio-economic development. Following the ninth plan, the tenth plan (2002-2007) advanced the concept of long term population policy. A need was felt to develop a PPP in the plan. Further, the tenth plan was based on the Poverty Reduction Strategy Paper (PRSP) which provided following grounds to conceive PPP:

- Integration of population concern at policy level so that the PPP becomes a comprehensive document that compliments with other sectoral plans;
- To help prioritize specific sectoral policy/program areas related to population that bear on aspects of poverty alleviation and sustainable development; and
- To attempt to address commitments that Nepal has made in endorsing program of action related to issues of population in various international forums, particularly ICPD 1994 and MDG 2000- 2015.

Objective of PPP

In broader perspective, the PPP admits the program of action of ICPD and MDGs in Nepalese context with overall vision of population management integrating in development policies and program. The specific objectives include:

- Integration of population concerns in all areas of development
- Facilitate rapid demographic transition through:
  - ➢ Expanded and effective access to health care for poor/vulnerable groups
  - ➢ Right-based comprehensive reproductive health care
  - ➢ Universal access to quality primary education
  - ➢ Gender equality and empowerment of women
  - ➢ Decentralized governance and community participation
  - ➢ Facilitate spatio-economic development processes conducive to poverty alleviation.
- Suggest implementation mechanisms and institutional arrangements for the effective coordination, and monitoring of population programs.

Scope of PPP

The PPP identifies the following population themes to integrate with development activities and population management:

- Demographic analysis
- Reproductive health
- Economic dimension
- Poverty dimension
- Spatial dimension
- Gender mainstreaming
- Social dimension
- Decentralization
- Institutional mechanisms

The Plan of Action of PPP constitutes the core of PPP with goals and strategies to attain the expected outcomes of the long term population plan. To make the PPP really working an appropriate action plan is required to be developed. Therefore, this plan of action is designed to translate the broader concept and vision of PPP into people's wellbeing. The plan of action consists of different sectors and sub-sectors within the broader dimension. Making it comprehensive, the action plan has been designed in log frame format to meet the vision endorsed by the PPP.

In Summary, A perspective plan is basically an attempt to manipulate the prevailing trend to achieve the desired goals and cannot provide the details as in periodic plans of shorter duration. Therefore, this is an indicative plan with statements on the major objectives for population and development with projection of population and policies/strategies to be adopted to achieve the long term targets. It seems necessary to explain that this perspective plan will be terminating in 2031. This long-term perspective plan will be an indicative plan of action for future periodic plans. In effect, this population perspective plan should be considered as a blue-print to be refined through revisit during the formulation of the next periodic plans as new information becomes available.

12.3 Population Policy 2071

Followings are the objectives, strategies and the goal in the context of demographic status in Nepal

i. To establish the sustainable relationship between the population, environment and development to provide well-organized and productive services for the individuals
ii. For the overall development of the country, existing means and resources should maximum used to improve the quality of lives of people.
iii. To implement and to protect the fundamental rights for the maternity care, to improve significantly the social and economic status of vulnerable groups along with promoting gender equality and social inclusion, there should be launched different programs by integrating and internalizing the queries related to the population with development activities of the country.

Nepal has made objectives to achieve the following policies within 20 years (2090 B.S, 2034 A.D) by internalizing the millions of goals for the population elements in the sectoral development process at all levels for the sustainable development.

Table 87: Indicators related with population policies within 20years (2090 B.S, 2034A.D)

S.N	Indicators		Result
1	Total fertility rate (TFR) per woman		2.1
2	Percentage of total increment of population in a year (%)		1.1
3	Crude death rate		5.0
4	Infant mortality rate per 1000		25
5	Life expectancy (both)	Male	74.0
		Female	76.0
6	Average living family		4.1
7	Absent population		5
8	Literacy rate (above 10 years aged population)		95
9	Access of using contraceptive methods (%)		90
10	Urban population (%)		60
11	Rural population (%0		60

12.4 Policies and strategies of 20 years population goals in Nepal

Plans:

i. To make development as the major indicator for the establishment of correlation between development and population.
ii. Access to sexual and reproductive health services should be ensured to all in general and women, youth and adolescents living in rural and remote areas in particular
iii. Existing means and resources should be used to increase the quality of lives of people.
iv. An effective population redistribution policy should be implemented addressing the internal and external migration problem along with managing urban population.
v. Gender equality and social inclusion should be properly addressing the needs of socially marginalized backward communities.
vi. Population elements such as status, study research and evaluation should be properly and effectively managed
vii. Programs should be held to increase the national income.

Policies:

i. Integration and internalization of population elements will be held in the sectoral development process at all levels.
ii. Reproductive health and sexual health services and abortion will be made more effective and manageable.

iii.   For balanced economic and social development of the country, there will be held a balance between population elements and the development process.

iv.   To address the challenges and issues of unemployment, other related sectoral issues and to develop inclusive program for addressing the needs of socially marginalized, backward communities and helpless people.

v.   To make an integrated and comprehensive institutional framework for effective implementation of population policies, strategies and programs.

vi.   Different programs should be launched to increase employment for the people which can give the outcome of population dividend.

vii.   Population policies and programs will be held in a coordinated and effective manner.

Strategies

i.   Effective development related programs, monitoring and evaluation mechanisms should be implemented for the establishment the co-relation between population and development.

ii.   Programs should be developed to balance the equation between population dynamics, consumption and production both at the national and local level to improve the institutional and management aspect by revising the existing the plan, policies and programs from the point of population

iii.   Skill development opportunities should be provided to those who want to go abroad for employment which will help to remove the problem of brain- drain by increasing the human man power both in financing and non-financial aspects which will help to rank Nepal as a developing country in 2022 A.D

iv.   Different elements of the population should be integrated in social, economic and geopolitical development aspects of the country.

v.   Programs should be developed to contribute to poverty reduction activities through effective population management.

vi.   The quality of lives of people will be improved by using the maximum the existing means and resources.

vii.   The health of old aged people should be improved to make them more active and the knowledge and the skill of retired people should be needed.

viii.   Population size should be created focusing on sustainable environment and climate change with available means and resources.

ix.   To implement population policies and programs in a coordinated and effective manner, existing scattered population management should be strengthened by adopting national policies, legislation and administrative structures and adequate resources both in governmental and non- governmental agencies

x.   An emphasis should be given placed on establishing an agro-based industry either in municipality or districts headquarter to increase employment in own country.

Reproductive health, family planning and abortion should be made more effective and manageable

i. Access to sexual and reproductive health services should be ensured to all general, women, youth and adolescents both in rural and urban areas.

ii. Information about the means of contraceptives should be given to the couples to encourage using family planning.

iii. The Access of safe abortion should be ensured ad these services should be provided to poor and marginalized groups at no costs and in a free manner.

iv. Effective health services should be ensured to improve the health of both mother and baby to reduce maternal mortality in remote and backwards areas.

v. The quality of temporary methods of family planning should be increased to space births resulting in reducing infant mortality rates and maternal mortality ratio.

vi. Special programs should be implemented to protect minority groups such as Raute, Kusunda and Praja etc

vii. Maternal, infant and child mortality rates demand and supply of means of contraceptives should be promoted by conducting different programs through the means of communication.

viii. Teenage and youth counseling centers in reproductive health should be established.

ix. Targeted programs should be developed for the adolescents and youth to marry after 20 years and they should given emphasis to give birth after when they have build themselves from the point of their psychology, economic and social aspects.

x. To improve late marriage and to discourage the early child birth, information, education as well as behavioral change programs should be promoted through communication.

xi. Different programs should be attempted to keep far away from the behavior of drinking addiction and to control the sexual exploitation.

Appropriate life style and environment should be developed for healthy life style of the individuals.

i. Life expectancy should be increased by reducing mortality in the country.

ii. Effective policies should be implemented for supervising for the negative impact of the distribution and production of smoking, alcohol which affect the health of people.

iii. Effective plan and policies should be implemented for controlling the production and the distribution of smoking, alcohol that have negative effect on the individuals.

Management of both internal and international migration process as well as tackling the problem of urbanization.

i. An emphasis should be placed for the establishment of industrial activities to provide employment and economic opportunities in order to reduce internal migration.

ii. Labor diplomacy should be enhanced and promoted to protect the rights of the labor migrants.

iii. The national capacity for migration (overseas employment) should be strengthened by adopting national policies, legislation and administrative structures and adequate resources.

iv. Memorandum of understanding should be established between the countries those who provided the employment for the labor.

v. An environment should be created to develop different programs to conduct different activities from the internal migration without making any obstacles from the point of economic, social, cultural aspects of the society.

vi. A planned urbanization policy should be implemented to reduce the danger of unplanned urbanization.

vii. Those areas which have sufficient development of infrastructures such as water supply, electricity, communication, education and health care facilities should also be promoted in rural areas by co-coordinating with related agencies.

viii. Policies should be formulated to develop small towns to integrate scattered settlements.

ix. A conductive environment should be created and programs should be developed to use remittances in the productive sector.

x. Appropriate opportunities should be created to use the existing demographic dividend.

xi. The protection of the rights of migrants should be enhanced without discrimination with destination countries.

xii. An effective population redistribution policy in the country should be implemented by transferring people from highly areas of population density to lower area of population density.

xiii. The relationship between climate change and population in the Nepali context should be identified and different programs should be held to protect the risky area.

xiv. The data should be kept about the internal and international migration.

xv. Steps should be taken to ensure that migration policies and processes are transparent, accountable, safe, and right-based and gender sensitive.

xvi. Strategies for decent and productive work of youth should be developed and implemented

Include population and development programs in gender equality, social inclusion and sustainable development.

i. The information, education about population status should be given to the individuals through the means of communication in their local language.

ii. An environment for 100% of employment of adolescents in primary and secondary level should be created to fulfill the objectives and the knowledge of maternity and sexual education.

iii. Existing formal and informal education curriculum should be revisited, reproductive and age appropriate sex education should be made compulsory.

iv. Marginalized groups should be mainstreamed by providing them with food, shelter, education and economic security.

v. Gender budgets should be managed to empower women to decide how many children they want.

vi. Inclusive programs should be developed to address the needs of socially marginalized, backward and helpless people.

vii. Special plan, policies and programs should be implemented to control the discrimination related to gender, age sexual choice and other misbehavior in the society.

viii. Family life related education and information should be made widely available via formal and informal media.

ix. Re-establishment centre should be developed to care the people who have suffered from HIV/AIDS victim of people who suffered from gender bias.

x. Access of women to all social, economic and cultural resources and their control over them including the ownership of property and business should be amended.

xi. Appropriate strategies should b developed to improve the working, ability of adolescents and youth to increase their productivity.

xii. Free health care facilities should be provided to those who are poor, disable and old-age people.

Integrated and comprehensive institutional framework should be made for effective implementation of population policies, strategies and programs.

i. Data should be made as a basic requisite in formulating policy and strategies for keeping the records of population.

ii. Each agency should have at least one-trained database manager to maintain up-to date statistics on their programs.

iii. The central Bureau of statistics should be strengthened with capacity and skill man power so that it is more efficient.

iv. The responsibility of the CBS should be specific to coordinating data producing activities and providing feedback on research outputs and policy recommendations in the emerging and burning issues of population and social justice.

v. An advice on population related projects and programs proposed by different agencies and determine demographic indicators, project or estimate as needed.

vi. The department should support concerned ministries in effectively expanding the coverage of the vital registration system and under-take other activities related to population as required.

Legal aspects should be established to determine the existing scattered population related laws and rules to be revisited and refined as per needed.

i. The policy should be amended every three years.

ii. Since, monitoring and evaluation is one of the most important components of ensuring implementation of formulated policies and programs, it should be made effective and implementable.

iii. The system of research audit should be held.

iv. The impact of remittance on economic development should be monitored and programs should be developed accordingly.

v. Population treasury should be established with plan and policies to provide fiscal help for the population management.

vi.   Nepal should follow the rules and regulation which are recommended by the international conference related with the plan and policies for the population management.

vii.   Civil registration and vital statistics should be made compulsory accordingly legal aspects.

viii.   Population issues will be reorganized and owned as crosscutting issues by all related stakeholders.

ix.   Collaboration among government, non- governmental organizations and private sector will be ensured.

Conclusion

Various policies and program have been formulated for the implementation of population policy (sectoral) but with new system of Federalism approaching, it is now necessary to update the plans and policies regarding Population and Development. It is also high time that all the policy making bodies understand the concept of Population as an integral part of sustainable development and thus, proper and updated policies should be formulated for the overall development of the nation.

CHAPTER XIII

POPULATION AND ENVIRONMENT

13.1 Concept, Definition and Relationship

13.1.1 General Concept and Definition

A population is the number of all the organisms of the same group or species, which live in a particular geographical area, and have the capability of interbreeding. The area that is used to define a sexual population is defined as the area where inter-breeding is potentially possible between any pair within the area, and where the probability of interbreeding is greater than the probability of cross-breeding with individuals from other areas.[35]

While, Demography is a social science which entails the statistical study of human populations, Population is a collection of human beings.

Between 1960 and 1999, earth's population doubled from three billion to six billion people. Developed countries developed science and technology and used limited resources to fulfill unlimited wants of the growing population. This is good news for humanity: child mortality rates have reduced, life expectancy has increased, technology and growth in research and innovative activities, and people were on an average healthier and better nourished than at any time in history. However, during the same period, changes in the global environment began to accelerate: pollution heightened, resource depletion continued, and the threat of rising sea levels has increased.

The rapid rise in population causes Nepal's already delicate ecosystem much degradation in the form of soil erosion, deforestation, air and water pollution, desertification and depletion of water supplies. This resource decline is leading to agricultural problems; indeed to a growing incapacity of natural environments to support present human numbers. Yet the country's natural resource base is central to the national economy with agriculture the largest single development sector.

Technological, institutional, policy and cultural forces are mediating factors that influence the relationship between population dynamics and environment. Two specific aspects of environment change affected by population dynamics: changes in land use and the climatic change. In this context, this chapter has attempted to interlink between population dynamics and environmental issues in context of Nepal.

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[35] Wikipedia, "Population", https://en.wikipedia.org/wiki/Population, 29 June 2017, web. 30 June 2017.

According to the Central Bureau of Statistics in 2014, Environment can be defined as the physical surroundings of people of which they are a part and on which they are dependent for their activities like physiological functioning, production and consumption. The physical environment extends from air, water and land to natural resources like energy carriers, soil and plants, animals and ecosystem.

13.1.2 Theoretical Concept

The past fifty years has witnessed two simultaneous and accelerating trends: an explosive growth in population and a steep increase in resource depletion and environmental degradation. These trends have fueled the debate on link between population and environment that begun150 year earlier, when Malthus voiced his concern about the ability of the earth and its finite resources to feed an exponentially growing population. The relationship between population and environment has a long history, although in different times it may have been expressed in somewhat different contexts, such as the relationship of population growth to governance (Plato and Aristotle), to food production (Malthus), to agricultural growth (Boserup), to resource availability (Neoclassical economists, Simon), to pollution (Meadows), and to land degradation (Blaikie and Moore).

13.1.3 Relationship between Population and Environment

As mentioned above, population and environment are inter-linked to one another. Scholars from around the world have developed theories that show relationship between population and environment are presented in table 88.

Table 88: Theorists and their main statements in regard the relationship between population and environment.

Theorists	Main Statement
The Utopians	The utopians have their roots in ancient Greece where the need to balance Population with resources was taken for granted and pursued through a policy of progressive colonization of new areas. The utopian view of zero population growth was recommended by Plato in his Republic; Aristotle viewed a populous city as too hard to govern.
Robert Wallace	Wallace's argument was that an egalitarian society and wrote that self-destruct through over-population.
Malthus	Malthus argued that population grows geometrically, while food production can only grow arithmetically. and there would gap between population growth and food increase and lead poverty trap .thus he suggest positive check up population ,otherwise nature control itself through conflict , war, landslides , famine and so on. Suggested to balance between population growth and environmental degradation.
Karl Marx	He argued that "overpopulation" was the outcome of the laws of capitalism, not the laws of nature. It was not a true overpopulation, but a surplus of unemployed laborers created by capitalism's investment in machinery.

Henry George	He saw population growth as a source of wealth and overpopulation not as a cause but a consequence of poverty.
The Boserup Thesis of Induced Innovation	Boserup (1965, 1976, 1980) discussed how, in response to greater population density and lower yields, farmers, who began as shifting cultivators, reduced their fallow periods and began to use the plow, manure, crop-rotation, irrigation, and multiple cropping to maintain and increase crop yields.
Neoclassical economists	Neoclassical economists (like the classical economists) are concerned with whether economy can sustain a rising (or even steady) standard of living, given finite resources and a growing population. As land resources become increasingly scarce, land prices will rise and incentives will thus, increase for people to (a) substitute more abundant resources such as labor, fertilizer and irrigation for land; and (b) to develop new technologies (such as high yield crop varieties) to increase yields from existing land (intensification), as well as to farm previously unused land (intensification).
The neo-Malthusians	argued that over-population as the biggest threat to terrestrial life that the planet faces, short of a thermo-nuclear war, and predicted vast famines sometime between 1970 and 1985; he supported compulsory measures to control population and opposed food aid to poor and populous countries such as India where "the unbalance between food and population is hopeless."
The Theory of Optimum Population	Optimum population is a dynamic, not a static concept, constantly being shifted by technology. They used the concepts of over-population and under population and argued that economic growth must be greater than population growth of a nation. . They argued that optimal size of the population is in the sense that it maximizes well-being or minimizes environmental problem.

13.2 Population Growth and Environmental Problem

The world population has exceeded 7 billion, which in a way is a human achievement; on the other side, the population growth has negative impact upon plants, species and ecosystem as a whole. Over 50 species of plants and animals extinct every day; rain forests are destroyed many times faster than they can regenerate, stored solar energy (fossil fuels) are being consumed at rates thousands of times faster than can regenerate, fresh water are consumed at least 10 times faster than it is being replenished in regions of northern Africa, the Middle East, India, Pakistan, China, and the U.S. Similarly, over population is also causing soil Stalinization and erosion several-fold faster than rates of restoration, over-fishing in oceans, radically changing the species balance in many places. This means the amount of these resources per person is declining, in spite of modern technology.

Other massive social and environmental problems like as political instability, loss of freedoms, vanishing species, rain forest destruction, desertification, garbage, urban sprawl, water shortages, traffic jams, toxic waste, oil spills, air and water pollution, increasing violence and crime. Solving these problems will be much less difficult unless stopping the increases number of people affected to them. The global contract to improve lives, especially for the 1 in 7 living in extreme poverty, coupled with a burgeoning global population, will result in mounting environmental pressures. (UNFPA, 2013)

In many developing countries, couples are still averaging 4 to 6 children. Nearly half of them would like to have fewer children, but they lack access to family planning (not including abortion). High rate of population growth also warrants increased spending on the social services such as education, health, drinking water and other basic needs. It has increasingly been difficult to meet the growing demands of people for these services. The average growth rate of the world population has been estimated at 1.2 percent per annum. In the less developed regions this rate is around 1.5 percent while it is much lower in more developed regions. It has been projected that the world's population will reach 9.5 billion by 2050.

13.3 Population Growth Rate and Density of the Population

The figure 31 (below) shows the population growth is increasing trends from 1920 to 2001 increased by 0.13 to 2.25 though the country have made substantial progress in the attainment of literacy rate and use of contraception. Our population growth rate has hit all time low in past five years. This positively affects the distribution of fruit of development for all Nepalese.
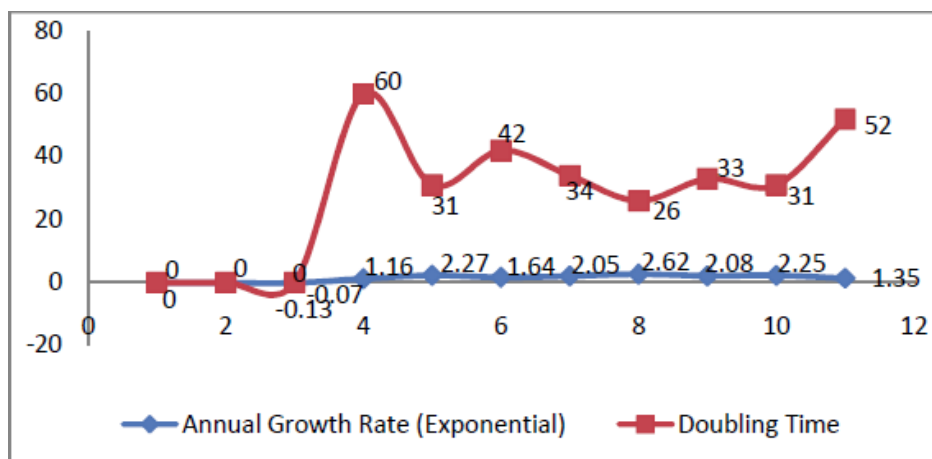

Figure 31: Population Growth Rate and Doubling Time

Source: CBS, 2012

The figure 32 (below) shows the density of population per square kilometer by ecological belt from 1971 to 2011. The density of population has increased in all ecological regions of Nepal. The rate of population growth in Terai is more than combined total of population density in both Mountains and Hills. It is notable to see that the population of mountain is more or less stable but population of Hills and Terai has significantly increased from the year 1991 onwards. This can have direct impact in reduction of forest area.
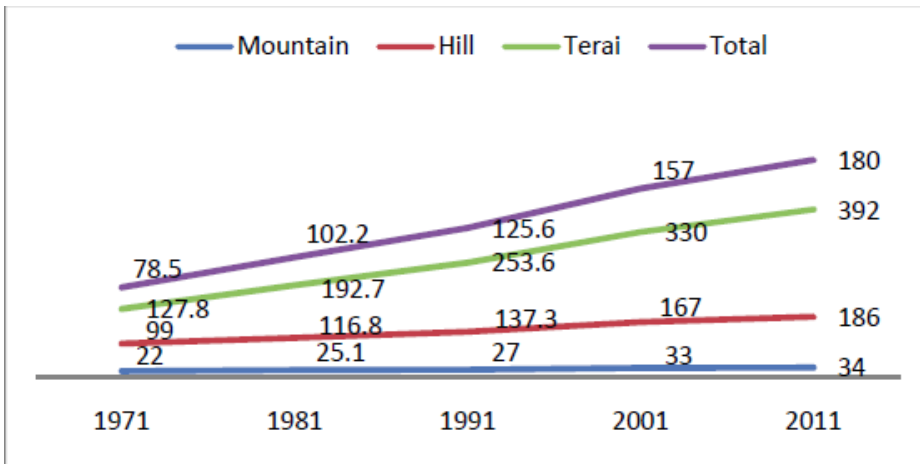
Figure 32: Density of Population from 1971to 2011 per sq km

Source: CBS 1991, 2001 and 2012

13.4 Population Growth Rate and Land Use Pattern in Nepal

13.4.1 Population and Deforestation in Nepal

The trend of declining forest areas in Nepal has been illustrated in figure 33. The area covered by forest was 38 percent in 1978 which gradually declined to 25 percent in 2010. With the increasing population, more and more space is required for the purpose of cultivation, housing, and other infrastructure development. Deforestation at greater rate was one of the reasons for decline in area covered by the forest in Nepal. It is also associated with soil erosion which leads to lessen the ability of soil to hold water, thereby increasing the frequency and severity of floods and eventually destroy cultivable land.
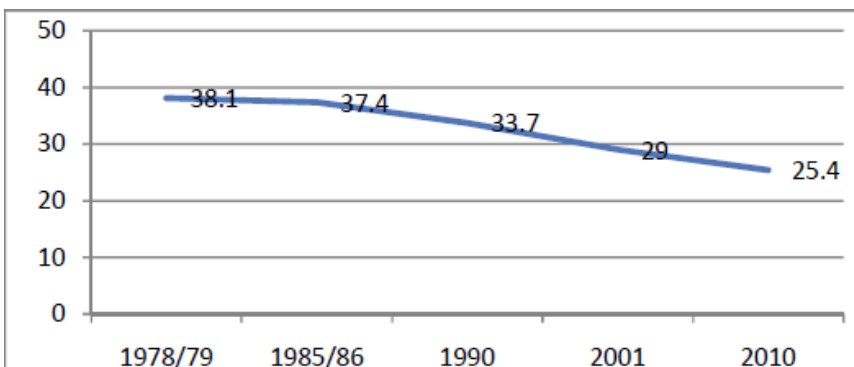

Figure 33: Forest Area of Nepal, 1990-2010

Source: CBS, 2013 and FRS

13.4.2 Pressure on Land and Change in Forest Coverage

Population growth is creating an increasing pressure on the natural resources of Nepal, as illustrated by the shrinking size of land per capita with the increase in population in the table below. The land area per capita has changed from 2.6 ha. in 1911 to 0.56 ha. per capita in 2011.

Table 89: Total land area and total agriculture land per capita

Census	Population	Total land area (ha)	Land area (ha)per capita	*Agriculture land (*000ha)	*Agriculture land (*000ha)
1911	5,638,479		2,610	-	
1920	5,573,788		2,641	-	
1930	5,532,774	14,718,100	2,660	-	
1941	6,283,649		2,342	-	
1952-54	8,256,625		1,783	-	
1961/62	9,412,996		1,564	1,626,400	0.173
1971/72	11,555,983		1,274	1,592.390	0.138
1981/82	15,022,839		0.980	2,359,200	0.157
1991/92	18,491,097		0.796	2,392,900	0.129
2001/02	23,151,423		0.636	2,497,700	0.108
2011/2012	26,494,504		0.556	2,363,100	0.089

Source: MOAD, 2011, CBS, 2014Population Monograph, VOL 111

The ecological footprint of the people of Nepal is increasing but on the contrary there is a decrease in the land footprint. Similarly, agricultural land per capita also seems to be decreasing over the years. During 1961, agriculture land per capita was 0.173 ha but gradually decreased over the census years. During 2011, the value of agriculture land per capita was 0.089 ha.

13.4.3 Land Use Pattern by Type of Land, Nepal

With the increasing population in Nepal, more and more cultivable as well as non-cultivable lands are turned into infrastructure development lands during 1978/79 to 2001. The trend on land use pattern has been presented in the table below.

Table 90: Land Use pattern by type of land, Nepal, 1978/79-20011

Types of Land	1978/79*		1985/86*		2001**	
	Area	Percent	Area	Percent	Area	Percent

Cultivated land	2969400	20.1	3052000	20.7	3090780	21.0
Not cultivated land	986900	6.7	998000	6.8	1030390	7.0
Forest	5612400	38.1	5518000	37.4	4268200	29.0
Shrub land	694000	4.7	706000	4.8	1560110	10.6
Grass land	1755900	11.9	1745000	11.8	1766160	12.0
Other land	2729800	18.5	2729000	18.5	2619800	17.8
Water/Lake		0.0		0.0	382660	2.6
	14748400	100.0	14748000	100.0	14718100	100.0

*** Department of Forest Research and Survey, 2001*

With the shifting of society from traditional to modern, people's interest from agriculture also moved away. It is interesting to note that cultivable lands are increasing (see table 91), but people are no more attracted towards traditional production system (i.e., agriculture).

Table 91: Land use, Nepal, 1961/62 - 2011/12

Land Use	Census year					
	1961/62	1971/72	1981/82	1991/92	2001/02	2011/12
(000 hectares)						
Agricultural land	1626.40	1592.30	2359.2	2392.9	2497.7	2363.09
Arable land	1591.90	1567.00	2287.5	2324.3	2357	2162.14
Land under temporary crops	1550.50	1537.10	2250.2	2284.7	2326.1	2123.17
Other arable land	41.40	29.90	37.3	39.7	30.9	38.97
Land under permanent crops	12.20	15.00	29.2	29.4	117.5	168.45
Land under permanent pastures crops	22.30	10.30	42.5	36.9	19.8	29.3
Ponds	N/A	N/A	N/A	3.9	3.5	3.2
Non-agricultural land	59.00	61.80	104.5	205	156.4	161.91
Woodland and forest	13.80	4.70	15	108.8	37.2	54.89
Other land	45.20	57.10	89.5	96.2	119.2	107.02
Total area of holding	1685.40	1654.00	2463.7	2597.4	2654	2522.52
Percentage distribution						
Agricultural land	96.5	96.3	95.8	92.1	94.1	93.7
Arable land	94.5	94.7	92.8	89.5	88.8	85.7
Land under temporary crops	92	92.9	91.3	88	87.6	84.2
Other arable land	2.5	1.8	1.5	1.5	1.2	1.5
Land under permanent crops	0.7	0.9	1.2	1.1	4.4	6.7

Land under permanent pastures crops	1.3	0.6	1.7	1.4	0.7	1.2
Ponds	N/A	N/A	N/A	0.2	0.1	0.1
Non-agricultural land	3.5	3.7	4.2	7.9	5.9	6.4
Woodland and forest	0.8	0.3	0.6	4.2	1.4	2.2
Other land	2.7	3.5	3.6	3.7	4.5	4.2
Total area of holding	100	100	100	100	100	100

Source: CBS, National Sample Census of Agriculture 2011/12

13.5 Impact of Population Growth on Climate Change

Ever since Malthus, pessimists have believed that mankind is doomed due to overpopulation and overconsumption, while optimists have argued that technological innovation will improve standards of living and that population growth is at most a minor issue (Bongaarts and Sinding S .W 2009). Substantial changes in population size, age structure, and urbanization are expected in many parts of the world this century. Although such changes can affect energy use and greenhouse gas emissions, emissions scenario analyses have either left them out or treated them in a fragmentary or overly simplified manner (Brian C. O'N.et. al, 2010).

No doubt human population growth is a major contributor to global warming, given that humans use fossil fuels to power their increasingly mechanized lifestyles. More people means more demand for oil, gas, coal and other fuels mined or drilled from below the Earth's surface that, when burned, spew enough carbon dioxide (CO_2) into the atmosphere to trap warm air inside like a greenhouse.[36]

According to the United Nations Population Fund, human population grew from 1.6 billion to 6.1 billion people during the course of the 20th century. (Think about it: It took all of time for population to reach 1.6 billion; then it shot to 6.1 billion over just 100 years.) During that time emissions of CO_2, the leading greenhouse gas, grew 12-fold. And with worldwide population expected to surpass nine billion over the next 50 years, environmentalists and others are worried about the ability of the planet to withstand the added load of greenhouse gases entering the atmosphere and wreaking havoc on ecosystems down below.[37]

"Population, global warming and consumption patterns are inextricably linked in their collective global environmental impact," reports the Global Population and Environment Program at the non-profit Sierra Club. "As developing countries' contribution to global

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[36-3] Larry LeDoux, Honolulu, HI, " Does Population Growth Impact Climate Change?", https://www.scientificamerican.com/article/population-growth-climate-change/, n.d, web. 30 June 2017.

emissions grows, population size and growth rates will become significant factors in magnifying the impacts of global warming."[38]

Climate Change is a growing concern in Nepal. The country is highly vulnerable to the potential negative impacts of climate change due to a weak economy; the fact it is landlocked, tectonically active and has difficult geographical terrain. Nepal is experiencing serious impacts of climate change in areas linked to livelihood such as agriculture, water resources, forest and biodiversity, and human health. Sharply rising energy and food prices have once again raised the specter of the human population outstripping the planet's natural resources.

13.5.1 Population Growth and CO2 Emission[39]

David Satterthwaite analyzed changes in population and greenhouse gas emissions for the world's countries and found that between 1980 and 2005.
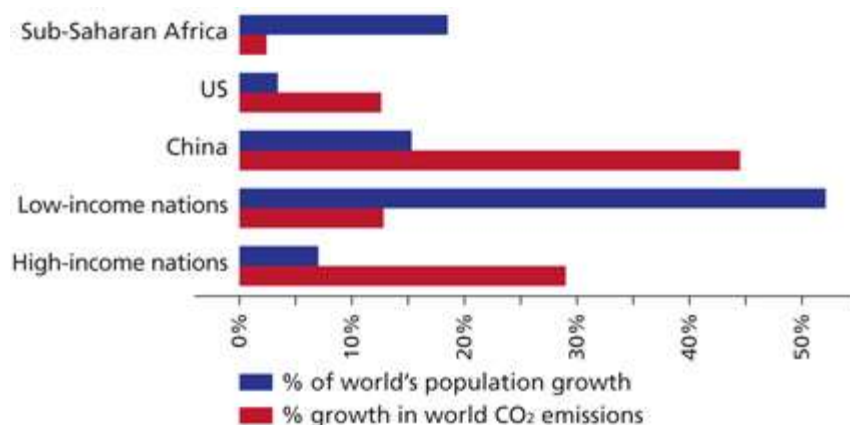

Figure 34: Changes in population and greenhouse gas emissions

Source: IIED, September 2009

Population growth rates in China have come down rapidly – but greenhouse gas emissions have increased equally rapidly. Most of the nations with the highest population growth rates had low growth rates for carbon dioxide emissions while many of the nations with the lowest population growth rates had high growth rates for carbon dioxide emissions.

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[38] Larry LeDoux, Honolulu, HI, " Does Population Growth Impact Climate Change?", https://www.scientificamerican.com/article/population-growth-climate-change/, n.d, web. 30 June 2017.
[39] Vanessa Baird, "The Missing Pieces", https://newint.org/features/2010/01/01/conclusion/, 1 January 2010, web. 30 June 2017.

Conclusion

There is causal link between population and environment. It is notable that Population density is rapidly increasing in Terai and Forest has been steadily declining, both contribute adversely to the health of environment and human alike. Interestingly, Population growth rate has also hit all-time low in past five years which now makes government easier to distribute development programs and packages. Therefore, projections of the future population/household changes also suggest that total population size, aging, urbanization and declining average household size will be important demographic trends in the coming decades.

CHAPTER XIV

MILLENNIUM DEVELOPMENT GOALS AND SUSTAINABLE DEVELOPMENT GOALS

14.1 Introduction

International development agenda has been actively led by the United Nations (UN) and its technical agencies/funds from their inception in the late 1940s. Till 1990s, the approach was fragmented and disjointed, initiated by its specialized agencies or funds at various World Summits and Conferences to address three dimensions of development — economic, social, and environmental. The Millennium Declaration and Millennium Development Goals (MDGs) saw the convergence of development agenda of United Nations Development Program (UNDP); United Nations Environment Program (UNEP); World health organization (WHO); United Nations Children's Fund (UNICEF); United Nations Educational, Scientific and Cultural Organization (UNESCO); and other development agencies. Recently adopted Sustainable Development Goals (SDGs) reflect further strengthening convergence of the development agenda. The SDGs also strengthen equity, human rights, and nondiscrimination.

14.2 Progress in MDGs and transition to SDGs

The MDGs set a whole new standard in innovative partnerships, galvanized public opinion, and showed the immense value of setting ambitious goals. By putting people and their immediate needs at the forefront, the MDGs reshaped decision-making in the developed and developing countries alike. It helped to lift more than one billion people out of extreme poverty, to make inroads against hunger, to enable more girls than ever before to attend school, and to protect our planet. Yet inequalities persist and the progress has been uneven. The world's poor remain overwhelmingly concentrated in some parts of the world. Several women continue to die during pregnancy or from childbirth-related complications. Progress tends to bypass women and those who are lowest on the economic ladder or are disadvantaged because of their age, disability, or ethnicity. Disparities between rural and urban areas remain pronounced.

Nepal has made a substantial improvement in MDGs but the progress is mixed. In September 2000, the United Nations adopted the Millennium Development Goals (MDGs) — an international time-bound commitment to reduce poverty and advance other social development targets by 2015. Nepal is one of the 189 countries that committed to these goals. Since then Nepal has aligned its national policies, strategies and plans to achieving the MDGs. The National Planning Commission (NPC) took the lead in MDG implementation. Periodic assessments were conducted to assess the status of implementation with four progress reports, one needs assessment and one acceleration report produced. These assessments provided valuable information and knowledge for institutional improvements along the way. The process remained on track throughout, despite the decade of violent

political conflict (which ended in 2006) and ongoing political instability. The achievement of a number of goals has been commendable and acknowledged internationally. The MDG implementation process in Nepal has been affected and shaped by the country's changing political, economic and social context. The liberalization of politics, the market and civil society following the reforms of the 1990s created a conducive environment for the acceleration of achievements. The major policy and institutional reforms that followed contributed to the changes.

This final status report assesses the status of achievement of the eight MDGs based on the data available in 2015. This assessment is based on periodic reports and studies on MDG implementation over the past one and a half decade. Its overall finding is that, while most targets have been achieved, some were partially achieved and there are some unfinished agendas. This report suggests that these unfinished agendas should be addressed in the planning and implementation of the follow on Sustainable Development Goals (SDGs) (2016-2030). This report also articulates the major factors likely to affect the country's future development agenda and the priorities for sustainable development. These factors include the fast rate of urbanization, accelerated labor migration, the remittance-dependent economy, and the proliferation of information and communication technology and the high percentage of young people in the population. The following are findings and recommendations on individual goals.

14.2.1 Goal 1: Eradicate extreme poverty

Nepal has made admirable advancement on reducing extreme poverty and hunger in the MDG period (2000–2015). Extreme poverty was 33.5 percent of the population in 1990 and it decreased to 16.4 percent in 2013 thereby achieving the target of halving the poverty rate by 2015. The rate of reduction was quicker between 2000 and 2015 than in the previous period. Nepal Living Standards Surveys (NLSSs) and 3 found the incidence of poverty to have declined by one percentage point per year between 2005 and 2013. The reduction in the poverty gap ratio means that on average poor people were closer to rising above the poverty line in 2015 than in 2008. The employment to population ratio decreased from 84.3 percent in 2000 to 81.7 percent in 2008 (as reported in 2010) with 2.3 million people (above 15 years of age) employed in 2008, substantially more than in 1998.

Another noteworthy achievement is the reduction of hunger. The country almost met the target of reducing by half the proportion of underweight children (aged 6 to 59 months) two years early in 2013. The country achieved the target of halving the proportion of the population who consume less than the minimum level of dietary energy consumption in 2012 (22.5 percent achieved against the 25 percent target).

14.2.2 Goal 2: Universal primary education

Nepal's very good progress on achieving universal primary education is shown by the large increases of the net enrolment ratio (NER) to 96.6, the survival rate to 89.4 percent and the literacy rate (15-24 years) to 88.6 percent (all 2013 figures). The gender parity ratio in primary level gross enrolment stood at 1.09 and the NER at 0.99 in 2015. The establishment of the Department of Education, the transition from a project to a sector-wide approach followed by the integration of various programs and projects, (principally the Basic Primary Education Program, the Education for All and the School Sector Reform Program) contributed substantially to these achievements.

After 2000, the government's policies shifted from incremental to fundamental reforms that included the decentralization of school management to communities, the preparation of individual school improvement plans, the financial and social auditing of schools, the supervision of schools by resource centers, supporting schools through per capita grants, and mainstreaming religious schools. Initiatives such as; alternative schooling, the flash reporting of disaggregated data, the introduction of teacher licensing, upgrading the entry qualifications of primary teachers (including reservation for targeted groups), the introduction of the National Curriculum Framework and the establishment of a system for assessing learning outcomes also helped improve the quality of education. The provision of midday meals, other health and nutrition programs and scholarships and toilets for girls helped increase survival rates. The finalization of the Consolidated Equity Strategy for the School Sector and the development of an Education Equity Index to support its implementation is a promising innovation to improve equitable budgeting and planning to address the disparities in access, participation and learning outcomes.

A National Literacy Campaign and the establishment of community learning centers have enhanced the literacy rate. A number of challenges remain despite the decades of government and non-government efforts. These include the mainstreaming of hard-to-reach children (especially from the Tarai and the Mid-Western and Far Western regions), children with disabilities and trafficked children, and problems related to repetition and absenteeism. Insufficient resources are a major constraint for improving the quality of education. As a result, Nepal struggled to achieve the MDG 2 target by 2015.

The rehabilitation of earthquake-damaged education facilities, the retrofitting of schools, disaster risk reduction training for teachers and students, the implementation of compulsory free basic education, and targeted scholarships and cash transfers to compensate the opportunity costs of poor children attending school would all help improve access for hard-to-reach groups and ensure that all children are safe in school. Similarly, strengthening continuous assessment, reengineering literacy interventions and linking skills development and self-learning materials to community learning centers (CLCs) would enhance the quality of education and support those in need. Finally, it is necessary to invest in the areas of most need and to ensure that the provincial bodies (as per the new constitution), have sufficient resources and capacity to implement sectoral priorities.

14.2.3 Goal 3. Gender equality

Gender parity has been achieved at primary and secondary education levels with gender parity index (GPI) scores of 1.09 in primary and 1.0 in secondary education in 2015. Girls have performed better than boys in both primary and secondary level completion rates, as well as the retention rates for Grades 5 and 8. However, more girls drop out of school than boys (mainly due to socioeconomic reasons). Educational disparities remain between boys and girls, districts, income levels, ethnic groups and for children with disabilities. The ratio of women to men in tertiary education has increased over the last decade, but the gap remains between males and females in higher education. The literacy gap between 15–24 year old males and females has reduced but significant differences remain between males and females, geographic regions and income quintiles. The share of women engaged in wage employment in the non-agriculture sector has increased to 44.8 percent, but gender inequality in employment and incomes persists, mostly due to women's lower skill levels and their unpaid care responsibilities.

Several milestones have been passed recently on the political representation of women. The head of state and the judiciary are currently women and close to one-third of Nepal's members of parliament are women. In the civil service, the representation of women has doubled in the last decade due to affirmative action; although the presence of women in positions of high authority is still limited. And women are increasingly opting for non-traditional sectors such as overseas employment and jobs in the police and army.

Although a large number of women join the teaching profession at the primary level, their representation decreases at secondary and tertiary levels. The introduction of gender responsive budgeting by the government in 2007/2008 has seen an increase in the number of directly gender-responsive programs and projects across sectors; but the budget allocated to the Ministry of Women, Children and Social Welfare (MWCSW), the lead ministry for the promotion of gender equality and women's empowerment, has decreased. Many women and girls suffer from gender based violence (GBV), which constrains their access to economic opportunities, their ability to exercise their legal rights to services, and their education, health and well-being. The 2015 earthquakes compounded the risks and vulnerabilities of women and girls.

14.2.4 Goal 4. Reduce child mortality

Nepal has achieved all the targets under MDG 4 — reducing the infant mortality rate (IMR), reducing the under-five mortality rate (U5MR) and increasing immunization against measles. The IMR of 108 per 1,000 live births in 1990 and 64 in the year 2000 reduced to 33 per 1,000 live births in 2014 thereby achieving the MDG target early. Similarly, the U5MR of 162 per 1,000 live births in 1990 and 91 in 2000 reduced to 38 per 1,000 live births in 2014. The immunization program against measles has been successful as 92.6 percent of one-year old children were immunized against measles in 2015. This program is considered one of the main contributors to the decline in infant and child deaths. However, while the mortality rates

have declined, major inequalities need to be addressed within a number of population segments.

14.2.5 Goal 5. Improve maternal health

Nepal was close to meeting the targets of reducing the maternal mortality ratio (MMR) and increasing the proportion of births attended by skilled birth attendants (SBAs). The MMR in Nepal in 1990 was one of the highest in the world at 850 deaths per 100,000 live births. It declined to 281 in 2005 and 258 in 2015. The proportion of women delivering their babies with the help of a skilled birth attendant increased from just 7 percent in 1990 to 55.6 percent in 2014, a nearly eight-fold increase. However, these improvements have not been uniform and major disparities exist between rural and urban areas and among eco-geographical regions and social groups. The large reduction in the MMR is associated with the fall in the total fertility rate (TFR) from 5.3 in 1996 to 2.3 in 2014. The latter was largely due to married couples' increased use of contraceptives from 24 percent in 1990 to 49.6 percent in 2014. The increased use of maternal health services and the increased attendance at the recommended four antenatal care (ANC) visits have also contributed to reducing the MMR. The fertility rate among 15-19 year old women dropped from 110 per 1,000 persons in 2000 to 71 births per 1,000 persons in 2014. In spite of this progress most of the MDG reproductive health indicators were only partially met by 2015.

14.2.6 Goal 6. Combat HIV/AIDS, malaria and other diseases

The spread of the human immunodeficiency virus (HIV) in Nepal has halted and begun to reverse. The HIV infection rate (15-49 years) was 0.3 percent in 2000. It was maintained at around this rate for another five years after which it decreased to 0.2 percent. The rate of infection among 15–24 year olds was reduced by 80 percent between 2000 and 2015. The epidemic is 85 percent driven by sexual transmission.

However, in 2015 only 66 percent of 15–24 year olds had used a condom during their last sexual encounter and only 36 percent of them had comprehensive knowledge of HIV and acquired immunodeficiency syndrome (AIDS). Of the estimated number of people living with HIV, 26.5 percent were enrolled in antiretroviral therapy (ART) in 2015. A reason for this is that the HIV response is underfunded, with the Government of Nepal only funding about 8 percent of the response. The national response to HIV has, however, been institutionalized in national policy and there is a national strategic plan to end the AIDS epidemic by 2030.

Nepal stands at the pre-elimination phase for malaria with a substantial reduction in malaria incidence and zero death rates. Nepal was close to achieve most of the malaria related MDG targets by 2015. Still, there are concerns about the slow reduction of indigenous Plasmodium vivax cases, inconsistent data, and lack of information on some indicators, growing drug resistance and the spread of malaria beyond the southern plains.

Nepal has achieved three of the four MDG targets on tuberculosis. It has halted and reversed the spread of TB, as reflected in the declining prevalence and death rates, and has met the target of 91 percent of cases being treated under the Directly Observed Treatment Short Course (DOTS). It just fell short of the fourth target of the proportion of cases detected.

14.2.7 Goal 7. Environmental sustainability

Nepal has fully achieved some of the MDG 7 targets, while others have been partially achieved. Regarding target 7A (sustainable development), Nepal makes a very small contribution to global warming with carbon dioxide (CO_2) emissions of only 0.1 tones per capita in 2015 and the growth rate of its CO_2 equivalent emissions is low amongst developing countries. The government's banning of ozone depleting substances has resulted in a large decline in the consumption of ozone depleting substances. Energy consumption increased from 7,759 tons of oil equivalent (ToE) in 2000 to 11,232 ToE in 2013–14 while the commercial use of energy per unit of gross domestic product (GDP) declined from 3.91 ToE/mRs in 2000 to 3.2 ToE/mRs in 2015. Although fuel-wood remains the dominant source of household energy for cooking, the proportion of people using fuel-wood as their main source of cooking fuel has slowly declined from about 68.4 percent of the population in 2000 to 53.8 percent in 2015.

The use of liquefied petroleum gas increased from 7.7 percent of the population in 2000 to 28.7 percent in 2015. Key factors that have contributed to these improvements are (i) the Nepal government's promotion of alternative energy, (ii) donor support for national alternative energy programs, and (iii) the government's commitment to and adoption of an adaptation framework on climate change. The biggest challenges to reversing the loss of environmental resources in Nepal are (i) the cost and limited access to renewable energy services (especially for the poor); (ii) inadequate infrastructure and lack of technical, managerial and financial skills; (iii) infrastructure damage caused by 2015 earthquake; (iv) lack of research on Nepal-specific aspects of climate change; and (v) the slow progress on tapping the country's hydropower potential. With regards to Target 7B (biodiversity loss), Nepal has reduced the rate of biodiversity loss coming close to achieving a significant reduction in the rate of loss by 2010.

However, most indicators that measure the reduction in biodiversity loss lack proper updated data. In Nepal 44.7 percent of total land area is dedicated to forest conservation, more than the target of 42 percent by 2030; and 23.3 percent of terrestrial land was protected in 2015, close to the 2030 target of 25 percent. The community ownership of conservation is the key to forest protection. Almost 44 percent of Nepal's households are members of community forestry user groups, with the forest area managed by communities increasing from 1.0 million ha in 2000 to 1.8 million ha in 2015.

Regarding water supply and sanitation (Target 7C), Nepal has achieved the MDG target of halving the proportion of people without sustainable access to safe drinking water and basic sanitation. As of 2015 about 83.6 percent of households had access to an improved source of drinking water and 81 percent had access to sanitation (toilets). The government's Thirteenth

Plan (FY 2013/14–2015/16) sought to achieve the universal coverage of improved water supply and sanitation and guided investments and programs in this sector.

The assessment of Target 7D on slum conditions is fraught with definitional problems and a lack of systematic data. While the population living in slums and squatters increased from an estimated 11,850 in 2000 to 500,000 in 2010, sufficient, reliable and comparable data to measure the improvement in the lives of these slum dwellers is unavailable. The squatter population comprises mostly freed bonded laborers, landless people and rural migrants. While it is imperative to improve the living conditions of slum and squatter populations by providing them with access to clean drinking water and improved sanitation facilities, it is equally necessary to come up with a plan to reduce the pace of rural-urban migration and provide a proper relief and rehabilitation package to freed bonded laborers.

14.2.8 Goal 8. Global partnership for development

The MDGs recognized the need for enhanced market access and assistance from development partners (Target 8A). Despite joining the World Trade Organization in 2004, improved market access has not materialized for Nepali goods and services mainly because of supply constraints, the rising cost of production and political and policy instability. On the external front, some of Nepal's high potential products for export face high tariff and non-tariff barriers. Nepal's trade dependence on India has increased.

The level of official development assistance (ODA) (Target 8B) increased in absolute terms during the 2000–2015 periods mainly driven by the move towards democracy and inclusive development. However, the actual receipt of ODA declined from 4.8 percent of GDP in 1999/00 to 2.6 percent of GDP in 2014/15, although Nepal still relies heavily on ODA for its development expenditure. Although Nepal is a Least Developed Country (LDC) and more importantly a Land Locked Least Developed Country (LLDC), Nepal receives comparatively low levels of foreign assistance mainly due to its weak absorptive capacity, with a widening gap between commitments and actual disbursements. This gap stands at 55.4 percent. The effectiveness of ODA is however reflected in the country's sound performance on MDGs 2 to 7 with the enhanced resource flows to the social sector being a major reason for the achievements. Nepal's debt is relatively low at 25.6 percent of GDP, and foreign debt makes up to 16.1 percent of GDP (Target 8D). Despite the low volume of debt, the debt service ratio is increasing, putting pressure on the country's resources for funding development activities.

Nepal has made tremendous progress in the communications sector (Target 8F), with tele-penetration now at more than 106.1 percent and 43.7 percent of the population having internet access although a rural-urban divide persists. Overall, at the global level, foreign assistance, if properly used and channeled, has the potential to transform the nation by reducing poverty and improving human development.

Therefore, efforts must be made, including the systematic adoption of the SDGs, to provide resources and bridge the gap between the least developed and developing nations. Aid dependency should be gradually removed, but meaningful partnerships are needed to achieve

this. The receiving nations must shoulder the responsibility of creating a conducive environment for global development. Ultimately, the focus should be on reducing barriers and deepening market access.

14.3 Sustainable Development Goals (SDGs)

The sustainable development agenda has been under global discussion over the past three decades. The SDGs were first formally discussed at the United Nations (UN) Conference on Sustainable Development in Rio de Janeiro in June 2012 (Rio+20), and then in the UN General Assembly (UNGA) in September 2014. As the SDG goals and targets are being negotiated and agreed in the UNGA in September 2015, their indicators and implementation strategy are yet to be worked out. This national report delves into the current status of the proposed SDGs and their targets in Nepal, the enabling policy environment and existing institutions for their operation.

To create a new, people-centered, development agenda, a series of global consultations were conducted both online and offline. Civil society organizations, citizens, scientists, academics, and the private sectors from around the world were all actively engaged in the process. The SDGs include 17 goals and 169 targets. The 17 goals in abridged form are as follows:

The targets are aspiration and global and that each government will set its own national targets taking into account the national circumstances.

The SDGs can be broadly divided into three categories: First, an extension of MDGs that includes the first seven SDGs; second group is inclusiveness (jobs, infrastructure, industrialization, and distribution). It includes goals 8, 9, and 10; and the third group is on sustainability and urbanization that covers the last seven goals: sustainable cities and communities, life below water "consumption and production; climate action; resources and environment; peace and justice; and the means of implementation and global partnership for it".

14.4 Difference between MDGs and SDGs

SDGs benefit from the valuable lessons learned from MDGs. These also carry forward the unfinished agenda of MDGs for continuity and sustain the momentum generated while addressing the additional challenges of inclusiveness, equity, and urbanization and further strengthening global partnership by including CSOs and private sector. They reflect continuity and consolidation of MDGs while making these more sustainable by strengthening environmental goals.

There are seven major differences in MDGs and SDGs;

1. MDGs were drawn up by a group of experts in the 'basement of UN headquarters' whereas SDGs have evolved after a long and extensive consultative process including 70 Open Working Groups, Civil Society Organizations, thematic consultations, country consultations, participation of general public through face-to-face meetings and online mechanisms and door to door survey;
2. While MDGs were focused with only 8 goals, 21 targets and 63 indicators, SDGs include 17 goals with 169 targets. An expert analyses by noble laureates at Copenhagen consensus, suggest that if the UN concentrates on 19 top targets, it can get $20 to $40 in social benefits per dollar spent, while allocating it evenly across all 169 targets would reduce the figure to less than $10. Being smart about spending could be better than doubling or quadrupling the aid budget;(7)
3. MDGs had a focus on developing countries with funding came from rich countries. All countries, developed or developing, are expected to work towards achieving SDGs;
4. The pillars of human development, human rights and equity are deeply rooted in SDGs and several targets seven explicitly refer to people with disabilities, six to people in vulnerable situations, and two to non-discrimination. These were not even mentioned in the MDGs; (iv) MDGs had 3 direct health goals, 4 targets and 15 indicators with emphasis on child, maternal mortality and communicable diseases. SDGs have one comprehensive goal emphasizing well-being and healthy living including NCDs;
5. MDGs had a time span of 25 years though adopted in 2002 baseline data for the year 1990 was used and some of the baselines were revised subsequently which shifted 'the goal post'. For the SDGs, the baseline is from 2015 estimates. It may be revised as more recent data becomes available;
6. SDGs include a vision of building vibrant and systematic partnerships with private sector to achieve sustainable development. It builds on, UN Compact which was launched in year 2000 and IMPACT 2030;
7. MDGs had no concrete role for the Civil Society Organizations (CSOs), whereas SDGs have paid attention to this right from the framing stage itself with significant engagement of civil society actors.

The CSOs can play an important role to hold governments accountable at the local level.

14.5 Challenges

The four major challenges that need to be addressed for achieving the SDGs are as follows:

Some of the SDGs that have been cost show that the cost of the SDGs is huge. The rough calculations have put the cost of providing a social safety net to eradicate extreme poverty at about $66 billion a year, while annual investments in improving infrastructure (water, agriculture, transport, and power) could be up to a total of $7 billion globally. A major conference on financing for the SDGs, held in the Ethiopian capital Addis Ababa in July, failed to ease concerns that there will not be enough funds to meet the aspirational nature of the goals. It included a recommitment to the UN target on aid spending 0.7% of gross national income (GNI) set more than 40 years ago. Multilateral banks committed $400 billion.

Maintaining peace is essential for development. A threat to international peace and stability by non-state actors is emerging as a major factor for both developed and developing countries. The recent crisis in Syria has forced 12 million people to leave their homes and made them refuges.

Measuring progress: A number of targets in the SDGs are not quantified. The indicators for measuring progress have not yet been identified. Even if they limit to two indicators per target, there will be 338 indicators to monitor and report. Measurability will depend on the availability of data and capacity to measure them.

Accountability: There was a lack of accountability for inputs into MDGs at all levels. This challenge needs to be addressed in SDGs.

At the international level, most of the developed countries have not met the target of allocating 0.7% of GNI to international aid in the last 40 years. The lack of priority in funds allocation within country budget has also been a problem during MDGs. Similar lack of accountability exists at ministry, state, and local administration level. If we take SDGs seriously the accountability needs to be strengthened at all levels.

14.6 Nepal and SDG

Nepal is one of the signatory nations of the 2030 Sustainable Development Goals (SDGs) – a set of 17 Goals, 169 targets and 30+ indicators for achievement by 2030. SDGs are meant for planet, peoples and their prosperity to secure peace through partnership.

SDGs aspire for eradication of poverty, zero hunger, good health and well-being, quality education, gender equality, clean water, energy & environment, 'good' growth & jobs, peace & justice among others. Focus on quality of life, sustainable use of productive resources, innovations, & just and inclusive societies; thus transformation from quantity to quality. High emphases on infrastructure and climate change issues are against MDGs focus on social sector. Aspiration to leave no one behind is against achievement of MDGs still leaving a

high development gap. National Plan Commission is going to finalize the SDGs targets and implementation guideline.

14.6.1 Following are national recommended indicators and targets:

SDG 1 proposes ending poverty in all its forms everywhere. Using the international benchmark for extreme poverty of an income of US$ 1.25 per day, less than 25 percent of the populations are living below this line. The poverty gap ratio has narrowed to 5.6 percent, while per capita GNI stands at US$ 772 in 2015. Poverty has fallen not just nationally but across all of its major dimensions. Poverty (as defined nationally) is targeted to decline from 23.8 percent to 5 percent by 2030.

SDG 2 proposes ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture. In Nepal, still 30 percent of children aged 6–59 months are underweight; while stunting persists in 37.4 percent of under five year old children and wasting in 11.3 percent of the same age group. The proposed target is to reduce the prevalence of stunting in children under five years, of underweight children (aged 6-59 months), and anemia among women of reproductive age and children to less than one percent.

SDG 3 aspires to ensure healthy lives and promote well-being for all people of all ages. The progress in the health sector has been encouraging. The SDG 3 targets for Nepal for 2030 are to reduce maternal mortality ratio (MMR) to less than 70 per 100,000 live births, to reduce preventable deaths to less than 1 percent of newborns and children, and to eliminate the prevalence of the human immunodeficiency virus (HIV), TB, malaria, other tropical diseases and water borne diseases. The targets also include reducing non-communicable diseases (NCD) by one-third and raising the proportion of births attended by skilled birth attendants (SBA) to 90 percent.

SDG 4 aspires to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Nepal has made good progress in primary education with the NER now standing at 96.2 percent and the literacy rate of 15–24 year olds at 88.6 percent. Some of the proposed targets for 2030 include almost 100 percent enrolment and the completion of primary Sustainable Development Goals, 2016-2030 National (Preliminary) Report ix education, 95 percent of students being enrolled in grade one to reach grade eight, and 90 percent of children attending pre-primary education.

SDG 5 is about achieving gender equality and empowering all women and girls. Nepal has made substantial progress in ensuring equal access to education, with gender parity in primary and secondary level school enrolment. But discrimination and violence against women and girls remains despite significant improvements. The proposed targets for 2030 include eliminating gender disparity in all levels of education, wage discrimination at similar work, physical and sexual violence, and all harmful practices, and raising the presence of women in the national parliament and public service decision-making positions.

SDG 6 is about ensuring the availability and sustainable management of water and sanitation for all. Basic water supply coverage in Nepal was 83.6 percent in 2014, while sanitation had reached 70.3 percent of the population. Two-thirds of the Nepali populations now use latrines and 30 percent of urban households are connected to sewerage systems. The proposed targets for 2030 include 95 percent of households having access to piped water supplies and improved sanitation, all communities being free of open defecation, and all urban households being connected to a sewerage system.

SDG 7 aspires to access to affordable, reliable, sustainable and modern energy for all. Currently, nearly three-quarters of households use solid fuels as their primary energy source for cooking while more than a quarter use liquid petroleum gas (LPG). Nearly three-quarters of households have access to electricity in their dwellings. The proposed targets for 2030 include 99 percent of households with access to electricity, only 10 percent of households using to firewood for cooking, the generation of at least 10 thousand megawatts of electricity, and decreasing energy intensity by 0.8 percent per annum.

SDG 8 aspires for sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. The target for LDCs is at least seven percent per annum growth in per capita gross domestic product (GDP), which Nepal is targeted to achieve by 2030. Other proposed targets to meet this goal are growth of labor intensive sectors like agriculture and construction by 5 and 10 percent respectively.

SDG 9 aims for resilient infrastructure, inclusive and sustainable industrialization, and innovation. So far, 12,500 km of the country's strategic road network and about 53,000 km of the local road network have been built. The share of industry in the country's total output is only 15 percent. The targets and indicators for 2030 are to increase road density from the current 0.44 km/km2 to 5 km/km2, grow access to telecommunications (tele-density) to 100 percent, and raise the share of industry in total output to 25 percent.

SDG 10 is about reducing inequality within and among countries. In Nepal, consumption inequality (as measured by the Gini coefficient) inequality 2014 was estimated at 0.33, and the share of the bottom 40 percent population in total income was about 12 percent. The proposed targets for 2030 are reducing consumption inequality from 0.33 percent to 0.16 percent, increasing the share of national income of the bottom 40 percent of the population from 12 percent to 18 percent, and increasing social, economic, and political empowerment indices to 0.70.

SDG 11 aspires to make cities and human settlements inclusive, safe, resilient and sustainable. It is estimated that 7 percent of Nepal's urban population lives in squatter settlements and only 30 percent of houses are safe to live in. The proposed targets for 2030 include reducing multidimensional poverty, doubling the proportion of households living in safe houses, increasing the road density to five km/km2 , making 50 percent of roads safe (for driving) by international standards, and creating at least 50 new satellite cities.

SDG 12 intends to ensure sustainable consumption and production patterns. In Nepal, only 10 percent of water resources have been used and fossil fuels comprise only 12.5 percent of energy consumption. The proposed targets for 2030 include limiting fossil fuel consumption to 15 percent of energy consumption and improving Sustainable Development Goals, 2016-2030 National (Preliminary) Report x the soil organic matter from 1 percent in 2014 to 4 percent in 2030.

SDG 13 calls for urgent action to combat climate change and its impacts. In Nepal, the total emission of carbon dioxide (CO_2), at 0.10 metric tons per capita, is negligible and the consumption of ozone depleting substances (ODS) is only 0.88 ODS tones. The proposed target for 2030 include halving the emission of CO_2, ODS and greenhouse gases from agricultural, transportation, industrial and commercial sectors.

SDG 14 is about conserving and sustainably using the oceans, seas and marine resources for sustainable development, and so is not relevant for Nepal. But as mountain resources are so crucial for Nepal's fresh water resources, hydropower, livelihood, agriculture, adventure tourism and environment protection, some specific targets can be set and indicators developed for this goal.

SDG 15 calls for protecting, restoring and promoting the sustainable use of terrestrial ecosystems, sustainably managing forests and halting biodiversity loss. Nepal's current forest cover including bushes and grassland is 39.6 percent. Protected areas cover 23.2 percent of the country's land area. The proposed specific targets for 2030 are to increase forest cover to 45 percent and protected areas to 25 percent.

SDG 16 calls for promoting peaceful and inclusive societies for sustainable development among others. Nepal scores only 3 out of 6 for transparency, accountability and corruption in public life. Violence against children and women is common. The specific targets for 2030 include ending deaths from violent conflict, violence against women and violence against children, and improving the transparency and accountability score to 5, and the score on the good governance scale to 2.

SDG 17 is about strengthening the means of implementation and revitalizing the global partnership for sustainable development. SDG17 has 19 targets, although its further elaboration through measurable indicators has yet to be done.

Conclusion

MDGs helped in mobilizing international community, leaders, politicians, civil society and sectoral ministries, and departments to focus on achieving these time-bound and measurably goals. We may not have achieved all these goals but have made a substantial progress in saving lives and improving quality of lives of thousands of people within the country and globally. Nepal has not made progress commensurate with its economic and technological might and needs to do more. MDGs have been easy to relate, understand, communicate, implement, and monitor, whereas SDGs, though to some extent, are a continuation of MDGs,

yet suffer from the weakness of being too many and unwieldy to implement and monitor. This has probably resulted from large consultative process where everyone wants to see their areas of interest included. Providing required funding to these a reality remains a challenge. There is a need to improve accountability from international level to local level. The next 15 years is likely to see unprecedented mobilization of resources and efforts to make the world a better place to live for "we the people", especially the marginalized and disadvantaged groups.

CHAPTER XV
SOURCES OF DEMOGRAPHIC DATA AND POPULATION PROJECTION

15.1 Introduction

Among various types of data base, population database which provides information about the people and their welfare is of major concern for all policy makers, planners, and decision - makers of the country. Whatever the plan is made, policy is formulated and decision is taken are for the benefit of the people. Therefore, population database of the world, country, region, district, VDC/metropolitans along with settlement should be able to provide reliable, timely and relevant demographic data of the people living in respective administrative units aiming to formulate policy, plan, and program for the benefit of the people. For this purpose true information is needed and such information could be collected from various sources which have been shown as followings:

   i.   Population Censuses
   ii.   Demographic Sample Surveys
   iii.   Registration system and administrative statistics
        • Vital Registration (vital events such as births, deaths, marriage and migration)
        • Population Registers
        • Service Statistics/Official records (from health or family planning
   iv.   Qualitative Data (ethnographic studies, participant observation, focus group discussions, life histories and genealogies, case studies and interview of key informants)

15.2 Population Censuses

The word 'Census' comes from the Latin 'Censere' which means to value or tax. In other words, earlier censuses were carried out either for taxation or for military purposes. Other reasons for census -taking were military service and food supply. The Ancient Greeks counted the adult males in time of war and the general population when food was in short supply. Evidences of censuses have been available in earlier times i.e. in 17th century; however, it is difficult to decide where and when the first scientific census was carried out.

> *United Nations (1958) defines census as "A census of Population May be defined as the total process of collecting compiling and publishing demographic economic and social data pertaining at a specified time or times to all persons in a country or delimited territory. "*

A modern census has following four essential characteristics (UN 1970):

   a)   Each individual is enumerated separately and the characteristics of each person are recorded separately.
   b)   The census covers a precisely defined territory and includes every person present or residing within its scope.

c) Population is enumerated with a well-defined point of time, and date is in terms of a well-defined reference period.

d) The census is taken at regular intervals.

In the past some countries practiced census by assembly (gathering together all the residents of an area for enumeration) and only collected group data from households. This means that the analysis of the data was simple but limited. The modern practice is individual enumeration; each house is visited an information is recorded for each individual separately.

Because a census covers everyone in a population, it is expensive and only a few basic questions (such as age, sex, marital status, birthplace, education and occupation) are asked. This is particular true in places where many people cannot read or write and the census from have to be completed by an enumerator.

Most European countries began to hold modern-type census in the 19th century. In Asia, the Indian sub - continent was covered by a census in 1872. American constitution made a provision of carrying out a census every ten years. Since then censuses have been conducted in USA every ten years. In a like-wise manner, most European and Asian countries also started taking a national census every ten years since the 19th century. However, there are some countries where census is also conducted every 5 years such as Japan.

Statistical standards have been steadily improving throughout the world. Better census data are essential to planner in economics, education, health, and other fields. Also newly independent countries, accurate details of the distribution were necessary before electoral areas could be determined.

In the context of Nepal, the first population count in Nepal was carried out in the year 1911. Since then censuses in Nepal are being carried out at an interval of more or less ten years. The first scientific census with the technical assistance from the United Nations was conducted in 1952/54. The eastern half of the country was enumerated in 1952 while the western half was enumerated in 1954. This census also followed the United Nations definitions for different demographic measurements. Since the country was not enumerated at the same time, the 1961 census is regarded as the first scientific census of Nepal, in terms of internationally accepted definition of a census. Latest census was carried out in 2011 which is the eleventh census in the history of Nepalese census and with this census, with this 2011 census the census history has completed one century.

Censuses in general, suffer from two types of errors a) coverage errors and b) content errors. Coverage errors refer to errors in undercount or over-count of a population. In most of the cases it is the under count of a population resulting in the under count of special groups of population which is mobile, live in remote areas or city slums etc; Content error refers to the errors resulting from faulty transcription of data during collection processing and tabulation of the data. Magnitude of content errors is very difficult to estimate. However, coverage errors can be detected through post enumeration surveys.

The census of 1971 was the first one, where a mainframe computer was used to process data. Till 1991, mainframe computer were used in the processing of the census data. The census of 2001 is the first census, where desktop personal computers were used to process the census data. In 2011 census, the census was conducted from 3-12 Asadh, 2068 and Asadh 8 was considered as the census day. The results obtained from census are supposed to be in reference to the census day.

15.3 The Demographic Sample Surveys

A sample survey is cheaper and easier to administer than a census. It involves the selection of people who represent the whole population, or a particular section of it. A sample can get more detailed and higher quality information than a census, because more time and effort can be spent on each interview. World Fertility Survey, Demographic and Health Surveys and Contraceptive Prevalence Surveys are the examples of international surveys (including Nepal) on population related topics.

Table 92: Major Demographic and Population Surveys conducted in Nepal

SN	Name of the survey	Survey year	Organization
1	Demographic Sample Survey (DSS)	1974	CBS
2	Demographic Sample Survey(DSS)	1975	CBS
3	Demographic Sample Survey(DSS)	1976	CBS
4	Nepal Fertility Survey (NFS)	1976	MOH
5	Nepal Contraceptive Prevalence Survey(NCPS)	1981	MOH
6	Fertility and Mortality Rates in Nepal	1984	New ERA
7	Nepal Fertility and Family Planning Survey(NFFS)	1986	MOH
8	Nepal Fertility Family Planning and Health Survey (NFFHS)	1991	MOH
9	Nepal Family Health Survey(NFHS)	1996	MOH
10	Nepal Living Standards Survey(NLSS)	1996,2003,2010/11	CBS
11	Birth, Death and Migration Study	1998	CDPS
12	Nepal Labour Force Survey (NLFS)	1998, 2008	CBS
13	Between Census Household information for monitoring and Evaluation system (BCHIMES)	2000	CBS
14	Nepal Demographic and Health Survey (NDHS)	2001, 2006, 2011	MOHP
15	Nepal Adolescent and Youth Survey	2010/11	MoHP

In Nepal, since 1974 a number of sample surveys relating to population have been conducted. Some of the major surveys related to population are provided in Table 92. It can be seen since 1976, a fertility and family planning type survey is being conducted every 5 years under the

auspices of Ministry of Health. The latest one in this series is the Nepal Demographic Health Survey 2011. These surveys have provided reliable estimates of fertility, family planning, mortality and health indicators for Nepal which are being very useful in population and health policies formulation for years.

Census and survey are two words that we commonly hear only to confuse between these two techniques of collecting information about basically everything under the sun. Survey could be an attempt by an organization to find out the level of satisfaction among its customers about its services to a much bigger survey carried out by a government to decide on major welfare policies for different sections of the society. Survey is actually a technique that takes out a sample from a population scientifically to arrive at a decision for the entire population. The following table attempts to clarify differences between census and survey to have a better understanding of these two sampling techniques.

Table 93: Difference between Survey and Census

Area	Survey	Census
Define	A survey is a data collection activity involving a sample of the population	A census collects information about every member of the population.
Involvement	Census involves asking questions from the entire population while survey involves taking out a sample from the population that represent the population best from the point of view of the goal of the survey	Survey is quick and gives results quickly too while census is time consuming and takes a long time to generate results.
Cost	Survey is rather inexpensive	Census is a mammoth exercise requiring lots of money and a high number of personnel.
Time	Survey is quick and gives results quickly too	Census is time consuming and takes a long time to generate results.
Accuracy	Survey where accuracy is somewhat less.	Census is obviously more accurate

15.4 Vital Registration

A Vital registration (statistics) as defined by the United Nations, is the" continuous, permanent, compulsory, and universal recording of the occurrence and characteristics of vital events (live births, deaths, fetal deaths, marriages, and divorces) and other civil status events pertaining to the population as provided by decree, law or regulation, in accordance with the legal requirements in each country (UN, 2001). Such data are important for legal purpose along with school enrollment. Vital statistics are a major source of data for the study of population change because they are collected on a continuous basis. The origin of vital statistics begins as early as 1869 and death by social class was recorded in England beginning in 1921.Vital registration act in Nepal was passed in 2033(1976/77). With the implementation of this law and regulation passed in 2034 (1977/78) vital registration in Nepal was launched in 1st Baishakh 2035 (14th April 1978) and was successfully administered in 2047 B.S in all 75 districts of the country in all VDC and Metropolitan cities. Provision has been made for the recruitment of a VDC secretary, who also serves as the registrar for the vital registration. The vital registration system in Nepal covers five events: (a) birth (b) deaths (c) marriage (d) migration and (e) divorce.

Very little efforts have been made to increase the coverage of the vital registration system in Nepal. Penalty of not registering a vital event is nominal and the use of registration certificate is also limited. As a consequence, most of the events are not registered or even if they are registered, they are registered very late, that is, years after the events have taken place.

At the same time, very little evaluation studies have been carried out in this regard and recently no evaluation studies regarding the effectiveness of coverage and improvement of the vital registration system has been done. Thus nobody knows the percentage of under registration of vital events and whether it is improving or deteriorating. Thus the data obtained from the vital registration system are not used for demographic analysis.

15.5 Population Register

Another source of population data is Population Register, which provides a continuous record of changes in population movements. Population movements and changes therein are registered in population registers in an integrated manner. There are a number of countries, which maintain population registers. Like the vital registration system if the population registers are not maintained regularly then data available becomes less useful. There are a number of countries such as Japan, Taiwan, Germany, Scandinavian countries and Italy etc; etc; where population register data have been well maintained. Basically the population registers are maintained for data on a) vital events b) Current estimate of the population both at the national and subnational level and c) statistics on migratory movements. Although these registers provide useful data, this system is not maintained in Nepal.

15.1 Administrative Statistics/Official Records:

Population related data are also available through administrative records/official records. These records are maintained as part of the service delivery by the government. For example, the Family Health Division under Department of Health maintains data on number of sterilization performed under the mobile sterilization services. More detailed data on the health services delivered are available through the annual report of the HMIS in Department of Health. In a likewise manner, the annual reports and different reports published by the Ministry of Education and other ministries are important sources of data related to population.

15.6 Qualitative Data

While statistical sample surveys provide us with the quantitative data, qualitative data are also very much useful and are usually obtained from ethnographic studies, participant observation, focus group discussions, life histories and genealogies, case studies and interview of key informants.

Qualitative methods consist of three kinds of data collection: (1) In-depth, open ended interviews (2) direct observation and (3) written documents. The data from interviews consists of direct quotations from people about their experiences, opinions, feelings and knowledge. The data from observations consists of detailed descriptions of people's activities, behaviors, actions, and the full range of interpersonal interactions and organizational process

that are part of observable human experience. Document analysis in qualitative inquiry yields excerpts, quotations or entire passages from organizational, clinical or programs records; memoranda and correspondence official publications and reports, personal diaries and open-ended written response to questionnaires and surveys.

The data for qualitative analysis typically come from fieldwork. During field work the researchers spends time in the setting under study -a program , an organization, a community , or wherever situations of importance to a study can be observed and people interviewed.

Traditionally in demographic literature very little attention was given to qualitative data. Because of extensive field-work carried out by different demographers including Caldwell and Hill (1988) qualitative data have been gaining importance in demography and sociology since then.

Advantages

- Qualitative data have the advantage of explaining the way things are, while they are weak in measuring the level and magnitude of change in the demographic variables.
- Useful for studying a limited number of cases in depth and describing complex phenomena
- Can conduct cross-case comparisons and analysis
- The researcher can use the primarily qualitative method of grounded theory to inductively
- Data are usually collected in naturalistic settings and are especially responsive to local situations, conditions, and stakeholders' needs
- Qualitative researchers are especially responsive to changes that occur during the conduct of a study (especially during extended fieldwork) and may shift the focus of their studies
- Determine idiographic causation (i.e., determination of causes of a particular event)

Disadvantages

- The data obtained from qualitative studies are very difficult to process and at times standardization of results is very difficult meaning that different researchers may come up with different conclusions with the same set of data.
- In recent years there has been substantial development in this field and consequently more and more qualitative data are available in the field of population studies.
- Knowledge produced might not generalize to other people or other settings (i.e., findings might be unique to the relatively few people included in the research study.
- It is difficult to make quantitative predictions and to test hypotheses and theories with large participant pools.
- It generally takes more time to collect the data when compared to quantitative research.
- Data analysis is often time consuming.

- The results are more easily influenced by the researcher's personal biases and idiosyncrasies

15.7 Population Projection

Population projection is an exercise at calculating the future values of given population. To arrive at the future values, it may be necessary to use several techniques and interrelationship that will be discussed in this paper. As we proceed with the discussion of the methods to be adopted and type of data that would be required to project populations, it will become clear that more than the choice of techniques. It is the skill in using them and the demographic insight the researcher has of the population he/she is dealing with that are important to arrive at reliable results. Thus the crucial stage in the process of projection is at the formulation of a set of realistic assumptions regarding the future trajectory of a population as well as of the rates that would determine its growth and change. The reliability of the projected values will depend upon the validity of these assumptions and the accuracy with which these assumptions are translated into quantitative terms. The credibility of the projected values can always be questioned because of the subjectivity involved in the selection of assumptions regarding the future course.

At the outset, it must be understood that for projecting, one would require data of the current period and of the past. Projection is extrapolation from these available data. The methods of projection can be classified broadly as Mathematical and Component.

15.7.1 Importance of Population projection

One of the important functions of the demographers is to provide information on the future population, which is essential to plan for several aspects of human activities. Population projections and estimates constitute a core focus of demographic techniques. Both activities calculate the size and often the demographic characteristics of a given population in the absence of complete data such as might be available from a population census. Population projections and estimates play an important role in analysis of societal trends and in planning and policy decisions. Population projections and estimates are sometimes distinguished from each other by the statement that population estimates refer to current or past dates while population projections refer to future dates. A better distinction would be based on the time period of the input data relative to the output data. Population projections take the data on trends in population size and/or in the components of population change (births, deaths, and migration) and use mathematical models to extrapolate these trends into a time period not covered by the data. Usually, but not always, projections are done for some point in the future that is not only beyond the last date of the input data but also beyond the date that the projection is actually prepared. Population estimates relate to a past time period for which population counts are not available (such as the years after the most recent population census.

15.7.2 Methods of Population Projection

There are two types of population projection methods: Mathematical methods and Component methods.

a. Mathematical Methods

Linear Method: The simplest method of extrapolation is to compute the average annual number by which the population has increased from one to another, and to add an equal number for every year which has elapsed since the last census. Thus the formula is

Arithmetic growth rate (r)

Or, $P_n = P_0 (1 + nr)$ where P_0 = initial population, Pn = Population at end of period, n = years, and r = annual rate of change

Exponential Method: Exponential extrapolation corresponds to the assumption that population increases from a constant rate of growth. In this situation the size of population will increase without limit, if the growth rate is positive and decrease if it is negative. The formula to calculate the population at time n is,

$$P_n = P_o\, e^m$$

where P_0 = initial population, r = annual rate of change, P_n = population at end of period, n = number of years, log = natural logarithm and e = 2.71828.

Geometric Method: Geometric extrapolation corresponds to the assumption that a population increases constantly by numbers proportionate to its changing size. In this case the population change takes place at the same rate even each unit of time to each year. The formula to calculate population in the nth year is,

$$P_n = P_c(1 + r)^n$$

where P_0 = initial population, r = annual rate of change, P_n = population at end of period, n= number of years

Logistic Curve Growth Function: Logistic curve function is one of the most commonly used mathematical methods to project future population when a series of data on population is available for the number of observations which is division of 3 and the time intervals between the population counts is same.

- Logistic curve depicts that population cannot grow at constant rate for indefinite time.
- After completing certain stage of constant growth rate, population growth rate declines and gradually remain at stable size of population or further declines in size.

The curve (S-shaped) shows the slow growth of population at initial followed by a stage of rapid growth and finally achieving stable size of population or further decline in number.

The equation of a logistic curve that is used to project population is given by

$$P_t - \frac{K}{1 + e^{a+b \cdot t}}$$

where 'a', 'b' and 'K' are some constants and the values of these are to be determined, and 't' is the time of corresponding year in the series starting from '0' for the initial year in the series.

Table 94: Summary of Concepts of Population Growth

Type of growth	Description of trend	Growth rates	Absolute increment	Ratio of adjacent population
Arithmetic	growth thought constant increment at constant interval	constant	constant	changing
Geometric	Growth compounding at constant intervals	constant	changing	constant
Exponential	Growth compounding continuously	constant	changing	constant
Logistic	Growth rate changing in relation to population size	changing	changing	changing

b. Component Method

Component method is supposed to be a reliable technique to estimate the future population since it is based on the past as well as likely future trends in fertility, mortality and migration. Thus, it is the most widely used method in projecting future population.

- Population can be projected by sex and 5-year age groups separately.
- Population is projected for intervals of 5-year period.

Component method requires

- Adjusted age-sex distribution of population in the base year from which projection begins
- Selection of an appropriate model life table with expected age pattern of mortality.
- A set of three assumptions with high, medium and low variants (i.e. declining mortality and rapid decline in fertility; same level of declining mortality but medium decline in fertility; and same level of declining mortality but low decline in fertility).

239

- Adjustment of net-migration during the projection period, if there is any, and
- Sex ratio at birth during the projection period (1.05 can be assumed)

CHAPTER XVI

INTERNATIONAL CONFERENCE ON POPULATION AND ENVIRONMENT

16.1 Introduction

Analysis of the international conference plays significant role to formulate policy, plan and program design and thus, this chapter presents International Conference on Population Development (ICPD), Beijing Conference, Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs).

16.2 International Conference on Population and Development (ICPD)

The International Conference on Population and Development (ICPD) was held in Cairo, Egypt from 5 to 13 September, 1994. The Conference was organized under the auspices of the UN. It was the largest international conference on population and development ever held, with 11,000 participants from governments, UN agencies and organizations, INGOs and the media. More than 179 countries including Nepal took part in negotiations to finalize a Program of Action in the area of population and development for the next 20 years.

> *The Program of Action (POA), which was adopted by acclamation on 13 September 1994, endorses a new strategy that emphasizes the integral linkages between population and development and focuses on meeting the needs of individual women and men, rather than on achieving demographic targets. The key to this new approach is empowering women and providing them with more choices through expanded access to education and health services, skill development and employment and through their full involvement in policy and decision-making processes at all levels. Indeed, one of the greatest achievements of the Cairo Conference has been the recognition of the need to empower women, both as the end in it and as a key to improving the quality of life for everyone.*

16.2.1 Nepal's Response to ICPD

Nepal is one of the signatories of ICPD POA. So, Government of Nepal is fully committed to implement the POA of ICPD. In response to the Cairo Conference, three new ministries were established in 1995. They were: Ministry of Population and Environment, Ministry of Women and Social Welfare and Ministry of Youth and Sports. Later on, these ministries have been reformed with merging with 0ther related ministries however the portfolios of the ministries are not gone beyond the recommendations of the conference.

To follow up ICPD POA, a high level meeting of the countries from the ESCAP region was

organized in Bangkok, Thailand in March 1998. The Meeting mainly concentrated on solving the problems being faced by the member countries in implementing the ICPD/POA. Another high level meeting as a follow-up to the POA of ICPD was held in the Hague, Netherlands in February, 1999 (also known as the Hague Forum). This meeting was attended by the representatives from government and non-governmental sectors as well as parliamentarians. At the Ministerial level meeting Nepal was represented by the Minister for Population and Environment. In addition to the Forum, which is also known as the ICPD+5, Nepal has also participated in the Special General Assembly on Population at the UN. A ministerial level "Fifth Asian and Pacific Population Conference was held in Bangkok in December 2002. During this meeting Nepal reiterated its commitments towards the ICPD/POA. Major quantitative goals of ICPD and the achievements so far, in this regard, have been summarized below:

16.2.1.1 Reproductive Health and Family Planning

> *All countries should strive to make reproductive health care service accessible through the primary health care system to all individuals of appropriate ages as soon as possible and no later than 2015.*

Reproductive health service is a major component of basic health services being delivered by all of the health institutions. To further increase access of these services these services are being offered as PHC outreach services, which are offered twice or thrice a month. These services at the moment are targeted towards currently married women of reproductive age.

> *All countries should strive to develop referral system for treatment of pregnancy complications.*

In order to solve the problems of pregnancy complications a concept of Basic and Comprehensive EOC services has been planned and is being implemented. At present PHCC/Health posts serve as basic EOC service facilities and Hospitals perform as comprehensive EOC service facilities. For obstetric services, although referral system has been in place, it does not function well. Moreover, for the basic as well as comprehensive EOC services these health institutions need to have adequate equipments and trained manpower. Although the department of health is working towards these effects it might take quite some time before these services are available at the peripheral level regularly and the referral system works well.

> *All countries should take steps to meet the family planning needs of their population by the year 2015.*

In Nepal, the Contraceptive Prevalence Rate (CPR) is increasing gradually over the years. During the last 5 years, nearly a ten percentage point increase in the CPR was observed. Current CPR as indicated by NDHS, 2011 is around 50 percent. This survey also indicated that although the unmet need has not declined and this is still quite high i.e. around 27 percent. This indicates that not only should the family planning program cater towards this

unmet need but also work towards increasing demand for the FP services.

16.2.1.2 Mortality

All countries should make access to basic health care for all by 2000.

The government of Nepal has established a sub-health post or higher level health institutions at each and every VDC in the country. Moreover, to provide basic services a PHC outreach services are also offered from sub-health posts to areas further away from the health institutions. These policies and programs of the government of Nepal have increased the availability and accessibility of the health services to common people. Currently at the governmental level there are 3,126 sub health posts, 677 health posts, 209 PHCC, and 81(Zonal, district and center) hospitals throughout the country.

Specific infant and child mortality-reduction goals aim to reduce
the gap between developed and developing countries as soon as
possible.

The goals of the Second long term health plan are to achieve the IMR and child mortality of 34.4 and 62.5 and a life expectancy of 68.7 by the year 2015. For this, besides the regular health services, government of Nepal has prioritized following programs: [40]

Currently IMR is around 46 per 1000 live births and under 5 mortality is around 54 per 1000 live births. Although mortality especially among children is decreasing, still a lot needs to be done to further decrease infant and child as well as adult mortality in Nepal to meet the long term objectives stated earlier.

By 2015, all countries should aim to achieve an infant mortality
rate below 35 per 1,000 live births and an under-5 mortality rate
below 45 per 1,000.

Because of high levels of infant child mortality in Nepal, Impressive decline in mortality has been achieved during last 10 years through basic health programs such as immunization, vitamin A supplementation and CDD, ARI, programs. However to attain a target of IMR of 35 per 1000 live births, preventive programs are not enough. Thus health institutions need to be strengthened to curb the IMR.

Countries with the highest levels of mortality should aim to achieve
a life expectancy at birth greater than 65 years by 2005 and
greater than 70 years by 2015.

Nepal is one of the few countries where mortality is still high. Estimate of current life

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40 Immunization
- CDD
- ARI
- Nutrition including Micro-nutrition programs

expectancy (both sexes) is around 69 years. The faster decline in infant and child mortality experienced during last 10 years were to continue in future, then there is a good chance that the target for the expectation of life at birth for the year 2015 could be met.

16.2.1.3 Education

> *All countries should strive to ensure complete access to and achievement of primary education by both girls and boys as soon as possible and before 2015.*

In this respect the Ministry of Education has been helping in the increase of primary schools in different parts of the country. The literacy rate and school enrollment rates have been increased. The current literacy rate of Nepal is 65.9% with male literacy of 75.1% and that of females is 57.4% and school enrollment rate is 95% in primary level whereas the enrollment rate in secondary level is only 52%.

16.3 Millennium Development Goals

"We will spare no effort to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty, to which more of a billion of them are currently subjected. We are committed to making the right to development a reality for everyone and to freeing the entire human race from want."(UN Millennium Declaration September 2000).

In September 2000, the United Nations general Assembly issued the Millennium Declaration, designed to focus and intensify development efforts. Drawing on the UN conferences of the 1990s, the declaration sets out eight broadly stated goals of social and economic development: the Millennium Development Goals or MDGs and specific, time- bound targets for each goal. A year later, in September 2001, the secretary general issued a Road map to implementation of the UN millennium Declaration, which structured and formalized the goals and targets and put forth a set of indicators to monitors progress.

16.4 Nepal's Response

The Government of Nepal has been focusing on the sectors like agriculture, trade and industry, health, education, employment generation, etc. since the first development plan (1956-61) and, revising and refocusing the priorities coming to the current three year interim plan (2010-2013). In the sixth and seventh plans additional focus was given to meeting the basic needs of people. Similarly, women's development issue was included in the seventh plan and, the more focus has been given to women's empowerment and gender equality since the Ninth Plan (1997-2002) based on UN Convention on the Elimination of all Forms of Discrimination Against Women, 1979 (CEDAW) as well as Beijing Platform for Action, 1995. The issues of women's development, child development and environment have been getting a good space in the development plans since late 1980s and more space since beginning of 1990s. After the restoration of democracy in 1990, almost all sectors, for instance; education; health; trade, commerce and industry; agriculture diversification; economic liberalization; drinking water and sanitation; decentralization; gender; human,

women and child's rights trade; population; environment, etc. have getting more focus on the national agenda. After the establishment of Loktantra, the government of Nepal has focused on women empowerment and a positive discrimination system has been implemented. Thirty three percent seats have been secured for women in every level of decision making including in the Member of Parliament and in every sectors of employment irrespective of civil service. This reservation of posts for women have made them empowered and has created environment of social inclusion. It indicates that the Government of Nepal has been giving attention on implementing provisions of UN and International Declarations including, MDGs in which Nepal is a party.

The sectors/issues enshrined in the MDGs are not the exactly new ones, but they have been included in the various UN Declarations and International Instruments such as, UN Convention / Declaration on Human Rights Declaration, 1948; Elimination of all Forms of Racial Discrimination, 1966; UN Covenant on Economic, Social and Cultural Rights, 1966; Convention on the Elimination of all forms of Discrimination against Women, 1979; Convention on the Rights of the Child, 1989; ICPD, 1994 and other conferences of SAARC together with optional protocols and declarations of special sessions of United Nations. However, the beauty of the Millennium Declaration is that it quantified the targets by the time-line which the state parties should have to monitor the progress accordingly.

From the Ninth Plan (1997-2002), the five year and three year plans of Nepal has focused on poverty alleviation, The three year plan 2010-2013 has the sole objective of reducing absolute poverty level to 22 percent from the poverty level 31% in 2003/4.The current level of absolute poverty has been reduced to 25% in the year 2011 (NLSS, 2011). yet The Plans from the ninth plan has been set forth a four-pillar strategy - Broad based economic growth; social sector including human development; targeted programs including social inclusion, women's empowerment and gender together with targeted programs for the ultra poor, vulnerable and deprived groups; and good governance including civil service reforms. All four pillars are essential for mainstreaming deprived groups into development process, and they are closely inter-related with MDGs together with some provisions of other international instruments. The Plan also stresses on some strategic cross-cutting approaches like motivating private sector to employment and income generation, and encouraging NGOs and INGOs in implementing key activities to socio-economic development process. Similarly, the Plan places strong emphasis on monitoring progress towards the attainment of key poverty reduction goals including the Millennium Development Goals (MDGs).

The government has adopted a new strategy for the next three years that will continue to emphasize employment generation, poverty reduction, food security, and responses to climate change. Poverty monitoring and effective implementation of plans and programs have been emphasized with the introduction of Medium-Term Expenditure Framework and Results-Based Development Management. In order to make progress towards meeting the MDGs in their entirety, there are still several weak spots that need attention and special effort. The major challenge with regard to poverty is identifying and capturing those who are currently below the poverty line; how does the country pull the bottom 25 per cent up? How is the gap

between the haves and the have-nots reduced? The issue of food security also requires urgent attention. Within the context of the national political scenario as well as larger geopolitics, the challenge is to create a better environment for private-sector investment, reduce imbalances with major trading partners, and better utilize foreign aid. With the country's relatively new focus on institutionalizing inclusion, designing and enforcing relevant policies is going to be a demanding task. Ensuring a place in the development process for all is essential; pervasive gender discrimination and lack of entitlement for *Dalit and Janajati* groups, people with disabilities and the marginalized must be overcome. Meeting the demand for energy and improving water supply and sanitation remain major problems for the country. Regarding climate change, there is a lack of scientific data for the country, and the issue is how to internalize it in development processes by pursuing climate change resilient strategies.

The government of Nepal has focused for universal primary level of education for both boys and girls and various programs to increase school enrollment to 100% in primary level such as campaigns, free education, school feeding programs and with these programs, the enrollment rate has been increased and the current level of primary level enrollment has reached to 95% and it is in track of achieving MDG goal. Similarly, the government of Nepal has implemented programs for women empowerment and gender equality. These programs include the participation of women in country's socio-economic opportunities and decision making. The reservation of quota in important positions in political and administrative posts is one of the programs implemented for women empowerment and gender mainstreaming. Besides social inclusion and positive discrimination programs has been the milestone in gender equality. In health sector, to save women, children and those who are in risks of HIV transmission and malaria, various awareness and service delivery programs have been implemented. Child immunization, women and child nutrition programs including CBNCP program and safe delivery incentive program *(Ama Surakchha Program),* Family Planning Programs and HIV/AIDS and Malaria eradication programs are the important programs implemented to achieve MDG goals. As a result, the infant mortality of Nepal is reduced to 46 per 1000 live births and under and five mortality rates has been decreased to 54 per 1000 live births (NDHS, 2011) and maternal mortality has decreased to 170 per 100000 live births. The awareness about HIV/AIDS has been increased (NDHS, 2011). The government of Nepal has focused on environmental protection as well. The Ministry of environment has been working in a collaborative way with other stakeholders of government and non-governmental sectors.

Table 95: Nepal's achievement of the MDG targets, 1990–2015

GOALS	*Base year 1990*	*Status 2000*	*Target for 2015*	*Status in 2015*
1. Eradicate extreme poverty and hunger				
1A Reduce extreme poverty by half				
Percentage of population living below USD 1 per day (PPP value)	33.5	N/A	17	16.4
Percentage of population living below national poverty line	42	38	21	21.6
Poverty gap ratio at USD 1 per day (percent)	N/A	11.7	6	5.60
Share of bottom quintile in national consumption	N/A	7.5	N/A	8.3
1B Full and productive employment for all				
Growth rate of GDP per person employed	N/A	1.6	N/A	N/A
Employment to population ratio	67	84.3	N/A	78.3
Proportion of employed people living below USD 1 per day	N/A	22	17	N/A
1C Reduce extreme hunger				
Prevalence of underweight children aged 6-59 months	57	43	29	30.1
Proportion of population below minimum level of dietary consumption	49	47	25	22.8
Proportion of stunted children aged 6-59 months	60	57	30	37.4
2. Achieve universal primary education				
2A Ensure that children everywhere, boys and girls alike, complete their primary schooling by 2015				
Net enrolment rate in primary education	64	81	100	96.6
Proportion of pupils enrolled in grade 1 that reach grade 5	38	63	100	89.4
Literacy rate of 15-24 year olds	49.6	70.1	100	88.6
3. Promote gender equality and empower women				
3A. Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015				

Ratio of girls to boys in primary education	0.56	0.79	1.0	1.09
Ratio of girls to boys in secondary education (9-10)	0.43	0.70	1.0	1.0
Ratio of women to men in tertiary education	0.32	0.28	1.0	1.05
Ratio of literate women aged 15-24 years to literate men aged 15-24 years	0.48	N/A	1.0	0.89
Share of women in wage employment in non-agriculture sector (percent)	18.9	17.7	N/A	44.8
Proportion of seats held by women in the national parliament (percent)	3.4	5.8	N/A	29.5
4. Reduce child mortality				
4A. Reduce under-five mortality by two thirds, between 1990 and 2015				
Infant mortality rate (per 1,000 live births)	108	64	36	33
Under-five mortality rate (per 1,000 live births)	162	91	54	38
Proportion of one-year old children immunized against measles (percent)	42	71	>90	92.6
5. Improve maternal health				
5A. Reduce the maternal mortality ratio by three-quarters between 1990 and 2015				
Maternal mortality ratio (per 100,000 live births)	850	415	213	258
Proportion of births attended by skilled birth attendants (percent)	7	11	60	55.6
5B. Achieve universal access to reproductive health by 2015				
Contraceptive prevalence rate (modern methods) (percent)	24	35.4	70	49.6
Antenatal care coverage: At least one visit (percent)	N/A	48.5	100	68.3
At least four visits (percent)		14	80	59.5
6. Combat HIV/AIDS, malaria and tuberculosis				
6A. Have halted by 2015 and began to reverse the spread of HIV/AIDS				
6B. Achieve universal access to treatment for HIV/AIDS for all those who need it by 2015				
HIV prevalence among men and women aged 15-24 years (percent)	N/A	0.15	Halt and reverse the	0.03

				trend	

Condom use at last high-risk sexual encounter (15-24 year olds)	N/A	71.2	N/A	65.8
Percentage of population aged 15-24 years with comprehensive knowledge of HIV/AIDS	N/A	35.6	M:50 F:40	36.4
Proportion of population with advanced HIV infection receiving antiretroviral combination therapy (percent)	N/A	N/A	80	26.5

6C. Have halted by 2015 and began to reverse the incidence of malaria and other major diseases

Malaria

Clinical malaria incidence (per 1,000 people)	N/A	N/A	Halt and reverse the trend	1.74
Annual parasite incidence (per 1,000 people)	N/A	0.55	0.06	0.11
Death rate associated with malaria (per 1,000 people at risk)	N/A	0.55	Halt and reverse the trend	0
Percentage of children under five with fever who are treated with appropriate anti-malarial drugs	N/A	3.2	2.5	2.8
Percentage of children under five who sleep under a long-lasting insecticide treated bed net	N/A	48.2	100	96.8

Tuberculosis

Prevalence rate associated with TB (per 100,000)	460	310	Halt and reverse the trend	211
Death rate associated with TB (per 100,000)	43	23	Halt and reverse the trend	20
Proportion of TB cases detected	N/A	70	85	83
Proportion of TB cases cured under DOTS	40	89	91	91

7. Ensure environmental sustainability

7A. Integrate the principle of sustainable development into country policies and reverse the loss of

C02 (annual) emission per capita (tons)	N/A	0.2	N/A	0.1

Consumption of all ozone- depleting substances (tons)	25	99.2	N/A	1.2
Energy consumption (ToE) K	6,847	7,759	N/A	11,232
Commercial energy use per unit of GDP (ToE/mRs)	1.44	3.91	N/A	3.2
Proportion of people using wood as their main fuel	75	67.74	N/A	53.8
Proportion of people using LPG as their main fuel	N/A	7.67	N/A	28.7
7B. Reduce biodiversity loss, achieving a significant reduction in the rate of loss by 2010				
Proportion of land area covered by forests (percent)	37	39.6	40	44.7
Proportion of total water resources used (percent)	N/A	N/A	N/A	10
Proportion of terrestrial area protected (percent)	7.4	13.6	N/A	23.3
Proportion of species threatened with extinction (percent)	N/A	N/A	N/A	0.4
Area of forest managed as community forest (million ha)	0.013	*1*	N/A	1.8
7C. Halve the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015				
Proportion of the population using an improved drinking-water source (percent)	46	73	73	83.6
Proportion of population using sanitation facility (percent)	6	30	80	81
7D. By 2020, to have achieved a significant improvement in the lives of slum dwellers				
Population living in slum and squatters	N/A	11,850	N/A	500,000

Source: MDG Status Report 2016

Challenges faced to meet MDGs
- Needs to include more country specific targets
- Conflict/rights sensitive approach in policy and program formulation and implementation
- Continuation of increasing foreign aid
- Efforts needed to address poverty pockets
- Inequality in HDI and income between urban and rural
- Poor quality of sectoral service delivery system

16.5 Sustainable Development Goals (SDGs)

The sustainable development agenda has been under global discussion over the past three decades. The SDGs were first formally discussed at the United Nations (UN) Conference on

Sustainable Development in Rio de Janeiro in June 2012 (Rio+20), and then in the UN General Assembly (UNGA) in September 2014. As the SDG goals and targets are being negotiated and agreed in the UNGA in September 2015, their indicators and implementation strategy are yet to be worked out. This national report delves into the current status of the proposed SDGs and their targets in Nepal, the enabling policy environment and existing institutions for their operation.

16.5.1 Nepal and SDG

Nepal is one of the signatory nations of the 2030 Sustainable Development Goals (SDGs) – a set of 17 Goals, 169 targets and 30+ indicators for achievement by 2030. SDGs are meant for planet, peoples and their prosperity to secure peace through partnership.

SDGs aspire for eradication of poverty, zero hunger, good health and well-being, quality education, gender equality, clean water, energy & environment, 'good' growth & jobs, peace & justice among others. Focus on quality of life, sustainable use of productive resources, innovations, & just and inclusive societies; thus transformation from quantity to quality. High emphases on infrastructure and climate change issues are against MDGs focus on social sector. Aspiration to leave no one behind is against achievement of MDGs still leaving a high development gap. National Plan Commission is going to finalize the SDGs targets and implementation guideline.

Conclusion

The government of Nepal is committed to attain MDGs. Although the MDGs are declared in 2000, the government has been effortful to focus on the issues raised in the MDG in the development plans prior to the UN declaration. In addition, the issues are not completely new ones in protecting and promoting the human rights but, the MDGs clearly spelled out the targets by the time line.

Despite the decades long interventions on the issues of health (including child health, women's health/reproductive health and HIV/AIDS), education, drinking water, women's development, gender equality, child rights, environment etc, the qualitative as well as quantitative progress (in majority cases) against the targets has been at a very slow pace. Only few targets have been in encouraging level.

The policy advocacy, implementation coordination, stakeholder's ownership, result based implementation modality, cost effectiveness of interventions/efficiency of the project and/or program, systematic data management system etc. have to be improved and, policy linkage should be strongly developed. In addition, localization of MDGs has to be internalized and well addressed in plans, policies, programs, monitoring and evaluation with a capacity development of concerned stakeholder.

CHAPTER XVII

POPULATION AND CONFLICT

17.1 Concept

Conflict refers to some form of friction, disagreement, or discord arising within a group when the beliefs or actions of one or more members of the group are either resisted by or unacceptable to one or more members of another group. Conflict can arise between members of the same group, known as intragroup conflict, or it can occur between members of two or more groups, and involve violence, interpersonal discord, and psychological tension, known as intergroup conflict. Conflict in groups often follows a specific course. Routine group interaction is first disrupted by an initial conflict, often caused by differences of opinion, disagreements between members, or scarcity of resources. At this point, the group is no longer united, and may split into coalitions. This period of conflict escalation in some cases gives way to a conflict resolution stage, after which the group can eventually return to routine group interaction once again.[41]

Despite the great diversity of views on population issues, there is an emerging consensus that population factors create pressures and demands on a society and that, if these demands are unmet, social dislocation, conflict, and violence may occur. What is not fully appreciated is that conflict and violence will in themselves create profound demographic consequences. Refugees are the most obvious of these consequences, but there are other consequences which may be less visible, but are no less profound and poignant. Increasingly, it is believed that changes in the size, distribution, and composition of populations are critical factors which can strongly influence political relations within and between nations. Demographic factors can affect the particular patterns of national and international behavior which result in various types of conflict.[42]

Almost one third of the world's population lives in conflict-affected low-income countries. Yet little is known about the effects of conflict on household welfare, behavior and poverty. By 2030, 60% of people will live in cities. What's more, 32% of the world's urban population currently lives in slums. These residents rely increasingly on non-state channels to access services including security and the provision of justice. In both low and middle income countries, poverty itself is also taking on an urban character, and cities are becoming sites of extreme and chronic vulnerability to poverty, crime and violence.

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[41] Wikipedia, "Conflict (Process)", https://en.wikipedia.org/wiki/Conflict_(process), 25 June 2017, web. 2017.

[42] Nazli Choucri, "Population and Conflict: New Dimensions of Population Dynamics", 1983. 30 June 2017.

17.2 Types of Conflict

Conflict pertains to the opposing ideas and actions of different entities, thus resulting in an antagonistic state. Conflict is an inevitable part of life. Each of us possesses our own opinions, ideas and sets of beliefs. We have our own ways of looking at things and we act according to what we think is proper. Hence, we often find ourselves in conflict in different scenarios; may it involve other individuals, groups of people, or a struggle within our own selves. Consequently, conflict influences our actions and decisions in one way or another. [43]

Conflict is commonly of three basic varieties: intra-state, inter-state, and trans-state, and its differing formats and permutations will continue to challenge governments and multi-national institutions over the coming decade.[44]

Intra-State Conflicts: These include civil conflicts precipitated by deepening political cleavages, economic distress, and growing inequalities, which in worst case scenarios can lead to the erosion of government legitimacy, a breakdown of law and order, and escalating ungovernability. State weakness can spawn the creation of armed criminal gangs and armed vigilante groups, provoke inter-ethnic conflicts, anti-immigrant pogroms, separatist movements, and significant refugee outflows. Such developments will also stimulate the growth of organized crime and smuggling operations transcending national borders.

Inter-State Conflicts: These may include conflicts over the status of disputed territories and the treatment of ethnic kindred in which intra-state conflicts can pull neighboring powers into the fray. They can also involve energy conflicts and other resource disputes stemming from the short and long-term impact of climate change. For example, the melting of the northern polar ice enables greater access to the region's abundant oil and gas reserves, whose location could be a source of territorial disputes between Arctic littoral states leading to the region's militarization.

Trans-State Conflicts: These could include international terrorism, economic sabotage, and cyber-attacks that precipitate state paralysis, undermine national security, or provoke international conflicts with sponsoring states. International terrorism remains a threat to civilian life, but its impact is most telling in mass phobia, in uses of terrorist stereotyping which can exacerbate Islamophobia, and in assertive government responses, including attacks on suspected sponsoring governments or insurgent movements. Global energy supplies may also be increasingly exposed to disruption through acts of sabotage. Cyber-attacks are becoming more frequent, organized, and costly in the damage inflicted on government operations, business, and national infrastructure while all countries increasingly rely on vital communications and transit routes for trade, investment, and energy security. Cyber-attacks

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[43] Brad Evans, "Types of Conflict", http://www.typesofconflict.org/types-of-conflict/, 16 August 2013, web. 30 June 2017.

[44] Janusz Bugajski, " Early warning, conflict prevention, crisis management, conflict resolution and post-conflict rehabilitation: lessons learned and way ahead", 1 July 2011. 1 July 2017.

can be conducted by individuals, global networks, or government agencies and may provoke retaliation and international conflict.

17.3 Conflict and Development

Until recently attention to population issues primarily has focused on the consequences of high fertility in many parts of the world. Rapidly growing numbers of people create social and economic burdens which cannot be ignored. However, evidence suggests that population problems include not only births and deaths, but also demographic change as it affects national and international politics. Conflict is a central feature of all political behavior, at all levels of human interaction. Thus, the prominence of population variables in shaping political behavior places population and conflict in close proximity.[45]

Population and conflict share one important characteristic: an increase in either factor places burdens on an already strained internal development agenda with regard to investment and consumption. Both investment and consumption must be reduced during periods of prolonged conflict. An increase in both population and conflict not only contributes further to such burdens, but adds reciprocal pressures: population changes may lead to conflict behavior, and conflict, in turn, may induce population dislocation. The interactive effects inevitably strain a country's development agenda.[46]

17.4 Armed Conflict in Nepal

Civil wars (**Intra-State Conflicts**) have been the dominant form of conflict around the world since World War II, resulting in approximately 20 million deaths. But it's not just sociologists who are diving into the roots of conflict. Increasingly, economists are examining these events to learn more about civil wars and how to prevent them. Quy-Toyan Do and Iyer Lakshmi (2014) documented that; Unified Communist Party of Nepal (Maoist) announced 'people's war against the government of Nepal in 1996. The chief objectives of the activist movement were to establish a people's republic and set up a constituent assembly to draft a new constitution. After the 10 years of conflict, it was formally ended in November 2006 with a comprehensive peace agreement between an alliance of political parties and Maoists, which stipulated the participation of the CPN-M in government and the monitoring of weapons by a United Nations Mission in Nepal. The table below shows the highest numbers of people killed by state were political workers while as police personnel were killed by Maoist side. During this period more than thirteen thousands people lost their life, out of these more than 8, 000 people were killed by state and nearly 5 thousand people were killed by Maoist.

Number of People by State and Maoist by Occupation

Occupation	By state	By Maoist	Total
Agricultural workers*	1448	933	2381
Teachers	59	86	145

[45] Nazli Choucri, "Population and Conflict: New Dimensions of Population Dynamics", 1983. 1 July 2017.

[46] Brad Evans, "Types of Conflict", http://www.typesofconflict.org/types-of-conflict/, 16 August 2013, web. 30 June 2017.

Political workers	5264	453	5717
Police personnel	16	1348	1364
Students	204	140	344
Civil/private service	53	583	639
Social workers	6	7	13
Business person	57	127	184
Workers	157	84	241
Health workers	2	3	5
Army personnel	23	666	689
Security Personnel	3	136	139
Photographers	2	3	5
Journalists	9	4	13
Law professionals	0	2	2
Prisoners	1	3	4
Dacoits	4	4	8
Engineer	0	1	1
Refugee	0	0	0
Unidentified person	1069	387	1456
Total	8377	4979	13347

Source: Informal Service Sector (INSEC) 2006

Workers denote wage workers, industrial workers and transportation workers

The figure below shows that year wise no of victims by state and Maoists in connection with people war. Approximately 13,000 people *directly* lost their lives due to conflict and countless others *indirectly*. Development processes slowed down, law and order deteriorated, basic infrastructure and services were crippled, and the economy gradually collapsed The figure shows that in 1996, 59 people were killed by state while as this number was lower (22) than that figure. The highest number of political leader were killed in 2002this number was fluctuates than the latter years.

Figure 35: No. of victims killed by State and Maoist
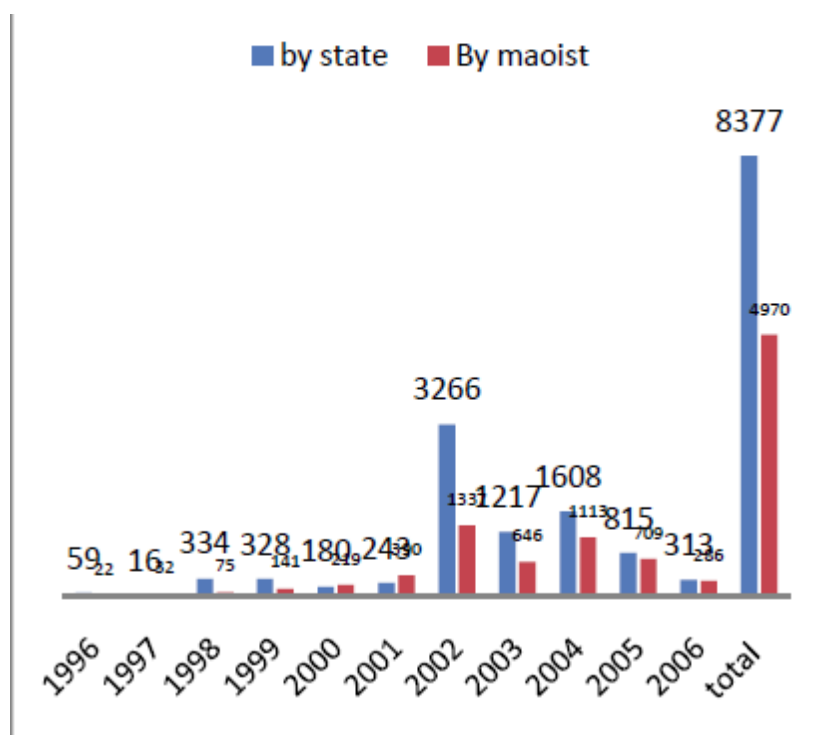
Source: Informal Service Sector (INSEC) 2006

The conflict officially ended in 2006, with the signing of the Comprehensive Peace Accord (CPA). In 2007, the Interim Constitution of Nepal was adopted, replacing the 1990 Constitution of the Kingdom of Nepal. It created an interim Legislature-Parliament, a transitional government reflecting the goals of the 2006 People's Movement - the mandate of which was for peace, change, stability, establishment of the competitive multiparty democratic system of governance, rule of law, promotion and protection of human rights, full press freedom and independence of judiciary based on democratic values and norms.

17.5 Impact of Armed Conflict in Nepal

There are some positive and Negative impacts of conflict. Collier and Hoeffler (1998) conducted an empirical analysis of the geographic, economic, and social factors that contributed to the spread of civil war in Nepal over the period 1996-2006. The study revealed that Conflict-related deaths are significantly higher in poorer districts and in geographical locations that favor insurgents, such as mountains and forests; a 10 percentage point increase in poverty is associated with 25-27 additional conflict-related deaths.

In addition, the relationship with poverty and geography is similar for deaths caused by the insurgents and deaths caused by the state. Furthermore, poorer districts are likely to be drawn into the insurgency earlier, consistent with the theory that a lower cost of recruiting rebels is an important factor in starting conflict. On the other hand, geographic factors are not significantly associated with such onset, suggesting that they instead contribute to the intensity of violence only after conflict has started. Finally, in contrast to some cross-country

analyses, ethnic and caste polarization, land inequality, and political participation are not significantly associated with violence.

Shakya Anjana (2009) carried out a study about Social impact of armed conflict in Nepal: cause and impact and she concluded that the conflict has had both positive and negative impacts. There has been an increase in awareness of rights and people are now able to fight against social, cultural and political discrimination. However, the society across the nation has been uprooted and people of all ages, sex and caste have had to bear with untold violence, torture, death and trauma. Further, she concluded that Nepalese people across the country have become more violent. According to her the positive and negative impact are as following

a) Positive Impact

Some of the people get opportunity to joined Army , some of the people received a large amount of money and involved in their business , housewives became active in public spheres to protect their children, husbands, brothers and relatives or were forced to join Maoist insurgency; many in leading positions at district level. Another impact of conflict is the radical increase in the representation of the women in the Constitution Assembly.

The traditional assumptions that girls and women should be coy, docile, shy and fearful in rural women seem to have faded away; their self-confidence and vocal expressions give the impression that the 'culture of silence' has been broken to a large extent. Women have started to realize the importance of political participation and representation. Another aspect of positive transformation is the status of widows. They have started wearing colorful cloths, tika, glass bangles rather than wrapping themselves with white saris. This protects them from male prey as a single woman with no male protection. They have succeeded in breaching the traditional patriarchal value system.

The sanctions of Maoists on alcohol and gambling positively contributed in social norms and values. Social ills like domestic violence, polygamy, gambling decreased significantly in the communities during that time. The women are not the timid, "karma" acceptors any longer but have transformed into those who can defend themselves from their oppressors including their husbands. Women have started to fight back i.e. violence; they have started fight back their husbands.

b) Negative Impacts

Many infrastructures like as drinking water systems, telecommunication towers, barracks, suspension bridges, government offices including Village Development Committee Offices and health posts adjacent to it and police post were destroyed during the period of war because of this rural people were deprived from access to basic needs. Remaining Mines and IEDs (Improvised Explosive Devices) used during the war are being problematic now because women and children became victims while collecting fuel and fodder from the jungle and while fetching water from taps and injured .

Women's social and political awareness has changed radically. Women have also realized the need to be part a group to ensure their rights. On the other hand men migrated internally or externally during the conflict and women had filled the vacuum they left at home and community. Women have taken public leadership roles and are aware of their rights however, men's attitude and behavior has not changed which has a created a volatile situation because of this gender gap is widening.

Armed conflicts create enormous upheaval at the personal, family, societal, national level. Conflict caused immense pain, both physical and emotional but at the same time it created opportunities, space for leadership and empowerment of women, men, and marginalized communities, which never existed before.

People seem to grasp these opportunities for their own growth, as well as for social justice. At the same time, the concept of home as safe refuge Due to armed conflict, trust level amongst people within and beyond community has been shattered and suspicious of every new face.

Many joined Maoist force to avenge for the torture, disappearances, and deaths of family members and friends by the State forces. Thousands of people have been killed, disappeared and imprisoned. Many are waiting to take revenge for previous atrocities from both sides. Many innocent people who had nothing to do with the armed conflict got entangled and trapped in the vicious cycle of violence.

During the conflict many people were displaced. Some of the groups who were displaced were VDC secretaries, teachers, political cadres, and youths. People left their homes and communities for their security. The first targets of Maoist were the feudal landlords. Many of them either were killed, tortured or displaced. However, their displacement, on the contrary had negative impact on poor people as the local people could not get jobs. Children, youth and aging people were sufferer from armed conflict. Dropout, absenteeism, and youth migration was high due to the armed conflict and domestic violence, divorce, crises of confidence in the society has been increased due to the feeling of revenge immature political concept.

Conclusion

It can be concluded that conflict occurred in the society due to the social, economics, and political factors. Armed conflict has both positive and negative effect in Nepalese society. In the positive side increase awareness in the women, *dalit* and schedule types people and many people have opportunity for the development of the leadership. In the negative side many infrastructure like water system, electricity, people life and other so many things were destroyed and many people like children, women and old people, police personnel and other people lost their lives and ultimately contributing poverty.

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