

MASTER PLAN OF AGRICULTURAL MARKETING IN EASTERN DEVELOPMENT REGION OF NEPAL

Final Report

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(ABPMDD)
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Preface

BPRC is pleased to undertake this Study "**Master Plan of Agri-Marketing in Eastern Development Region of Nepal**".

BPRC expresses its gratitude to Agri Business Promotion and Marketing Development Directorate (ABPMDD) to having entrusted this important task. It also expresses gratitude to Mr. Laxman Prasad Paudel, Program Director and his team for expert guidance and for providing suggestions throughout the study period and report writing. BPRC is also thankful to ABDMDD team for their valuable, constructive comments and suggestions which were provided during Inception report and draft report presentations. We also express gratitude to Senior Agriculture Marketing Officers Mr. Rajendra Prasad Pradhan and Mr. Puspa Raj Shahi for providing necessary instructions during final report preparation.

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In addition, BPRC conveys its appreciation to the contribution made by Chief and SMS of District Agriculture Development Offices, Agro-Vets, Traders, Wholesalers, Representative of District Development Committee, Member of Market Management Committee, Commercial Farmers Representatives and Agri-Cooperatives etc. of Eastern Development Region for their participation, suggestion during District Level Interaction Meeting, which was held in each district.

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Abbreviation

ABPMDD	Agri-Business Promotion and Marketing Development Directorate
ADS	Agriculture Development Strategy
AMI	Agricultural Marketing Infrastructure
APMC	Agricultural Produce Market Center
APMMC	Agricultural Produce market Management Committee
APTP	Approach Paper to Thirteenth Plan
ASC	Agriculture Service Center
BPRC	Business Promotion Research and Communication Pvt. Ltd.
CBO	Community Based Organization
CBS	Central Bureau of Statistics
CC	Collection Center
CDO	Chief District Officer
CECI	Centre for International Studies and Cooperation
CS	Cold Store
DADO	District Agriculture Development Office
DCCI	District Chamber of Commerce and Industries
DDC	District Development Committee
DoA	Department of Agriculture
EDR	Eastern Development Region
GDP	Gross Domestic Product
Ha	Hectare
HB	Haat Bazaar
INGO	International Non-government Organization
MMC	Market Management Committee
MoAD	Ministry of Agricultural Development
mt	Metric ton
NA	Not available
NARC	Nepal Agriculture Research Council
NGO	Non-government Organization
NLSS	Nepal Living Standard Survey
PACT	Project for Agriculture Commercialization and Trade
PPP	Public Private Partnership
RISMFP	Raising Incomes of Small and Medium Farmers Project
RM	Retail Market
Sq.ft.	Square feet
TP	Thirteenth Plan
VC	Village Committee
VDC	Village Development Committee
WFDD	Women Farmer Development Division
WM	Wholesale Market

Study District Map

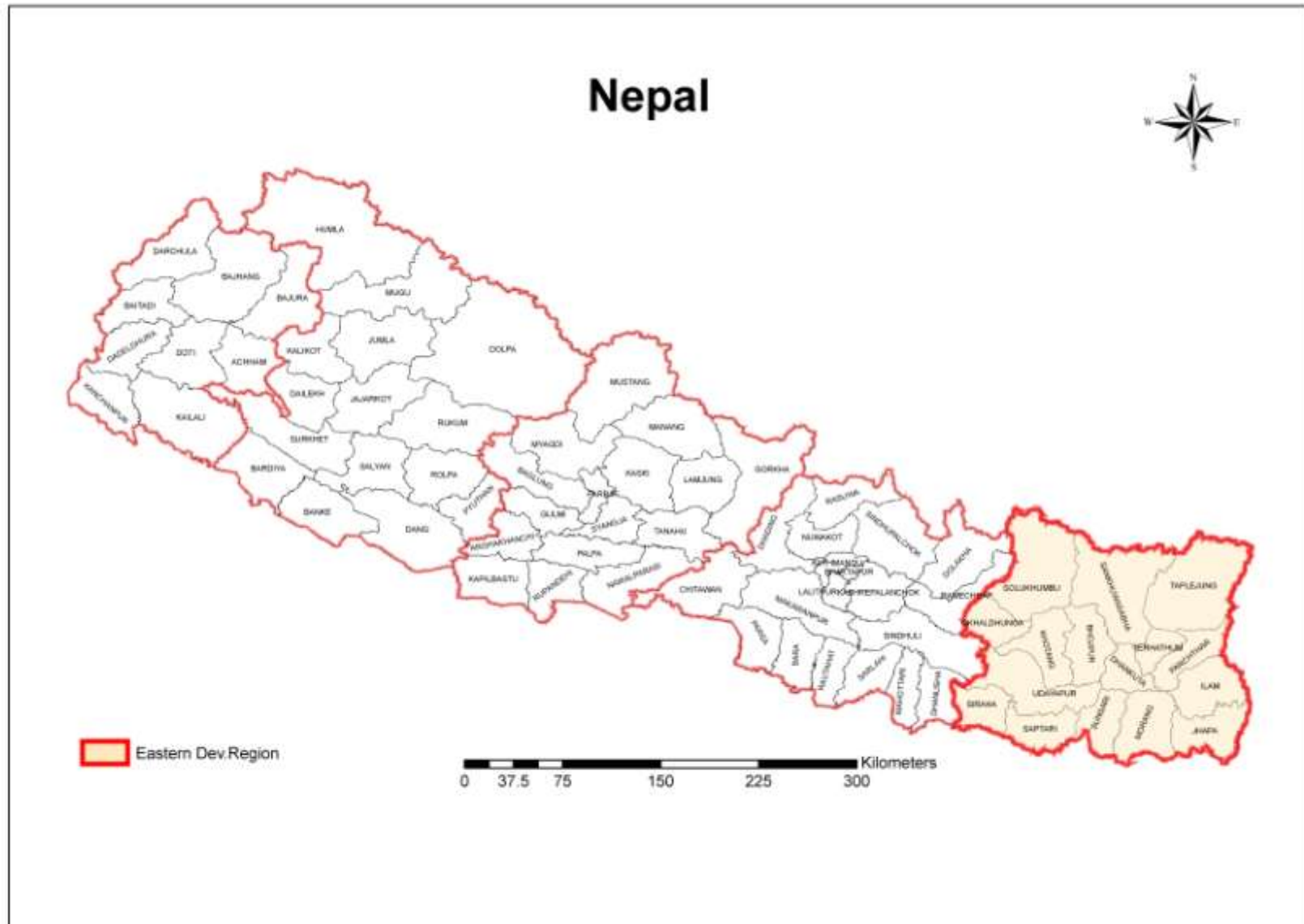


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Executive summary

Preparation of agricultural marketing master plan for eastern development region of Nepal was undertaken by Business Promotion Research and Communication P. (Ltd) in the last quarter of FY 2073/74 with the objective of analyzing present agricultural marketing situations and future trends, suggest locations of different kinds of agricultural marketing infrastructures (AMI) - wholesale market (WM), collection center (CC), haat bazaar (HB), retail market (RM) and cold store (CS) and suggest other appropriate support measures for the improvement of agricultural marketing systems.

The study comprised of desk review and field assessment. Information related to present market policies, strategies and guidelines were also reviewed.

The methods followed for preparation of master plan was based on desk review of documents related to agricultural marketing including the policy documents and interaction with different market stakeholders as well as observation of some of the production pockets and market centers.

In the national context, eastern development region has maximum number of haat bazaar (53.4%) where as the percentage of collection center, retail market and wholesale market are 11.6%, 22.1% and 11.1% respectively (ABPMDD, 2072/73). It was found that the market centers in high hills were quite few in number with very little transaction whereas those in mid hill districts were better. In terai districts the numbers of haat bazaars were many. Collection centers were in better position in mid hills. There are three wholesale markets in the whole region (Birtamode, Biratnagar and Dharan). Though recorded as wholesale market, these markets were also doing their retail business. Supermarkets are found also retailing fruits, vegetables etc. Even grocery shops are also found selling vegetables, spices and fruits to consumer, however the quantity is not large. The retail markets are in operation only in nine districts.

At present condition, only six cold stores are in operation (Jhapa-2, Morang-2, Sunsari-1 and Saptari-1), while cold stores constructed at Siraha and Ilam are not in operation due to technical problems.

Many of the existing infrastructures need to be strengthened and more facilities have to be developed. In addition to that much more market centers have to be established – collection centers at production pocket outlets, haat bazaars at village towns and suburbs. Retail markets at towns and municipalities and whole sale markets at the outskirts of big cities.

Different four type of markets operated in Morang, Sunsari, Saptari and Siraha may be sufficient for another 20 years, so as a outcome of district level interaction meeting, additional market centers are not proposed, whereas in four districts (Solukhumbu, Kotang, Udaypur and Okhaldhunga), the participants of district level interaction meeting commented that the local government will decide locations of markets to be developed in future, so additional market centers are not proposed.

At present three wholesale markets are in operation in EDR, which may be sufficient for another 20 years, however existing wholesale markets need to be strengthened and necessary facilities have to be developed.

In addition to the establishment of market centers at strategic locations, market promotional activities have to be implemented to make the producers more competitive and profit oriented and the consumers more satisfied. Promotional activities include 1) formation and regulation of market act 2) capacity enhancement of producers and traders 3) establishment of market information system 4) reduction of high price spread through reduction of post harvest losses, transport cost, and provision of storage facilities. 5) institutional development by forming and capacitating the commodity/producers association and traders associations with the involvement of women at all level of marketing institutions 6) establish market centers in PPP model with the involvement of local bodies, private sector and CBOs.

Agricultural market infrastructure development and promotional activities have to be implemented categorizing them as immediate (within a year), medium term (within 5 years) and long term (within 20 years) assigning responsibility for each activity.

Chapter 1

Introduction

Chapter 2
Agricultural Marketing Policy Review

Chapter 3
Agricultural Marketing in Eastern Development Region

Chapter 4
Overview of Agricultural Marketing Support Activities

Chapter 5
Standard Design of Agricultural Markets

Chapter 6
Recommendations and Action Plan

Annexure

Chapter 1 Introduction

1.1 Background

Agriculture sector has remained as the crucial component of economic growth in Nepal and it has been considered as a high priority sector of national development since the sixth five year plan. The government policies and programmers centered largely on raising agricultural production and grossly overlooked marketing and production inter-linkage. Better late than never, marketing and production interdependency has been realized and efforts were being taken to link production programmers with marketing back up.

Over the last three decades the practices for marketing fresh agricultural products has gone through a number of radical changes. Formerly, the system was characterized by direct marketing of produce to consumers by farmers- the produce being typically packed in DOKOs and transported to market on the top of buses. Although this practice does still occur, the system has been rapidly evolving in response to population growth and increased demand. With the increase in demand, many new production pockets have emerged. In parallel, new marketing channels have been developed, by which the farmers can supply to collection agents, local assembly markets and to urban wholesalers. Nepal now has been an evolving network of markets in the production areas and increasingly sophisticated system for handling produce in urban areas. The market is not the venue to demonstrate architectural edifice, but a place for fair and transparent transaction between traders and the farmers. The appropriate marketing systems can only ensure stability in supply, quality, price and achieve better post harvest management as well as export.

The effort of donor community in building market infrastructure and establishing marketing information network in different parts of country has been encouraging and positive.

Government of Nepal (GON) is also providing agricultural marketing facilities to farmers, traders and consumer through Agribusiness Promotion and Marketing Development Directorate (ABPMDD), National Agriculture Research and Development Fund (NARDF) and District Agriculture Development Office (DADO).

However, the existing marketing situation may not be enough for another 20 years, so Agribusiness Promotion and Marketing Development Directorate (ABPMDD) of Department of Agriculture has proposed program (2073/074) to prepare a master plan of agricultural marketing of EDR, which will consist current agricultural marketing situation, future infrastructural needs and other services required for whole country.

However, Master plan of Agricultural Marketing in Central and Far Western Development Regions of Nepal has been already developed in June 2015.

1.2 Objectives of the Study

The Major objectives of the Master Plan are:

- To analyze present agricultural marketing situation and future trends
- To suggest locations of different kind of agri. marketing infrastructure (wholesale market, collection center, haat bazaar, retail market and cold store)
- To suggest other appropriate support measures for the improvement of agricultural marketing systems.

1.3 Scope of the Study

1.3.1 Analyze national policies and strategies on agricultural marketing development.

1.3.2 For each district under eastern development region:

- Analyze present production situation of major agricultural products such as cereal, vegetable, fruits, spices and other high value crops (at least 7 commodities according to district potentials)

- Forecast the production and marketable surplus of major agricultural commodities as mentioned above for coming 20 years.
- Analyze strengths, weaknesses opportunities and threats (SWOT) of agricultural marketing development.
- Prepare the list of agri-marketing infrastructures in the district level (wholesale market, collection center, haat bazaar, retail markets and cold store).
- Prepare GIS maps showing existing markets (wholesale market, collection center, haat bazaar, retail markets and cold store) of the district
- Suggest the appropriate locations of agricultural marketing infrastructures (wholesale market, collection center, haat bazaar, retail markets and cold store) to be developed in the district covering all production areas (20 years).
- Prepare district maps showing suggested new infrastructures to be develop in the future.
- Prepare a GIS map showing existing agri-marketing infrastructures and new ones suggested to develop in the future.
- Prepare a standard design of wholesale market, collection center, haat bazaar, retail market and cold store each three ecological region.
- Suggest appropriate support strategies and actions for developing other services such as agricultural marketing information, regulation, institutional development, cooperative/group marketing, marketing training, reduction of high price spread, women participation on agricultural marketing, transport services, cold chain etc. (20 years).

1.4 Methodology

The study comprised of desk review and field assessment. Information related to present market policies, strategies and guidelines was reviewed.

1.4.1 Desk Review

The Agriculture Development Strategy (ADS) of Ministry of Agriculture development and Agriculture marketing directives were reviewed to provide thrust for the study. Besides, existing market places, volume of transaction related was collected from secondary sources - especially from DOA/ABPMMD and DADOs. Similarly, data on production situation of at least seven major agriculture commodities in the study districts ware collected from secondary sources (MOAD, DOA, DADOs' published and official records). Considering the demand side, projected population (CBS, 2011) targeting the study was also considered.

Production trend of major agricultural commodities were assessed through the production data of last five years of the Ministry of Agricultural Development and projection for coming 20 years was calculated on the basis of growth trend. The methodology used in production projection is by using the formula, $Y=ab^x$ (Cobb-douglas function, Log-linear function)

Where,

Y is estimated production of the concerned year of ith crop

a is estimated production of base year of ith crop

b is estimated coefficient of growth trend of ith crop

X is estimated production of ith crop

Marketable surplus for coming 20 years was calculated on the basis of information collected from the field survey of representative production pockets, the estimated average marketable surplus of major crops (including seven major crops of each district) are presented in table 1.1.

Table 1.1: Estimated average marketable surplus (%) of major crops

Crop	High Hill (Taplejung, Tehrathum, Solukhumbu)	Mid hill (Panchthar, Ilam, Dhankuta, Sankhusawa, Bhojpur, Okhaldhunga, Khotang, Udaypur)	Terai (Jhapa, Morang, Sunsari, Saptari, Siraha)
Paddy	23.00	35.00	50.00
Maize	45.00	30.00	75.00
Millet	58.00	40.00	40.00
Wheat	13.00	35.00	60.00
Potato	30.00	62.00	80.00
Vegetable	40.00	55.00	82.00
Citrus	57.00	50.00	50.00
Winter Fruit	55.00	70.00	85.00
Tropical Fruit	35.00	60.00	70.00
Ginger	80.00	85.00	90.00
Garlic	45.00	95.00	90.00
Turmeric	90.00	95.00	90.00
Chilli	77.00	78.00	80.00
Fish	-	90.00	80.00

1.4.2 Field Assessment

Primary information/data regarding existing agriculture market infrastructures was collected from the field during, May 2017. This includes wholesale market, collection center, haat bazaar, retail market and cold store. Likewise, information on present market information system was also collected from the study districts.

The conformity and reliability of the study was assured by integrating field assessment with desk review.

1.5 Approaches

1.5.1 Training of Research Assistant

All together 8 research assistants were deployed for field survey work. Two days (May 2-3, 2017) training was conducted at BPRC office by the study professionals to familiarize them on survey methodology, approaches and the data collection tools. Two senior marketing experts of ABPMDD also participated the training programme and necessary instructions were delivered to research assistants.

1.5.2 District level Interaction Meeting

One district level interaction meeting was conducted in each study district. The participants of the meeting were chief and planning officer of DADO, chief of ASC, representatives from District Administration Office and District Coordination Committee, commercial farmer representatives, agri-cooperative representatives, agri-vets/traders etc.

1.5.3 Focus Group Discussion (FDG)

In order to verify the information collected from district level interaction, Focus group discussion was conducted in 6 sample districts, high hills-Solukhumbu, Taplejung, mid hills- Dhankuta, Ilam and tarai- Morang, Siraha districts. The participants were the member of agri-marketing management committee, private sectors and concerned stakeholders. Numbers of participants were 7 to 11.

1.5.4 Visit of Production Area

Study professionals have visited 2-3 agricultural production areas in each district. A field level discussion/meeting was organized informally with producers, consumers to know the constraints regarding production and marketing of different agricultural commodities.

Three different types of checklists were prepared and finalized in consultation with ABPMDD.

1.6 Limitations of the Study

1. Exact location of the Agricultural Marketing Infrastructure (AMI) could not be identified due to time constraint. Only village councils/municipalities/sub-metropolitan city/metropolitan city have been identified. Detail investigation will be required during implementation of the master plan.
2. Traded volume of all the existing AMI and possible trade volume of proposed AMI could not be assessed except for wholesales markets (Biratnagar, Birtamod, and Dharan) and some other markets due to unavailability of information for the command area of a particular market center. This has to be assessed while making detail plan for the market centers proposed.
3. The inventory of existing market centers and proposed market centers may not be complete because this information is the result of a district level interaction workshop, secondary information from DADO and focus group discussion in some of the production pockets only. Village councils/municipalities/sub-metropolitan city/metropolitan city level interaction is needed to have complete list of existing market centers and exact locations of AMI to be developed.
4. Different four type of markets operated in Morang, Sunsari, Saptari and Siraha may be sufficient for another 20 years, so as a outcome of district level interaction meeting, additional market centers are not proposed, where as in four districts (Solukhumbu, Kotang, Udaypur and Okhaldhunga), the participants of district level interaction meeting commented that the local government will decide locations of markets to be developed in future, so additional market centers are not proposed.
5. Due to recently formed new village committee, municipality, sub-metropolitan city, metropolitan city, it was difficult to identify the exact location of existing market center in some districts.

1.7 Structure of the Report

The report is divided into six chapters, including this introductory section. Chapter 2 discusses the policy framework in which markets function and the marketing of agricultural produce is conducted in Nepal. Chapter 3 discusses Agricultural marketing EDR. which includes district wise food availability, supply and demand status and marketable surplus, agricultural marketing, SWOT analysis, existing AMI and those proposed for coming 20 years including GIS maps. Chapter 4 contains market promotional activities carried out by the districts and analysis of strategies and actions for developing other services such as agricultural marketing information, regulation, institutional development, cooperative group marketing, marketing training, reduction of high price spread, women participation in agricultural marketing transport services, cold chain etc. Chapter 5 contains standard design of different types of market centers for each ecological belts and Chapter 6 contains action plan and recommendations from the findings of the study.

Chapter 2 Agricultural Marketing Policy Review

2.1 Marketing Act and Directives

At the present condition, there is no marketing Act. However to implement Agriculture marketing policies and to help in designing programme for Agri-marketing, the Ministry of Agriculture Development (MOAD) and Agriculture Business Promotion and Marketing Development Directorate (ABPMDD) have been issued technical and management guidelines. These guidelines have been designed to facilitate the field level cadre to implement policies related to agri-marketing or to develop programme for implementation. However, these are not explicitly linked to any of the existing agricultural or other laws or policies.

Title of These Guidelines is as Follows

1. Agricultural Marketing Development and Management Directives-2073 (कृषि बजार विकास तथा व्यवस्थापन निर्देशिका, २०७३)
2. Directives on construction and operation of agriculture marketing infrastructure in partnership basis, 2068 (साभोदारीमा कृषि उपज पूर्वाधार निर्माण तथा सञ्चालन सम्बन्धमा निर्देशिका, २०६८)
3. Directives on provision of subsidy to agriculture cooperative for buying and selling of agricultural products, 2070 (कृषि उपज खरिद विक्रीका लागि सहकारी अनुदान वितरण कार्यविधि, २०७०)
4. Directives on provision of subsidy on construction of cold store, 2070 (शित भण्डार निर्माणको लागि अनुदान वितरण कार्यविधि, २०७०)
5. Kalimati Fruits and Vegetables Market Development Board Order, 2058 (कालीमाटी फलफुल तथा तरकारी बजार विकास समिति, २०५८)

2.1.1 Agricultural Marketing Development and Management Directive-2073

In the preamble of the "Agricultural Produce Marketing Development and Management Directives -2073", it has stated that there is a need to develop regulated and competitive agricultural marketing system in the country for the benefit of producers/farmers and consumers by providing competitive marketing facilities to the increased production, productivity of cereals, vegetables, fruit, cash crops, livestock products. Hence, the Agriculture Development Ministry has introduced and adopted this directive in the country.

In the directives, definitions of agricultural produce markets, agricultural products, agricultural produce wholesale/retail markets, collection center are given in order to make clear to the market users. There is a provision of the formation of agricultural produce market management committee for the operation and management of collection center and retail market. In the committee a representative of village committee or municipality of the collection center and retail market situated area represents as a member in the committee, a representative from agricultural service center as member, two representatives including female member from the active agricultural group of the command area of the collection center or agricultural produce market as members, two active license holder traders of the collection and retail market as member and one market manager will be members in the stated committee. The chairman will be selected on the consensus basis or following socio-metric system. Regarding the market manager, the deputed staff of the District Agriculture Development Office will work as market manager, unless and until the collection center or market management committee able to appoint their own market manger.

The collection center or retail agricultural produce market development and management committee, as stated in the directive; will have the following working power, rights and duties.

The committee will make work plan on market development, its extension/ expansion and providing the excellent services to needy, to make decision on the requirement of staffs and their position, terms and conditions benefits etc and present it in the committee meetings for approval, making working procedures in order to implement the stated aims and objectives stated in directives have to submit it to the District Agriculture Development Office, to

communicate marketing related information to the general public, to publicize the activities of marketing develop and expansion and available services in the market, to provide marketing services to the agriculture producers, traders, consumers' associations and other related institutions, to develop marketing infrastructures , protecting and regularly carrying maintenance work of them, to solve the faced market related problems, to manage the garbage of the market, to spend the allocated budget as per the rule and to prepare master plan for the long term market development etc.

In the directive the provision of the formation of agricultural produce wholesale market management committee has also been clearly stated. The formation of the committee will be as follows:- in the committee, one representative from the institution of the market situated area represents as a member, one officer from the District Agriculture Development Office represents as a member, and two members including one woman from the farmer groups of the command area of the agricultural produce market center represents as members in the committee. Similarly two license holder traders among them represent as members, one representative from District Administrative Office /Local area administrative office represents as member, one representative from the consumers association represents as member in the committee. The market manager works as a member secretary in the agricultural produce wholesale market management committee. The selection of the chairman of the committee and representatives from the farmers' and traders' groups and associations will be on the basis of consensus by following the socio-metric system. The term of the office of all members provisioned/ fixed for 3 years. As per the provision the committee in time of need can organize an advisory committee of three members and the sub-committee for the efficient operation of the market. The market should be registered in the District Agriculture Development Office and should also renew it regularly.

The working power, rights and duties of the agricultural produce wholesale market management committee are found more or less similar of the working power, rights and duties of the collection center and retail market management committee.

The directive has made provisions for separate account keeping, auditing and identification of sources of income of the committees and on the classification of markets on the basis their income. Regarding expenditure it has stated in the directive that 20 percent of the total income the committee should be invested in the construction of permanent infrastructures in the market.

The directive has made provision for the formation of the Agriculture market direction committee and has also stated its working power, right and duties. Similarly in the directive, there is a provision for the formation of agricultural market management regulation/ controlling committee and its working power, rights and duties.

The special provision relating the agricultural produce market operation has also made in directives. According to this provision the agricultural produce market management regulation/ controlling committee will have the power to run / regulate the market in case of the committee of the particular market happened to be dissolved. Regarding the ownership of the agricultural produce market and its property developed by the government of Nepal will remain in the ownership of the government. And lastly the other many provisions relating to the collection center and agricultural produce market development, management regulation etc are clearly made in the "Agriculture Market Development and Management Directive-2073".

2.1.2 Directives on Construction and Operation of Agriculture Marketing Infrastructure on Partnership Basis, 2068

This directive shall come into force for the agricultural markets established by non-government sector (private entrepreneur group, farmers group and cooperative) in partnership with the government (District Agricultural Development Office). The main objective of the guidelines is to encourage private sector in construction and management of agricultural markets at district level. The proposals submitted by non-government sector will be

evaluated based on criteria prescribed in the directives. Agreement will be signed by District Agriculture Development Office (DADO) and market management committee (MMC).

The design and estimate of the proposed construction will be prepared by concerned DADO. DADO can hire construction contractor or can appoint MMC to complete construction work according to government Public Procurement Act, 2063 and Public Procurement Regulation 2064. MMC has to bear 15 % of the construction cost. If the construction cost is more than 20 lakh, the design of the market has to be approved from ABPMDD.

The guideline has specified the members, chairman and member secretary of the MMC, their work, rights and responsibilities, account keeping and auditing system and operation of the markets.

The directives provide district level steering committee to supervise and monitor, to solve the problem encountered during the construction phase and management phase. The Senior Agriculture Development Officer of the concerned district will chair the steering committee, where as planning officers or another officer nominated by the chairman, will work as member secretary. Two persons from concerned partner organizations and one representative from FNCCI or other related organization will be member of the steering committee.

The MMC is not allowed to reconstruct, redesign or destroy the market place without the permission of ABPMDD.

2.1.3 Directives on Provision of Subsidy to Agriculture Cooperative for Buying and Selling of Agricultural Products, 2070

MOAD has approved and implemented this directive from FY 2070. This directive was prepared in accordance with the national agricultural policy 2061 and agribusiness promotion policy 2063 whereby the government decision to avail grant to cooperatives for buying and selling agricultural produce could be simple, well managed and transparent. This directive has identified target groups as agriculture cooperatives, grant amount as approved in the annual budget and condition of use restricted to purchase of capital goods for use in buying and selling of agricultural produce.

This directive has provisioned for eligibility of cooperatives, grant application screening process and grant agreement.

2.1.4 Directives on Provision of Subsidy on Construction of Cold Store, 2070

Government of Nepal has approved this directive to make government grant processing towards establishment of cold storage facilities on wholesale markets by the private, cooperatives, public and non-government sectors transparent and effective. The objectives of this directive are

- To make farmers able to sell their perishable agricultural produce more profitably based on market demand and price.
- To help consumers have year round availability of food produce like fruits and vegetables in the agricultural markets.
- To contribute towards procurement and management of quality food produce for domestic and international markets.
- Increasing consumable produce through reduction in loss of perishable agricultural produce.

This directive has provisioned for eligibility of applicant, grant proposal screening process, evaluation committee and criteria for evaluation, grant administration including the size of grant and the ratio of matching grant.

2.1.5 Kalimati Fruits and Vegetables Market Development Board Order, 2058

This order approved by cabinet describes that chairman of the management committee is nominated from among the Joint Secretaries of the MOAD. A total of 11 members, including chairperson, representatives of concerned municipality, ABPMDD, traders and farmers are provisioned. The committee is entrusted to collect income including

market fees and spend budget for developing the market. This order is applied to manage the Kalimati Fruits and Vegetable Market centre only.

2.2 Policies and Strategies

2.2.1 National Agricultural Policy, 2061

The objectives of national agricultural policy 2004 are

1. Agricultural production and productivity shall be increased.
2. The bases of a commercial and competitive farming system shall be developed and made competitive in the regional and world markets.
3. Natural resources, as well as the environment and bio-diversity, shall be conserved, promoted, and properly utilized.

The policies related to agriculture marketing are

1. Large production pockets shall be developed to produce agricultural products in quantities and of qualities that match the demands of the market. In such pocket areas, priority shall be given to the production of such agricultural products as have comparative advantages. Besides, technologies and technical services, as well as such facilities as agricultural roads, rural electrification, irrigation, agricultural credit and marketing arrangements, shall be mobilized in an integrated manner in such pockets.
2. For the purpose of guaranteeing opportunities for marketing of the commercial production of agricultural products, the establishment of collection centers close to the potential production centers shall be encouraged, and, for the purpose of guaranteeing organized markets *Heat bazaar* near large numbers of potential consumers, the process of developing and expanding well-equipped wholesale and seasonal markets under the cost participation and management of private cooperative sectors shall be encouraged.
3. The tasks of developing and extending the market information system and disseminating such information shall be carried out in partnership with the private and cooperative sectors and the local bodies.

2.2.2 Agribusiness Promotion Policy

Policy formulated according to one of the objectives of National Agriculture Policy 2061 “make agriculture competitive in regional and world market through establishment of basis for commercial and competitive agriculture”.

The objectives of agribusiness promotion policy are as follows

- Assist in marketable and competitive agriculture production.
- Contribute towards promotion of internal market and export promotion by developing agro industries.
- Help poverty reduction through agricultural commercialization.

The policies related to agriculture market development are as follows.

- Establishment and development of growth centers based on geographical, technical and economical feasibility.
- Special production pockets to be established such as commercial crop/commodity production area, organic/pesticide free production area, agri product export area.
- Ensure production inputs, technology and technical service, agriculture road, rural electrification, irrigation, agribusiness loan, insurance, market management, information system, appropriate agriculture mechanization and processing facilities through participation of government, non-government and private sectors in the specified agriculture production areas.
- Market network will be established and strengthened for agriculture commercial pockets developed along highway, feeder roads and agriculture/rural roads.
- Agricultural markets will be developed, strengthened and managed in financial and managerial partnership with public and private sector to ensure organized wholesale and retail market in urban areas and collection centers near production pockets for promotion of agro industry business.

- E-commerce will be developed in agriculture markets and commercial service centers in favorable time.
- Information system related to agriculture market and agribusiness will be developed, strengthened and transmitted in partnership with private, public and the local bodies.
- System of price determination through market process will be promoted by creating competitive environment of agriculture produce in the market.
- Some support for technical assistance and physical construction shall be provided to cooperatives, farmers groups, private entrepreneurs, NGOs willing to establish agriculture produce collection center, processing center and animal slaughterhouse in rural areas on the basis of feasibility and associated with the production pockets.
- Twenty five per cent subsidy on electricity charge on operation of cold store (cold and frozen storage, cold chain, cold chamber and chilling vat), agriculture wholesale market and collection center and animal slaughterhouse for ten years.
- Proposals developed by cooperatives, NGOs, local bodies, and private sector to invest in agriculture market infrastructure development will be promoted if they are compatible to agricultural market development policy and plan.
- Management will be made to invest twenty per cent of the fee/local tax collected from traders by local bodies in market construction, improvement and promotional activities.
- Agribusiness promotion fund will be established to support coordination, infrastructure and capacity development among different market centers established and to be established in Nepal utilizing their own resource. Two per cent of net annual income of each market will be deposited in this fund. Management committee will be formed with the involvement of Market Management Committee.
- System will be developed to develop market infrastructure on public private partnership in feasible private, cooperative or NGO or public land.

2.2.3 Agriculture Development Strategy

Agriculture Development Strategy is in the final process of approval by the government. The market related activities proposed by the ADS are as follows:

Activities Related to Output 3.7 on Agricultural Market Information and ICT Products for Market Intelligence

ADS intends to promote the development of a suite of products for market information and market intelligence using ICT products and involving private sector and incentives for the users to pay. The system of market information and market intelligence must be easily accessible to smallholder farmers, traders, and enterprises. This may involve preparation and implementation of a program coordinated under ADS that will include provision of start-up financing (e.g. matching grants) to private sector, industry organizations, and/or NGOs to establish commercially viable market intelligence products and services using mobile and internet communication technologies. The products and services may be developed and managed by consortium, e.g. between wholesale market authority and ICT systems provider.

Activities Related to Output 4.1 on Market Infrastructure Developed

It is intended to promote development of market infrastructure through the combination of public investment, private and cooperative sector investment, and community participation, focused on the development of prioritized value chains. Examples of PPP involving different types of infrastructure include:

- a. Promotion of on-farm storage, cool/cold/CA storage.
- b. Creation of new markets and improvement of existing ones.
- c. Network of collection centers linked by hub and spoke system to wholesale markets.
- d. Agro processing plants.
- e. Creation of agro industrial parks to facilitate access of agro industry enterprises to land and basic infrastructure to conduct agro processing activities.

Implement PPP Financing Support Mechanisms.

Mechanisms appropriate to the size of the investment, the risk involved, and the ownership structure, may be: matching grants; back-end subsidies linked to credit; waiver of initial connection capital costs to government-owned roads (where the waiver period is specified), utilities and services (e.g. power, water, waste management).

Capacity Building Programs for Market Infrastructure, Management and Governance.

One key contributing factor to the effectiveness of PPP investment is the clear delineation of roles of different actors and improved capacity in managing market infrastructure as part of a supply chain. Hence, any investment in market infrastructure needs to be accompanied by capacity building programs to improve management and governance.

Part of this capacity building will also include the software of market management such as price information, market intelligent, and market information systems.

Identify strategic locations for market development and undertake feasibility studies.

Develop Rules, Regulations, and Standard Operating Procedures for Improved Market Management.

Once the markets of different kinds are established, the regulation and standard operating procedures are needed to institutionalize market centers as authoritative technical and legal entities. Various tools of acts, regulations and procedures specify the rights and responsibilities of committee, farmers, traders and officials of different levels needed to run the organized markets in disciplined, regular and uninterrupted manner.

2.2.4 Thirteenth Plan (FY 2013/14–2017/18)

The strategies of the thirteenth plan are as follows.

1. Achieve inclusive, broad-based and sustainable economic growth by enhancing the contributions of the private, government and cooperative sectors to the development process.
2. Develop physical infrastructure.
3. Enhance access to social services and improve the use and quality of those services.
4. Enhance good governance in the public and other sectors.
5. Empower targeted groups and sectors both socially and economically.
6. Implement development programme which support climate change adaption.
7. Priorities pursuant to achieving its objective, the TP have identified the following priority areas.
 - Developing hydropower and other energies
 - Increasing the productivity, diversification and commercialization of the agricultural sector
 - Developing the basic education, health, drinking water, and sanitation sectors
 - Promoting good governance
 - Developing roads and other physical infrastructure
 - Developing the tourism, industrial, and trade sectors, and
 - Protecting natural resources and the environment

Economic Growth Targets and Resource Management

In view of the need to increase the pace of national development and in consideration of the resources available, it is estimated that the average overall annual economic growth rate in the TP period will be 6.0 percent, with growth rates in the agricultural and non-agricultural sectors maintained at 4.5 and 6.7 percent respectively. It is estimated that the average annual inflation rate for the entire TP period will be 7.0 percent and that per capita income and employment will grow by 4.6 and 3.2 percent per year respectively. Efforts to alleviate poverty; boost employment, especially among targeted populations; and high economic growth are together predicted to reduce the proportion of people living below the poverty line to 18 percent.

To achieve 4.5 percent growth in agriculture, there is a need to increase production and productivity and attract private investment. To this end, emphasis will be placed on commercialization, cooperatives, irrigation, agro-roads, agro-credit, research, supporting technology transfers, rural electrification and market mechanisms.

Development of the agricultural sector will be given special emphasis because it is the foundation of equitable economic development, food security, and livelihoods. To this end, emphasis will be put on integrated service, development of irrigation facilities, increasing marketization and productivity, the timely supply of appropriate agricultural inputs, agro-roads, agro-credit, research, technology transfers, rural electrification, and the development of market mechanisms.

Chapter 3

Agricultural Marketing in Eastern Development Region

The Eastern Development Region (ERD), Spans all three eco zones-mountain, hill and plain, has 16 districts, 104 village committees, 64 municipalities, 2 sub-metropolitan cities and 1 metropolitan city. The major markets are Biratnagar, Dharan, Itahari, Inaruwa, Rajbiraj, Lahan, Damak, Birtamode, Bhadrapur etc. in terai districts, whereas Ilam bazaar,, Phikkal, Phungling, Phidim bazaar, Hill bazaar, Myanglung, Chainpur, Khandbari, Ghaighat etc. are major markets of hill districts.

All districts headquarters have road connectivity. Nevertheless geographical situation, vulnerable roads, lack of all weather roads are major challenges in terms of accessibility. The climate in the region varies from temperate in the hills and mountain and tropical in the plain, the region has a diverse landscape, ecology and biodiversity. The region is regularly affected by natural disasters such as floods, landslides drought, cold waves etc.

The major crops cultivated in the region are paddy, wheat, maize, potato, temperate and winter fruits, fresh vegetables and vegetable seed, millet, ginger, onion and fish.

The off season vegetable produced in hills mainly cabbage, cauliflower, radish, carrot, tomato, squash etc. are exported to Indian market. Citrus fruits, tea, coffee, big cardamom, ginger, vegetables seeds are also major exportable high value commodities. However potato, onion, fresh vegetables are imported from India, apple from China and also potato from Bhutan.

Rapid urbanization in Biratnagar, Dharan, Itahari, Gaighat and other cities, has fragmented agricultural land and shifted it to residential and commercial use, decreasing local commodity production, mainly fresh vegetables, potatoes and spice crops.

In the region, all districts have haat bazaars and collection centers, where as 9 districts have retail markets and only 3 districts have wholesale markets. However, present statuses of most markets are not found satisfactory with respect to the facilities available. Existing market centers in some districts are not sufficient to meet the needs of buyers and sellers.

3.1 Taplejung District

3.1.1 Introduction

Taplejung is the only district that links India (Sikkim province) and China, Situated nearest from Lhasa. Its headquarters '*Phungling*' is 830 km east from Kathmandu. The district is divided into three physical regions-mountain region (above 5000m), high hill region (1200m to 5000m) and lowland (below 1200 m). The lowland area between 1200 m to 2400m has denser residence because it is neither much hot nor much cold. The southern part especially, the short plain lands on the basin of Tamor, Mewa and Kabela lies in the low land region, which is the most fertile areas of the district. Because of its low altitude, it faces hotter climate than other areas.

Climate variation is implied by the fact the geography varies from snow-clad mountain to tropical Kabela Dovan (1777 m). Because the district lies very close to the Bay of Bengal, it experiences monsoon rainfall. Climate ranges from Tundra, cold temperate to warm temperate.

The district has a settlement of more than 34 castes and communities, more than 10 religions-cultures and more than 25 language-dialects, the majority includes Limbu (41.41%), Chhetri (12.26%) Sherpa (9.45%), Brahmin (7.78%) Rai (5.65%) and Kami (4.68%) respectively, there live the Gurung (4.61%) Tamang (4.43%), Newar (1.54%) Damai (1.47%) etc. observing their own traditions and life-styles. The major professions of the people are agriculture, trade and tourism.

The total population of Taplejung is 127,461 out of which female population is 66,909 (52.5%) and male is 60,552 (47.59%). The percentage of literate population is 71.30% (CBS, 2011). The district has 3 municipalities and 6 village committees. The seven major crops cultivated in the district are Paddy, Maize, Potato, Wheat, Millet, Vegetable, Citrus fruits. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 22,500 ha. The area, production and productivity of major crops are presented in table 3.1

Table 3.1: Area, Production and productivity of major crops in Taplejung district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	4,074.00	8,637.00	2.12
2	Maize	9,150.00	30,770.00	3.36
3	Wheat	1,060.00	2,271.00	2.14
4	Millet	3,350.00	4,718.00	1.41
5	Potato	3,700.00	45,125.00	12.20
6	Vegetable	868.00	9,688.00	11.16
7	Ginger	215.00	3,050.00	14.19
8	Cardamom	3,950.00	1,410.00	0.36
9	Citrus fruit	909.00	5,050.40	5.56
10	Winter fruit	700.00	3,904.20	5.60
11	Summer fruit	110.00	986.60	8.97

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.1.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Taplejung district is presented in table 3.2.

Table 3.2: Production trend of major agriculture production in Taplejung district (mt)

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	22,167.00	10,913.00	13,861.00	8,637.00	8,680.00

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Maize	38,116.00	27,450.00	49,408.00	30,770.00	27,450.00
Millet	3,508.00	3,507.00	4,418.00	4,718.00	4,118.00
Wheat	2,783.00	3,600.00	2,016.00	2,271.00	2,811.00
Potato	42,437.00	44,623.00	44,603.00	45,125.00	48,345.00
Vegetable	8,625.00	9,063.50	9,064.00	9,688.00	10,585.00
Citrus	4,833.00	4,833.00	3,165.00	5,050.40	530.00
Winter Fruit	3,740.00	3,921.00	3,966.00	3,904.20	4,355.00
Tropical Fruit	1,033.00	1,027.00	1,059.00	987.00	1,028.00
Ginger	2,800.00	2,735.00	2,800.00	3,050.00	3,600.00
Garlic	350.00	350.00	385.00	392.00	392.00
Turmeric	220.00	220.00	262.00	262.00	262.00
Chilli	1,500.00	1,500.00	1,500.00	1,600.00	1,500.00

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.1.3 Forecast of the Production and Marketable Surplus

Forecast of the production and marketable surplus of major crops are presented in table 3.3 and 3.4 respectively.

Table 3.3: Forecast of the production of major crops in Taplejung district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	6,386.74	2,224.85	775.04	269.99
Maize	28,665.53	21,856.85	16,665.38	12,706.99
Millet	4,843.46	6,594.68	8,979.07	12,225.58
Wheat	2,315.58	1,857.65	1,490.29	1,195.57
Potato	48,810.01	55,917.15	64,059.15	73,386.69
Vegetable	10,821.82	13,730.97	17,422.17	22,105.64
Citrus	774.55	86.83	9.73	1.09
Winter Fruit	4,346.49	5,050.37	5,868.23	6,818.54
Tropical Fruit	1,011.43	986.74	962.65	939.15
Ginger	3,581.50	4,862.73	6,602.31	8,964.20
Garlic	413.36	489.96	580.74	688.35
Turmeric	285.92	371.59	482.92	627.62
Chilli	1,549.19	1,600.00	1,652.47	1,706.67

Table 3.4: Forecast of the marketable surplus of major crops in Taplejung district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	1,468.95	511.72	178.26	62.10
Maize	12,899.49	9,835.58	7,499.42	5,718.15
Millet	2,809.21	3,824.91	5,207.86	7,090.83
Wheat	301.03	241.49	193.74	155.42
Potato	14,643.00	16,775.15	19,217.74	22,016.01
Vegetable	4,328.73	5,492.39	6,968.87	8,842.26
Citrus	441.49	49.49	5.55	0.62
Winter Fruit	2,390.57	2,777.70	3,227.53	3,750.20
Tropical Fruit	354.00	345.36	336.93	328.70
Ginger	2,865.20	3,890.19	5,281.85	7,171.36

Croplyear	2021/22	2026/27	2031/32	2036/37
Garlic	186.01	220.48	261.33	309.76
Turmeric	257.33	334.43	434.63	564.85
Chilli	1,192.88	1,232.00	1,272.40	1,314.13

3.1.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are organized into groups and cooperatives especially in large cardamom production and marketing.
- It is possible to increase production of off-season vegetables and potatoes.
- Farmers have marketing knowledge to some extent that can be improved/increased.

Weakness

- Low Volume of marketable agri-products poses inefficiency in marketing transaction.
- Lack of price information system, farmers has to sell their products according to the price fixed by middle man and traders.
- Farmers groups are not strong to support market development activities.

Opportunities

- Main season of the district becomes off-season for terai districts and India as well.
- Organic production can fetch better market price, which are available in this district.

Threats

- Youth migration outside district or abroad creating labour shortage in agriculture marketing.
- High supply of vegetable in winter season from India creates problem for marketing local products in the district.

3.1.5 Present Status of AMI in Taplejung District

Present status of AMI in Taplejung is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers.

Collection Center

At present condition, only one collection center is in operation in Taplejung district. The government with local participation has supported the establishment of this collection center. The details of collection center are presented in table 3.5.

Table 3.5: Collection center in Taplejung district

SN	Name of Collection Center	Location (present)	Facility
1	Krishi Upaj sankalan kendra	Phungling Municipality -2, Tokmedanda	corrugated roofed shed-1

Source: ADO, Taplejung, 2072/73

Haat Bazaar

At present, there are 8 haat bazaars in operation in Taplejung district. The annual transaction of these haat bazaars were not found recorded. The details of existing haat bazaars are presented in table 3.6.

Table 3.6: Haat bazaar in Taplejung district

SN	Name of Haat Bazaar	Locations		Frequency Per week	Available Physical Facilities
		Previous	Present		
1	Tokmedanda	Tokmedanda	Tokmedandar	Saturday	Drinking water

SN	Name of Haat Bazaar	Locations		Frequency Per week	Available Physical Facilities
		Previous	Present		
	Bazaar	Bazaar,Phunlin-4,Dokhu VDC-9	Phunling Municipality	Tuesday	
2	Kaule Bazaar	Phuling-6	Phuling Municipality	Thursday	Corrugated roofed temporaryshed-4
3	Ramdubali Bazaar	Khamlung VDC-1	Phuling Municipality	Thursday	Corrugated roofed temporary shed-2
4	Chaature	Change-4	Athrai Triveni VC-5	Ausi/Purne	Temmorary shed-2
5	Pushemela	Change-1,Triveni VDC	Athrai Triveni VC	Sunday	
6	Purnedanda bazaar	Dhechambu-2	Yangabrak VC	Sunday	
7	Simam Panchami	Sinam VDC-4	Shrijanga VC	Sunday	
8	Sankranth Bazaar	Nalbu-2	Meringdane VC-6	Sunday	

Source: ADO, Taplejung, 2072/73

Retail Markets

There are no organized retail markets in the district. Majority of the consumers were found buying the agricultural products directly from the haat bazaar. Middlemen/traders were also found buying the agricultural products directly from haat bazaars and collection centers, selling the products in district headquarters and other village markets. Most grocery shops were found selling agriculture products mainly fruits and vegetables.

Wholesale Market

Wholesale market dose not exist in Taplejung district

Cold Store

Cold store dose not exist in Taplejung district

3.1.6 Location of AMI to be Developed in Taplejung District

Based on the criteria developed for the selection of appropriate locations of AMI (Annex 1), the following sites are suggested. The proposed sites are the Municipalities/VCs that are most appropriate to the users of the concerned Municipality/VC and its neighborhood. Appropriate location within the Municipalities/VCs proposed need to be identified through consultation with the stakeholders of command area of the proposed market center.

Location (Present address)

Collection Center

- Phungling Municipality -4 Tokmedanda
- Phungling Municipality-11 Garhi
- Yambarak VC-2 Mahagale
- Shrijangha VC-4 Tellok
- Phaktalung VC-3, Sima bazaar
- Athrai VC-5, Change
- Mainakhola VC-3 Sanghubazaar
- Bhiringden VC, Santhakra
- Mikwakhola VC, Sanwa
- Miringden VC, Santhakra
- Sidingwa VC-4, Sablakhu

Haat Bazaar

- Phungling Municipality -4 Tokmedanda
- Phungling Municipality-11 Garhi
- Yambarak VC-2 Mahagale
- Shrijangha VC-4 Tellok
- Phaktalung VC-3, Sima bazaar
- Athrai VC-5, Change
- Mainakhola VC-3, Sanghubazaar
- Bhiringden VC, Santhakra
- Mikwakhola VC, Sanwa
- Miringden VC, Santhakra
- Sidingwa VC-4, Sablakhu

Retail Market

- Yambarak Khudra Bazaar, Yambarak VDC-2, Thechambu.
- .Miringden Khudra Bazaar, Miringden VDC, Dovan

Cold Store

- Merinden VC-3, Dovan
- Phungling municipality, Phungling bazaar

3.2 Panchthar District

3.2.1 Introduction

This district is also known as the district of endangered Red Panda. Two high ways of national importance: Mid hill highway and Mechi Highway link the district.

'Phidim Bazaar', the headquarters is linked with the east-west Mahendra Highway at Charali by 142 km road of Mechi Highway. It lies 745 km east of the Kathmandu.

Panchthar which has no Himalayan range can be divided into two regions. Hilly region (1200 m to 4575m) and lowland (lower than 1200 m). The lowland of about 15-20 km area that lies from the Iwa Khola and Kabela Rivier to Tamor Docan fall into lowland of the district. There are no big lowlands except this valley and plain lands of the Tamor River.

The district has diverse climate, whereas the summer is pleasant, the winter is very cold. High hill region is very cold because of the snowfall that starts from Mangsir and persists up to Falgun. Temperature fruits, buckwheat, and potato are cultivated in this region. Mid hill region has moderate climate, citrus, vegetables and cereals crops are cultivated. In the same way, the riverside lowlands have very hot climate. Major cereal crops, mango, banana, jackfruit, pineapple etc are cultivated.

Despite having multi-ethnic and multi-identity, settlements of more than 47 castes and communities, more than 32 language-dialects, the majority includes Limbu (41.83%), Rai(13.78%), Brahmin (10.24%), Chhettri (9.88%) and Tamang (7.11%) respectively lives harmoniously. The total population of Panchthar is 191,817 out of which female population is 101,631 (53.0%) and male is 90,186 (47.0%). The population of literate population is 72.58% (CBS,2011). The district has 2 municipalities and 6 village committee. The seven major Crops cultivated in the district are maize, ginger, potato, summer vegetable winter vegetable, citrus and paddy. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 51,861 ha. The area, production and productivity of major crops are presented in table 3.7

Table 3.7: Area, Production and productivity of major crops in Panchthar district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	9,200.00	20,240.00	2.20
2	Maize	18,432.00	30,412.00	1.65
3	Wheat	3,912.00	6,494.00	1.66
4	Millet	4,750.00	8,980.00	1.69
5	Potato	2,063.00	27,327.60	13.25
6	Vegetable	1,783.00	19,929.00	11.18
7	Ginger	661.00	8,839.00	13.37
8	Cardamom	1,711.00	636.20	0.37
9	Citrus fruit	607.00	7,587.00	12.50
10	Winter fruit	125.00	1,619.40	13.00
11	Summer fruit	165.00	1,999.00	12.12

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.2.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Panchthar district is presented in table 3.8

Table 3.8: Production trend of major agriculture production in Panchthar district (mt)

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	23,000.00	22,600.00	30,127.00	20,240.00	21,184.00
Maize	21,760.00	12,240.00	29,931.00	30,412.00	38,435.00
Millet	9,350.00	9,350.00	9,046.00	8,980.00	9,004.00
Wheat	7,580.00	7,632.00	6,732.00	6,494.00	6,454.80
Potato	24,119.00	24,951.60	26,013.00	27,328.00	25,451.00
Vegetable	12,924.00	18,387.30	22,004.00	19,929.00	23,593.00
Citrus	7,123.00	6,381.00	8,059.50	7,587.00	7,213.00
Winter Fruit	1,297.00	1,459.00	1,578.00	1,619.00	1,683.00
Tropical Fruit	2,529.00	3,633.00	4,629.00	1,999.00	2,245.00
Ginger	2,240.00	3,524.00	7,175.00	8,839.00	8,843.10
Garlic	145.00	145.00	145.00	176.00	182.70
Turmeric	200.00	499.50	465.00	457.00	464.70
Chilli	290.00	559.80	699.00	1,003.00	1,211.00
Fish	7.30	7.90	7.90	7.90	8.00

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.2.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Panchthar district are presented in table 3.9 and 3.10 respectively

Table 3.9: Forecast of the production of major crops in Panchthar district (mt)

Crop/year	2021/22	2026/27	2031/32	2036/37
Paddy	21,359.98	18,617.96	16,227.93	14,144.72
Maize	43,127.19	89,078.79	183,991.35	380,032.28
Millet	8,832.26	8,335.44	7,866.55	7,424.05
Wheat	6,020.88	4,729.45	3,715.02	2,918.17
Potato	27,117.67	29,946.95	33,071.42	24,555.69
Vegetable	27,890.68	53,006.49	100,739.32	191,456.01
Citrus	7,695.47	8,497.26	9,382.59	10,360.16
Winter Fruit	1,834.55	2,507.67	3,427.76	4,685.44
Tropical Fruit	2,224.70	1,464.91	964.61	635.18
Ginger	16,100.77	20,666.95	29,400.45	39,520.34
Garlic	192.19	266.80	370.36	514.12
Turmeric	641.09	1,424.80	3,166.56	7,037.53
Chilli	1,889.29	10,560.36	59,028.13	71,269.26
Fish	8.24	9.03	9.89	10.84

Table 3.10: Forecast of the marketable surplus of major crops in Panchthar district (mt)

Crop/year	2021/22	2026/27	2031/32	2036/37
Paddy	7,475.99	6,516.28	5,679.78	4,950.65
Maize	12,938.16	26,723.64	55,197.40	114,009.69
Millet	3,532.91	3,334.17	3,146.62	2,969.62
Wheat	2,107.31	1,655.31	1,300.26	1,021.36
Potato	16,812.95	18,567.11	20,504.28	15,224.52
Vegetable	15,339.87	29,153.57	55,406.63	105,300.81

Crop/year	2021/22	2026/27	2031/32	2036/37
Citrus	3,847.74	4,248.63	4,691.29	5,180.08
Winter Fruit	1,284.19	1,755.37	2,399.43	3,279.81
Tropical Fruit	1,334.82	878.95	578.77	381.11
Ginger	13,685.66	17,566.91	24,990.38	33,592.29
Garlic	182.58	253.46	351.84	488.42
Turmeric	609.04	1,353.56	3,008.23	6,685.66
Chilli	1,473.65	8,237.08	46,041.94	55,590.02
Fish	7.41	8.12	8.90	9.76

3.2.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are organized in groups and cooperatives especially for large cardamom production and marketing.
- Farmers are aware of commercialization techniques
- Farmers have marketing knowledge to some extent that can be improved and increased.

Weakness

- There is low volume of marketable surplus of agro products, causing high transport cost.
- In many markets, MMC are not active.
- Farmers have less knowledge about grading and packaging.
- Market price information is not available.

Opportunities

- Off season vegetables have high market demand in Terai district as well as in India. This district is suitable for off-season production of vegetables, spices and potato.
- High volume of agri-products can be easily transported to wholesale market Dharan.

Treats

- Migration of young generation has created problems in agriculture production and marketing.
- Farmers have to compete with cheap and low quality Indian products in the market.

3.2.5 Present Status of AMI in Panchthar District

Present status of AMI in Panchthar is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers. Of the four market types studied, retail market and wholesale market does not exist and also cold store does not exist in Panchthar district.

Haat Bazaar

At present, there are 24 haat bazaars in operation in Panchthar district. The annual transaction of these haat bazaars were not found recorded. The details of existing haat bazaars are presented in table 3.11.

Table 3.11: Haat bazaar in Panchthar district

SN	Name of Haat Bazaar	Type	Locations		Frequency Per Week	Distance From District HQ(km)	Service Provided VC (No)
			Previous	Present			
1	Phidim Haat	Weekly	Phidim VDC	Phidim Municipality	Saturday	-	5

SN	Name of Haat Bazaar	Type	Locations		Frequency Per Week	Distance From District HQ(km)	Service Provided VC (No)
			Previous	Present			
2	Ravi Haat	Weekly	Ravi VDC	Miklagung VC-4	Saturday	45	3
3	Chilingdin Haat	Weekly	Chilingding Rake VDC	Miklangung VC	Saturday	21	3
4	Yashok Haat	Weekly	Yashok VDC	Kummayak VC-1	Aunsi/Purne	24	4
5	Chyang Thapa Haat	Weekly	Chyang thapa VDC	YangSolukhumbuk VC-1	unsi/Purne Saturday	48	3
6	Tharpu Haat	Weekly	Tharpu VDC	YangSolukhumbuh VC-4/5	Aunsi/Purne Saturday	27	3
7	Sarang danda Haat	Weekly	Sarang danda VDC	Miklajung VC-1/2	Friday	36	3
8	Mauwa Haat	Weekly	Mauwa VDC	Tumbewa VC-2/3	7,12,22,28 Days	42	3
9	Amarpur Haat	Fort Nightly	Amarpur VDC	Hilihang VC-1/2	Nawami	24	3
10	Panchami Haat	Fort Nightly	Panchami VDC	Hilihang VC-3/4	Panchami	21	3
11	Nagin Haat	Fort Nightly	Nagin VDC	Phidim Municipality-11/12	Panchami	9	3
12	Lungrupa Haat	Fort Nightly	Lungrupa VDC	Phidim Municipality-13/14	Panchami	21	2
13	Bharapa Haat	Fort Nightly	Bharapa VDC	Hilihang VC-6/7	Chaaturdasi	24	4
14	Phidim Lalikharaka Haat	Fort Nightly	Phidim Lalikharaka VDC	Phidim Municipality	Duitiya Tithi	6	4
15	Nawami Danda Haat	Fort Nightly	Nawami Danda VDC	Phalgunanada VC-1	Nawami Tithi	15	2
16	Pauwasartap Haat	Fort Nightly	Pauwasartap VDC	Phalgunanada VC-3	Aunsi/Purne	24	4
17	Angsarang Haat	Fort Nightly	Angsarang VDC	Phalgunanada VC-6/7	Duwadasi	24	2
18	Manjabung	Fort Nightly	Manjabung VDC	Kummayak VC-2	Duwadasi	30	3
19	Arubote Haat	Monthly	Arubote VDC	Miklajung VC-3	Tritiya Tithi	45	3
20	Mauwa Haat	Fort Nightly	Mauwa VDC	Tumbewa VC-2/3	Duitiya Tithi	42	3
21	Kurumba Haat	Fort Nightly	Kurumba VDC	Miklajung VC-5/6	Panchami Tithi	51	3
22	Phaptep	Fort Nightly	Phaptep VDC	Phalgunand VC-5	Panchami Tithi	21	3
23	Olanedasami Haat	Weekly	Olanedasami VDC	Tumbewa VC-4	Saturday	36	4
24	Limbakanyatar Haat	Weekly	Lumbakanyatar VDC	Miklajung VC-6/7	Friday	71	4

Source: ADO, Panchthar, 072/73

Collection Center

In Panchthar district, at present condition only four collection centers are in operation. The details are presented in table 3.12. The producers were found selling their produce directly to traders/middlemen. Some of the producers were also found transporting their produce directly to haat bazaar.

Table 3.12: Collection center in Panchthar district

SN	Name of Collection Center	Location (previous)	Facility
1	Krisi Upaj Sankalan Tatha Bikri Kendra	Amarpure VDC-1	Permanent shed
2	Tharpu krishi Sankalan Kendra	Tharpu VDC-3	Permanent shed
3	Ghendung Bahundariya Krishi Sankalan Kendra	Phidim Municipality-2	Permanent shed
4	Chaature Krishi Upaj Sankalan Kendra	Bharapa-3	Permanent shed

Source: ADO, Panchthar, 072/73

Retail Market

Distinct type of retail markets does not exist in the district. Haat bazaars and collection center were found serving as a retail market. Consumers as well as traders were found buying agricultural products from haat bazaar. The traders were found also importing agricultural products from terai district, and also from India mainly in winter, and supplying to DHQ Phidim and village level small markets.

Wholesale Market

Wholesale market dose not exist in Panchthar district

Cold Store

Cold store dose not exist in Panchthar district

3.2.6 Locations of AMI to be developed in Panchthar District

Based on the criteria developed for the selection of appropriate locations of AMI (Annex 1), the following sites are suggested. Appropriate location within the sites proposed need to be identified through consultation with the stakeholders of command area of the proposed market center.

Location (Present address)

Collection Center

- Hiliyang VC-6, Ganesh chock.
- Phidim Municipality-2, Samden
- Phalgunanda VC-3, Ranke
- Yangbarakta VC-3, Oyam
- Miklajung VC-1 Rabi
- Phidim Municipality-11, Nagi
- Miklajung VC-2 Saptami bazaar

Haat Bazaar

- Hiliyang VC-6, Ganesh chock.
- Phidim Municipality-2, Samden
- Phalgunanda VC-3, Ranke
- Yangbarakta VC-3, Oyam
- Miklajung VC-1 Rabi
- Phidim Municipality-11, Nagi
- Miklajung VC-2 Saptami bazaar

Retail Market

- Phidim Municipality-1, Phidim Bazaar (District Headquarters)

Cold Store

- Phidim Municipality -1, Phidim Bazaar
- Miklajung VC-3, Ranigaun
- Hiliheng VC-1, Ganesh Chowk.

3.3 Ilam District

3.3.1 Introduction

Situated in the east-South lap of Mahabharat and Siwalik range, Ilam is really a natural beauty district. The tea garden, greenery, small and big rivers, ponds, temples, mountains etc are the major attraction for tourists. Ilam Bazaar, the headquarters is linked with east-west Mahendra Highway at Charali by 75 km road (Mechi Highway). It lies 675 km east of Kathmandu.

Extending from 300 m to 3637 m, the district is situated in the northern part of mahabharat range. It can be divided into two major regions according to its topographical situation-hilly region (1200 m to 3637 m) and lowland (below 1200 m). The hilly region is also divided into two sub regions- high hilly area (2000-3637m). and mid hilly area (1200-2000 m). Low land which is situated in about 300m to 1200 m and made of river basins, is the lowest part of the district. The lowland areas are fertile and is suitable to grow major cereal crops and fruits.

The district has a settlement of more than 77 castes and communities, more than 10 religion cultures and more than 60 language-dialects. The majority includes Rai (23.76%), Limbu (15.72%), Brahmin (13.90%), Chhettri (13.69%) and Tamag (6.95%) respectively.

The total population of Ilam is 290,254 out of which female population is 149,128 (51.4%) and male is 141,126 (48.6%). The percentage of literate population is 77.91% (CBS, 2011)

The district has four Municipalities and 6 village committee. The seven major groups cultivated in the district are maize, paddy, potato, vegetables, citrus, wheat and ginger. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 71,085 ha. The area, production and productivity of major crops are presented in table 3.13

Table 3.13: Area, Production and productivity of major crops in Ilam district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	12,593.00	31,230.00	2.48
2	Maize	31,395.00	111,452.00	3.55
3	Wheat	4,620.00	15,338.00	3.32
4	Millet	1,700.00	1,700.00	1.00
5	Potato	6,815.00	91,749.00	13.46
6	Vegetable	3,237.00	45,435.00	14.04
7	Ginger	3,233.00	45,994.00	14.20
8	Cardamom	1,132.00	520.00	0.46
9	Citrus fruit	455.00	4,823.00	10.60
10	Winter fruit	456.00	3,197.00	7.01
11	Summer fruit	363.00	2,768.00	7.63

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.3.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Ilam district is presented in table 3.14

Table 3.14: Production trend of major crops in Ilam district (mt) district

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	45,690.00	45,185.00	44,966.00	31,230.00	31,750.00
Maize	77,500.00	78,385.00	69,654.00	111,452.00	111,091.00

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Millet	3,000.00	2,670.00	3,000.00	1,700.00	2,100.00
Wheat	13,398.00	12,960.00	12,350.00	15,338.00	14,264.00
Potato	90,950.00	91,749.00	91,749.00	91,749.00	133,722.00
Vegetable	43,608.00	44,165.00	46,589.00	45,435.00	45,247.00
Citrus	4,420.00	5,386.00	4,618.00	4,823.00	4,741.00
Winter Fruit	2,003.00	2,277.00	2,277.00	3,197.00	3,203.00
Tropical Fruit	2,289.00	3,731.00	3,627.00	2,768.00	3,433.00
Ginger	56,000.00	45,000.00	55,096.00	45,994.00	45,994.00
Garlic	1,400.00	552.00	600.00	600.00	600.00
Turmeric	600.00	1,567.00	1,785.00	1,996.00	1,996.00
Chilli	540.00	590.00	590.00	597.00	897.00

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.3.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus during the same period in Ilam district are presented in table 3.15 and 3.16 respectively.

Table 3.15: Forecast of the production of major crops in Ilam district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	28,172.80	16,275.76	9,402.70	5,432.06
Maize	121,208.27	207,174.78	354,112.71	605,265.81
Millet	1,717.61	959.38	535.87	299.31
Wheat	14,877.65	17,231.28	19,957.25	23,114.47
Potato	124,452.04	182,979.39	269,031.00	395,551.01
Vegetable	46,396.96	48,828.04	51,386.50	54,079.02
Citrus	3,731.48	7,070.44	13,397.15	25,385.06
Winter Fruit	3,731.48	7,070.44	13,397.15	25,385.06
Tropical Fruit	3,634.89	4,695.58	6,065.79	7,835.85
Ginger	44,171.19	36,677.23	30,454.68	25,287.83
Garlic	431.10	192.62	86.07	38.46
Turmeric	3,234.22	12,142.94	45,590.99	171,172.55
Chilli	859.70	1,436.51	2,400.32	4,010.78

Table 3.16: Forecast of the marketable surplus of major crops in Ilam district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	9,860.48	5,696.52	3,290.95	1,901.22
Maize	36,362.48	62,152.44	106,233.81	181,579.74
Millet	687.04	383.75	214.35	119.73
Wheat	5,207.18	6,030.95	6,985.04	8,090.07
Potato	77,160.26	113,447.22	166,799.22	245,241.62
Vegetable	25,518.33	26,855.42	28,262.57	29,743.46
Citrus	1,865.74	3,535.22	6,698.57	12,692.53
Winter Fruit	2,612.03	4,949.31	9,378.00	17,769.54
Tropical Fruit	2,180.93	2,817.35	3,639.48	4,701.51
Ginger	37,545.51	31,175.65	25,886.48	21,494.65
Garlic	409.55	182.99	81.76	36.53

Croplyear	2021/22	2026/27	2031/32	2036/37
Turmeric	3,072.50	11,535.80	43,311.44	162,613.92
Chilli	670.57	1,120.48	1,872.25	3,128.40

3.3.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farming is gradually being commercialized and performed through good planning.
- Farmers have experience of marketing of agri-commodities.
- Farmers are organized in group and cooperatives (mainly on tea and cardamom)
- Farmers are interested to actively participate in marketing functions/activities.

Weakness

- Excess use chemical fertilizes and pesticides especially in vegetable crops have resulted in unhygienic production for sale.
- Existing various marketing infrastructure needs further improvement.
- Post-harvest methodologies (grading, sorting, packaging etc) are not satisfactory.

Opportunities

- The district has easy access to major markets of Nepal
- Road are linked at many production areas.
- The agro-climatic situation of district is suitable for producing off season vegetable which has high market demand in terai districts of Nepal as well as in India.

Treats

- In many markets MMC is not working properly and efficiently.
- There is no cold store in the district.
- Youth migration creates labor shortage in agriculture production and marketing.

3.3.5 Present Status of AMI in Ilam District

Present status of AMI in Ilam is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers. Of the four market types studied, retail market and wholesale market does not exist in Ilam district.

Haat Bazaar

At present, there are 21 haat bazaars in operation in Ilam district. The annual transaction of these haat bazaars were not found recorded. The details of existing haat bazaars are presented in table 3.17.

Table 3.17: Haat bazaar in Ilam district

SN	Name of Haat Bazaar	Locations		Frequency Per week	Distance from District HQ	Available Physical Facilities
		Previous	Present			
1	Ilam Bazaar	Ilam District HQ	Ilam Municipality	Sunday Thursday	0	Road accessible
2	Fickle Bazaar	Fickle Bazaar (Suryodaya Municipality)	Fickle Bazaar Suryoday Municipality	Thursday	38	Road linkage Electricity Drinking water, Drainage
3	Pashupati Nagar	Pashupati Nagar (Suryodaya Municipality)	Pashupati Nagar (Suryodaya Municipality)	Monday	48	Electricity, Drinking water, Drainage
4	Mangalebare	Mangalebare VDC		Tuesday	28	Road Linkage

SN	Name of Haat Bazaar	Locations		Frequency Per week	Distance from District HQ	Available Physical Facilities
		Previous	Present			
5	Nayabazaar	Nayabazaar VDC	Nayabazaar Majjogmai VC	Wednesday	21	Weather Road
6	Shukabare/Namsaling	Shukabare	Majjogmai VC	Friday	17	Fair Weather
7	Katuse(Laxmipur)	Katuse Laxmipur VDC	Katuse (Suryodaya Municipality)	Saturday	15	NA
8	Sombare Mabu	Sombare Mabu VDC	Sombare Sandapur VC	Monday	21	Fair Weather Road
9	Budhbare(Naimkuwa)	Budhbare Majjuwa	Budhbare Sandakpur	Budhbare	27.5	Fair Weather Road
10	Gorkhe	Gorkhe Gorkhe VDC	Gorkhe Suryodaya Municipality Nayabazaar	Wednesday	27	Fair weather Road
11	Nayabazar (Premejung)	Nayabazar Nayabazar VDC	Suryodaya Municipality Panchami	Wednesday	22	Fair weather Road
12	Panchami (Sidhithumka)	Panchami (Sidhithumka VDC)	Ilam Municipality	thursday	18	Fair weather Road
13	Sakfara	Sakfara(Sakfara VDC)	Sakfara (Chulachuli VC)	Dashmi	49	NA
14	Panchami (Pyang)	Panchami (Pyang VDC)	Panchami (Majjugmai VC)	sunday	21	NA
15	Dhurbise (Phakphok)	Dhurbise (Phakphok VDC)	Dhubise (Phakphok Thum VC)	Panchami Tithi	36	NA
16	Jitpure (Jitpur)	Jitpure (Jitpur VDC)	Jitpur Deumai Municipality	Nawami Tithi	23	Fair weather road
17	Lumde	Lumde (Lumde VDC)	Lumde (Phakphik Thum VC)	Nawami Tithi	35	NA
18	Garuwa (Danabari)	Garuwa (Danabari VDC)	Garuwa (Mai Municipality)	Friday	25	NA
19	Kapursukka(Mahamei)	Kapursukka (Mahamei VDC)	Kapursukka (Mai Municipality)	Aunsi/Purne	22	NA
20	Jamuna	Jamuna (Januna VDC)	Jamuna (Jamuna VC)	Thursday	25	Fair weather road
21	Sanishchare(Jogmai)	Sanishchare (Jogmai) (Jogmai VDC)	Sanishchare (Majjogmai VC)	Saturday	29	NA

Source: ADO, Ilam, 072/73

Collection Center

In Ilam district, seven collection centers are found operating. These collection centers were supported by the government and private sectors. The details are presented in table 3.18

Table 3.18: Collection center in Ilam district

SN	Name of Collection Center	Location		Facility
		Previous	Present	
1	Tarkari Sankalan Kendra	Pasupati VDC-2, Bahj Ghare,	Suryadaya Municipality-3, Bagh Ghara	Electricity, Water
2	Tarkari Sankalan Kendra	Barbote VDC-4, Okraedharapani	Ilam Municipality-5, Okraedharapani	Electricity, Water
3	Tarkari Sankalan Kendra	Namsaling VDC-2, Namsaling	Bhaijokemai VC-4, Namsaling	Electricity, Water
4	Tarkari Sankalan Kendra	Chamaiaata VDC-2, Chamaiaata	daaumai Municipality-1, Chamaiaata	Electricity, Water
5	Tarkari Sankalan Kendra	Sakhejung VDC-3, Puwa khola	Ilam Municipality-1, Puwakhola	Electricity, Water

SN	Name of Collection Center	Location		Facility
		Previous	Present	
6	Tarkari Sankalan Kendra	Godak VDC-4, Ghaatta	Ilam Municipality-10, Ghaatta	Electricity
7	Tarkari Sankalan Kendra	Kolan VDC-9, Kitane	Rong VC-9, Kitane	Electricity

Source: ADO, Ilam, 2072/73

Retail Market

There are no organized retail markets in the district. In rural areas, agricultural products mainly vegetables are produced in the kitchen garden for home consumption. In urban area, the consumer were found buying the agricultural products directly from haat bazaar. Traders were found buying, the agriculture products from collection center and haat bazaar and selling, the products in district headquarters and other village markets. Landless farmers, Subsistence farmers and even tea-shop owners were found selling the agri-products mainly fruits and vegetables around bus-park, and also in rural areas, using the road side as a market place.

High volume of district produced vegetables mainly cabbage, cauliflower, squash etc are exported to India, via Charali of Jhapa district, during Falgun to Bhadra. The traders of India were found collecting the ' Akabare' Chilli directly from production pocket and haat bazaar.

Wholesale Market

Wholesale market dose not exist in Ilam district

Cold Store

One cold store situated at Ilam municipality -9 is not in operation since last 6 years. (The size of cooling chamber is big than required, fruits and vegetables were kept in same Chamber)

3.3.6 Locations of AMI to be Developed in Ilam District

Based on the criteria developed for the selection of appropriate locations of AMI (Annex 1), the following sites are suggested. The proposed sites are the Municipalities/VCs that are most appropriate to the users of the concerned Municipality/VC and its neighborhood. Appropriate location need to be identified through consultation with the stakeholders of command area of the proposed market center.

Location (Present address)

Haat Bazaar

- Phaphokthung VDC, Dharapani.
- Bhajokbhai VDC, Naya Bazaar
- Deumai Municipality, Mangalbare
- Mai Municipality-3, Shitali Bazaar

Collection Center

- Suryodaya Municipality-14, Batase
- Rong VDC-6, Rong pang
- Rong VDC-2, Barphalyang
- Suryodaya Municipality-1, Sanghubesi
- Phaphokthung VDC, Dharapani.
- Bhaksebung VDC, Bhaksebung
- Santapur VDC, Deural bazaar.
- Bhajokbhai VDC, Naya bazaar
- Deumai Municipality, Mangalbare
- Mai Municipality-3, Shitali bazaar.

Proposed Retail Market

- District Headquarters, Ilam bazaar

Cold Store

- Suryaudaya Municipality-3, Gairigaun

3.4 Jhapa District

3.4.1 Introduction

The district is shaped rectangular, its east-west length is about 45 km whereas north-south breadth is about 27 km. The east-west Mahendra High way passes across the district, 'Chandragadhi', the district headquarters lies 13 km south-east from this highway and 610 km south-east of the Kathmandu.

The Physical structure of the district includes Churiya region (500 m) and Plain land of Terai (58 m). Based on the topographical situation the district can be divided into two regions-slop of North and terai of South. The terai region of the south occupies about 65% of the total area of the district, because of the alluvial soil, this region is the granary of the district.

Jhapa has a tropical monsoon climate. Temperature ranges from 32^o and 35^o Celsius during the summer, whereas it ranges to 10^o -15^o Celsius in winter. Because monsoon wind coming from the Bay of Bengal, the average rainfall is 272 mm.

Despite having multiethnic and multi-identity, Settlement of more than 72 language-dialects, the majority includes Brahmin (23.78%), Chhetri (15.75%), Rajbanshi (9.03%), Limbu (6.61%) and Rai (4.67%) respectively lives in the district.

The total population of Jhapa is 812,650 Out of which female population is 427,554 (52.6%) and male is 385,096 (47.3%). The percentage of literate population is 75.09% (CBS, 2011).

There are 8 municipalities and 7 village committee in the district. The seven major crops cultivated in the district are paddy, maize, vegetable, potato, ginger, summer fruit and fish. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 99,716 ha. The area, production and productivity of major crops are presented in table 3.19

Table 3.19: Area, Production and productivity of major crops in Jhapa district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	83,200.00	337,792.00	4.06
2	Maize	35,500.00	92,300.00	2.59
3	Wheat	8,050.00	24,150.00	3.00
4	Millet	1,780.00	2,136.00	1.20
5	Potato	14,708.00	216,208.00	14.70
6	Vegetable	8,408.00	145,583.00	17.32
7	Ginger	342.00	4,582.00	13.40
8	Cardamom	-	-	-
9	Citrus fruit	100.00	885.00	8.85
10	Winter fruit	-	-	-
11	Summer fruit	6,216.00	71,085.00	11.44

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.4.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Jhapa district is presented in table 3.20.

Table 3.20: Production trend of major crops in Jhapa district (mt)

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	321,840.00	320,790.00	365,250.00	337,792.00	315,175.00
Maize	72,460.00	82,140.00	95,000.00	92,000.00	95,000.00
Millet	2,160.00	1,785.00	1,800.00	2,136.00	2,142.00
Wheat	25,150.00	21,750.00	22,540.00	24,150.00	29,700.00
Potato	163,820.00	198,100.00	213,295.00	216,208.00	221,843.00
Vegetable	123,659.00	139,928.00	144,757.00	145,583.00	145,127.00
Citrus	250.00	250.00	247.00	885.00	80.00
Tropical Fruit	70,773.00	72,053.00	72,053.00	71,085.00	71,062.00
Ginger	4,562.00	3,345.00	4,488.00	4,583.00	4,607.00
Garlic	374.00	374.00	75.00	65.00	70.00
Turmeric	480.00	480.00	633.00	636.00	510.00
Fish	845.00	856.50	974.50	1,023.50	1,372.90

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

Different four type of markets operated in Sirahai may be sufficient for another 20 years, so as a outcome of district level interaction meeting, additional market centers are not proposed. However these existing markets need to strengthened specially with respect to their facilities.

3.4.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus during the same period in Jhapa district are presented in table 3.21 and 3.22 respectively

Table 3.21: Forecast of the production of major crops in Jhapa district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	332,664.18	334,296.67	335,937.18	337,585.73
Maize	105,711.62	146,677.86	203,519.67	282,389.30
Millet	2,096.84	2,274.64	2,467.52	2,676.75
Wheat	259,811.15	34,772.89	43,270.13	53,843.78
Potato	262,282.81	350,998.96	496,567.49	702,507.12
Vegetable	132,212.40	186,091.52	222,767.63	266,672.10
Citrus	31.82	113.54	68.36	41.16
Tropical Fruit	69,367.42	71,096.77	70,905.94	70,715.63
Ginger	18,152.63	5,600.90	6,620.61	7,825.96
Garlic	2,005.34	749.69	916.89	1,121.39
Turmeric	2,005.34	749.69	916.89	1,121.39
Fish	2,492.00	2,502.41	4,444.48	7,893.75

Table 3.22: Forecast of the marketable surplus of major crops in Jhapa district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	166,332.09	167,148.34	167,968.59	168,792.86
Maize	79,283.71	110,008.39	152,639.76	211,791.98
Millet	838.74	909.86	987.01	1,070.70
Wheat	155,886.69	20,863.73	25,962.08	32,306.27
Potato	209,826.25	280,799.17	397,253.99	562,005.70
Vegetable	108,414.17	152,595.04	182,669.45	218,671.12

Crop/year	2021/22	2026/27	2031/32	2036/37
Citrus	15.91	56.77	34.18	20.58
Tropical Fruit	48,557.19	49,767.74	49,634.16	49,500.94
Ginger	16,337.37	5,040.81	5,958.55	7,043.37
Garlic	1,804.81	674.72	825.20	1,009.25
Turmeric	1,804.81	674.72	825.20	1,009.25
Fish	1,993.60	2,001.93	3,555.58	6,315.00

3.4.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Many subsistence farmers have converted to semi-commercial and commercial farming.
- Farmers are organized in groups and cooperatives
- In the past, many projects have developed marketing centers in the district.
- Farmers have experience of marketing of agri-products.
- Farmers group have capacity to invest on marketing development.

Weakness

- Excess use of chemicals has resulted in unhygienic products for sale.
- Existing various marketing infrastructure are not able to provide minimum facilities to producers and consumers.
- Adoption of post-harvest technologies are very weak.

Opportunity

- Wholesale market, Birtamode has provided opportunity to producer to convert in commercial farming.
- There is satisfactory road connection within the district and has a good road link to production areas.
- Marketing know-how and management skills are imparted to farmers by various agencies.

Treats

- Farmers have to compete with cheap and low quality Indian products in the market.
- At rural areas, the price of agri-commodities are fixed by the middleman/traders.
- Problem of youth migration has created problems in production as well as in marketing activities.

3.4.5 Present Status of AMI in Jhapa District

Present status of AMI in Jhapa is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers.

Collection Center

At present condition, five collection centers are in operation in Jhapa district. The details are presented in table 3.23.

Table 3.23: Collection center in Jhapa district

SN	Name of Collection Center	Location (previous)	Facility
1	Kankai tarkari Utpadak samuha Bkri Kendra	Kankai municipality-4 Surunga bazaar	corrugated roofed shed-1
2	Krishi Upaj sankalan kendra	Charali bazaar chok	corrugated roofed shed-1
3	Krishi Upaj sankalan kendra	Pathriya	corrugated roofed shed-1
4	Krishi Upaj Sankalan Kendra	Machi Municipality-13, Duhagarhi, Charali	corrugated roofed shed-1
5	Krishi Upaj sankalan Kendra, baniyani	baniyani	corrugated roofed shed-1

Source: ADO, Jhapa, 2070/71

Haat Bazaar

117 Haat Bazaars were found in operation in Jhapa district, some haat bazaars have permanent sheds while most these were found operating the business in open filed. The annual transection of these haat bazaars were hot found recorded. The details of existing haat bazaars are presented in table 3.24.

Table 3.24: Haat Bazaar center in Jhapa district

SN	Haat bazaar name	Location		Frequency per week	Distance from District HQ (KM)	Available Physical Facilities
		Previous	Present			
1	Kankai Tarkari Utpadak Samuha Bikri Kendra (Kankai Municipality)	Kankai Tarkari Utpadak Samuha Bikri Kendra (Kankai Municipality)	Kankai Tarkari Utpadak Samuha Bikri Kendra (Kankai Municipality)	Regular	22	Electricity, Driniking water, shed
2	Bicharni Bazaar (Jyamirgarhi-3)	Bicharni Bazaar Bazaar(Jyamirgarhi VDC)	Bicharni Bazaar (Mechinagar Municipality)	Sunday/Thursday	9	NA
3	Charali Bazaar (Duwagarhi-4 VDC)	Charali Bazaar (Duwagarhi VDC-4)	Charali Bazaar (Mechinagar Municipalit)	Sunday	11	Pakkashed-4 Kachhe Shed -4
4	Damak Bazaar (Damak Municipality)	Damak Bazaar (Damak Municipality-11/12)	Damak Bazaar (Damak Municipality)	Wednesday	43	Permanent shed-17, Temporary-29 Office Building -1, Store facilities, Drinking water, Drainage, electricity, Compound
5	Mangalbare Bazaar Damak-15 (Damak Municipality)	Mangalbare Bazaar (Damak Municipality-15)	Mangalbare Bazaar (Damak Municipality)	Tuesday	43	NA
6	Beldangi Sharananthe Bazaar Damak-5 Municipality	Beldangi Sharananthe Bazaar (Damak-5 Municipality)	Beldangi Sharananthe Bazaar (Damak Municipality)	Regular	43	NA
7	Chandragarhi Bazaar Bhadrapur-14 (Bhadrapur Municipality)	Chandragarhi Bazaar (Bhadrapur Municipality-14)	Chandragarhi Bazaar (Bhadrapur Municipality)	Monday/Friday	1	NA
8	Chakchake Bazaar Chakchake-2	Chakchake Bazaar (Chakchake VDC-2)	Chakchake Bazaar (Chakchake-VC)	Wednesday	34	NA
9	Goldhap Bazaar (Goldhap VDC)	Goldhap (Goldhap VDC)	Goldhap Bazaar (Haldibari VC)	Friday	11	Shed-6, Corrugated roofed shed
10	Kanchanshree Bazaar (Jaithal-9)	Kanchanshree Bazaar (Jaithal VDC-9)	Kanchanshree Bazaar (Haldibari VC)	Thursday	12	NA
11	Mangalbare Bazaar (Jaithal-7)	Mangalbare Bazaar (Jaithal VDC-7)	Mangalbare Bazaar (Haldibari VC)	Tuesday	12	NA
12	Badabari Bazaar (Jaithal-6)	Badabari Bazaar (Jaithal VDC-6)	Badabari Bazaar (Haldibari VC)	Thursday	12	NA
13	Balubadi Bazaar (Balubari-1)	Balubadi Bazaar (Balubari VDC-1)	Balubadi Bazaar (Kachan Kawal VC)	Thursday	23	NA
14	Pharsadang Bazaar (Balubari-8)	Pharsadang Bazaar (Balubari VDC-8)	(Kachan Kawal VC)	Thursday	23	NA
15	Dadhuwa Bazaar	Jaithal-4	-	Friday	12	NA
16	DangiBari Bazaar (Pathariya-1)	Dangibari Bazaar (Pathariya VDC-1)	Dangibari Bazaar (Kachan Kawal VC)	Thursday	24	NA
17	Haatipaila Bazaar (Pathriya-2)	Haatipaila Bazaar (Pathriya VDC-2)	Haatipaila Bazaar (Kachan Kawal VC)	Thursday	24	NA
18	Bagan Bazaar (Pathariya-9)	Bagan Bazaar (Pathariya VDC-9)	Bagan Bazaar (Kachan Kawal VC)	Thursday	24	NA
19	Rajgarh Bazaar (Rajgarh-6)	Rajgarh Bazaar (Rajgarh VDC-6)	Rajgarh Bazaar (Barhadashi VC)	Thursday	38	NA

SN	Haat bazaar name	Location		Frequency per week	Distance from District HQ (KM)	Available Physical Facilities
		Previous	Present			
20	Janata Bazaar (Rajgarh-6)	Janata Bazaar (Rajgarh VDC-6)	Rajgarh Bazaar (Rajgarh VC)	Thursday	38	NA
21	Bhagodubba Bazaar (Rajgarh-6)	Bhagodubba Bazaar (Rajgarh VDC)	Bhagodubba Bazaar (Rajgarh VC)	Thursday	38	NA
22	Arjundhara Bazaar (Arjundhara -2)	Arjundhara Bazaar (Arjundhara VDC-2)	Arjundhara Bazaar (Arjundhara Municipality)	Thursday	18	NA
23	Kamartoli Bazaar (Taghandubba-7)	Kamartoli Bazaar (Taghandubba VDC-7)	Kamartoli Bazaar (Jhapa VC)	Thursday	44	NA
24	Simalbadi Bazaar (Taghan Dubba-9)	Simalbadi Bazaar (Taghan Duba VDC-9)	Simalbadi Bazaar (Jhapa VC)	Thursday	44	NA
25	Gwaldubba Bazaar (Jurepani-5)	Gwaldubba Bazaar (Jurepani VDC-5)	Gwaldubba Bazaar (Jurepani VC)	Tuesday/Friday	54	NA
26	Dudhali Bazaar (Jurepani-7)	Dudhali Bazaar (Jurepani VDC-7)	Dudhali Bazaar (Gauriganj VC)	Monday/Thursday	54	NA
27	Phaketiv Bazaar (Juropani-8)	Phaketiv Bazaar (Jurepani VDC-8)	Phaketiv Bazaar (Gauriganj VC)	Sunday	54	NA
28	Bairati Bazaar (Juropani-2)	Bairati Bazaar (Jurepani VDC-2)	Bairati Bazaar (Gauriganj VC)	Monday/Thursday	54	NA
29	Juropani Bazaar (Juropani-9)	Juropani Bazaar (Jurepani VDC-9)	Juropani Bazaar (Gauriganj VC)	Sunday/Thursday	55	NA
30	Skulchaun Bazaar (Maharani Jhoda-3)	Skulchaun Bazaar (Maharani VDC-3)	Skulchaun Bazaar	Tuesday/Friday	56	NA
31	Doramari Bazaar (Maharani-7)	Doramari Bazaar (Maharani VDC-7)	Doramari Bazaar	Sunday	56	NA
32	Gauradah Bazaar (Gauradah-9)	Gauradah Bazaar (Gauradah VDC-9)	Gauradah Bazaar (Gauradah Municipality)	Sunday/Thursday	50	Electricity, drinking water, drainage
33	Kankai Bazaar (Saranamati-5)	Kankai Bazaar (Saranamati VDC-5)	Kankai Bazaar	Sunday/Thursday	38	NA
34	Mothergachhi Bazaar(Saranamati-3)	Mothergachhi Bazaar Saranamati-9	Mothergachhi Bazaar	Sunday/Thursday	38	NA
35	Saranamati Bazaar (Saranamati-3)	Saranamati Bazaar Saranamati-3	Saranamati Bazaar	Sunday/Thursday	38	NA
36	Panthapada Bazaar (Saranamati-1)	Panthapada Bazaar Saranamati-1	Panthapada Bazaar	Sunday/Thursday	38	NA
37	Surunga Bazaar (Kankai Municipality-5)	Surunga Bazaar (Kankai Municipality-5)	Surunga Bazaar (Kankai Municipality)	Sunday/Thursday	22	NA
38	Durgapur Bazaar (Ghailaduba-1)	Durgapur Bazaar (Ghailaduba-1)	Durgapur Bazaar	Sunday	20	NA
39	Ghailaduba Bazaar (Ghailaduba-6)	Ghailaduba Bazaar Ghailaduba-6	Ghailaduba Bazaar	Tuesday/Friday	22	Corrugated roof shed-4
40	Dangibari Bazaar (Dangibari-8)	Dangiban Bazaar (Dangibari VDC-8)	Dangiban Bazaar (Barhadase VC)	Sunday/Wednesday	29	NA
41	Panchamani Bazaar (Dangibari-8)	Dangibari Bazaar (Dangibari VDC-8)	Dangibari Bazaar (Barhadase VC)	Thursday	29	NA
42	Jhapa Bazaar (Kumarkhod-9)	Jhapa Bazaar (Kumarkhod VDC-9)	Jhapa Bazaar (Jhapa VC)	Thursday	40	NA
43	Bhadrapur Bazaar (BhadrapurMunicipality 9)	Bhadrapur Bazaar (Bhadrapur Municipality-9)	Bhadrapur Bazaar (Bhadrapur Municipality-7)	Regular	4	NA
44	Shivaganja Bazaar (Shivaganj -1)	Shivaganj Bazaar (Shivaganj VDC-1)	Shivaganj Bazaar (Shivasatari Municipality)	Sunday/Wednesday	38	NA

SN	Haat bazaar name	Location		Frequency per week	Distance from District HQ (KM)	Available Physical Facilities
		Previous	Present			
45	Byangdanda Bazaar (Shivaganj-1)	Byangdanda Bazaar (Shivaganj VDC-8)	Byangdanda Bazaar (Shivasatari Municipality-7)	Friday	38	NA
46	Lalpaina Bazaar (Shivaganja-5)	Lalpaina Bazaar (Shivaganja VDC-5)	Lalpaina Bazaar (Shivasatari Municipality)	Tuesday	38	NA
47	Dhailchok Bazaar (Shivaganj-2)	Dhailchok Bazaar (Shivaganj VDC-2)	Dhailchok Bazaar (Shivasatari Municipality-38)	Thursday	38	NA
48	Chandradangi Bazaar (Shivagauj-6)	Chandradangi Bazaar (Shivaganj VDC-6)	Chandradangi Bazaar (Shivasatari Municipality)	Tuesday	38	Corrugated roofed shed-1
49	Bolochok Bazaar (Panchgachhi-4)	Bolochok Bazaar (Panchgachhi-4)	Bolochok Bazaar	Tuesday	44	NA
50	Panchgadhi Bazaar (Panchgachhi-1)	Panchgadhi Bazaar (Panchgachhi VDC-1)	Panchgadhi Bazaar (Shivasatari Municipality)	Friday	44	NA
51	Ratiya Bazaar (Phanchgachhi-3)	Ratiya Bazaar (Phanchgachhi VDC-3)	Ratiya Bazaar (Shivasatari Municipality)	Monday/Thursday	44	NA
52	Janata Bazaar (Panchgachhi-6)	Janata Bazaar (Panchgachhi VDC-6)	Janata Bazaar (Shivasatari Municipality)	Saturday/Wednesday	44	Corrugated roof shed-1, Store, electricity, Drinking water, Drainage, Computer
53	Jhijhile Bazaar	Jhijhile Bazaar (Sataidham VDC) Sataidham-5	Jhijhile Bazaar (Shivasatari Municipality)	Saturday/Wednesday	30	Corrugated roofed shed
54	Dudhe Bazaar	Dudhe Bazaar (Sataidham VDC-6)	Dudhe Bazaar (Shivasatari Municipality)	Sunday/Thursday	30	NA
55	Maidhar Bazaar	Maidhar Bazaar (Sataidham VDC-9)	Maidhar Bazaar (Shivasatari Municipality)	Sunday/Thursday	30	NA
56	Dundamari Bazaar (Sataidham-4)	Dundamari Bazaar (Sataidham VDC-4)	Dundamari Bazaar (Shivasatari Municipality)	Sunday/Thursday	30	NA
57	Baniyani Bazaar Krishi Upaj Bazaar Samiti (Baniyani-4)	Baniyani Bazaar Krishi Upaj Bazaar Samiti (Baniyani-4)	Baniyani Bazaar (Kachankawat VC)	Monday/Friday	18	NA
58	Dugdugi Bazaar (Baniyani-2)	Dugdugi Bazaar (Baniyani VDC-2)	Dugdugi Bazaar (Kachan Kawat VC)	Thursday	19	NA
59	Sombare Bazaar (Prithvi Nagar-7)	Sombare Bazaar (Prithvi Nagar VDC-7)	Sombare Bazaar (Bhadrapur Municipality)	Sunday/Thursday	14	NA
60	Sagarmatha Bazaar (Prithvinagar-5)	Sagarmatha Bazaar (Prithvinagar VDC)	Sagarmatha Bazaar (Bhadrapur Municipality)	Monday/Friday	14	NA
61	Gyanechok Bazaar (Prithvi Nagar-4)	Gyanechok Bazaar (Prithvi Nagar VDC-4)	Gyanechok Bazaar (Bhadrapur Municipality)	Sunday/Thursday	14	NA
62	Himal Bazaar (Prithvi Nagar-9)	Himal Bazaar (Prithvi Nagar VDC-9)	Himal Bazaar (Bhadrapur Municipality)	Tuesday/Saturday	14	NA
63	Suryanagar Bazaar (Maheshpur-3)	Suryanagar Bazaar (Maheshpur VDC-3)	Suryanagar Bazaar (Bhadrapur Municipality)	Tuesday	5	NA
64	Parakhopi Bazaar	Parakhopi Bazaar	Parakhopi Bazaar	Tuesday	6	NA

SN	Haat bazaar name	Location		Frequency per week	Distance from District HQ (KM)	Available Physical Facilities
		Previous	Present			
	(Haldibari-3)	(Haldibari VDC-3)				
65	Sanischare Bazaar (Sanischare-1,2)	Sanischare Bazaar (Sanischare VDC-18)	Sanischare Bazaar	Tuesday	18	NA
66	Buttabari Bazaar (Sanischare-7)	Buttabari Bazaar (Sanischare VDC-7)	Buttabari Bazaar	Tuesday	18	NA
67	Chaitubare Bazaar (Charpane-7)	Chaitubare Bazaar (Charpane VDC-7)	Chaitubare Bazaar	Saturday	12	NA
68	Charpare Bazaar (Charpane-3)	Charpare Bazaar (Charpane VDC-3)	Charpare Bazaar	Wednesday	12	NA
69	Sombare Bazaar	Sombare Bazaar (Charpane VDC-8)	Sombare Bazaar	Monday	12	NA
70	Garhamuni Bazaar (Garhamuni-5)	Garhamuni Bazaar (Garhamuni VDC-5)	Garhamuni Bazaar (Birtamod Municipality)	Monday	7	NA
71	Sainik Bazaar (Garhamuni-9)	Sainik Bazaar (Garhamuni VDC-9)	Sainik Bazaar (Birtamod Municipality)	Monday	7	NA
72	Mahabhara Bazaar (Mahabhara-1)	Mahabhara Bazaar (Mahabhara VDC-1)	Mahabhara Bazaar (Gaurigunj VC)	Wednesday	49	NA
73	Devigarah Bazaar (Mahabhare-6)	Devigarah Bazaar (Mahabhare VDC-6)	Devigarah Bazaar (Gaurigunj VC)	Tuesday	49	NA
74	Bhansar Bazaar (Mahabhare-4)	Bhansar Bazaar (Mahabhare VDC-4)	Bhansar Bazaar (Gaurigunj VC)	Monday/Thursday	49	NA
75	Chauri Bazaar (Mahabhara-5)	Chauri Bazaar (Mahabhara VDC-5)	Chauri Bazaar (Gaurigunj VC)	Friday	49	NA
76	Kunjibari Bazaarr (Mahabhare-3)	Kunjibari Bazaarr (Mahabhare VDC-3)	(Gaurigunj VC)	Saturday	49	NA
77	Bansbari Bazaar (Topgachhi-2)	Barebari Bazaar (Topgachhi VDC-2)	Barebari Bazaar (Kamal VC)	Saturday	45	NA
78	Kyampa Bazaar (Topgachhi-8)	Kyampa Bazaar (Topgachhi VDC-8)	Kyampa Bazaar (Kamal VC)	Thursday	45	Corrugated roofing 5 sheds, electricity, drainage, drinking water
79	Saranamati Bazaar (Topgachhi-6)	Saranamati Bazaar (Topgachhi VDC-6)	Saranamati Bazaar (Kamal VC)	Thursday	45	NA
80	Kerkha Bazaar (Topgachhi-7)	Kerkha Bazaar (Topgachhi VDC-7)	Kerkha Bazaar (Kamal VC)	Saturday	45	Electricity, drinking water, Drainage
81	Baigundhura Bazaar (Baigundhura-3)	Baigundhura Bazaar (Baigundhura VDC-3)	Baigundhura Bazaar	Saturday	54	NA
82	Thulo Barhaghare Bazaar (Lakhaupur-7,8)	Thulo Barhaghare Bazaar(Lakhaupur VDC-7,8)	Thulo Barhaghare Bazaar(Kamal VC)	Tuesday/Friday	41	NA
83	Mangalbare Bazaar (Lakhanpur-1)	Mangalbare Bazaar (Lakhanpur VDC-1)	Mangalbare Bazaar (Kamal VC)	Tuesday	41	NA
84	Geuriya Bazaar (Lakhanpur -5)	Geuriya Bazaar (Lakhanpur VDC-5)	Geuriya Bazaar (Kamal VC)	Friday	41	NA
85	Rangpur Bazaar (Lakhanpur-8)	Rangpur Bazaar (Lakhanpur VDC-8)	Rangpur Bazaar (Kamal VC)	Monday/Thursday	41	NA
86	Pathamari Bazaar (Pathamari-5)	Pathamari Bazaar (Pathamari VDC-5)	Pathamari Bazaar (Kachan Kawal VC)	Sunday/Wednesday	33	NA
87	Devi Bazaar(Anarmani-3)	Devi Bazaar (Anarmani VDC)	Devi Bazaar (Birtamod Municipality)	Sunday/Wednesday	11	NA
88	Birtamod (Anarmani-3)	Birtamod (Anarmani VDC-3)	Birtamod (Birtamod Municipality)	Sunday/Wednesday	11	NA
89	Gadigaun Bazaar (Shantinagar-5)	Gadigaun Bazaar (Shantinagar VDC-5)	Gadigaun Bazaar (Budhashauti VDC)	Sunday/Wednesday	24	NA
90	Kankarvitta Bazaar (Mechinagar)	Kankarvitta Bazaar (Mechi Nagar VDC)	Kankarvitta Bazaar (Mechinagar)	Sunday/Wednesday	18	NA

SN	Haat bazaar name	Location		Frequency per week	Distance from District HQ (KM)	Available Physical Facilities
		Previous	Present			
			Municipality)			
91	Bahundangi Bazaar (Bahundangi-2)	Bahundangi Bazaar (Bahundangi VDC-2)	Bahundangi Bazaar	Sunday/Wednesday	30	NA
92	Tokla Bhrikuti Bazaar Bahundangi	Tokla Bhrikuti Bazaar (Bahundangi VDC)	Tokla Bhrikuti Bazaar	Sunday/Wednesday	30	NA
93	Budhabare Bazaar (Budhabare-9)	Budhabare Bazaar (Budhabare VDC-9)	Budhabare Bazaar (Budha Shanti VC)	Wednesday/Friday	18	NA
94	Dhulabari Bazaar (Dhulabari)	Dhulabari Bazaar (Dhulabari VDC-1)	Dhulabari Bazaar	Wednesday/Friday	25	NA
95	Kechna Bazaar (Kechna-1)	Kechna Bazaar (Kechna VDC-1)	Kechna Bazaar (Kechna Kewal VC)	Sunday/Thursday	26	NA
96	Saniheli Bazaar (Kohwara-2)	Saniheli Bazaar(Kohwara-1)	Saniheli Bazaar	Sunday/Friday	61	NA
97	Chapramani Bazaar (Kohwara-2)	Chapramani Bazaar (Kohwara VDC-5)	Chapramani Bazaar	Sunday/Friday	61	NA
98	Kohwara Bazaar (Kohwara -5)	Kohwara Bazaar (Kohwara VDC)	Kohwara Bazaar	Sunday/Friday	61	NA
99	Baluwasthan Bazaar (Kohware-8)	Baluwasthan Bazaar (Kohware VDC-8)	Baluwasthan Bazaar	Sunday/Friday	61	NA
100	Bhawana Beshashree Bazaar(Kohwara-8)	Bhawana Beshashree Bazaar(Kohwara VDC-8)	Bhawana Beshashree	Sunday/Friday	61	NA
101	Gauriganj Bazaar (Gauriganj-7)	Gauriganj Bazaar (Gauriganj VDC-7)	Gauriganj Bazaar (Gauriganj Palikha)	Sunday/Friday	59	Corrugated roofed sheds-3, electricity
102	Theki Khola/Tola Bazaar(Gauriganj-8)	Theki Khola/Tola Bazaar (Gauriganj VDC-8)	Theki Khola/Tola Bazaar (Gauriganj Palikha)	Sunday/Friday	59	NA
103	Gauriganj Bazaar (Gauriganj -5)	Gauriganj Bazaar (Gauriganj VDC-5)	Gauriganj Bazaar (Gauriganj Palikha)	Sunday/Friday	59	NA
104	Tulachan Bazaar (KohSolukhumbu -1)	Tulachan Bazaar (KohSolukhumbu VDC-1)	Tulachan Bazaar (Gauriganj Palikha)	Sunday/Friday	61	NA
105	Badam Chaudhanj Bazaar (KohSolukhumbu -7)	Badam Chaudhanj Bazaar (Koh Solukhumbu VDC-7)	Badam Chaudhanj Bazaar (Gauriganj Palikha)	Sunday/Friday	61	NA
106	Pathariya Bazaar (Pathariya Bazaar)	Palhariya Bazaar	Pathariya Bazaar	Sunday/Friday	24	NA
107	Kutti Bazaar (Gherabari-7)	Kutti Bazaar (Gherabari VDC-7)	Kutti Bazaar (Kachan Kawal VC)	Sunday/Friday	29	NA
108	Mahendranagar Bazaar (Khajurgachhi-6)	Mahendranagar Bazaar (Khajurgachhi VDC-6)	Mahendranagar Bazaar (Gauriganj Palikha)	Sunday/Friday	59	Electricity, Corrugated roofed sheds-4
109	Khudunabari Bazaar (Khudunabari-9)	Khudunabari Bazaar (Khudunabari VDC-9)	Khudunabari Bazaar	Saturday	23	NA
110	Parewari Bazaar (Dhampur-3)	Parewari Bazaar (Dhampur VDC-3)	Parewari Bazaar	Monday	33	NA
111	Mangalbare Bazaar (Dhampur-8)	Mangalbare Bazaar (Dhampur VDC-8)	Mangalbare Bazaar	Friday	33	NA
112	Shukrabare Bazaar (Dhampur-5)	Shukrabare Bazaar (Dhampur VDC-5)	Shukrabare Bazaar	Friday	33	NA
113	Kalbaguri Bazaar (Chandragarhi-1)	Kalbaguri Bazaar (Chandragarhi VDC-1)	Kalbaguri Bazaar (Bhadrapure Municipality)	Tuesday	2	NA
114	Michlachung Jadibuti Utpadan Tatha Prasodhan Krishi Sahakari Kriya Upaj Bazaar Samitee	Damak Municipality Damak-11	Damak Municipality	Regular	43	Electricity, Drinking water, shed, Drainage

SN	Haat bazaar name	Location		Frequency per week	Distance from District HQ (KM)	Available Physical Facilities
		Previous	Present			
	(Damak-11)					
115	Krishi Upaj Bazaar Bikash Samitte (Duhagarhi)	Krishi Upaj Bazaar Bikash Samitte	Krishi Upaj Bazaar Bikash Samitte	Collection Center	11	Electricity, Drinking water, shed, Drainage
116	Krishi Upaj Bazaar Samitte(Budhabare)	Krishi Upaj Bazaar Bikash Samitte Samitte	Krishi Upaj Bazaar Samitte, Sudha Shanti VC	Collection Center	18	Electricity, Drinking water, shed, Drainage
117	Adarsha Bazaar Pathariya (Pathariya Bazaar)	Adarsha Bazaar Pathariya	Adarsh Bazaar Pathariya	Government Collection Center	34	Electricity, Drinking water, shed, Drainage

Source: ADO, Jhapa, 2072/73

Retail Market

There are two retail markets in operation. Annual transaction was not recorded in these retail markets. The details are presented in table 3.25.

Table 3.25: Retail market in Jhapa district

S.N	Name of the Retail Market	Location	
		Previous	Present
1	Biratamod Municipality Khudara Bazaar	Birtamod Municipality-7	Birtamod Municipality-4
2	Damak Trakari Khudra Bazaar	Damak Municipality	Damak Municipality

Source: ADO, Jhapa, 2072/73

Wholesale Market

There is one wholesale market operating in Jhapa district. The details are presented in table 3.26.

Table 3.26: Wholesale market in Jhapa district

S.N	Location (present)	Trade Volume (MT)			Importing districts
		Commodity	FY2072/73	FY2073 Sarwan to 2073 Chaitra	
1	Birtamode, Birtamode Municipality-8	1.Vegetable	71520	56361	Jhapa, Ilam, Taplejung, Panchthar, India. etc.
		2. Fruit	110215	4365	
		3.Spices	1932	1686	
		4.Fish and Meat	1696	4696	
		Total	185363	67,108	

Existing Facilities

- Office building one (12 rooms)
- Store 3
- Electricity
- Drinking water
- Drainage
- Fencing
- Compute-Internet
- Watchman quarter 2
- Toilet 1

Market Shed

- Corrugated roofed shed - 100 (for vegetable)
- Permanent shop - 36 (for fruit and others)
- Permanent shed - 15 (for fish)
- Permanent shed - 15 (for meat)
- Others - 37 (for mixed commodities)

Note: The market does not have facilities for grading and packing, parking area, and dumping site. (Source: wholesale market, Birtamode)

Cold Store

At present condition, two cold stores are in operation in Jhapa district. The description is presented in table 3.27.

Table 3.27: Cold store in Jhapa district

S.N	Location	Capacity	Commodity	Remark
1	Birtamod, Birtamod municipality-2 (previous: ward-2)	2500	Fruit Vegetable	
2	Damak, Damak Municipality-5 (previous, ward-10)	2000	Fruit Vegetable	

Source: ADO, Jhapa, 2072/73

Other Market

Traders/Middlemen were found collecting the products from haat bazaar and retail markets, transporting and supplying to small traders who were found selling near bus stops and other places in a disorganized system. Vending of fruits and vegetables by bicycle has emerged as a major retailing method. Street hawkers were seen selling at any free area near road side. These vendors are major contributors to littering the city. Small producers were also found selling their marketable surplus near the roadside. The traders as well as small producers were found supplying the agri-products mainly vegetables, fruits, spices to restaurants, motels, hotels and tea-shops.

3.4.6 Locations of AMI to be Developed in Jhapa District

Based on the criteria developed for the selection of appropriate locations of AMI (Annex 1), the following sites are suggested. The proposed sites are the Municipalities/VCs that are most appropriate to the users of the concerned Municipality/VC and its neighborhood. Appropriate location need to be identified through consultation with the stakeholders of command area of the proposed market center.

Location (Present address)

Collection Center

- Mechi Municipality-6 kankarvitta
- Damak Municipality-3 Damak
- Kankai Municipality-5 Bhandalbasti
- Kankai Municipality-5 Bhandalbasti
- Bhadrapur Municipality-1 Prithvi Nagar
- Arjundhara Municipality-3, Khudunabari
- Shivasatasi Municipality-4, Panchgachi.
- Kamal VDC-2, Topgachhi
- Barhadashi VDC-4, Chakchaki
- Budha santi VDC-2, Shantinagar
- Jhapa VDC-7 Saranamati

Haat Bazzar

- Mechi Municipality-6 kankarvitta
- Damak Municipality-3 Damak
- Kankai Municipality-5 Bhandalbasti
- Kankai Municipality-5 Bhandalbasti
- Bhadrapur Municipality-1 Prithvi Nagar
- Arjundhara Municipality-3, Khudunabari
- Shivasatasi Municipality-4, Panchgachi.
- Kamal VDC-2, Topgachhi
- Barhadashi VDC-4, Chakchaki
- Budha santi VDC-2, Shantinagar
- Jhapa VDC-7 Saranamati

Retail Market

- District Headquarters, Bhadrapur Bazzar

Cold Store

- Kankai Municipality-4, Surunga,

3.5 Morang District

3.5.1 Introduction

Morang is the district that carries glorious history, is the second most populated district and an important industrial and commercial hub of Nepal. Rectangular in shape, its length (north-south) is about 54 km, whereas the breadth (east-west) is about 46 km. 'Biratnagar' the headquarters lies 24 km south from Itahari on the East-West Mahendra Highway whereas 506 km east from Kathmandu.

Although it extends from 60 m to 2410 m from the sea level, most of the area belongs to terai. The northern part is filled with small hill of Mahabhart range. The district can be divided into 3 regions according to the structure of land- Mahabhart region of the north, Bhawar region of the middle and the plain land of the south. The main plain land of the south, which is situated in Bhawar region has occupied 80% of the total area of the district. Because of the fertile soil brought by rivers during the rainy season, it is more fertile. In some parts there are some wet lands as well.

Because more than 80% areas of the district lies in Terai region, it is very hot during the summer and very cold during the winter. Sub-tropical climate is found. There is no so much fluctuation in the climate of the district.

The district has settlement of more than 114 castes and communities, more than 10 religion-cultures and more than 72 language dialects.

The majority includes Brahmin (13.7%), Chhetri (12.02%), Tharu (6.27%) and Muslim (4.74%) respectively lives harmoniously.

The total Population of Morang is 965,370 out of which female population is 498,658 (51.64%) and male is 466,712 (48.4%). The percentage of literate population is (70.63%), (CBC, 2011).

There are one metropolitan city and 8 municipalities and 8 village committee. The seven major crops cultivated in the district are paddy, wheat, and maize, potato, vegetable, ginger and millet. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 116,956 ha. The area, production and productivity of major crops are presented in table 3.28

Table 3.28: Area, Production and productivity of major crops in Morang district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	82,550.00	288,925.00	3.50
2	Maize	14,200.00	48,200.00	3.40
3	Wheat	16,100.00	42,300.00	2.61
4	Millet	1,510.00	1,661.00	1.10
5	Potato	5,760.00	66,240.00	11.50
6	Vegetable	8,065.00	114,966.00	14.26
7	Ginger	1,165.00	10,485.00	9.00
8	Cardamom	5.00	4.75	0.95
9	Citrus fruit	145.00	465.00	3.21
10	Winter fruit	-	-	-
11	Summer fruit	4,077.00	44,142.00	10.83

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.5.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Morang district is presented in table 3.29.

Table 3.29: Production trend of major agriculture production in Morang district (mt)

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	277,610.00	259,289.00	332,100.00	288,925.00	275,925.00
Maize	45,300.00	5,379.00	50,000.00	48,220.00	46,000.00
Millet	1,812.00	1,812.00	1,800.00	1,661.00	1,617.00
Wheat	40,438.00	36,438.00	39,900.00	42,000.00	34,615.00
Potato	61,025.00	86,250.00	59,850.00	66,240.00	67,850.00
Vegetable	85,915.00	91,547.00	122,413.00	114,966.00	138,689.00
Tropical Fruit	24,144.00	11,802.00	12,002.00	44,142.00	43,302.00
Ginger	13,125.00	12,198.00	10,395.00	10,485.00	11,520.00
Garlic	1,140.00	1,360.00	788.00	814.00	892.50
Turmeric	1,085.00	1,085.00	1,190.00	1,190.00	1,225.00
Fish	1,800.00	1,860.00	2,275.70	2,418.30	2,948.90

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.5.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Morang district are presented in table 3.30 and 3.31 respectively.

Table 3.30: Forecast of the production of major crops in Morang district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	294,121.47	308,590.95	323,772.27	339,700.44
Maize	51,136.05	71,575.29	100,184.17	140,228.11
Millet	1,581.72	1,351.41	1,154.63	986.51
Wheat	36,674.09	33,704.00	30,974.44	28,465.94
Potato	103,203.92	71,094.10	84,051.12	107,129.92
Vegetable	155,486.19	181,272.65	188,818.83	920,447.13
Tropical Fruit	48,659.07	68,776.03	58,540.72	73,057.68
Ginger	3,790.00	8,268.67	6,728.66	5,475.47
Garlic	722.75	437.76	265.14	160.59
Turmeric	1,275.49	1,508.14	1,783.23	2,108.49
Fish	3,234.79	6,042.71	11,288.03	21,086.49

Table 3.31: Forecast of the marketable surplus of major crops in Morang district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	147,060.73	154,295.47	161,886.13	169,850.22
Maize	38,352.03	53,681.47	75,138.13	105,171.08
Millet	632.69	540.56	461.85	394.60
Wheat	22,004.46	20,222.40	18,584.66	17,079.56
Potato	82,563.14	56,875.28	67,240.89	85,703.94
Vegetable	127,498.68	148,643.57	154,831.44	754,766.64
Tropical Fruit	43,793.17	61,898.43	52,686.65	65,751.91
Ginger	3,411.00	7,441.80	6,055.79	4,927.93
Garlic	650.48	393.98	238.63	144.53
Turmeric	1,147.94	1,357.33	1,604.90	1,897.64
Fish	2,587.83	4,834.17	9,030.42	16,869.19

3.5.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farming is gradually being commercialized and performed through good planning.
- Farmers have experience of marketing agri-commodities.
- Previous Projects had developed marketing facilities at different locations.
- Farmers Group has capacity to invest on market development.

Weakness

- Excess use of chemical fertilizers and pesticides has resulted in unhygienic products for sale.
- Post harvest methodologies (cleaning, grading, sorting, packaging etc) are not satisfactory.
- Existing various marketing infrastructures needs further improvements

Opportunities

- The district has easy access to major markets of Nepal
- Agriculture products have export potential to India.

Threat

- Hawkers and petty traders do not want organized market
- Agri-products have to compete with low quality and cheap products from India especially in the winter season.
- Agriculture is becoming distracting to young generation.

3.5.5 Present Status of AMI in Morang District

AMI in Morang is not found satisfactory with respect to the facilities available in the market centers.

Collection Center

At present seven collection centers are in operation. The details are presented in table 3.32

Table 3.32: Collection center in Morang district

SN	Name of Collection Center	Location (present)	Facility
1	Krishi Upaj Sankalan Kendra	Katahari VC-1	Electricity, Water
2	Krishi Upaj Sankalan Kendra	Katahari VC-1	Electricity, Water
3	Krishi Upaj Sankalan Kendra	Belbari municipality, Belbari bazaar	Electricity, Water
4	Krishi Upaj Sankalan Kendra	Biratnagar metropolitan city, Biratchowk, Indrapur	Electricity, Water
5	Krishi Upaj Sankalan Kendra	Letang municipality, Jante	Electricity, Water
6	Krishi Upaj Sankalan Kendra	Katahari VC-3	Electricity, Water
7	Krishi Upaj Sankalan Kendra	Rathuwamai municipality-6, Sijuwa	Electricity, Water

Source: ADO, Morang, 2072/73

Haat Bazaar

91 haat bazaars were found in operation in Morang district. Some haat bazaars have permanent sheds while most these were found operating the business in open filed. The annual trade volume of these haat bazaars were hot found recorded. The details of existing haat bazaars are presented in table 3.33.

Table 3.33: Haat bazaar in Morang district

SN	Haat bazaar name	Location		Frequency per week	Available Physical Facilities
		Previous	Present		
1	Banigama haat	Banigama VDC-1	Gramthan VC-7	Sunday	NA
2	Mahadeva haat	Mahadeva VDC-3	Ratnwamai Municipality-3	Sunday/Thursday/Friday	NA

SN	Haat bazaara name	Location		Frequency per week	Available Physical Facilities
		Previous	Present		
3	Mahadeva haat	Mahadeva VDC-1	Ratnwamai Municipality-3	Sunday/Tuesday	NA
4	Hasandaha haat	Hasandaha VDC-7	Pathari Sanischare Municipality	Sunday	NA
5	Ghinaghaat haat	Ghinaghaat VDC-8	Pathari Sanischare Municipality	Sunday	NA
6	Darwasha haat	Darwasha VDC-8	Rangeli Municipality-9	Sunday/Thursday	Electricity, Drinking Water, Drainage
7	Darwasha haat	Darwasha VDC-1	Rangeli Municipality-8	Saturday/Tuesday/Wednesday	Electricity, Drinking Water, Drainage
8	Darwasha haat	Darwasha VDC-3	Rangeli Municipality-8	Sunday/Saturday	NA
8(a)	Darwasha haat Bayarban haat	Darwasha-9 Bayarban-8	Rangeli Municipality	Monday/Thursday	NA
9	Rajghaat haat	Rajghaat VDC-9	Urlabari Municipality-8	Sunday	NA
10	Madhumalla haat	Madhumalla VDC-9	Urlabari Municipality-1	Sunday	NA
11	Sanischare haat	Sanischare VDC-9	Pathari Sanischare-9	Sunday	NA
12	Madhumalla haat	Madhumalla VDC-2	Miklanjung VC-7	Monday	NA
13	Sanischare haat	Sanischare VDC--8	Pathari Sanischare Municipality- 10	Wednesday	NA
14	Sanischare haat	Sanischare VDC-6	Pathari Sanischare Municipality -3	Saturday	NA
15	Thari haat	Thari VDC-8	Pathari Sanischare Municipality-	Sunday	NA
16	Nocha haat	Nocha VDC-8	Dhanpalthan VC-1	Sunday	NA
17	Bayarban haat	Bayarban VDC-8	Kanepokhari VC-6	Sunday/Tuesday	Corrugated roofed shed-3, Drainage, Drinking Water
18	Bayarban haat	Bayarban VDC-6	Kanepokhari VC-4	Wednesday	Corrugated roofed shed-4, Drainage, Drinking Water
19	Lakhantari haat	Lakhantari VDC-2	Gramthan VC-1	Sunday	NA
20	Rangeli haat	Rangeli VDC-2	Rangeli Municipality-6	Sunday/Monday	Corrugated roofed shed-3
21	Rangeli haat	Rangeli VDC-7	Rangeli Municipality-5	Tuesday	NA
22	Rangeli haat	Rangeli VDC-3	Rangeli Municipality-4	Wednesday	NA
23	Rangeli haat	Rangeli VDC-8	Rangeli Municipality-5	Thursday	NA
24	Rangeli haat	Rangeli VDC-4	Rangeli Municipality-6	Friday	NA
25	Hasandaha haat	Hasandaha VDC-4	Pathari Sanischare Municipality-6	Monday/Friday	Corrugated roofed shed-3, Electricity
26	Hasandaha haat	Hasandaha VDC-8	Pathari Sanischare Municipality-6	Wednesday/Thursday/Saturday	NA
27	Diania haat	Diania VDC-2	Sunabarshi Municipality-8	Sunday	NA
28	Babiya Birta haat	Babiya Birta VDC-2	Rangeli Municipality-1	Sunday/Thursday	Drainage, Drinking Water
29	Babiya Birta haat	Babiya Birta VDC-5	Rangeli Municipality-	Tuesday	NA
30	Tankisinwari haat	Babiya Birta VDC-4	Rangeli Municipality-2	Friday	NA
31	Tankisinwari haat	Tankisinwari VDC-5	Budhiganga VC-3	Thursday/Sunday	NA
32	Tankisinwari haat	Tankisinwari VDC-3	Budhiganga VC-1	Monday	NA
33	Biratnagar haat	Biratnagar Municipality-3	Biratnagar metro-2	Monday	NA
34	Biratnagar haat	Biratnagar Municipality-11	Biratnagar metro-8	Wednesday	Corrugated roofed shed-6, Drainage, Drinking Water
35	Biratnagar haat	Biratnagar Municipality-6	Biratnagar metro-5	Thursday	NA
36	Biratnagar haat	Biratnagar Municipality-5	Biratnagar metro-4	Friday	NA
37	Jhurkiya haat	Jhurkiya VDC-1	Ratuwamai Municipality-2	Monday	NA
38	Jhurkiya haat	Jhurkiya VDC-8	Ratuwamai Municipality-4	Wednesday	NA
39	Amardaha haat	Amardaha VDC-8	Sonabarshi Municipality-2	Monday/Tuesday Saturday	Drinking Water
40	Amardaha haat	Amardaha VDC-5	Sonabarshi Municipality-3	Wednesday	Drinking Water
41	Amardaha haat	Amardaha VDC-2	Sonabarshi Municipality-1	Thursday	NA
41(a)	Amardaha haat	Amardaha VDC-5	Sonabarshi Municipality-2	Friday	NA
42	Amardaha haat	Amardaha VDC-2	Sonabarshi Municipality-6	Saturday	Drainage, Drinking Water
42	Gobindpur haat	Gobindpur VDC-9	Sonabarshi Municipality-6	Monday	NA
43	Gobindpur haat	Gobindpur VDC-8	Sonabarshi Municipality-6	Tuesday/Friday	Drainage, Drinking Water

SN	Haat bazaara name	Location		Frequency per week	Available Physical Facilities
		Previous	Present		
44	Gobindpur haat	Gobindpur VDC-1	Ratuwanai Municipality-5	Friday	Drainage, Drinking Water
45	Sisawani Jahada haat	Sisawani Jahada-5	Budhiganga VC-7	Monday	NA
46	Siswani Badhara haat	Sisawani Badhara-1	Budhiganga VC-6	Friday	Electricity
47	Keraun haat	Keraun VDC-5	Kanepokhri VC-5	Monday	Drainage
48	Keraun haat	Keraun VDC-4	Kanepokhri VC-2	Friday	NA
49	Bardanga haat	Bardanga VDC-2	Sonabarshi Municipality-7	Monday	NA
50	Bardanga haat	Bardanga VDC-4	Ratuwamai Municipality-1	Friday	NA
51	Bahuni haat	Bahuni VDC-2	Belbari Municipality-6	Monday	NA
52	Bahuni haat	Bahuni VDC-7	Belbari Municipality-7	Tuesday	NA
53	Bahuni haat	Bahuni VDC-6	Belbari Municipality-7	Wednesday	New shed-1, Drinking water, Electricity, Drainage
54	Belbari haat	Belbari VDC-3	Belbari Municipality-3	Monday	Drinking water, Electricity, Drainage
55	Belbari haat	Belbari VDC-2	Belbari Municipality-1	Tuesday	NA
56	Tinpaini haat	Tinpaini VDC-3	Biratnagar Submetopolity	Monday	NA
57	Sijuwa haat	Sijuwa VDC-3	Biratnagar Submetopolity	Tuesday	Drinking water, Electricity, Drainage
58	Sijuwa haat	Sijuwa VDC-8	Biratnagar Submetopolity	Wednesday/Friday	Drinking water, Electricity, Drainage
59	Milachok haat	Milachok VDC-5	Biratnagar Submetopolity	Tuesday/Saturday	NA
60	Amgachhi haat	Amgachhi VDC-5	Biratnagar Submetopolity	Tuesday	NA
61	Amgachhi haat	Amgachhi VDC-8	Biratnagar Submetopolity	Friday	NA
62	Tandi haat	Tandi VDC-3	Miklajung VC-4	Tuesday	NA
63	Tandi haat	Tandi VDC-4	Miklajung VC-4	Wednesday	NA
64	Urlabari haat	Urlabari VDC-7	Urlabari Municipality-7	Tuesday/Friday	NA
65	Kadmaha haat	Kadmaha VDC-2	Dhanapalthan VC-6	Tuesday	NA
66	Dadarhbailiya haat	Dadarhbailiya VDC5	Dhanapalthan VC-5	Tuesday	NA
67	Sorabag haat	Sorabag VDC-7	Dhanapalthan VC-3	Tuesday	NA
68	Sorabag haat	Sorabag VDC-3	Dhanapalthan VC-3	Wednesday	NA
69	Sorabag haat	Sorabag VDC-4	Dhanapalthan VC-4	Friday	NA
70	Karsiya haat	Karsiya VDC-7	Dhanapalthan VC-	Tuesday	NA
71	Amahi Bariyati haat	Amahi Bariyati VDC-7	Dhanapalthan VC-2	Tuesday	NA
72	Amahi Bariyati haat	Amahi Bariyati VDC-4	Dhanapalthan VC-2	Friday	NA
73	Bakhari haat	Bakhari VDC-1	Dhanapalthan VC-	Friday	NA
74	Jante haat	Jante VDC-1	Letang Municipality-8	Tuesday	Corrugated roofed shed-3 Permanent shed-3
75	Tetariya haat	Tetariya VDC-7	Gramthan VC-5	Wednesday	Drinking water, Electricity, Drainage
76	Sautha haat	Sautha VDC-8	Gramthan VC	Wednesday	NA
77	Bhogateni haat	Bhogateni VDC-1	Gramthan VC	Wednesday	NA
78	Kaseni haat	Biratnagar-11	Gramthan VC	Wednesday	NA
79	Hal khola haat	Biratnagar-11	Gramthan VC	Wednesday	NA
80	Biratnagar haat	BiratnagarSubmetro-11	Biratnagar metro-8	Wednesday	NA
81	Dovana haat	Dovana VDC-8	Biratnagar metro	Thursday	NA
82	Katahari haat	Katahari VDC-8	Katahari VC-4	Thursday	NA
83	Pathari haat	Pathari VDC-8	Katahari VC-4	Thursday	NA
84	Diania haat	Diania VDC-8	Sonbarshi Municipality-9	Thursday	NA
84	Wasbari haat	Wasbari VDC-8	Sonbarshi Municipality	Thursday	NA
84	Badahara haat	Badahara VDC-1	Sonbarshi Municipality	Friday	NA
85	Banigama haat	Banigama VDC-1	Gramthan VC-6	Friday	NA
86	Siswani haat	Siswani VDC	Gramthan VC-6	Friday	NA

SN	Haat bazaar name	Location		Frequency per week	Available Physical Facilities
		Previous	Present		
87	Danghaat haat	Dangi VDC-4	Belbari Municipality-10	Friday/Tuesday/Saturday/ Thursday/Wednesday	Corrugated roofed shed-7, Drinking water, Electricity, Drainage
88	Babiyabirta haat	Babiyabirta VDC-4	Rangeli Municipality-2	Friday	NA
89	Letang haat	Letang VDC	Letang Municipality	Saturday	Corrugated roofed shed-3
90	Tanki Gangachok haat	Tanki Gangachok	Letang Municipality	Saturday	Drinking Water, Drainage
91	Kanchanbari haat	Biratnagar Municipality-5	Biratnagar metropolitano	Friday	NA

Source: ADO, Morang, 2072/73

Retail Market

There are twelve retail markets in operation. Annual transaction was not recorded in these retail markets. The details are presented in table 3.34.

Table 3.34: Retail market in Morang district

S.N	Name of the Retail Market	Location		Available facilities
		Previous	Present	
1	Dainik, Gudri(Khudra) Bazaar	Belbari VDC-3	Belbari Municipality-3	Corrugated roofed shed-15, Electricity, Drinking Water
2	Gudri Bazaar	Biratnagar Municipality-14	Biratnagar Submetropolitano-9	Corrugated roofed shed-22, Electricity, Drinking Water
3	Belbari Subjimandi	Belbari VDC-2	Belbari Municipality-1	Drinking Water
4	Phadani Bazaar	Budha Nagar VDC-1	Jahada VC-1	-
5	Singhadi Bazaar	Jhurbia VDC-9	Ratuwa Municipality-4	-
6	Jhurbia Bazaar	Jhurbia VDC-3	Ratuwa Municipality-2	Pakkished-2
7	Katahari Gudri Krishsi Bazaar	Katahari-6	Katahari VC-3	Drinking water
8	Gudri Bazaar	Kadmaha-5	Dhanapalthan VC-7	Electricity, Drinking Water, Drainage
9	Pindari Bazaar	Mahadwa-7	Ratuwamai Municipality-3	Electricity, Drinking Water, Drainage
10	Urlabari Gudri Bazaar	Urabari-2	Urabari Municipality-5	-
11	Pathari Bazaar	Pathari-1	Pathari Sanichare Municipality-1	-
12	Rangeli Bazaar	Rangeli Municipality	Rangeli Municipality	Electricity, Drinking Water

Source: ADO, Morang, 2072/73

Wholesale Markets

There is one wholesale market operating in Morang district. The details are presented in table 3.35.

Table 3.35: Wholesale market in Morang district

S.N.	Location (present)	Annual Trade Volume 2072/73	Importing districts
1	Katahari, Biratnagar Metropolitan city-1	38400 (MT)	Morang, Sunsari, Jhapa, Saptari, Siraha, Ilam, India etc.

Existing Facilities

- Corrugated roofed shed – 19
- Temporary shed – 3
- Store
- Electricity

- Drinking water
- Computer-internet

Note: The market does not have facilities for grading and packing, drainage system, fencing, parking area, and dumping site. (Source: wholesale market, Biratnagar)

Cold Storage

At present, two cold stores are in operation in Morang district, the description is presented in table 3.36.

Table 3.36: Cold store in Morang district

S.N	Location (present)	Capacity	Commodity	Remark
1	Rajghaat, Urlabari Municipality-5	10,000	Potato, seed of wheat, rice	
2	Ganesh cold store Bargachi, Biratanagar metropolitan city	5000	Potato	

Other Markets

Traders/Middlemen were found collecting agricultural commodities from different market centers and also importing low quality, commodities from Indian market, and transporting and selling to small local traders/middlemen, these local traders/middlemen were found selling different agro-commodities in district headquarters, urban and rural areas in an disorganized system, selling in many places near road side, bus stop, tea shops etc.

Vending of fruits and vegetables by bicycle has emerged as a major retailing method. Street hawkers were found selling at any free area near roadside. These vendors are major contributors to littering the city. Small scale framers were also found selling their marketable surplus near the roadside, bus park, teashop and temples.

3.5.6 Locations of AMI to be Developed in Morang District

Different four type of markets operated in Morang may be sufficient for another 20 years, so as a outcome of district level interaction meeting, additional market centers are not proposed. However these existing markets need to be strengthened specially with respect to their facilities.

Location (Present address)

Cold Store

- Belbari Municipality-10
- Pathari Shanischare Municipality-1

3.6 Sunsari District

3.6.1 Introduction

The popular place 'Dharan Bazaar' is situated on the Saptakosi river and the place like Bijaypur have justified, the name of Sunsari. The average length of the district from Bhedetar in the north to Bhudhikhola in the south, is 45 km and the average breadth from Budhikhola in the east to Koshi River in the west is 44 km. 'Ineruwa' the district headquarter adjoin the east-west Mahendra High way and about 500 km east from the Kathmandu.

The district is situated in about 152 m to 1430 m from the sea level and at the foot of Mahabhart Hill. The district can be divided into three major geographical regions-Mahabhart hill region of the north, Bhawar region of the center, and plain land of the south. The plain land occupies the major part of the district. It is very fertile and so suitable from cultivation of major agricultural crops.

Except the northern Part, the climate almost all area is tropical monsoon. During the summer, the north is cold whereas Terai and Bhawar are hotter. More than 90% rainfall occurs from Baisakh to Aswin.

The district has a settlement of more than 113 castes and communities, more than 10 religion-cultures and more than 71 language-dialects, the majority includes Tharu (11.98%), Muslim (11.55%), Chhettri (9.36%), Brahmin (7.99%) and Rai (6.62%) respectively living harmoniously, following their own cultures and lifestyle.

The Total population of Sunsari is 763,487 out of which female population is 392,258 (51.4%) and male is 371,229 (48.6%). The percentage of literate population is 68.46% (CBS, 2011).

There are two Sub-metropolitan cities and 4 municipalities and 6 village committee in the district. The seven major crops cultivated in the district are paddy, wheat, maize, potato, summer fruit, Vegetable and Millet. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 74,353 ha. The area, production and productivity of major crops are presented in table 3.37

Table 3.37: Area, Production and productivity of major crops in Sunsari district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	44,940.00	161,784.00	3.60
2	Maize	8,350.00	25,050.00	3.00
3	Wheat	16,000.00	47,600.00	2.98
4	Millet	680.00	714.00	1.05
5	Potato	2,900.00	49,200.00	16.97
6	Vegetable	7,295.00	90,208.00	12.37
7	Ginger	450.00	4,235.00	9.41
8	Cardamom	-	-	-
9	Citrus fruit	-	-	-
10	Winter fruit	21.00	153.30	7.30
11	Summer fruit	1,987.00	24,051.00	12.10

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.6.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Sunsari district is presented in table 3.38.

Table 3.38: Production trend of major agriculture production in Sunsari district (mt)

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	166,000.00	160,650.00	180,200.00	161,784.00	155,110.00
Maize	21,966.00	27,000.00	26,500.00	25,050.00	25,100.00

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Millet	744.00	1,078.00	1,100.00	714.00	714.00
Wheat	45,500.00	43,500.00	45,110.00	47,600.00	44,800.00
Potato	33,860.00	36,610.00	58,500.00	49,200.00	49,200.00
Vegetable	76,112.00	85,820.00	98,143.00	90,208.00	92,482.00
Winter Fruit	60.00	150.00	150.00	153.00	153.00
Tropical Fruit	13,262.00	16,382.00	23,123.00	24,051.00	22,034.00
Ginger	5,626.00	4,235.00	4,235.00	4,235.00	4,235.00
Garlic	1,087.00	1,068.00	1,068.00	1,068.00	1,068.00
Turmeric	625.00	504.00	504.00	504.00	504.00

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.6.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus during the same period in Sunsari district are presented in table 3.39 and 3.40 respectively.

Table 3.39: Forecast of the production of major crops in Sunsari district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	158,306.69	148,442.55	139,193.04	130,519.88
Maize	26,543.32	29,214.60	32,154.72	35,390.72
Millet	734.84	573.93	448.26	350.10
Wheat	46,092.15	47,473.63	48,896.51	50,362.05
Potato	60,918.76	102,615.25	172,851.33	291,161.24
Vegetable	100,670.00	125,410.07	156,230.12	194,624.32
Winter Fruit	222.05	571.86	1,472.75	3,792.87
Tropical Fruit	29,333.90	59,052.35	118,878.86	239,316.18
Ginger	3,780.20	2,845.57	2,142.01	1,612.41
Garlic	1,060.49	1,041.96	1,023.74	1,005.85
Turmeric	462.44	372.91	300.71	242.49

Table 3.40: Forecast of the marketable surplus of major crops in Sunsari district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	79,153.35	74,221.27	69,596.52	65,259.94
Maize	19,907.49	21,910.95	24,116.04	26,543.04
Millet	293.94	229.57	179.30	140.04
Wheat	27,655.29	28,484.18	29,337.91	30,217.23
Potato	48,735.01	82,092.20	138,281.06	232,928.99
Vegetable	82,549.40	102,836.26	128,108.70	159,591.94
Winter Fruit	188.74	486.08	1,251.83	3,223.94
Tropical Fruit	20,533.73	41,336.65	83,215.20	167,521.33
Ginger	3,402.18	2,561.01	1,927.81	1,451.17
Garlic	954.44	937.76	921.37	905.26
Turmeric	416.19	335.62	270.64	218.25

3.6.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are organized into groups and cooperatives for marketing

- Most of area has irrigation facilities which have provided option for selection of crops and cultivars according to markets demand.
- Farming is gradually being commercialized, producing high volume of agri-products for sustainable and regular marketing
- Wholesale market, Dharan has created marketing opportunities to producers especially to vegetables growers.

Weakness

- There is heavy use of pesticides resulting in unhygienic marketable products
- Post harvest practices (cleaning, sorting, grading, packaging) are very minimal
- Many market centers do not have even minimum facilities (toilet, drinking water, parking etc).

Opportunities

- The district has easy access to major markets of Nepal
- Agriculture products have export potential to India.
- Road net work is connected to nearly all production pockets in the district creating an environment of easy transport of agri-products.

Threat

- There is gradual out-migration of youths creating an environment of lack of labours for marketing.
- There is tough competition of locally produced vegetables with Indian supply especially in winter season.

3.6.5 Present Status of AMI in Sunsari District

Present status of AMI in Sunsari is not found satisfactory with respect to the facilities available in the market centers.

Collection Center

At present condition, 12 agricultural products collection center are in operation. The details are presented in table 3.41

Table 3.41: Collection center in Sunsari district

SN	Name of Collection Center	Location (present)	Facility
1	Kaptangang krishi Upaj sankalan kendra	Devangang VC, kaptangang bazaar	Electricity, Water
2	Krishi Bazaar sankalan Kendra	Inaruwa municipality, Inaruwa bazaar	Electricity, Water
3	Krishi Upaj Sankalan kendra	Baraha municipality, Bage Bazaar, mahendra nagar	Electricity, Water
4	Milan Krisak Samuha	Koshi VC-5, Shripur	Electricity, Water
5	Madhuwan Aitabare Bazaar	Baraha municipality-11, Madhuwan	Electricity, Water
6	Krishi Upaj sankalan Kendra	Koshi VC-1, Laukahi	Electricity, Water
7	Krishi Upaj Sankalan Kendra	Bokraha VC-6, Nansinghi	Electricity, Water
8	Krishi Upaj sankalan Kendra	Harinagar VC-1, Ramnagar, Bhutha	Electricity, Water
9	Krishi upaj Sankalan Kendra	Harinagar VC-6, Ghuski	Electricity, Water
10	Krishi Upaj Sankalan Kendra	Koshi VC-6, Shripur, Bhandawari	Electricity, Water
11	Krishi Upaj Sankalan Kendra	Koshi VC-2, Jamuna chowk	Electricity, Water
12	Krishi Upaj Sankalan Kendra	Inaruwa municipality-9, Pokhari chowk	Electricity, Water

Source: ADO, Sunsari, 2072/73

Haat Bazaar

108 Haat Bazaars are in operation in Sunsari district at present condition. None of the haat bazaars have record of annual transaction. The details are presented in table 3.42.

Table 3.42: Haat bazaar in Sunsari district

SN	Haat bazaar name	Location		Frequency per week	Available Physical Facilities
		Previous	Present		
1	Laukahi Haat(Daily Market)	Laukahi VDC	Koshi VC-1	Tuesday/Friday	Electricity, Drinking water, Drainage
2	Bhokraha Haat	Bhokraha VDC-9	Bhokraha VC-4	Wednesday/Saturday	Electricity, Drinking water, Drainage
3	Akaha Haat (Daily GudriMarket)	Bhokraha VDC-1	Bhokraha VC-2	Tuesday/Friday	
4	Chakarghaati Haat	Mahendranagar VDC	Barah Municipality	Sunday/Wednesday	Electricity, Drinking water, Drainage
5	Bage Bazaar (Daily Gudri)	Mahendranagar VDC	Barah Municipality	Saturday	Electricity, Drinking water, Drainage
6	Sanibare Haat	Prakshpur	Barah Municipality	Saturday	Electricity, Drinking water, Drainage
7	Madhuwan Haat (Dainik Gudri)	Madhuwan VDC	Barah Municipality	Sunday	Corrugated roofed shed-1
8	Dumrah Haat (Daily Gudri)	Dumrah Haat VDC	Ramdhuri Municipality - 8/9	Saturday	NA
9	Mangalbare Haat	Dharan VDC-11	Dharan Submetropolis-11	Tuesday/Friday	Electricity
10	Palika Haat	Dharan VDC-3	Dharan Submetropolis-3	Tuesday/Friday	Electricity
11	Narendrapath Haat	Dharan VDC-6	Dharan Submetropolis-2	Tuesday/Friday	Electricity
12	Chhaatachok Haat	Dharan VDC-5	Dharan Submetropolis-12	Tuesday/Friday	Electricity
13	Railway Haat	Dharan VDC-17	Dharan Submetropolis-17	Tuesday/Friday	Electricity
14	Bhotepur Haat	Dharan VDC-8	Dharan Submetropolis-8	Tuesday/Friday	Electricity
15	Bargachhi Haat	Dharan VDC-8	Dharan Submetropolis-8	Tuesday/Friday	Electricity
16	Pindeswari Chok Haat	Dharan VDC-15	Dharan Submetropolis-15	Tuesday/Friday	Electricity
17	Ranachok Haat	Dharan VDC-10	Dharan Submetropolis-10	Tuesday/Friday	Electricity
18	O-Point Phushre Haat	Dharan VDC-13	Dharan Submetropolis-13	Tuesday/Friday	Electricity
19	Ghopacamp Haat	Dharan VDC-18	Dharan Submetropolis-18	Tuesday/Friday	Electricity
20	Hansposha Tarahara Haat	Hansposha VDC-2	Dharan Submetropolis	Tuesday/Thursday	Electricity
21	Anpgachhi Hansposha Haat	Hansposha VDC-1	Dharan Submetropolis	Tuesday/Thursday	Electricity
22	Labipurchok Haat	Hansposha VDC-1	Dharan Submetropolis	Thursday	Electricity
23	Itahari Haat	Itahari VDC -8	Dharan Submetropolis	Sunday/Wednesday	Electricity
24	Itahari Rijal Tasi Haat	Itahari VDC-8	Itahari Submetropolis-9	Tuesday/Saturday	NA
25	Pachurki Haat	Itahari VDC-5	Itahari Submetropolis-5	Friday	Electricity
26	Puranchook Haat	Itahari VDC-3	Itahari Submetropolis-3	Friday	NA
27	Deristhan Chowk Haat	Itahari VDC	Itahari Submetropolis	Saturday	NA
28	Khanar Haat	Khanar VDC	Itahari Submetropolis	Saturday	NA
29	Simarwanman	Khanar VDC	Itahari Submetropolis	Wednesday	NA
30	School Tole Haat	Khanar VDC-6	Itahari Submetropolis	Monday	NA
31	Chhotipool haat	Chhotipool VDC-7,8	Itahari Submetropolis	Wednesday	NA
32	Bhadgaun Sanibar Haat	Bhadgaun Sinbari VDC	Itahari Submetropolis	Wednesday/Saturday	NA
33	Bhadgaun Sinbari China Camp Haat (Bhasinahar chhcu Gudri)	Bhadgaun Sinbari VDC	Itahari Submetropolis	Tuesday	NA
34	Pakali Haat	Pakali VDC-5	Itahari Submetropolis	Monday	NA
35	Kanchhi Chok Haat	Pakali VDC-3	Itahari Submetropolis	Friday	NA
36	Milanchok Haat	Pakali VDC-2	Itahari Submetropolis	Tuesday	NA
37	Akamba Haat	Akamba VDC	Itahari Submetropolis	Thursday	NA
38	Bayarban Haat	Barahkshetra VDC	Barah Municipality-1/2	Thursday	NA
39	Chaatra Haat(Daily Gudri)	Barahkshetra VDC	Barah Municipality-1/2	Daily Haat	NA

SN	Haat bazaar name	Location		Frequency per week	Available Physical Facilities
		Previous	Present		
40	Kala Bazaar Haat	Bharo VDC	Barah Municipality-	Tuesday	NA
41	Tinkune Haat	Bharo VDC	Barah Municipality	Friday	NA
42	Dhanpuri Haat	Bharo VDC	Barah Municipality	Sunday	NA
43	Nahar Haat	Bharo VDC	Barah Municipality	Monday	NA
44	Pindari Haat	Bharo VDC	Barah Municipality	Monday	NA
45	Nayapool Haat	Bharo VDC	Barah Municipality	Thursday	NA
46	Bage Haat	Bharo VDC	Barah Municipality	Saturday	NA
47	Whisapani Haat	Bharo VDC	Barah Municipality	Friday	NA
48	Thutechok Haat	Bharo VDC-4	Barah Municipality	Thursday	NA
49	Lalpur Haat	Singia VDC	Barah Municipality	Monday/Friday	NA
50	Singia Haat	Singia Bazaar VDC	Barah Municipality	Tuesday	NA
51	Balauri Haat	Baklauri VDC	Barah Municipality	Sunday/Thursday	NA
52	Basantpur Chok Nayatole Haat	Sonagau VDC	Duhabi Municipalit-8/9	Sunday/Tuesday	Electricity
53	Sanapur Chok Haat	Sonagau VDC	Duhabi Municipality	Thursday	Electricity
54	Madheli VDC Haat	Madheli VDC	Gadhi VC-1	Sunday/Monday/Thu	NA
55	Changela VDC Haat	Chandbela VDC	Gadhi VC	Sunday/Saturday	Electricity, Drinking water, Drainage
56	Bhramari Haat	Auramani Bhramari VDC	Gadhi VC-2	Monday/Friday/daily	Pakkished-1, Electricity, Drinking water
57	Simriya Budha chok Haat	Simariya VDC	Duhabi Municipality-10	Sunday/Wednesday	Electricity, Drinking water, Drainage
58	Simariya Nahar Chok Haat	Simariya VDC	Duhabi Municipality-10	Saturday/Tuesday	Electricity, Drinking water, Drainage
59	Duhavi Haat(Daily Gudri)	Duhavi VDC	Duhabi Municipality	Tuesday/Friday/Daily	Electricity, Drinking water, Drainage
60	Tanmuna Gopal Mabi Haat	Tanmuna VDC	Duhabi Municipality-11	Friday	Electricity, Drinking water, Drainage
61	Tarmuna VDC Haat (VDC Compound)	Tanmuna VDC	Duhabi Municipality	Sunday/Wednesday	Electricity, Drinking water, Drainage
62	Bhaluwa Haat	Bhaluwa VDC-3	Duhabi Municipality	Sunday	Electricity, Drinking water, Drainage
63	Bhaluwa haat	Bhaluwa VDC-8	Duhabi Municipality	Monday	Electricity, Drinking water, Drainage
64	Mohini Chok Haat	Bhaluwa VDC	Duhabi Municipality	Thursday	Electricity, Drinking water, Drainage
65	Pharsai Haat	Bhaluwa VDC-2	Duhabi Municipality	Saturday	Electricity, Drinking water, Drainage
66	Chhitaha Haat	Chhitaha VDC-2	Gadhi VC-3	Monday/Thursday	
67	BP Chok Haat	Chhitaha VDC -	Gadhi VC	Sunday/Wednesday	Electricity, Drinking water, Drainage
68	Phaudar Than Haat	Chhitaha VDC	Gadhi VC	Friday	Electricity, Drinking water, Drainage
69	VDC Haat	Purba Kusaha VDC	Duhabi Municipality-12	Sunday/Thursday	NA
70	Sitapur Haat	Purba Kusaha VDC	Duhabi Municipality	Monday	NA
71	Bukadari Haat	Purba Kusaha VDC	Duhabi Municipality	Wednesday/	NA
72	Karma Prabi Haat	Purba Kusaha VDC	Duhabi Municipality	Friday	NA
73	Ramganj Belgachhi Haat	Ramgunj Belgachhia VDC-1	Barju VC-1	Tuesday/Friday	NA
74	Sitagunj Chok Haat	Amahi Belaha VDC	Barju VC-5	Thursday	NA
75	Belhachok Haat Daily	Amahi Belaha VDC	Barju VC	Daily	NA
76	Dhamnamta Haat	Amduba VDC-3	Barju VC-4	Tuesday/Friday	NA
77	Chimadi Haat	Chimadi VDC	Barju VC-6	Wednesday/Saturday	NA
78	Chimadi haat Bazaar	Chimadi VDC-5	Barju VC	Monday/Thursday	NA
79	Chmadi Haat Bazaar	Chimadi VDC-6	Barju VC	Sunday	NA
80	Gautam puri Haat (Daily Gudri)	Gautampur VDC	Harinagara VDC-3	Tuesday/Saturday	Pakki shed-9,Electircity

SN	Haat bazaar name	Location		Frequency per week	Available Physical Facilities
		Previous	Present		
81	Satyar Jhora Haat	Satyar jhora VDC-3	Gadhi VC-6	Sunday	NA
82	Satyar Jhora Haat	Satyar jhora VDC-4	Gadhi VC-5	Wednesday	Electricity, Drinking water, Drainage
83	Dewanganj Haat (Daily Gudri)	Dewanganj VDC	Dewanganj VC-2	Sunday/Wednesday	Electricity, Drinking water, Drainage
84	Sahebganj Haat(Gudri)	Sahebganj VDC	Dewanganj VC-5	Tuesday/Saturday	Electricity, Drinking water, Drainage
85	Koptaurijan Haat (Daily Haat)	Koptaurijan VDC	Dewanganj VC-3/4	Sunday/Wednesday	NA
86	Bhutaha Haat (Daily)	Bhutaha VDC	Dewanganj VC	Tuesday/Saturday	Electricity, Drinking water, Drainage
87	Harinagarna Haat (Daily Gudri)	Harinagara VDC	Harinagar VC-4	Monday/Friday	Pakkished-2, Kachi shed-1 Electricity
88	Ghuski Daily haat	Ghuski VDC	Harinagar VC-6/7	Daily	Corrugated roofed shed-3 Electricity
89	Dumraha Haat(Daily Gudri)	Dumraha VDC	Ramdhuni Municipality	Saturday	Electricity, Drinking water, Drainage
90	Inaruwa Haat	Inaruwa Municipality	Inaruwa Municipality	Monday	Electricity, Drinking water, Drainage
91	Bihibare Inaruwa Haat (Daily)	Inaruwa Municipality	Inaruwa Municipality	Thursday	Electricity, Drinking water, Drainage
92	Babiya Haat	Babiya VDC	Inaruwa Municipality-9	Sunday	Electricity, Drinking water, Drainage
93	Haripur Haat	Haripur VDC	Koshi VC-8	Saturday	Electricity, Drinking water, Drainage
94	Jamuwa Chok Haat Daily Gudri Naharchok	Pashim Kusaha VDC	Koshi VC-2/3	Wednesday/Saturday	Electricity, Drinking water, Drainage
95	Krishi Haat	Laukahi	Koshi VC-1		Shed-1
96	Krishi Haat	Babiya-8,Phokhari chok	Inaruwa Municipality-9		Shed-1
97	Krishi Haat	Narsing soniyahi-1	Bhokraha VC		Shed-1
98	Krishi Haat	Ramnagar Bhutaha-1	Harinagar VC-1/2		New shed-1
99	Krishi Haat	Ghuski	Harinagar VC-6/7		New shed
100	Krishi Haat	Haripur Bhantabari	Koshi VC-7/8		New shed
101	Krishi Haat	Kusahaat Jamuwa chok	Duhabi Municipality-12		New shed
102	Haatimara Krishi Samiti	Baklauri-3	Ramdhuni Municipality-6		Shed-1, electricity,,Drinking water
103	Milan Krishi Haat	Shripur Jabdi-7	Koshi VC-5		Shed-1, electricity,,Drinking water
104	Bage Bazaar Bebastha Samiti	Mahandranagar-4,Chakaighaati	Barah Municipality		Shed-1, electricity, Drinking water
105	Krishi Haat	Inaruwa,Phulwariya	Inaruwa Municipality		Shed-1, electricity, Drinking water
106	Prangarik,Krishi Sa.Sa.Li	Barakhsetra-3	Barah Municipality-2		Shed-1, electricity,,Drinking water
107	Chaatar Samudayik Bazaar Sa.Sa	Barakhsetra-3	Barah Municipality		Shed-1, electricity,,Drinking water
108	Chaatar Samudayik Bazaar Sa.Sa	Barakhsetra-3	Municipality		Shed-1, electricity,,Drinking water

Source: ADO, Sunsari, 2072/73

Retail Market

Thirteen retail markets are found operating in Sunsari district. The details are presented in table 3.43. The annual transaction volume or amounts of retail markets were not recorded.

Table 3.43: Retail market in Sunsari district

S.N	Name of the Retail Market	Location	
		Previous	Present
1	Subjimandi Bazaar Dharan Road	Itahari	Itahari Sub metropolitan City, Itahari bazaar
2	Bhasinahar Bazaar	Bhadgaun, Sinwari	Dewanjung VC-6, Rajjung Sinuwari
3	Chaatara Main Bazaar	Barah Kshaatra	Barah Municipality, Kshaatra
4	Naharchok Bazaar	Aurabani Bhamari	Barah Municipality, Aurabani Bhamari
5	Belachok Bazaar	Amahi Belha	Barju VC-5, Amahibelha
6	Kaptangunj Bazaar	Kaptangunj VC	Devanjung VC-3, Kaptangunj
7	Ghuski Bazaar	Ghuski VC	Harinagara VC-6, Ghuski
8	Dainiki Inaruwa Bazaar	Inaruwa Municipality	Inaruwa Municipality, Inaruwa bazaar
9	Koshi Bazaar	Laukahi VC-2	Koshi VC-1, Laukahi bazaar
10	Dumraha Bazaar	Dumraha VC-4	Ramdhuri Municipality-8, Dumraha bazaar
11	Jhumak Bazaar	Jhumka VC-5	Ramdhuri Municipality-5, Jhumka bazaar
12	Bhokraha Bazaar	Bhokraha VC-6	Bhokraha VC-3, Bhokraha bazaar
13	Dubahi Bhaluwa Bazaar	Dubahi Municipality-2	Dhbahi Municipality-1, Dubahi bazaar

Source: ADO, Sunsari, 2072/73

Wholesale Market

There is one wholesale market operating in Sunsari district. The details are presented in table 3.44.

Table 3.44: Wholesale market in Sunsari district

S.N	Location (present)	Trade Volume (MT)			
		Commodity	FY2071/72	FY2072/73	FY2073 Sarwan to 2073 Magh
1	Amarghaat, Dharan Municipality-13	1. Vegetable	55432	63253	21162
		2. Fruit	9913	14945	16468
		3. Spices	12864	14352	6987
		4. Pulses	1224	1429	512
		5. Goats	498	452	681
		6. Other	1379	1532	4164
		Total	81310	95962	49974

Incoming agro-commodities to wholesale Market

a. Internal Source (55.5%)

- Dhankuta 50%
- Therthum 20%
- Bhojpur 10%
- Sankhuwasawa, Panchthar 7%
- Sunsari, Morang, Udaypur 8%
- Other 5%

b. External Source (45.5%)

Table 3.45: External source of commodities in wholesale market, Dharan

SN	Country	Quantity	Major Commodities
1	India	80%	potato, onion, apple, grape, orange, bitter gourd, chilies, brinjal, etc.
2	China	15%	apple, garlic, onion,
3.	Bhutan	5%	Mainly potato

Existing Facilities

- Office building
- Store building
- Electricity
- Drinking water
- Drainage
- Forcing
- Parking
- Computer, internet, phone
- Toilet
- 6 Blocks having 57 permanent shed
- Temporary shed (one)
- One market shed under construction
- Separate guest house for male and female
- Compost pit

Facilities provided to farmers/traders

a. **Free of cost facilities:** Drinking water and toilet, weighing machine, shed for goats, storage facility for unsold products.

b. Minimum charge in farmer's guest house

c. Marketing information

- Daily price information (electronic display board)
- Daily price information broadcasting in local FM
- Telephone information on farmer's request
- Mobile SMS information (SMS number-35242)
- Internet Information (www.agribiz.gov.np)

Participation in Market

- Daily 500-700 farmers are involved in marketing their products, out of which female farmers participation is more than 60%.
- Daily, 150-200 traders are involved in buying/selling the products.
- Daily direct employment to 1000-1500 persons

Future Plans

- Construction of ripening chamber for mango and banana
- Construction of commercial store
- Construction of small cold store for demonstration
- Creation of ATM facilities and other banking facilities in co-ordination with interested commercial banks

- Creation of packaging and grading facilities
- Upgrading the quality of ginger for export (cleaning, grading, drying and packaging)
- Creation of facilities to promote market of exportable commodities (ginger, big cardamom, orange, pear, tomato, turmeric, cabbage, green pea etc.)
- Improvement of drinking water facilities

(Source: wholesale market, Dharan)

Cold Store

At present condition, only one cold store is in operation at Ramjanaki bazaar, Inaruwa municipality-4 (previous: ward-6). The major commodities stored in cold store are potato, seed of wheat and paddy.

Source: ADO, Sunsari, 2072/73

3.6.6 Location of AMI to be Developed in Sunsari District

Different four type of markets operated in Sunsari may be sufficient for another 20 years, so as a outcome of district level interaction meeting, additional market centers are not proposed. However these existing markets need to strengthen specially with respect to their facilities.

Wholesale Market

The area of wholesale market Dharan is 1-13-12 bigaha. The annual trade volume is in increasing trend, so the present market may not be able to handle the increasing volume for another 20 years, and there is also no scope to increase the area of present market. So, present market should handle the marketing of vegetable, pulses, spices, and cereals, whereas for fruit wholesale market separate site as a sub market should be selected, the MMC has suggested that 'Bishnu Paduka" of Dharan municipality will be the suitable site for fruit wholesale market.

Location (Present address)

Cold Store

- Dharan Municipality-13, Dharan Bazaar
- Dewangunj VC-4, Kaptangunj

3.7 Dhankuta District

3.7.1 Introduction

Geographically, Dhankuta district is rectangular, flat in south and tapered in the North. 'Dhankuta', the headquarters is 49 km north from Dharan of Sunsari district.

The district is extended from 1200 m to 2702 m from the sea level, which can be divided into two major regions-High hill and low land. Nearby Tamor, Arun River and other streams, there are several fertile land lowlands, which are suitable for production of major cereal crops and vegetables. However people reside more in lowlands than in hilly area.

The district faces south and north in different places. There lies diversity in climate and topography, the land facing north are rather are cooler and the land facing south are hotter. The climate of the district can be divided into subtropical (up to 1200 m), mild temperate (1200-2100 m) and temperate (2100 m and above). As in diversity of physical situation, there is diversity in temperature and rainfall as well.

The district has a settlement of more than 56 castes and communities, more than 10 religion-cultures and more than 44 language-dialects, the major includes Chhetri (20.35%), Rai (19.66%), Limbu (13.04%), Magar (9.72%) Tamag (6.43%) respectively lives.

Orange, tomato, cardamom, ginger, fresh vegetables and vegetable seed are major export products.

The total population of the district is 163,412 out of which female population is 86,897 (53.2%) and male is 76,515 (46.8%). The percentage of literate population is 74.36%. (CBS, 2011)

The district has 3 municipalities and 4 village committee. The seven major crops cultivated in the district are maize, potato, citrus fruits, winter and summer vegetable, ginger, chillies. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 40,723 ha. The area, production and productivity of major crops are presented in table 3.46

Table 3.46: Area, Production and productivity of major crops in Dhankuta district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	7,820.00	22,434.00	2.67
2	Maize	6,785.00	15,500.00	2.28
3	Wheat	1,390.00	2,900.00	2.09
4	Millet	7,800.00	7,800.00	1.00
5	Potato	2,050.00	38,965.00	19.01
6	Vegetable	5,748.00	124,509.00	21.66
7	Ginger	249.00	4,933.00	19.81
8	Cardamom	225.00	142.00	0.63
9	Citrus fruit	870.00	6,892.00	7.92
10	Winter fruit	424.50	3,367.80	7.90
11	Summer fruit	272.50	2,359.00	8.66

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.7.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Dhankuta district is presented in table 3.47.

Table 3.47: Production trend of major agriculture production in Dhankuta district (mt)

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	19,600.00	18,859.00	24,244.00	22,434.00	22,090.00
Maize	42,450.00	39,312.00	14,975.00	15,500.00	19,000.00
Millet	7,810.00	7,780.00	8,000.00	7,800.00	8,454.00
Wheat	2,975.00	3,385.00	3,200.00	2,900.00	3,050.00
Potato	36,460.00	33,995.00	33,640.00	38,965.00	37,170.00
Vegetable	53,211.00	105,028.00	107,503.00	124,509.00	120,673.00
Citrus	8,218.00	5,887.00	4,500.00	5,195.00	5,090.00
Winter Fruit	2,472.00	3,410.00	3,317.00	3,368.00	3,368.00
Tropical Fruit	2,224.00	2,310.00	2,215.00	2,359.00	2,359.00
Ginger	6,400.00	2,900.00	4,761.00	4,933.00	4,933.00
Garlic	350.00	159.00	-	370.00	376.00
Chilli	865.00	23.00	1,030.00	1,018.00	285.00
Fish	2.10	2.30	2.30	2.30	2.30

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.7.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Dhankuta district are presented in table 3.48 and 3.49 respectively

Table 3.48: Forecast of the production of major crops in Dhankuta district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	98,313.42	29,710.51	36,521.10	44,892.88
Maize	11,031.60	3,100.40	871.36	244.89
Millet	8,359.05	9,059.94	9,819.61	10,642.97
Wheat	3,001.36	2,848.07	2,702.61	2,564.58
Potato	37,931.01	41,399.98	45,186.20	49,318.69
Vegetable	168,516.14	216,100.28	227,435.40	236,944.93
Citrus	4,082.38	2,375.26	1,382.00	804.09
Winter Fruit	3,795.23	5,138.90	6,958.30	9,421.83
Tropical Fruit	2,390.04	2,561.87	2,746.05	2,943.47
Ginger	4,654.49	4,679.07	4,703.79	4,728.63
Garlic	127.79	209.41	343.19	562.41
Chilli	689.00	1,259.44	2,760.68	6,051.38
Fish	2.50	2.61	2.86	3.13

Table 3.49: Forecast of the marketable surplus of major crops in Dhankuta district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	34,409.70	10,398.68	12,782.38	15,712.51
Maize	3,309.48	930.12	261.41	73.47
Millet	3,343.62	3,623.98	3,927.84	4,257.19
Wheat	1,050.48	996.82	945.91	897.60
Potato	23,517.23	25,667.99	28,015.45	30,577.59
Vegetable	92,683.88	118,855.16	125,089.47	130,319.71
Citrus	2,041.19	1,187.63	691.00	402.05
Winter Fruit	2,656.66	3,597.23	4,870.81	6,595.28

Croplyear	2021/22	2026/27	2031/32	2036/37
Tropical Fruit	1,434.03	1,537.12	1,647.63	1,766.08
Ginger	3,956.32	3,977.21	3,998.22	4,019.34
Garlic	121.40	198.94	326.03	534.29
Chilli	537.42	982.36	2,153.33	4,720.07
Fish	2.25	2.35	2.58	2.82

3.7.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Subsistence farming has been converted to semi-commercial and commercial farming (mainly vegetables and citrus fruits), thus producing marketable surplus.
- Farmers are organized in groups and cooperatives.
- Previous project had developed marketing facilities at various locations.
- Farmers group have capacity to invest on market development.

Weakness

- Absence of all weather roads in main production areas.
- Insufficient post- harvest handling.
- Market information is not available.
- Traders decide the price and volume of trade because the wholesale market does not exist in the district.

Opportunity

- All weather road linkage to many terai districts as well as to India.
- Possibility to promote organic-based vegetables and fruits production.
- The marketable surplus can be easily transported and marketed at wholesale market, Dharan.

Treats

- Problem of youth migration outside district/abroad.
- Uncontrolled flow of low quality, cheap agri-commodities from India and from some districts of Terai, which has make difficult to local better quality products to compete.

3.7.5 Present Status of AMI in Dhankuta District

Present status of AMI in Dhankuta is not found fully satisfactory with respect to the facilities available in most of the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers.

Collection Center

There are 23 collection centers operating in the district. The details are presented in table 3.50

Table 3.50: Collection center in Dhankuta district

SN	Name of Collection Center	Location (previous)	Facility
1	Parewadin Sankalan Kendra	Parewadin-6,Siduwa	Permanent shed
2	Tankhuwa Krisi Sankalan Kendra	Tankhuwa -9,Jorpata	Permanent shed
3	Dha.Na.Pa. Krisi Sankalan Kendra	Dha.Na.Pa.-1 Hille	Permanent shed
4	Budhimorang Krisi Sankalan Kendra	Budhimorang Laberbole	Permanent shed
5	Dandabazaar Krisi Sankalan Kendra	Dandabazaar-9,Okhle	Permanent shed
6	Belhare Krisi Sankalan Kendra	Belhare -7,Guthitar	Permanent shed
7	Dha.Na.Pa Krisi Sankalan Kendra	Dha.Na.Pa -2 Kagate	Permanent shed
8	Bhdedetar Krisi Sankalan Kendra	Bhdedetar -7,Kalyanpokar	Permanent shed

SN	Name of Collection Center	Location (previous)	Facility
9	Dha.Na .Pa KriSi Sankalan Kendra	Dha.Na .Pa-3, BakhrekholA	Permanent shed
10	Danda Bazaar KriSi Sankalan Kendra	Danda Bazaar -1, Dandabazaar	Permanent shed
11	Dha.Na.Pa KriSi Sankalan Kendra	Dha.Na.Pa -8	Permanent shed
12	Balhare KriSi Sankalan Kendra	Balhare -9,Rudrabari	Permanent shed
13	Ankhisalle KriSi Sankalan Kendra	Ankhisalle -4 SukeAhal	Permanent shed
14	Bhedetar Sankalan Kendra	Bhedetar -3,Simsuwa	Permanent shed
15	Murtidhunga Sankalan Kendra	Murtidhunga -2	Permanent shed
16	Parewadin KriSi Sankalan Kendra	Parewadin-6,Mejiwa puchlar	Permanent shed
17	Mahabharat Sankalan Kendra	Mahabharat -4 Askot	Permanent shed
18	Ahale Sankalan Kendra	Ahale -3 Haridiya	Permanent shed
19	Parewadin Sankalan Kendra	Parewadin-5	Permanent shed
20	Khoka KriSi Sankalan Kendra	Khoka-1,Pipedanda	Permanent shed
21	Chmuang Sankalan Kendra	Chmuang	Permanent shed
22	Paredadin Sankalan Kendra	Paredadin-6	Permanent shed
23	Chunwang Sankalan Kendra	Chungwang-5	Permanent shed

Source: ADO, Dhankuta, 2072/73

Haat Bazaar

There are major sixteen haat bazaars in operation. Annual volume of transaction has not recorded. The details of haat bazaar in Dhankuta is presented table 3.51.

Table 3.51: Haat bazaar in Dhankuta district

S.N	Name of Haat Bazaar	Locations		Frequency Per week	Distance from District HQ(km)	Available Physical Facilities
		Previous	Present			
1	Sukrabare Haat Bazaar,Mudhibas-8	Sukrabare Haat Bazaar,Mudhibas-8	Sukrabare Haat Bazaar,Chaubise VC-3 ,Mudhebas	Friday	36	NA
2	Saurya Bazaar Budhbare-6	Saurya Bazaar Budhbare-6	Surya Bazaar Chaubise VC-1	Wednesday	48	NA
3	6 No Budhabare Haat Budhabare-6	6 No Budhabare	6 No Budhbare Chaubise VC-1	Wednesday	48	NA
4	Aunsiपुरne Bazaar Rajarani-6	Aunsiपुरne Bazaar Rajarani-6	Aunsiपुरne Bazaar Chaubise VC-6	Aunsiपुरne	27	NA
5	Maunabudhok Haat,Maunabudhok	Maunabudhok Haat, Maunabudhok	Maunabudhok Haat Chaubise VC-7	Wednesday	27	NA
6	Danda Bazaar Haat,Danda Bazaar	Danda Bazaar Haat, Danda Bazaar	Danda BazaarHaat Sangurigarhi VC-5	Saturday	21	NA
7	Thalthale Haat,Ankhisalla-6	Thalthale Haat, Ankhisalla-6	Thalthale Haat Khalea Chhintag Sahia Bhumi VC-6	Wednesday	16	NA
8	Sanibare Haat,Pakhriwae-3	Pakhriwae Haat Pakhriwa -3	Pakhriwas Haat Pakhriwas Municipality-2	Saturday	15	NA
9	Hille Haat,Dhankuta Municipality-1	Hille Haat, Dhankuta Municipality-1	Hille Haat,Dhankuta Municipality	Thursday	13	Drinking water, Drainage, Corrgated roofed sheds-7
10	Bhibare Haat,Dhankuta Municipality-5	Bhibare Haat, Dhankuta Municipality-5	Bhibare Haat Dhankuta Municipality-5	Thursday	0	NA
11	Budhbare Haat, Telia	Budhbare Haat, Telia	Budhbare Haat,Chhaathar Jorpati VC-4	Wednesday	5.5	NA
12	Sidhuwa	Sidhuwa	Sidhuwa Haat	Wednesday	22	NA

S.N	Name of Haat Bazaar	Locations		Frequency Per week	Distance from District HQ(km)	Available Physical Facilities
		Previous	Present			
	Haat,Parewadin-5	Haat,Parewadin-5	Chhaathar Jorpati-6			
13	Sukrabare Haat ,Jitpur-5	Sukrabare Haat ,Jitpur-5	Sukrabare Haat Jitpur	Friday	21	NA
14	Chanuwa Sankranti,Chanuwa-6	Chanuwa Sankranti, Chanuwa-6	Chanuwa Sankranti Chanuwa	Saturday	39	NA
15	Budhabare Haat,Budhimorang-8 Lawarkbote	BudhabareHaat, Budhimorang-8 Lawarkbote	Budhabare Haat,Sangurigarhi VC-1	Wednesday	21	NA
16	Uttarpani Haat,Chungwang-1	Uttarpani Haat, Chungwang-1	Uttarpani Haat,Pakhariwas Municipality-9	Monday	21	NA

Source: ADO, Dhankuta, 2072/73

Retail Market

Two retail markets are in operation. The details are presented in table 3.52. The annual trade volumes of retail markets were not recorded.

Table 3.52: Retail market in Dhankuta district

S.N	Name of the Retail Market	Location		Available of Facilities
		Previous	Present	
1	Dhankuta Municipality Khudara Bazaar	Dhankuta Municipality-7	Dhankuta Municipality-7	Electricity, Drinking Water Corrugated roofed shed-6, Drainage
2	(Vegetable Market) Dhankuta Municipality khudra Bazaar Buspark	Dhankuta Municipality	Dhankuta Municipality-7	Electricity, Drinking Water Corrugated roofed shed-1, Drainage, Pakki shed-10

Source: ADO, Dhankuta, 2070/71
BPRC Field survey, 2072

3.7.6 Locations of AMI to be Developed in Dhankuta District

Based on the criteria developed for the selection of appropriate locations of AMI (Annex 1), the following sites are suggested. The proposed sites are the municipalities/VCs that are most appropriate to the users of the concerned municipality/VC and its neighborhood. Appropriate location within the municipality/VC proposed need to be identified through consultation with the stakeholders of command area of the proposed market center.

Location (Present address)

Collection Center

- Dhankuta Municipality-5
- chaubise VC-1
- chaubise VC-8, Basant Tar
- chaubise VC-6, Rajarani
- Sangurigarhi VC-5, Okhre bazaar
- Sangurigarhi VC
- Dhankuta Municipality-10

Retail Market

- Dhankuta Municipality-1, Hile Bazaar
- Chhaathar jorpati VC,Sidhuwa Bazaar

- Dhankuta municipality-7

Cold Store

1. Dhankuta Municipality, Dhankuta Bazaar
2. Sangurigarhi VC, Bhetetar

3.8 Tehrathum District

3.8.1 Introduction

The district is situated on the bank of Tamor River and contains very less arable land. Its average north-south length is 58 km and east-west breadth is 25.5km. The district is triangular having, tapered to the south from north and wider to north from east –west direction. 'Myanglung', the district headquarters is 650 km from Kathmandu.

The district situated between 354 m to 3963 m can be divided into 3 physical regions-high hill region, mid hill region and lowland. The mid hill region lies between the altitudes of 1200 m to 2700 m from the sea level. This region is popular for citrus production, and is densely populated because of moderate climate. The low land region ranges from 354 m to 1200 m from sea level. This region has hotter climate and suitable for tropical fruits, vegetables and cereal crops. Most part of the district lies in middle hilly range. Mid-temperate rules the upper hill and tropical climate rules the lowland. The climate of the district can be broadly divided into four types- tropical, subtropical, temperature and Tundra climate (above 2700m).

The district has a settlement of more than 10 religion-cultures and more than 26 language-dialects. The majority includes Limbu (35.81%), Chhetri (19.33%), Brahmin (13.12%), Tamag (6.52%) and Kami (4.34%) respectively.

The total population of the district is 101,577 out of which female population is 54,426 (53.6%) and male is 47,151 (46.4%). The percentage of literate population is 74.62% .(CBS,2011).

The district has 2 municipalities and 4 village committee The seven major crops cultivated in the district are maize, potato, citrus fruits, vegetable, ginger, millet, winter fruits. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 37,282 ha. The area, production and productivity of major crops are presented in table 3.53

Table 3.53: Area, Production and productivity of major crops in Tehrathum district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	7,060.00	17,494.00	2.30
2	Maize	12,350.00	30,875.00	2.50
3	Wheat	2,500.00	5,500.00	2.20
4	Millet	2,700.00	2,969.00	1.10
5	Potato	2,900.00	34,255.00	11.81
6	Vegetable	1,603.00	26,118.00	16.29
7	Ginger	212.00	3,277.00	15.00
8	Cardamom	627.00	248.00	0.40
9	Citrus fruit	870.00	6,892.00	7.29
10	Winter fruit	377.50	3,093.10	8.20
11	Summer fruit	454.00	6,280.00	13.83

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.8.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Tehrathum district is presented in table 3.54.

Table 3.54: Production trend of major agriculture production in Tehrathum district (mt)

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	24,523.00	23,784.00	27,576.00	17,494.00	17,300.00
Maize	25,935.00	26,288.00	27,302.00	30,875.00	27,170.00

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Millet	3,061.00	3,300.00	3,300.00	2,969.00	3,242.00
Wheat	5,445.00	5,900.00	5,675.00	5,500.00	3,150.00
Potato	30,880.00	33,063.00	33,659.00	34,255.00	33,810.00
Vegetable	22,754.00	24,900.00	26,477.00	26,118.00	26,842.00
Citrus	6,863.00	7,161.00	6,901.00	6,892.00	7,177.00
Winter Fruit	2,254.00	3,020.00	3,090.00	3,093.00	3,093.00
Tropical Fruit	5,858.00	5,902.00	6,108.00	6,280.00	6,280.00
Ginger	1,059.00	1,527.00	3,116.00	3,277.00	3,277.00
Garlic	36.00	125.00	150.00	150.00	150.00
Turmeric	-	32.00	56.00	32.00	32.00
Chilli	150.00	68.00	68.00	68.00	68.00

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.8.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Tehrathum district are presented in table 3.55 and 3.56 respectively.

Table 3.55: Forecast of the production of major crops in Tehrathum district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	475.44	9,734.29	5,889.51	3,563.31
Maize	15,791.75	33,644.33	38,197.95	43,367.87
Millet	1,915.31	3,194.92	3,209.65	3,224.45
Wheat	3,826.88	1,973.36	1,102.24	615.66
Potato	19,183.56	39,379.66	43,886.47	48,909.07
Vegetable	14,233.11	34,338.39	41,486.56	50,122.74
Citrus	4,190.50	7,289.89	7,478.87	7,672.74
Winter Fruit	3,518.06	4,885.58	6,784.66	9,421.95
Tropical Fruit	6,461.42	7,145.26	7,901.48	8,737.74
Ginger	1,527.00	3,116.00	3,277.00	3,277.00
Garlic	125.00	150.00	150.00	150.00
Turmeric	32.00	56.00	32.00	32.00
Chilli	68.00	68.00	68.00	68.00

Table 3.56: Forecast of the marketable surplus of major crops in Tehrathum district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	109.35	2,238.89	1,354.59	819.56
Maize	7,106.29	15,139.95	17,189.08	19,515.54
Millet	1,110.88	1,853.05	1,861.59	1,870.18
Wheat	497.49	256.54	143.29	80.04
Potato	5,755.07	11,813.90	13,165.94	14,672.72
Vegetable	5,693.24	13,735.36	16,594.62	20,049.10
Citrus	2,388.59	4,155.24	4,262.96	4,373.46
Winter Fruit	1,934.93	2,687.07	3,731.57	5,182.07
Tropical Fruit	2,261.50	2,500.84	2,765.52	3,058.21
Ginger	1,221.60	2,492.80	2,621.60	2,621.60
Garlic	56.25	67.50	67.50	67.50

Crop/year	2021/22	2026/27	2031/32	2036/37
Turmeric	28.80	50.40	28.80	28.80
Chilli	52.36	52.36	52.36	52.36

3.8.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are organized in various groups in production and marketing (mainly cardamom, spice and vegetable)
- Farmers are interested to actively participate in agri-marketing functions
- Subsistence production is converting to semi-commercial and commercial production, thus producing marketable surplus.
- Farmers have marketing knowledge to some extent that can be improved/increased.
- At present, there is no market problem for locally produced commodities.

Weakness

- Low volume of marketable agri-product poses difficulty in marketing.
- Absence of all weather roads in production pockets, situated in village.
- No market information.
- Direct sale from production pockets due to lack of storage.

Opportunity

- The district headquarters is linked with many districts of mid-hill and terai. The production can be marketed even up to Kathmandu market.
- The wholesale market, Dharan has given opportunity to the farmers to produce high volume of marketable commodities.
- Main Season of the district becomes off season for Terai and India as well.
- Organic production fetch better market price, the district is suitable for production of organic products.

Threat

- Youth migration has created labour shortage in agriculture production and marketing.
- Due to high transportation cost, cost of production is higher as compared to other districts, so farmer has to compete with products of other districts.
- Low quality and cheap commodities are imported in the market from outside, which may affect the production of the district.

3.8.5 Present Status of AMI in Tehrathum District

Present status of AMI in Tehrathum is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers.

Collection Center

There are only one collection center in operation (Table 3.57).

Table 3.57 : Collection center in Tehrathum district

SN	Name of Collection Center	Location (present)	Facility
1	Krishi Upaj Sankalan Kendra	Laliguras municipality-2, Bsantapur	Permanent shed

Source: ADO, Tehrathum, 2072/73

Haat Bazaar

There are nine haat bazaars operating in Tehrathum district. The details are presented in table 3.58

Table 3.58: Haat bazaar in Tehrathum district

S.N	Name of Haat Bazaar	Locations		Frequency Per week	Distance from District HQ(km)	Available Physical Facilities
		Previous	Present			
1	Manglung Bazaar Manglung-1	Manglung Bazaar Manglung-1	Manglung Bazaar Manglung Municipality-1	Tuesday Friday	0	Electricity
2	Basantpur Bazaar, Basantpur	Basantpur Bazaar, Basantpur	Basantpur Bazaar, Basantpur	Monday	24	Corrugated roofed sheds,- 11, Electricity, Drinking water, Drainage
3	Sankranti Bazaar, Sankranti	Sankranti Bazaar, Sankranti	Sankranti Bazaar, Athrai VC-1	Saturday/Every Sankranti	36	NA
4	Oklabang Bazaar, Simle	Oklabang Bazaar, Simle	Oklabang Bazaar, Phedap VC-1	Every Aunsi & Purne	21	NA
5	Jirikhimti Bazaar, Jirikhimti	Jirikhimti Haat, Jirikhimti	Jirikhimti Haat,	Monday	6	NA
6	Sukrabare Bazaar, Hamarjung	Sukrabare Bazaar, Hamarjung	Sukrabare Bazaar, Chhaathar VC	Every Aunsi & Purne	39	Electricity, Drinking water, Drainage
7	Okhre, Bazaar Okhre	Okhre, Bazaar Okhre	Okhre Bazaar, Chhaathar VC-5	Thursday	21	NA
8	Sanischare Bazaar, Panchakanya	Sanischare Haat, Panchakanya	Sanischare Haat, Chhaathare VC-3	Saturday	30	NA
9	Bhibare, Bazaar Morahang	Bhibare Haat, Morahang	Bhibare Haat Menchhuyayema VC-5	Thursday	15	NA

Source: ADO, Tehrathum, 2072/73

Retail market

There are no organized retail markets in the district. However consumers as well as traders are using haat bazaar to buy the agri-products. Traders were found supplying to Myanglung bazaar, Basantpur bazaar and other rural markets. The small traders of these markets were found selling the agri-products to consumers in disorganized manner. Majority of the farmers were found cultivating fruits, vegetable, spices and potatoes for their home consumption, only marketable surplus are sold to small traders.

3.8.6 Locations of AMI to be Developed in Tehrathum District

Based on the criteria developed for the selection of appropriate locations of AMI (Annex 1), the following sites are suggested. The proposed sites are the municipalities/VCs that are most appropriate to the users of the concerned municipality/VC and its neighborhood. Appropriate location within the municipalities/VCs proposed need to be identified through consultation with the stakeholders of command area of the proposed market center.

Location (Present address)

Collection Center

- Manglung Municipality-5
- Laligurans Municipality-7
- Atharai VC-1
- Athrai VC-6
- Chhaathar VC-5
- Chhapar-6
- Chhaathar VC-3
- Phedap VC-1
- Medhakshitra VC

Haat Bazaar

- Atharai VC-3
- Chhapar VC-6
- Laligurans Municipality-3

Retail Market

District Headquarters, Myanglung Bazaar

Cold Store

- Myanglung Municipality-1, Myanglung Bazaar
- Laligurans Municipality-2, Basantpur Bazaar
- Aadrai VC-1, Sankranti Bazaar or Hantkhola Bazaar

3.9 Sankhuwasabha District

3.9.1 Introduction

The district border with Tibet in the north. It is situated forming triangular shape in the north i.e wider to east-west and tapering in the south. The district has more arable land in comparison to the eastern mountainous district. The historical bazaar Chainpur was its headquarters before it shifted to 'Kandbari', it is 720 km east from the Kathmandu and 200 km north from Itahari (Sunsari) on the East-west Mahendra Highway.

The district can be broadly divided in three parts ranging from Arun Valley (457 m) to Mount Makalu (8463 m)- Mountain region (5000 m above snow line), Hill Region (1200 m-5000 m), Lowland (below 1200 m).

Though the district lies to the northern part. Arun rivers flows through middle part of the district, which provides the way to monsoon and causes ample rainfall in this region. The major climate of the district can be broadly divided into four types –Tundra climate (above 5000 m), cool temperate (2700 m-5000 m), warm temperate (1200 m-2700 m) and tropical (below 1200 m).

The district has a settlement of more than 50 caste and communities, more than 10 religion-cultures and more than 46 language-dialects. The majority includes Chhettri (18.16%), Rai (10.56%), Tamang (10.44%), and Kulung (6.15%), Sherpa (5.83%) and Limbu (5.47%) respectively.

The total population of the district is 158,742 out of which female population is 83,517 (52.6%) and male is 75,225 (47.4%). The percentage of literate population is 64.32%. (CBS, 2011).

The district has 5 municipalities and 5 village committee. The seven major crops cultivated in the district are maize, potato, ginger, chilies, summer vegetable, winter vegetable, and summer fruits. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 30,000 ha. The area, production and productivity of major crops are presented in table 3.59

Table 3.59: Area, Production and productivity of major crops in Sankhuwasabha district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	13,650.00	32,660.00	2.39
2	Maize	12,000.00	15,000.00	1.25
3	Wheat	805.00	1,610.00	2.00
4	Millet	7,171.00	7,514.00	1.05
5	Potato	1,225.00	12,620.00	10.30
6	Vegetable	1,739.00	18,081.00	10.40
7	Ginger	102.00	867.00	8.50
8	Cardamom	2,770.00	1,108.00	0.40
9	Citrus fruit	165.00	1,155.00	7.00
10	Winter fruit	104.00	715.00	6.90
11	Summer fruit	129.00	1,387.00	10.75

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.9.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Sankhuwasabha district is presented in table 3.60

Table 3.60: Production trend of major agriculture production in Sankhuwasabha district (mt)

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	36,600.00	23,701.00	35,458.00	32,660.00	29,650.00
Maize	22,193.50	22,226.00	17,000.00	15,000.00	20,105.00
Millet	9,975.00	10,180.00	7,314.00	7,514.00	7,195.00
Wheat	2,850.00	3,000.00	1,915.00	1,610.00	1,100.00
Potato	39,228.00	37,089.00	39,367.00	12,620.00	16,886.00
Vegetable	13,875.00	14,004.90	16,304.00	18,081.00	18,408.00
Citrus	3,869.00	924.00	1,067.00	1,155.00	1,154.00
Winter Fruit	1,417.00	648.00	448.00	715.00	831.00
Tropical Fruit	2,246.00	1,992.00	1,500.00	1,387.00	1,595.00
Ginger	688.00	768.00	736.00	867.00	1,008.00
Garlic	331.00	222.00	224.00	240.00	240.00
Turmeric	266.00	175.00	187.00	209.00	320.00
Chilli	155.00	152.00	154.00	2,153.00	182.00
Fish	1.60	1.90	1.90	1.90	2.90

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.9.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Sankhuwasabha district are presented in table 3.61 and 3.62 respectively.

Table 3.61: Forecast of the production of major crops in Sankhuwasabha district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	30,318.07	28,831.68	27,418.16	26,073.94
Maize	15,980.94	11,893.11	8,850.93	21.32
Millet	6,252.47	3,874.64	2,401.10	1,487.96
Wheat	918.99	259.84	73.47	20.77
Potato	11,408.13	2,864.52	719.27	180.60
Vegetable	20,490.57	30,888.65	46,563.31	70,192.16
Citrus	716.28	238.86	79.65	26.56
Winter Fruit	564.14	347.52	214.08	131.88
Tropical Fruit	1,253.06	742.53	440.01	260.74
Ginger	1,050.95	1,636.00	2,546.74	3,964.47
Garlic	209.78	158.15	119.23	89.89
Turmeric	265.65	349.24	459.15	603.63
Chilli	175.22	206.42	243.17	286.47
Fish	2.85	5.17	9.38	17.00

Table 3.62: Forecast of the marketable surplus of major crops in Sankhuwasabha district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	10,611.33	10,091.09	9,596.36	9,125.88
Maize	4,794.28	3,567.93	2,655.28	6.40
Millet	2,500.99	1,549.85	960.44	595.18
Wheat	321.65	90.95	25.71	7.27
Potato	7,073.04	1,776.00	445.95	111.97
Vegetable	11,269.82	16,988.76	25,609.82	38,605.69

Croplyear	2021/22	2026/27	2031/32	2036/37
Citrus	358.14	119.43	39.83	13.28
Winter Fruit	394.90	243.26	149.86	92.31
Tropical Fruit	751.84	445.52	264.01	156.44
Ginger	893.31	1,390.60	2,164.73	3,369.80
Garlic	199.29	150.24	113.27	85.39
Turmeric	252.36	331.78	436.19	573.45
Chilli	136.67	161.01	189.68	223.45
Fish	2.57	4.66	8.44	15.30

3.9.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are organized in various group and cooperative, which are also involved in marketing, however they need some external support on packaging.
- Subsistence production is gradually shifting to semi-commercial production.
- Farmers are interested to actively participate in marketing process.
- Farmers have marketing knowledge to some extent, which can be improved.

Weakness

- Low level of production poses inefficiency in marketing.
- Absence of all weather roads in village.
- In many markets, MMC is found not active as expected.
- Market facilities are not well established.

Opportunity

- Road facilities are developed within the district and the district headquarters is linked to various mid-hills and terai districts. The marketable surplus can be marketed in these districts.
- Marketable surplus can also be transported to wholesale market of Dharan
- The agro-climatic condition of the district is suitable for production of different commodities, market demanded crops and cultivars can be easily promoted.

Threats

- Due to high production cost, it is difficult to compete with similar products entering district markets from other districts.
- Migration of youth has created labour shortage in production and agriculture marketing.

3.9.5 Present Status of AMI in Sankhuwasabha District

Present status of AMI in Sankhuwasabha is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers. Of the four market types studied, retail market and wholesale market were not practiced in Sankhuwasabha district.

Collection Center

At present, two collection centers are in operation in Sankhuwasabha districts (Table 3.63)

Table 3.63: Collection center in Sankhuwasabha district

SN	Name of Collection Center	Location (previous)	Facility
1	Krishi Upaj Sankalan Kendra	Khandbari municipality, Manebhangyang	corrugated roofed shed-1
2	Krishi Upaj Sankalan Kendra	Nangling VDC, Budhachok	corrugated roofed shed-1

Source: DDO, Sankhuwasabha, 2072/73

Haat Bazaar

At present 19 haat bazaars are in operation. The details of haat bazaar are presented in table 3.64

Table3.64: Haat bazaar in Sankhuwasabha district

S.N	Name of Haat Bazaar	Locations		Frequency Per Week	Distance from District HQ(km)	Service provided VDC	Available Physical Facilities
		Previous	Present				
1	Seduwa Haat Bazaar	Seduwa Bazaar, Makalu VDC	Seduwa Bazaar, Makalu VC-2	Aunsi purne	54	5	Drinking Water
2	Sukrabare Haat	Sukrabare Haat, Shitalpati VDC	Sukrabare Haat, Khadbari Municipality-10	Friday	15	7	Drinking Water
3	Sisuwatar Haat	Sisuwatar Haat, Bata VDC	Sisuwatar Haat, Silichang VC-2	Wednesday	51	8	NA
4	Mulgaun Haat Mulgaun	Mulgaun Haat Mulgaun	Mulgaun Haat ,Mulgaun	Friday	45	2	NA
5	Triveni Haat	Triveni Haat, Barhabise VDC-5	Triveni Bazaar, Sabhapokhari VC-3	Monday	24	8	NA
6	Bihibare Haat	Bihibare Haat, Anghibhuin VDC-8	Bihibare Bazaar, Dharmadevi Municipality-9	Thursday	24	7	Drinking Water
7	Lingling Haat	Lingling Haat, Bana VDC	Lingling Bazaar, Panchkhanan Municipality	Tuesday	18	5	Drinking Water
8	Syabun Haat	Syabun Haat, Bana VDC	Syabun Bazaar, Panchkhanan Municipality	Tuesday	18	2	NA
9	Kharang Haat	Kharang Haat, Kharang VDC	Kharang Bazaar, Kharang	Tuesday	21	3	NA
10	Panchami Danda Haat	Panchami Danda Haat	Panchami Danda Bazaar	Thursday	45	9	NA
11	Mudhe Sanischare	Mudhe Sanischare Tamphok VDC-8	Mudhi Sanischare Dharmadebi Municipality-3	Saturday	48	8	Drinking Water
12	Chainpur Haat	Chainpur Bazaar, Chainpur Municipality	Chainpur Bazaar, Chainpur Municipality	Friday	27	12	Drinking Water
13	Pokhari Bazaar	Pokhari Bazaar	Pokhari Bazaar	Tuesday	48	2	NA
14	Okharbot Bazaar	Okharbot Bazaar, Okharbot	Okharbot Bazaar, Okharbot	Thursday	39	4	NA
15	Nundhanki Haat Nundhanki	Nundhanki Bazaar, Nundhanki	Nundhanki Bazaar, Nundhanki	Thursday	39	1	NA
16	Num Bazaar, Nun VDC	Num Bazaar, Num VDC	Num Bazaar, Makalu VC	Thursday	39	3	NA
17	Tundikhel Haat	Tundikhel Bazaar, Khandbari Municipality	Tundikhel Bazaar, Khandbari Municipality-1	Saturday Wednesday	0	16	NA
18	Mane Bhanjyang Haat	Mane Bhanjyang Bazaar.	Mane Bhanjyang Khandbari Municipality	Saturday	9	4	NA

S.N	Name of Haat Bazaar	Locations		Frequency Per Week	Distance from District HQ(km)	Service provided VDC	Available Physical Facilities
		Previous	Present				
19	Tumlingtar Bazaar	Tumlingtar Bazaar, Tumlingtar	Tumlingtar Bazaar, Khandbari Municipality-13	Friday	15	10	NA

Source: DDO, Sankhuwasabha, 2072/73

Retail Market

Haat bazaars and collection centers are playing the role of retail markets. Consumers were found buying the products from haat bazaars. Traders/middleman were also found buying the products from haat bazaars and transporting to Khandbari bazaar, Tumlingtar, Chainpur bazaar and other rural markets, and selling to local small traders. Producers were also found selling their marketable surplus in market along the road side in disorganized manner.

3.9.6 Locations of AMI to be Developed in Sankhuwasabha District

Based on the criteria developed for the selection of appropriate locations of AMI (Annex 1), the following sites are suggested. The proposed sites are the municipalities/VCs that are most appropriate to the users of the concerned municipality/VC and its neighborhood. Appropriate location within the municipalities/VCs proposed need to be identified through consultation with the stakeholders of command area of the proposed market center.

Location (Present address)

Collection Centre

- Chainpur Municipality-6
- Chainpur Municipality-14
- Dharmadevi Municipality-1
- Dharmadevi Municipality-5
- Khadbari Municipality-5
- Khadbari municipality-10
- Madi Municipality-5
- PanchaKhapan Municipality-4
- Bhotekhola VC-3
- Makalu VC-5

Haat Bazaar

- Chainpur Municipality-9
- Dharma devi Municipality-7
- Dharmadevi Municipality-1
- Khadbari Municipality-8
- Khadbari Municipality-11
- Panchkhapan Municipality-5
- Madi Municipality-4

Retail Market

- Chainpur Municipality-9
- Khadbari Municipality-8
- Khadbari Municipality-11

Cold Store

- Kandbari Municipality, Kandbari Bazaar
- Chainpur Municipality-5 Chainpur Bazaar
- Dharmadebi Municipality-6 Aakhi Bhue

3.10 Bhojpur District

3.10.1 Introduction

Extended north to south, the average length of the district is about 93 km and breadth (east-west) is 35 km. 'Bhojpur Bazaar' lies north-west to a distance of 92.5 km from Hile of Dhankuta.

Bhojpur, which is situated at an altitude of 153 m to 4153 m from the sea level, can be divided into three physical regions-high hill, mid hill and low land region. Mid hill covers more than half of the district extending from 1200 m to 2500 m. Coniferous forest is found in the upper part, whereas the lower part is cultivable slope land. The low land region includes small lowland, plain lands and terra firma made up by small and big rivers and rivulets. Low land areas are suitable for cultivation of major cereals, fruits and vegetables.

Climate variation is analogous to variation of topographical situation. Therefore, there exists cold climate to tropical climate in the district.

The district has a settlement of more than 54 castes and communities, more than 10 religion-cultures and more than 40 language-dialects. The majority includes Rai (31.97%), Chettri (19.79%), Tamang (9.45%) and Newar (8.04%), Brahmin (6.19%) respectively.

The total population of the district is 182,459 out of which female population is 96,406 (52.8%) and male is 86,053 (47.2%). The percentage of literate population is 69.34%. (CBS, 2011).

The district has 2 municipalities and 7 village committee. The seven major crops cultivated in the district are paddy, maize, ginger, vegetables and citrus fruits, potato, summer fruits. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 62,299 ha. The area, production and productivity of major crops are presented in table 3.65

Table 3.65: Area, Production and productivity of major crops in Bhojpur district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	16,093.00	35,893.00	2.23
2	Maize	36,360.00	83,735.00	2.30
3	Wheat	2,500.00	4,800.00	1.92
4	Millet	5,505.00	4,404.00	0.80
5	Potato	3,537.00	32,335.00	9.14
6	Vegetable	1,767.00	11,134.00	6.30
7	Ginger	199.00	1,588.00	8.00
8	Cardamom	365.00	190.00	1.15
9	Citrus fruit	691.00	5,195.00	7.42
10	Winter fruit	574.50	3,381.40	6.20
11	Summer fruit	162.50	1,592.00	9.80

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.10.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Bhojpur district is presented in table 3.66

Table 3.66: Production trend of major agriculture production in Bhojpur district (mt)

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	42,341.00	44,299.00	48,340.00	35,893.00	36,970.00

Cropl year	2011/12	2012/13	2013/14	2014/15	2015/16
Maize	74,370.00	76,470.00	42,776.00	83,735.00	83,735.00
Millet	4,954.50	4,404.00	5,000.00	4,404.00	6,250.00
Wheat	4,903.00	5,520.00	6,024.00	4,800.00	940.00
Potato	57,485.00	30,075.00	36,755.00	32,335.00	47,641.00
Vegetable	10,833.00	32,804.00	20,776.00	11,134.00	10,976.00
Citrus	5,221.00	5,221.00	5,185.00	5,195.00	5,294.00
Winter Fruit	1,457.00	3,642.00	3,458.00	3,581.00	3,581.00
Tropical Fruit	1,700.00	1,735.00	1,523.00	1,592.00	1,592.00
Ginger	1,762.00	2,345.00	6,518.00	1,588.00	2,108.00
Garlic	63.00	76.00	159.00	159.00	159.00
Turmeric	52.00	52.00	34.00	90.00	90.00
Chilli	15.00	15.00	150.00	23.00	155.00
Fish	0.70	0.80	0.75	0.80	0.80

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.10.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Bhojpur district are presented in table 3.67 and 3.68 respectively

Table 3.67: Forecast of the production of major crops in Bhojpur district (mt)

Cropl year	2021/22	2026/27	2031/32	2036/37
Paddy	35,752.13	28,099.47	22,084.85	17,357.64
Maize	77,465.97	91,270.02	107,533.89	126,695.90
Millet	5,702.13	7,193.12	9,073.97	11,446.63
Wheat	1,332.67	238.25	42.59	7.62
Potato	36,194.45	31,102.98	26,727.72	22,967.93
Vegetable	11,316.21	6,679.73	3,942.90	2,327.41
Citrus	5,258.87	5,319.11	5,380.04	5,441.66
Winter Fruit	5,086.90	12,397.38	30,213.90	73,634.90
Tropical Fruit	1,523.90	1,367.01	1,226.28	1,100.03
Ginger	2,437.41	2,399.64	2,362.46	2,325.86
Garlic	247.90	904.95	3,303.50	12,059.33
Turmeric	97.46	221.91	505.27	1,150.50
Fish	0.83	0.95	1.09	1.24

Table 3.68: Forecast of the marketable surplus of major crops in Bhojpur district (mt)

Cropl year	2021/22	2026/27	2031/32	2036/37
Paddy	12,513.25	9,834.82	7,729.70	6,075.17
Maize	23,239.79	27,381.01	32,260.17	38,008.77
Millet	2,280.85	2,877.25	3,629.59	4,578.65
Wheat	466.43	83.39	14.91	2.67
Potato	22,440.56	19,283.85	16,571.19	14,240.12
Vegetable	6,223.92	3,673.85	2,168.60	1,280.08
Citrus	2,629.44	2,659.56	2,690.02	2,720.83
Winter Fruit	3,560.83	8,678.16	21,149.73	51,544.43
Tropical Fruit	914.34	820.21	735.77	660.02

Croplyear	2021/22	2026/27	2031/32	2036/37
Ginger	2,071.80	2,039.70	2,008.09	1,976.98
Garlic	235.51	859.71	3,138.33	11,456.36
Turmeric	92.58	210.81	480.01	1,092.97
Fish	0.75	0.86	0.98	1.12

3.10.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are organized in various groups in production and marketing (mainly citrus and vegetable)
- Previous project (JICA and Others) has trained farmers for production and marketing of various agri-products.
- Farmers are giving attention on quality of agri-products from production stage to marketing stage.
- There is a good link between farmers and cooperatives for marketing agri-products.

Weakness

- Farmers are not aware of appropriate marketing knowhow for marketing other agri products than Junar.
- Farmers have not access to market information.
- Direct sell from production pocket due to lack of storage
- Absence of all weather roads in village.

Opportunity

- There is ample opportunity to promote existing production level, however, support has to provided in marketing system.
- The district is linked with other terai districts and even to India.
- The surplus marketable products can be easily transported to wholesale market, Dharan.

Threats

- Problem of youth migration
- Political influence in market establishment and operation.

3.10.5 Present Status of AMI in Bhojpur District

Present status of AMI in Bhojpur is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers. Of the four market types studied, retail market and wholesale market were not practiced in Bhojpur district.

Collection Center

In Bhojpur district, two collection centers are in operation (table.3.69).

Table 3.69: Collection center in Bhojpur district

SN	Name of Collection Center	Location (present)	Facility
1	Bhojpur Sankalan Kendra	Bhojpur municipality, Bhojpur Haatiya bazaar	Permanent
2	Gupteshwar Sankalan Kendra	Bhojpur municipality-3, Gupteswar	Permanent

Source: ADO, Bhojpur 2072/73

Haat Bazaar

In Bhojpur district, 11 haat bazaars are in operation, the details are presented in table 3.70.

Table 3.70: Haat Bazaar in Bhojpur district

S.N	Name of Haat Bazaar	Locations		Frequency Per week	Available Physical Facilities
		Previous	Present		
1	Bhojpur Haatiya	Bhojpur Municipality	Bhojpur Municipality, Bhojpur bazaar	saturday	Drinking water, Drainage
2	Gupteshwar Bazaar	Gupteshwar VDC	Bhojpur Municipality-3, Gupteshwar		NA
3	Chyangre Bazaar	Chyangre VDC	Pauwadunma VC-3	Wednesday	Drinking water, Drainage
4	Pyauli Bazaar	Pyauli VDC	Arun VC-3		NA
5	Charupe Bazaar	Charumbi VDC	Arun VC-4		NA
6	Dingla bazaar	Dingla VDC	Arun VC	Saturday	Drinking water, Drinage.
7	Pandhare Bazaar	Lekharka VDC-5	Tyamkemayum VC-9, Lekharka	Sunday	Drinking water, Drinage.
8	Champe Bazaar	Champe VDC-9	Arun VC-2	Sunday	Drinking water, Drinage.
9	Ranibas ghodetar Bazar	Ranibas-3	Haatuwagadi-VC-1	Saturday	Drinking water, Drinage.
10	Dingla Bazaar	Dingla VDC	Bhojpur municipality, Dingla Bazaar	Saturday	Drinking water, Drinage.
11	Bihibare Boya Bazaar	Boya VDC-1	Shadananda Municipality-13/14	Thursday	Drinking water, Drinage.

Source: ADO, Bhojpur 2072/73

Retail Market

There are no organized retail markets in the district. Traders/middlemen were found collecting the products from haat bazaar and collection centers, and transporting to Bhojpur bazaar, Dingla bazaar and other rural market. The small traders of these markets were found selling to consumers along the road sides. Producers were also found selling their marketable surplus to the consumers. During, the time of scarcity, traders were found importing vegetables from terai and even from India.

3.10.6 Location of AMI to be Developed in Bhojpur District

Based on the criteria developed for the selection of appropriate locations of AMI (Annex 1), the following sites are suggested. The proposed sites are the municipalities/VCs that are most appropriate to the users of the concerned municipality/VC and its neighborhood. Appropriate location within the municipalities/VCs proposed need to be identified through consultation with the stakeholders of command area of the proposed market center.

Location (Present address)

Collection Center

- Bhojpur Municipality, Sidheenaar
- Bhojpur Municipality, Taksar
- Shadananda Municipality, Dingla Bazaar
- Arun VC, Shyauli
- Pauwadangma VC-8. Pange Bazaar
- Tyamke Mayum VC, Chhitamkhu
- Tyamke Mayum VC-7, Kot

Haat Bazaar

- Ramprasad VC-6
- Bhojpur Municipality-5
- Chyangre Bazar Pauwadum VC
- Tyamke VC-9
- Danuwagadi VC, Ghodetar Bazar
- Shadananda Municipality Dingla Bazaar

Retail Market

- District Headquarters, Bhojpur Bazaar

Cold Store

- Bhojpur Municipality-4 Shideswor
- Taymkemaiyum VC-7 (Kot) or VC-8 (Gogane)

3.11 Solukhumbu District

3.11.1 Introduction

'Saller', the headquarters of the district, lies 47 km north of the headquarters of Okhaldhunga. At Phaplu, Lukla and Syangboche, there are airports from where flights are available to Kathmandu and Biratnagar. Mt. Everest, the highest peak of the world lies in this district.

Based on the multifarious features of hills, steep land, forest, low land etc. (Tuintar 600 m to the highest peak Mt. Everest 8848m), this district is divided into four main regions-Mountain region, high hill region, mid hill region and low land region. High hill region is also divided into two parts-High mountainous areas, high valley area. The mid-hill includes most inhabited areas. It is pleasant and the climate is moderate. In upper northern parts, maize, millet, potato, apple are cultivated, whereas in lower southern area citrus is cultivated land. In low land, due to abundant fertile soil major cereal crops are cultivated.

Because more than half part (about 57%) of the district lies between 600 m (Tuintar) to 8848 m (Mt. Everest) in mountainous region. The district has cold climate: Tundra climate is found in the northern region whereas temperature climate is found in the southern hilly region.

The district has a settlement of more than 44 castes and communities, more than 10 religion-cultures and more than 28 language-dialects. The majority includes Rai (19.61%), Sherpa (16.71%), Tamang (9.10%), Chhetri (15.06%), Kulung (8.89%) and Kami (5.54%) respectively.

The total population of the district is 105,886 out of which female population is 54,686 (52%) and male is 51,200 (48.0%). The percentage of literate population is 64.22%. (CBS, 2011).

The district has 1 municipality and 7 village committee. The seven major crops cultivated in the district are maize, millet, paddy, wheat, ginger, winter fruits and potato. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 43,385 ha. The area, production and productivity of major crops are presented in table 3.71

Table 3.71: Area, Production and productivity of major crops in Solukhumbu district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	1,525.00	3,564.00	2.34
2	Maize	12,955.00	32,517.00	2.51
3	Wheat	1,750.00	3,350.00	2.03
4	Millet	2,100.00	2,688.00	1.28
5	Potato	10,150.00	153,779.00	15.15
6	Vegetable	565.00	7,617.00	13.48
7	Ginger	76.00	767.00	10.09
8	Cardamom	74.00	59.00	0.80
9	Citrus fruit	210.00	1,877.00	8.53
10	Winter fruit	361.00	2,006.80	5.60
11	Summer fruit	61.00	490.50	8.04

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.11.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Solukhumbu district is presented in table 3.72.

Table 3.72: Production trend of major agriculture production in Solukhumbu district (mt)

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	3,564.00	3,366.00	3,564.00	3,564.00	3,575.00
Maize	32,388.00	32,517.00	32,517.00	32,517.00	29,499.00
Millet	2,940.00	2,520.00	2,688.00	2,688.00	2,625.00
Wheat	7,308.00	7,300.00	2,550.00	3,550.00	3,672.00
Potato	153,723.00	153,724.00	153,747.00	153,799.00	153,890.00
Vegetable	7,644.00	7,582.60	7,394.00	7,617.00	7,922.00
Citrus	1,896.00	1,896.00	1,237.00	1,877.00	1,877.00
Winter Fruit	2,198.00	2,198.00	1,556.00	2,007.00	2,007.00
Tropical Fruit	333.00	333.00	417.00	491.00	491.00
Ginger	1,059.00	1,010.00	747.00	767.00	770.00
Garlic	108.00	146.00	210.00	320.00	245.00

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.11.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Solukhumbu district are presented in table 3.73 and 3.74 respectively.

Table 3.73: Forecast of the production of major crops in Solukhumbu district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	3,593.28	3,708.86	3,828.17	3,951.31
Maize	30,127.18	27,439.84	24,992.22	22,762.92
Millet	2,561.09	2,361.68	2,177.80	2,008.23
Wheat	2,379.54	833.78	292.15	102.37
Potato	153,899.32	154,104.09	154,309.13	154,514.45
Vegetable	7,805.95	8,108.17	8,422.09	8,748.16
Citrus	1,718.14	1,692.38	1,667.00	1,642.01
Winter Fruit	1,822.63	1,590.30	1,387.58	1,210.70
Tropical Fruit	577.05	1,033.16	1,849.79	3,311.91
Ginger	654.43	414.66	262.74	166.48
Garlic	396.78	1,332.56	4,475.37	15,030.37

Table 3.74: Forecast of the marketable surplus of major crops in Solukhumbu district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	826.45	853.04	880.48	908.80
Maize	13,557.23	12,347.93	11,246.50	10,243.31
Millet	1,485.43	1,369.78	1,263.12	1,164.77
Wheat	309.34	108.39	37.98	13.31
Potato	46,169.80	46,231.23	46,292.74	46,354.33
Vegetable	3,122.38	3,243.27	3,368.84	3,499.27
Citrus	979.34	964.66	950.19	935.94
Winter Fruit	1,002.45	874.67	763.17	665.89
Tropical Fruit	201.97	361.61	647.43	1,159.17
Ginger	523.54	331.73	210.19	133.18
Garlic	178.55	599.65	2,013.92	6,763.67

3.11.4 SWOT Analysis of Agricultural Marketing Development

Strength

- The farmers are converting from subsistence production to semi-commercial and commercial production, thus producing marketable surplus
- Farmers are organized into group and cooperative for marketing, especially for fruit and vegetable.
- Farmers have better knowledge on marketing agri-commodities

Weakness

- Direct sale from farm gate due to problem of storage.
- Selling price is fixed by the traders.
- Existing market centers are not well managed, there is lack of even minimum facilities.
- Low volume of production poses in efficiency in marketing.
- Absence of all weather roads in village.

Opportunities

- The district is suitable for organic production of vegetables, which has high demand in urban areas, so organic products can be easily sold.
- District headquarters is linked with other districts of terai region, thus the product can be transported even up to India.

Threats

- In the winter low quality Indian products are exported in low prices, thus local produces have to compete with the low quality Indian products.
- Agriculture is becoming distracting to young generation, they are more attracted to tourism and other business.

3.11.5 Present Status of AMI in Solukhumbu District

Present status of AMI in Solukhumbu is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers.

Collection Center

At present condition, 2 collection centers are in operation. Major commodities are mainly fresh vegetable, potato, fruits, and spice crops. The details of collection centers are presented in table 3.75.

Table 3.75: Collection center in Solukhumbu district

SN	Name of Collection Center	Location	Facility
1	Krishi Upaj Sankalan Kendra	Solududhkund Municipality-7, Salleri (present location)	Permanent
2	Sana Kisan Krishi Sahakari Sasthan	Garma VDC-7 (previous location)	Permanent

Source: ADO, Solukhumbu, 2072/73

Haat Bazaar

Seventeen haat bazaars are found operating in Solukhumbu district. The details of haat bazaars are presented in table 3.76

Table 3.76: Haat bazaar in Solukhumbu district

S.N	Name of Haat Bazaar	Locations		Frequency Per week	Distance from District HQ(km)	Available Physical Facilities
		Previous	Present			
1	Nayan Bazaar, Salleri	Salleri VDC-7	Solududhkund Municipality	Saturday	0	Permanent & Temporary shed, Electricity, Drinking water, Office
2	Namche Bazaar, Namche	Namche VDC	Khumbu Pasang Lhamu VDC-5	Saturday	78	NA
3	Sotang Bazaar	Sotang VDC-4, Shivatan	Sotang VDC-5	Friday	39	NA
4	Nele Bazaar	Nele VDC-7	Dudhkoshika VDC-1	Tuesday	15	Corrugated roofed shed-3
5	Nechabetghari Bazaar	Nechabetghari VDC-2/3	Nechasalyan VDC-3	Thursday	33	permanant shed 1, Temporary shed 1, drinking water
6	Lukla Bazaar	Lukla VDC	Solududhkunda Municipality	Thursday	54	NA
7	Damku Wasa Bazaar	Wasa VDC-2	Dudhkoshi VDC-1	Friday	18	NA
8	Wasa Khastap Haat	Wasa VDC-4	Dudhkoshi VDC-1	Monday	18	NA
9	Jubu Sukepokhari Bazaar	Jubu VDC-7	Dhudhkanshika VDC-5	Friday	33	NA
10	Bhakanje Kunja Haat	Bhakanje VDC-9	Likhupike VDC-5	Sunday	24	NA
11	Waku Bazaar	Waku VDC	Dudhkoshi VDC	Monday	30	NA
12	Sombare Haat	Lokhim VDC-4	Dudhkanshika VDC-9	Monday	36	NA
13	Salyan dochhi	Salyan VDC-4	Nechasalyan VDC-2	Wednesday	24	NA
14	Bung Haat Bazaar	Bung VDC-6	Mahakulung VDC-1	Saturday	42	NA
15	Kerung patale Haat	Kerung VDC-2	Soludnchkund municipality-8	Saturday	18	NA
16	Lospe Haat Bazaar	Kapu-2	Dudhkoshi VDC-4	Sunday	15	NA
17	Nurthala Haat	Taksindhu-4	Solududhkunda municipality-1	Monday	18	NA

Source: ADO, Solukhumbu, 2072/73

Retail market

There are no organized retail markets in the district. In rural areas, agricultural products mainly vegetable are produced in the kitchen garden for home consumption. In urban area, the consumers were found buying the agriculture products from haat bazaars. Traders were also found buying the products from collection center, and haat bazaar and supplying to district headquarters and other village markets. Landless farmers, subsistence farmers were found selling the agri-products, using road side as a market place. Producers were also found selling their marketable surplus in urban area. During winter season, traders were found importing vegetable from Indian Market.

3.11.6 Location of AMI to be Developed in Solukhumbu District

The participants of district level interaction meeting commented that the local government will decide locations of markets to be developed in future, so additional market centers are not proposed.

3.12 Okhaldhunga District

3.12.1 Introduction

Okhaldhunga extends 67 km north-south whereas its east-west breadth is about 58 km. Entirely located in the middle of Mahabharat range, fewer of its area lie in the east than the west of 'Okhaldhunga Bazaar', the district headquarter. Okhaldhunga Bazaar is situated 500 km east-west from Kathmandu.

The district, which extends from 390 m to 3627 m with variation of hills. Passages, forest and Plains, can be divided into 3 topographic divisions-High- hill, Mid-hill and Plain land. The high hill region covers about 20% area, crops like maize, potato, wheat, buckwheat, malt are cultivated. Mid hill region occupies about 65% area of the district. Cereal crops, potato, spice and fruits are cultivated in this region. The low land region occupies about 15% land of the district and incorporates the river brain. Tropical fruits and vegetables, major cereal crops are grown in this region.

The climate variation owes to topographic variation. Moderate climate rules the district, the area north to the Mahabharat range, experiences more rainfall in the comparison to the area opposite to this. Monsoon rain fall occurs Jestha to Aswin.

The district has a settlement of more than 51 castes and communities, more than 10 religion-cultures and more than 39 language-dialects. The majority includes the Chhetri (22.83%), Magar (11.21%), Brahmin (10.60%) Rai (9.91), Tamang (9.73%), respectively.

The total population of the district is 147,989 out of which female population is 79,297 (53.6%) and male is 68,687 (46.4%). The percentage of literate population is 64.43%. (CBS, 2011).

The district has 1 municipality and 7 village committee. The seven major crops cultivated in the district are maize, millet, paddy, wheat, temperature fruits and Potato. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 22,809 ha. The area, production and productivity of major crops are presented in table 3.77

Table 3.77: Area, Production and productivity of major crops in Okhaldhunga district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	4,365.00	10,310.00	2.37
2	Maize	12,400.00	28,520.00	2.30
3	Wheat	2,365.00	4,494.00	1.90
4	Millet	7,751.00	12,626.00	1.63
5	Potato	2,940.00	31,164.00	10.60
6	Vegetable	1,311.00	14,158.00	10.80
7	Ginger	22.00	170.00	7.73
8	Cardamom	10.00	4.00	0.40
9	Citrus fruit	163.00	1,540.00	9.45
10	Winter fruit	47.50	258.50	5.40
11	Summer fruit	64.00	470.00	7.34

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.12.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Okhaldhunga district is presented in table 3.78.

Table 3.78: Production trend of major agriculture production in Okhaldhunga district (mt)

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	14,000.00	30,248.00	11,310.00	10,130.00	9,580.00
Maize	27,760.00	69,232.00	25,476.00	28,520.00	29,760.00
Millet	11,840.80	24,512.00	12,401.00	23,455.00	10,177.00
Wheat	4,825.00	12,535.00	4,757.00	4,494.00	4,494.00
Potato	31,164.00	31,164.00	37,336.00	31,164.00	16,819.00
Vegetable	15,170.00	11,557.00	12,400.00	14,158.00	11,875.00
Citrus	3,670.00	1,095.00	1,095.00	1,540.00	1,720.00
Winter Fruit	2,061.00	2,061.00	2,061.00	1,245.00	1,300.00
Garlic	108.00	108.00	119.00	35.00	36.00
Chilli	54.00	54.00	60.00	136.00	190.00
Fish	0.60	0.80	0.80	1.50	1.50

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.12.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Okhaldhunga district are presented in table 3.79 and 3.80 respectively.

Table 3.79: Forecast of the production of major crops in Okhaldhunga district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	7,799.54	3,088.61	1,223.08	484.34
Maize	26,687.56	18,363.00	12,635.09	8,693.87
Millet	13,855.26	11,648.81	9,793.74	8,234.09
Wheat	3,987.29	2,223.66	1,240.11	691.59
Potato	19,727.21	10,646.64	5,745.92	3,101.03
Vegetable	11,890.86	10,302.43	8,926.19	7,733.80
Citrus	69.61	10.57	3.71	2.07
Winter Fruit	1,107.94	543.16	266.28	130.54
Garlic	26.03	4.94	0.94	0.18
Chilli	239.44	1,337.02	7,465.70	41,687.22
Fish	2.03	6.96	23.81	81.52

Table 3.80: Forecast of the marketable surplus of major crops in Okhaldhunga district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	2,729.84	1,081.01	428.08	169.52
Maize	8,006.27	5,508.90	3,790.53	2,608.16
Millet	5,542.10	4,659.53	3,917.50	3,293.64
Wheat	1,395.55	778.28	434.04	242.06
Potato	12,230.87	6,600.92	3,562.47	1,922.64
Vegetable	6,539.98	5,666.34	4,909.41	4,253.59
Citrus	34.80	5.29	1.85	1.04
Winter Fruit	775.56	380.21	186.40	91.38
Garlic	24.73	4.69	0.89	0.17
Chilli	186.77	1,042.88	5,823.25	32,516.03
Fish	1.83	6.26	21.43	73.37

3.12.4 SWOT Analysis of Agricultural Marketing Development

Strength

- The agro climatic condition of district is suitable for production of various sub tropical and tropical agri-commodities, so year round supply to outside district is possible, however it has to be supported by efficient marketing system.
- The subsistence production is slowly converting to semi-commercial and commercial, resulting in increase of marketable surplus of different agro-commodities.
- Farmers are organized in group and cooperative.

Weakness

- Selling price is fixed by the traders.
- Direct sale from production area due to shortage of storage.
- Absence of all weather roads in the village.
- Low volume of production poses inefficiency in marketing.

Opportunities

- Organic product of the district has high market demand in urban cities.
- There is ample opportunity to promote the present production of off-season commodities however it has to be supported by appropriated production technology and better marketing management.
- The district is linked to various districts of eastern region as well as central region, so the products can be marketed in these districts.

Threat

- Problem of youth migration outside the district and abroad has created problems in marketing.
- The farmers have to compete to other districts having same agro-climatic condition, due to high production cost.

3.12.5 Present Status of AMI in Okhaldhunga District

Present status of AMI in Okhaldhunga is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers.

Collection Centers

There is 1 collection center in Okhaldhunga and the details are presented in table 3.81.

Table 3.81: Collection center in Okhaldhunga district

SN	Name of Collection Center	Location	Facility
1	Krishi Upaj Sankalan Kendra	Shiddhicharan municipality (Previous Okhaldhunga VDC-6), Okhaldhunga bazaar	Permanent

Source: ADO, Okhaldhunga, 2072/73

Haat Bazaar

There are 17 Haat bazaars in operation at present condition. The details are presented in table 3.82.

Table 3.82: Haat bazaar in Okhaldhunga district

S.N	Name of Haat Bazaar	Locations		Frequency Per week	Distance from District HQ(km)
		Previous	Present		
1	Okhaldhunga Haat	Okhaldhunga VDC	Siddhicharan Municipality	Wednesday Saturday	0
2	Ramupur Haat	Baruneshwar VDC-9	Siddhicharan Municipality	Thursday	9
3	Kaphalbot Haat	Rumjatar VDC	Siddhicharan Municipality	Friday	9

S.N	Name of Haat Bazaar	Locations		Frequency Per week	Distance from District HQ(km)
		Previous	Present		
4	Bigutar Bildu Bazaar	Bigutar VDC	Siddhicharan Municipality	Tuesday	12
5	Shrichaur Selele Haat	Shrichaur VDC	Molung VC-5/6	Monday	21
6	Deurali Haat	Prapcha VDC	Molung VC-5	Wednesday	18
7	Kosh Haat	Katunje VDC	Sunkoshi VC-9/10	Tuesday	21
8	Dandakhola Haat	Sisneri VDC	Sunkoshi VC-3/4	Thursday	30
9	Manebhanjyang Haat	Manephangyang VDC	Manebhangyang VC-5	Thursday	21
10	Khija Phalante Haat	Khiji Phalante VDC	Khijidemba VC-5/6	Wednesday	48
11	Khane Bhanjyang Haat	Pokhre VDC	Chisankhugarhi VC	Wednesday	27
12	Ketuke Haat	Ketuke VDC	Manebhanajyang VC-4	Tuesday	15
13	Ubu Haat	Ubu VDC	Manebhanajyang VC-3	Thursday	24
14	Nishankhe Haat	Thalachhap VDC	Sidhicharan Municipality-2	Friday	15
15	Ghorakhori Haat	Phulwari VDC	Champadevi VC- 6/7	Thursday	36
16	Kalimati Haat	Ratmate VDC	Chisankhugarhi VC-4/5	Friday	18
17	Jayaramghaat Haat	Thakle VDC	Manebhanjyang VC-8	Wednesday	21

Source: ADO, Okhaldhunga, 2072/73

Retail Market

At present condition seven retail markets were found operating in Okhaldhunga district. The details are presented in table 3.83. The annual transaction volume or amounts of retail markets were not recorded.

Table 3.83: Retail market in Okhaldhunga district

S.N	Name of the Retail Market	Location	
		Previous	Present
1	Jayaram Ghaat Bazaar	Thakle VDC	Manebhanjyng VC-6, Thakle
2	Danda khola Bazaar	Byankle	-
3	Kosh Bazaar	Katunje VDC	Sunkoshi VC-9,10
4	Khani Bhanjyang Bazaar	Papcha VDC	Molung VC-2
5	Deurali Bazaar	Papcha VDC	Molung VC-5
6	Selele Bazaar	Shrichowr	Molung VC-5,6
7	Bighutar Bazaar	Bighutar,-3,4	Sidhicharan Municipality-7

Source: ADO, Okhaldhunga, 2072/73

Other Markets

Traders/Middlemen were found collecting the products from collection centre, haat bazaars, retail markets and transporting and supplying to small traders, who were found selling near bus stops, rural and urban areas in a disorganized system. Traders were also found importing vegetables, fruits, potato etc from Indian markets. Producers were also found selling their marketable surplus, using road side as a market place.

3.12.6 Location of AMI to be Developed in Okhaldhunga District

The participants of district level interaction meeting commented that the local government will decide locations of markets to be developed in future, so additional market centers are not proposed.

3.13 Khotang District

3.13.1 Introduction

The district is full of hills, no mountains nor is plain terai found here. '*Diktel Bazaar*' (1707 m). The district headquarters is 580 km east from Kathmandu.

The district is stretched from 152 m to 3620 m from the sea level. The district can be divided into 3 regions-High hill, Mid hill, and lowland region. The high hill region lies in the north and northeast part of the district. This region occupies very fertile land in proportion of the total area of the district, which is most suitable for cardamom farming. The mid hill is suitable for potato, ginger, citrus and other cereal crops. The lowland and river basins made by the erosion is suitable for major cereal crops and vegetables.

The district has a settlement of more than 47 castes and communities, more than 10 religious-cultures and more than 37 language-dialects. The majority includes the Rai (36.61%), Chhettri (21.51%), Brahmin (7.21%), Newar (5.41%) and Kami (5.14%) respectively.

The total population of the district is 206,312 out of which female population is 109,220 (52.9%), and male is 97092 (47.1%). The percentage of literate population is 68.83%. (CBS, 2011).

The district has 2 municipalities and 8 village committee. The seven major crops cultivated in the district are potato, maize, millet, paddy, wheat, ginger and winter fruit. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 75,585 ha. The area, production and productivity of major crops are presented in table 3.84

Table 3.84: Area, Production and productivity of major crops in Khotang district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	12,161.00	26,755.00	2.20
2	Maize	41,060.00	75,550.00	1.84
3	Wheat	5,530.00	11,460.00	2.07
4	Millet	21,315.00	23,455.00	1.10
5	Potato	6,200.00	65,100.00	10.50
6	Vegetable	14,273.00	149,552.00	10.49
7	Ginger	200.00	1,600.00	8.00
8	Cardamom	875.00	438.00	0.50
9	Citrus fruit	1,225.00	11,725.00	9.57
10	Winter fruit	338.00	2,834.50	8.40
11	Summer fruit	680.00	6,165.00	9.07

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.13.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Khotang district is presented in table 3.85.

Table 3.85: Production trend of major agriculture production in Khotang district (mt)

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	31,924.20	30,248.00	42,600.00	26,755.00	19,400.00
Maize	63,908.00	69,232.00	41,060.00	75,550.00	75,585.00
Millet	23,940.00	24,512.00	23,377.00	23,455.00	22,635.00
Wheat	9,575.00	12,535.00	12,060.00	11,460.00	15,208.00

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Potato	70,750.00	54,750.00	69,600.00	65,100.00	58,908.00
Vegetable	125,541.00	128,387.00	135,178.00	149,552.00	149,552.00
Citrus	6,686.00	3,613.00	9,475.00	11,725.00	11,375.00
Winter Fruit	2,091.00	2,055.00	2,054.00	2,835.00	2,885.00
Tropical Fruit	3,994.00	4,641.00	4,641.00	6,165.00	5,546.00
Ginger	1,252.00	1,248.00	1,568.00	1,600.00	1,920.00
Garlic	150.00	142.00	120.00	250.00	250.00
Turmeric	88.00	120.00	160.00	250.00	100.00
Chilli	245.00	96.00	150.00	300.00	150.00
Fish	1.20	1.50	4.50	4.50	5.40

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.13.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Khotang district are presented in table 3.86 and 3.87 respectively.

Table 3.86: Forecast of the production of major crops in Khotang district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	20,898.16	11,943.84	6,826.21	3,901.36
Maize	72,160.04	89,154.02	110,150.15	136,090.97
Millet	22,496.36	20,806.40	19,243.40	17,797.80
Wheat	15,461.50	23,480.91	35,659.76	54,155.42
Potato	59,940.83	54,421.32	49,410.05	44,860.24
Vegetable	159,604.36	205,204.55	263,833.06	339,212.18
Citrus	15,444.72	47,335.56	145,075.81	444,633.81
Winter Fruit	3,144.06	5,095.10	8,256.87	13,380.66
Tropical Fruit	6,550.11	10,482.89	16,776.97	26,850.11
Ginger	2,085.00	3,620.40	6,286.46	10,915.81
Garlic	280.22	619.68	1,370.38	3,030.52
Turmeric	179.51	294.43	482.92	792.09
Chilli	182.29	197.29	213.53	231.10
Fish	9.86	76.85	599.00	4,668.76

Table 3.87: Forecast of the marketable surplus of major crops in Khotang district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	7,314.36	4,180.34	2,389.17	1,365.47
Maize	21,648.01	26,746.21	33,045.05	40,827.29
Millet	8,998.55	8,322.56	7,697.36	7,119.12
Wheat	5,411.52	8,218.32	12,480.92	18,954.40
Potato	37,163.32	33,741.22	30,634.23	27,813.35
Vegetable	87,782.40	112,862.50	145,108.18	186,566.70
Citrus	7,722.36	23,667.78	72,537.91	222,316.90
Winter Fruit	2,200.84	3,566.57	5,779.81	9,366.47
Tropical Fruit	3,930.06	6,289.73	10,066.18	16,110.07
Ginger	1,772.25	3,077.34	5,343.49	9,278.43
Garlic	266.21	588.70	1,301.86	2,878.99

Crop/year	2021/22	2026/27	2031/32	2036/37
Turmeric	170.53	279.71	458.78	752.48
Chilli	142.18	153.89	166.55	180.26
Fish	8.87	69.17	539.10	4,201.88

3.13.4 SWOT Analysis of Agricultural Marketing

Strength

- Subsistence production is shifting to semi-commercial/commercial production, thus producing marketable surplus.
- Farmers are organized in groups specially in marketing and production activities.
- Being a religious district, local productions can be marketed easily

Weakness

- Farmers have low quantity (volume) of production for marketing.
- Farmers and even traders are not aware of good marketing practices.
- Absence of all weather roads in village.
- MMC are not operating properly.

Opportunity

- The district has road connection to eastern districts as well as certain districts of central region. The marketable surplus can be easily transported to these urban areas.
- Main season of the district becomes off season for other terai districts and Kathmandu as well, however it has to be supported by well organized marketing facilities.
- The district is suitable for production of organic agri-products.

Threats

- Problem of youth- migration outside district or abroad
- Farmers have to compete with low quality cheap commodities exported from India and other districts.

3.13.5 Present Status of AMI in Khotang District

Present status of AMI in Khotang is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers.

Collection Center

At present 3 collection centers are in operation in Khotang district. The details are presented in table 3.88.

Table 3.88: Collection center in Khotang district

SN	Name of Collection Center	Location (present)	Facility
1	Krishi Upaj Sankalan kendra	Halesi Tuwachung municipality, Halesi bazaar	corrugated roofed shed-1
2	Krishi Upaj Sankalan Kendra	Rupakot Majuwagarhi municipality-13, Nunthala	corrugated roofed shed-1
3	Krishi Upaj Sankalan kendra	Manebhangyang, Naulakharka	corrugated roofed shed-1

Source: ADO, Khotang, 2072/73

Haat bazaar

There are fifteen haat bazaars operating at different municipality/VCs of Khotang district. The details of haat bazaars are presented in table 3.89.

Table 3.89: Haat bazaar in Khotang district

S.N	Name of Haat Bazaar	Type of Bazaar Haat	Location		Ownership	Annual trade volume (mt)							Frequency
			Previous	Present		Veg	Fruit	Cab	Pulses	Oil	Potato	Others	
1	Khotang Bazaar Haat	Weekly	Khotang VDC-7	Khotang VDC-7	VC	10	1	1	2	1	12	-	Saturday
2	Khotang Bazaar Haat	Weekly	Khotang VDC-Simpani	Khotang VDC	VC	8	2	2	1	1	10	-	Thursday
3	Khotang Bazaar Haat	Weekly	Khotang Chhtapokhari	Khotang VDC	VC	9	2	2	1	1	11	-	Monday
4	Chisapani Haat	Weekly	Chisapani	Jantedhunga VDC-5	Local Market	2	1	1	1	1	7	-	Saturday
5	Mattim haat	Fortnightly	Manebhanjyang VDC, Mattim	Jantedhunga VC-5	VC	3	2	1	2	1.5	9	-	Aunsi/Purne
6	Mattim Haat	Fortnightly	Cheuridanda VDC	Rupakot Majhuwa Gachi Municipality 7/8	VC	2	3	1	1	1.5	7	-	Panchami
7	Baksila Haat	Weekly	Baksila VDC	Kepila Gachi VC-4	School	10	2.5	2	2	1	8	-	Wednesday
8	Baksila Haat	Weekly	Jalpa VDC	Rupakot Machhuwagarhi Municipality-12	VC	1	1	5	2	1	3	-	Friday
9	Baksial Haat	Weekly	Khartamcha VDC-6	Kepitas Gachi VC-2	VC	1	1	1	1	1	4	-	Saturday
10	Halesi Butpa	Weekly	Buipa Panchabato VDC	Haleshi Tuwachung Municipality-10	VC	6	5	3	2	1	3	-	Saturday
11	Halesi Arkhanle Haat	Weekly	Halesi VDC, Arkhanle	Lamidanda VDC-4	MarketMC	8	4	3	2	1	5	-	Monday
12	Aiselukharka Deurali Haat	Weekly	Aiselukharka Deurali Dharapni VDC	Lanidanda VC-1	VC	8	7	2	3	1	2	-	Friday
13	Aiselukharka Kuvinde Haat	Weekly	Aiselukharka Kuvinde VDC	-	VC	3	4	1	1	1	2	-	Thursday
14	Aiselukharka Haat	Weekly	Danda Aiselukharka VDC	-	VC	1	2	4	1	1	5	-	Friday
15	Aiselukharka Rakha	Weekly	Rakha Aiselukharka	-	VC	1	1	1	1	1	4	-	Friday

S.N	Name of Haat Bazaar	Type of Bazaar Haat	Location		Ownership	Annual trade volume (mt)							Frequency
			Previous	Present		Veg	Fruit	Cab	Pulses	Oil	Potato	Others	
	Haat		ka VDC										

Source: ADO, Khotang, 2072/73

Retail market

There are no organized retail markets in the district. In rural areas, agricultural products mainly vegetable are produced in the kitchen garden for home consumption. In urban area, the consumer were found buying the agriculture products from haat bazaars. Traders were also found buying the products from collection centers, and haat bazaars and supplying to district headquarters and other village markets. Landless farmers, subsistence farmers were found selling the agri-products, using road side as a market place. Producers were also found selling their marketable surplus in urban area. During winter season, traders were found importing vegetable from Indian Market.

3.13.6 Locations of AMI to be Developed in Khotang District

The participants of district level interaction meeting commented that the local government will decide locations of markets to be developed in future, so additional market centers are not proposed.

3.14 Udaypur District

3.14.1 Introduction

The district that extends from the Mahabharat range to Churiya range, extends east-west is wider in the western side of north-south breadth and tapered to the east. Boarding with 9 districts, the district headquarter 'Gaighaat', is 452 km south-east from the Kathmandu.

The district extends from 360 m to 2310 m from the sea level and can be divided into two region- Mid hill region and Terai region. The Terai region is further divided into two parts- Inner Terai and Churiya Hill.

The climate condition varies because of altitude variation. The Mahabharat range due to its height, experiences cool climate in comparison to the Churiya range. The Churiya range ends to the east of the district. The northern part receives more rainfall than the south. The monsoon begins from Jestha and last till Aswin. The district experiences temperate as well as tropical climate.

The district has a settlement of more than 78 castes and communities, more than 10 religion-cultures and more than 47 language-dialects. The majority includes the Chhettri (21.53%), Rai (17.26%), Magar (13.86%), Tharu (7.63%) and Tamag (6.84%) respectively.

The total population of the district is 317,532 out of which female population is 167,820 (52.8%), and male is 149,712 (47.2%). The percentage of literate population is 68.82%. (CBS, 2011).

The district has 4 municipalities and 4 village committee. The seven major crops cultivated in the district are potato, maize, millet, paddy, chilies wheat, winter fruit and summer fruit. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 25,794 ha. The area, production and productivity of major crops are presented in table 3.90

Table 3.90: Area, Production and productivity of major crops in Khotang district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	12,100.00	47,945.00	3.96
2	Maize	9,310.00	22,344.00	2.40
3	Wheat	5,126.00	12,456.00	2.43
4	Millet	2,200.00	2,370.00	1.08
5	Potato	760.00	9,220.00	12.13
6	Vegetable	1,290.00	15,949.00	12.37
7	Ginger	118.00	1,824.00	15.20
8	Cardamom	21.00	13.00	0.63
9	Citrus fruit	456.00	5,489.00	12.04
10	Winter fruit	109.00	1,245.00	11.40
11	Summer fruit	710.25	15,243.00	21.46

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.14.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Udaypur district is presented in table 3.91.

Table 3.91: Production trend of major agriculture production in Udaypur district (mt)

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	50,700.00	43,594.00	52,850.00	47,945.00	40,958.00

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Maize	34,913.50	23,275.00	23,500.00	23,344.00	35,123.00
Millet	4,377.50	5,031.00	5,000.00	2,370.00	3,500.00
Wheat	14,322.00	16,286.00	15,826.00	12,456.00	12,240.00
Potato	10,792.00	8,233.00	8,364.00	9,220.00	15,866.00
Vegetable	17,162.20	14,329.50	15,140.00	15,949.00	16,252.00
Citrus	3,580.00	4,693.00	5,037.00	5,489.00	5,486.00
Winter Fruit	998.00	998.00	1,202.00	1,245.00	742.00
Tropical Fruit	8,198.00	8,198.00	13,508.00	15,243.00	1,888.00
Ginger	1,395.00	1,481.80	1,672.00	1,824.00	1,854.90
Garlic	415.00	402.00	720.00	748.00	585.90
Turmeric	710.00	717.80	645.00	654.00	653.60

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.14.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Udaypur district are presented in table 3.92 and 3.93 respectively,

Table 3.92: Forecast of the production of major crops in Udaypur district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	42,550.61	36,049.14	30,541.05	25,874.56
Maize	27,598.67	27,805.40	28,013.68	28,223.52
Millet	2,727.51	1,496.77	821.38	450.75
Wheat	11,863.31	8,866.77	6,627.13	4,953.19
Potato	13,256.40	20,624.22	32,087.03	49,920.78
Vegetable	15,727.69	15,712.68	15,697.67	15,682.68
Citrus	19,609.35	10,771.63	17,851.54	29,584.87
Winter Fruit	912.69	757.91	629.37	522.64
Tropical Fruit	3,815.94	1,198.33	376.32	118.18
Ginger	2,064.94	3,046.29	4,494.02	6,629.78
Garlic	822.31	1,583.61	3,049.72	5,873.19
Turmeric	624.95	549.15	482.53	424.00

Table 3.93: Forecast of the marketable surplus of major crops in Udaypur district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	14,892.71	12,617.20	10,689.37	9,056.10
Maize	8,279.60	8,341.62	8,404.10	8,467.06
Millet	1,091.00	598.71	328.55	180.30
Wheat	4,152.16	3,103.37	2,319.50	1,733.62
Potato	8,218.97	12,787.02	19,893.96	30,950.89
Vegetable	8,650.23	8,641.97	8,633.72	8,625.47
Citrus	9,804.68	5,385.82	8,925.77	14,792.44
Winter Fruit	638.88	530.54	440.56	365.85
Tropical Fruit	2,289.56	719.00	225.79	70.91
Ginger	1,755.20	2,589.35	3,819.92	5,635.31
Garlic	781.19	1,504.43	2,897.24	5,579.53
Turmeric	593.70	521.69	458.41	402.80

3.14.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are organized in group and cooperative.
- Farmers are aware of commercial production, subsistence production is converting to commercial and semi-commercial production, thus producing marketable surplus.
- Previous projects have developed marketing facilities at different locations.

Weakness

- Absence of all weather road in production areas of many villages.
- Market information is not available.
- Traders decide the price and volume of trade.

Opportunity

- Road linkage to many districts of terai, surplus amount can also be marketed up to Kathmandu.
- Upper part to the district is suitable to produce off-season vegetables and spices crop, which can be easily marketed in terai districts.
- Ample opportunities exist to increase the present level of productivity of many commodities; however it has to be supported by better marketing system.

Threats

- Many production areas are now converting to housing area near the headquarters which is directly affecting the volume of marketable surplus.
- Farmers have to compete with cheap and low quality Indian products in the market.

3.14.5 Present Status of AMI in Udaypur District

Present status of AMI in Udaypur is not found satisfactory with respect to the facilities available in the market centers. The market centers developed are not sufficient to meet the needs of buyers and sellers.

Collection Center

There are 3 collection centers operating in Udaypur district. The details are presented in table 3.94.

Table 3.94: Collection center in Udaypur district

SN	Name of Collection Center	Location (present)	Facility
1	Jogidaha Sankalan Kendra	Triyoga municipality-1, Jogidaha	Permanent shed
2	Beltar Sankalan Kendra	Chowdandigarhi municipality-4, Beltar bazaar	Permanent shed
3	Hadiya Sankalan Kendra	Triyuga municipality -3,8	Permanent shed
4	Katari Sankalan Kendra	Katari municipality, katati bazaar	Permanent shed

Haat Bazaar

At present 11 haat bazaars are found operating in Udaypur district. The details are presented in table 3.95.

Table 3.95: Haat bazaar in Udaypur district

S.N	Name of Haat Bazaar	Locations		Frequency Per Week	Distance from District HQ&km	Service provided VDC	Available Physical Facilities
		Previous	Present				
1	Gaighaat Haat	Triyuga Municipality	Triyuga Municipality	Wednesday	0	9	electricity, pukki shed-

S.N	Name of Haat Bazaar	Locations		Frequency Per Week	Distance from District HQ&km	Service provided VDC	Available Physical Facilities
		Previous	Present				
							5, kachhi shed-10, drinking water, Drainage
2	Murkuchi Haat	Rautamai VDC	Rautamai VDC	Saturday	72	5	electricity, Drinking water, drainage
3	Beltar Haat	Beltar VDC	Chandandigarhi Municipality	Thursday	72	5	NA
4	Katari Haat	Katari Municipality	Katari Municipality	Saturday	162	4	corrugated roof shed-10 store
5	Jaljale Haat	Triveni municipality	Triyuga municipality	Tuesday Thursday	21	1	electricity, drinking water, drainage
6	Nepaltar Haat	Nepaltar Haat	Udaipurgarhi VDC	Saturday	108	5	electricity, drinking of drainage
7	Ghurmi Haat	-	-	Wednesday	261	3	Drainage, drinking water
8	Thokshila Haat	Rampur thokshila	Balka Municipality	Thursday	135	5	NA
9	Hadiya Haat	Hadiya VDC	Chaudandigarhi Municipality-9	Saturday	54	4	NA
10	Deuri Haat	Deuri VDC	Triyuga Municipality	Tuesday	15	2	electricity,drinking water,drainage
11	Bagaha Haat	Bagaha	Triyuga Municipality	Monday	9	2	electricity,drinking water,drainage

Source: ADO, Udaypur, 2072/73

Retail Market

Five retail markets were found operating in the district. The details are presented in table 3.96

Table 3.96: Retail market in Udaypur district

S.N	Name of the Retail Market	Address		Available of Facilities
		Previous	Present	
1	Gaighaat Bazaar	Triyuga Municipality	Triyuga Municipality	Corrugated roofed shed-5, Kachhi Shed-10, Electricity,
2	Beltar Bazaar	Beltar	Chowdandigarhi municipality, Beltar bazaar	Corrugated roofed shed-7,Electricity, Drinking Water
3	Katrai Bazaar	Katari Municipality	Katari Municipality, Katari bazaar	Electricity, Drainage, Drinking Water

Source: ADO, Udaypur, 2072/73

Other Markets

Traders/Middlemen were found collecting the products from collection centre, haat bazaars, retail markets and transporting and supplying to small traders, who were found selling near bus stops, rural and urban areas in a disorganized system. Traders were also found importing vegetables, fruits, potato etc from Indian markets. Producers were also found selling their marketable surplus, using road side as a market place.

3.14.6 Locations of AMI to be Developed in Udaypur District

The participants of district level interaction meeting commented that the local government will decide locations of markets to be developed in future, so additional market centers are not proposed.

Location (Present address)

Cold Store

- Katari Municipality -3, Katari
- Triyuga Municipality-13, Gaighaat
- Chaudandigarhi Municipality-7, Beltar Besaha.

3.15 Saptari District

3.15.1 Introduction

The east-west length of the district from Balan River in the west to the Saptoshi River in the east is 43 km. whereas the north-south length, from the southern slope of churiya hill to Supaul and Madhuwani of Bihar, India is 32 km. 'Rajbiraj', the district headquarters is 455 km east from the Kathmandu.

Saptari district situated between 61 m to 610 m from the sea level can be divided into three main regions Churiya region, Bhawar region and Terai region.

Churiya region extended from 350 m to 610 m from sea level. It contains all forest area of the district. Bhawar region is the bottom part of Churiya region, it is drier than other region, where as terai is a plain land which is suitable for cultivation of major cereals, vegetables, tropical fruits, spices, potato etc. Saptari district lies in eastern Terai and has tropical monsoon climate.

The district has a settlement of more than 98 castes and communities, more than 10 religion-cultures and more than 39 language-dialects. The majority includes Yadav (15.76%), Tharu (11.53%), Muslim (8.94%), Teli (7.21%), Dhanuk (6.53%) and Musahar (6.04%) respectively.

The total population of the district is 639,284 out of which female population is 325,438 (51.0%) and male is 313,846 (49.0%). The percentage of literate population is 54.50%. (CBS, 2011).

There are 8 municipalities and 9 village committee in the district. The seven major crops cultivated in the district are paddy, wheat, vegetable, maize, summer fruits, Ginger and fish. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 81,667.89 ha. The area, production and productivity of major crops are presented in table 3.97

Table 3.97: Area, Production and productivity of major crops in Saptari district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	35,000.00	95,000.00	2.71
2	Maize	3,000.00	7,000.00	2.33
3	Wheat	15,000.00	40,000.00	2.67
4	Millet	200.00	260.00	1.30
5	Potato	5,565.00	47,302.50	8.50
6	Vegetable	14,747.00	183,454.00	12.44
7	Ginger	10.00	40.00	4.00
8	Cardamom	-	-	-
9	Citrus fruit	10.20	61.20	5.90
10	Winter fruit	-	-	-
11	Summer fruit	7,374.00	63,093.00	8.55

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.15.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Saptari district is presented in table 3.98.

Table 3.98: Production trend of major agriculture production in Saptari district (mt)

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	177,000.00	60,388.00	90,500.00	95,000.00	82,250.00

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Maize	8,000.00	750.00	7,800.00	7,000.00	6,500.00
Wheat	45,600.00	40,000.00	44,000.00	40,000.00	41,000.00
Potato	62,904.00	62,904.00	71,757.00	47,303.00	69,380.00
Vegetable	190,851.00	144,829.00	146,021.00	183,454.00	268,518.00
Tropical Fruit	37,978.00	43,715.00	58,481.00	63,039.00	63,039.00
Garlic	920.00	920.00	805.00	805.00	805.00
Turmeric	3,220.00	3,220.00	648.00	3,240.00	3,240.00
Chilli	675.00	675.00	168.00	300.00	899.00
Fish	3,200.00	3,227.00	3,969.00	4,224.20	4,676.30

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.15.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Saptari district are presented in table 3.99 and 3.100 respectively.

Table 3.99: Forecast of the production of major crops in Saptari district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	68,393.66	39,862.54	23,233.47	13,541.39
Maize	7,990.18	19,833.45	49,231.15	122,202.97
Wheat	39,459.87	35,479.27	31,900.22	28,682.22
Potato	60,571.11	57,933.10	55,409.98	52,996.75
Vegetable	239,586.34	379,382.10	600,747.03	951,275.74
Tropical Fruit	78,889.50	157,248.25	313,438.59	624,768.48
Garlic	753.01	616.33	504.46	412.89
Turmeric	2,355.57	2,377.55	2,399.73	2,422.13
Chilli	428.53	380.49	337.84	299.97
Fish	5,195.06	8,685.92	14,522.48	24,280.96

Table 3.100: Forecast of the marketable surplus of major crops in Saptari district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	34,196.83	19,931.27	11,616.74	6,770.69
Maize	5,992.63	14,875.09	36,923.37	91,652.23
Wheat	23,675.92	21,287.56	19,140.13	17,209.33
Potato	48,456.88	46,346.48	44,327.98	42,397.40
Vegetable	196,460.80	311,093.33	492,612.56	780,046.11
Tropical Fruit	39,444.75	78,624.13	156,719.30	312,384.24
Garlic	677.71	554.70	454.01	371.60
Turmeric	2,120.01	2,139.79	2,159.76	2,179.91
Chilli	342.82	304.39	270.27	239.97
Fish	4,156.05	6,948.73	11,617.98	19,424.77

3.15.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are organized in group and cooperative.

- Subsistence farming is gradually converting to semi-commercial and commercial, thus producing high volume of marketable surplus.
- The tropical climate of Saptari is suitable for production of major cereals, spices and vegetable. The market demanded crops and cultivars can easily produced and marketed.
- Farmers group have capacity to invest on market development

Weakness

- There is low quality of products due to high use of in chemical pesticides.
- Weak market management due to incompetency of the marketing management committees in some district..
- Farmers have no control over pricing of the agricultural products.
- Farmers have no adequate marketing know-how and management skills and knowledge.
- Lack of all weather road in production areas in some villages, which make difficult to transport during rainy-season.

Opportunity

- The district is linked to other districts, thus the marketable surplus can be transported to other districts as well as big market of Chitwan and Kathmandu.
- Indian markets are at proximity.
- There is ample scope to upgrade present marketing centers.

Threats

- Farmers have to compete with cheap and low quality Indian products in the market
- Youth migration outside district or abroad creates labour shortage in production and marketing.

3.15.5 Present Status of AMI in Saptari District

Present status of AMI in Saptari is not found satisfactory with respect to the facilities available in the market centers.

Collection Center

There are only 10 collection centers in Saptari. The details are presented in table 3.101.

Table 3.101: Collection center in Saptari district

SN	Name of Collection Center	Location	Facility
1	surunga bazaar Bebsthapan samuha	Kusaha VDC-6 (previous location)	Electricity, Water
2	Dinaram Bhadri Krishak samuha	Kataiya VDC-1,4 (previous location)	Electricity, Water
3	Krishi Upaj Sankalan Kendra	Rajbiraj municipality, Rajbiraj market (present location)	Electricity, Water
4	Krishi Upaj Sankalan Kendra	Surunga municipality-8, Malhaniya (present location)	Electricity, Water
5	Krishi Upaj Sankalan Kendra	Rajbiraj municipality (present location)	Electricity, Water
6	Krishi Upaj Sankalan Kendra	Rajbiraj municipality-15, Deuri Bharuwa (present location)	Electricity, Water
7	Krishi Upaj Sankalan Kendra	Rudakpur VDC (previous location)	Electricity, Water
8	Krishi Upaj Sankalan Kendra	Bishnupur VC-1, Malekpur (present location)	Electricity, Water
9	Krishi Upaj Sankalan Kendra	Phasetha VDC (previous location)	Electricity, Water
10	Krishi Upaj Sankalan Kendra	Krishnasawaran VC-4, Parsawani (present location)	Electricity, Water

Source: ADO, Saptari, 2072/73

Haat Bazaar

Forty three haat bazaars are in operation in Saptari. The details are presented in table 3.102

Table 3.102: Haat bazaar in Saptari district

S.N	Name of Haat Bazaar	Location		Frequency Per week	Distance from District HQ(km)	Available Physical Facilities
		Previous	Present			
1	Hardiya Haat	Hardiya VDC-1	Surunga Municipality-2, Hardiya	Sunday/Thursday	45	NA
2	Khudra Haat	Hardiya VDC-1	Surunga Municipality-2, Hardiya	Monday/Friday	27	NA
3	Madhupatti Haat	Madhupatti VDC-9	Surunga Municipality-4, Madhupatti	Sunday/Thursday	36	NA
4	Khudra Haat	Madhupatti VDC-9	Surunga Municipality-4, Madhupatti	Thursday/Saturday	36	NA
5	Khaypur Haat	Khojpur VDC-8	Khadak Municipality-5	Monday/Saturday	21	NA
6	Sambhu Nath Na Pa Haat	Sambhu Nath Municipality-6	Shambhu Nath Municipality-6	Tuesday/Saturday	15	NA
7	Sambhu Nath Na Pa Haat	Sambhu Nath Municipality-3	Shambhu Nath Municipality-3	Sunday/Wednesday	15	Permanent shed1,Electricity
8	Kalyanpur Haat	Kalyanpur VDC-3	Khadak Municipality-7	Monday/Friday	21	NA
9	Kalyanpur Haat	Kalyanpur VDC-2	Khadak Municipality-8	Sunday/Wednesday	21	NA
10	Raypur Haat	Raypur VDC -2	Rajbiraj Municipality-2	Sunday/Wednesday	9	NA
11	Kusaha Haat	Kusaha VDC-6	Surunga Municipality-5	Wednesday/Saturday	30	Electricity,Drinking water
12	Kadarbona Haat	Kadarbona VDC		Sunday/Wednesday	24	
13	Kanchanpur Haat	Kanpur Municipality	Kanchanrup Municipality-12	Sunday/Tuesday/Thursday	24	Pakki shed 4,Electricity,Corrugated shed-4
14	Phaatteppur Haat	Pattepur VDC-3		Monday/Friday	39	Electricity
15	Birendra Bazar	Birendra Bazaar-2	Krishanasabarana VC	Friday/Tuesday	15	NA
16	Bakradhewa Haat	Bakradhewa VDC-9		Monday/Friday	21	NA
17	Bhardah Haat	Bhardah-	Hanuman Nagar Kankalini Municipality-1	Monday/Friday/Tuesday	18	NA
18	Yodraha Haat	Bhardha		Tuesday/Saturday	30	NA
19	Topa Haat	Bhardawa		Tuesday/Friday	9	Corrugated roofed shed
20	Hanuman Nagar Haat	Hanuman Nagar	Hanuman Nagar Kankalini Municipality	Monday/Thursday	15	Corrugated roofed shed-4 electricity, drinking water, drainage
21	Jandole Haat	Jandole VDC	Krishnasabaran VC-1	Sunday/Thursday	21	NA
22	Hariharpur Haat	Hariharpur VDC-2		Tuesday/Saturday	21	NA
23	Koilari Haat	Koilari VDC	Rajbiraj Municipal	Sunday/Wednesday	9	Corrugated roofed shed-4 Drinking water
24	Babhannagama Kathi Haat	Babhannakatti VDC-3		Tuesday/Friday	9	NA
25	Mansapure Haat	Mansapur VDC		Tuesday/Saturday	9	New shed
26	Pato Haat	Pato VDC	Dakneswari Municipality-5	Tuesday/Saturday	24	NA
27	Bodhe Barsain Haat	Bodhabarsain VDC		Sunday/Thursday	30	NA
28	Khadakpur Haat	Khadakpur VDC	Bodhebarsain Municipality-4	Wednesday/Saturday	36	NA
29	Manraja Haat	Manraja		Wednesday/Saturday	33	NA
30	Neganda Haat	Naganda VDC		Tuesday/Saturday	24	NA
31	Ramnagar Haat	Ramnagar VDC-5		Tuesday/Saturday	36	NA
32	Naragha Haat	Naragha VDC-2/3	Belhi chapena VC-3	Monday/Friday	9	NA
33	Naragha Haat	Naragha VDC		Tuesday/Saturday	9	NA

S.N	Name of Haat Bazaar	Location		Frequency Per week	Distance from District HQ(km)	Available Physical Facilities
		Previous	Present			
34	Rajbiraj Haat	Rajbiraj Municipality-1	Rajbiraj Municipality-6	Monday/Thursday	0	Corrugated roofed shed-30 Electricity, drinking water, Drainage
35	Babhangamakati Haat	Babhangama Kati-3		Tuesday/Friday	9	NA
36	Babhangamakati Haat	Mansurpur-		Wednesday/Saturday	9	NA
37	Kobarsain Haat	Kobarsain VDC	Tilathikoiladi VC-5	Tuesday/Friday	12	NA
38	Koladi Haat	Koladi VDC-3	Tilathikoiladi VC	Sunday/Wednesday	9	Corrugated roofed shed-4, Drinking water
39	Sakarpura Haat	Sakarpura VDC-6	Tilathikoiladi VC	Monday/Thursday	12	NA
40	Kanakatta Haat	Kanakatta VDC-9	Tilathikoiladi VC	Monday/Friday	9	NA
41	Chhinnamasta Haat	Chhinnamasta VDC-2, Sakhada	Chhinnamasta VC-3	Sunday/Wednesday	15	Electricity, Drinking water, Drainage
42	Koladi Haat	Koladi VDC-3	Tilathikoiladi VC-4	Sunday/Wednesday	9	NA
43	Kachan Haat	Kanchan VDC-6	Bodebarsain Municipality-6	Wednesday/Saturday	21	NA

Source: ADO, Saptari, 2072/73

Retail Market

Four retail markets were found operating in the district. The details are presented in table 3.103. The annual transaction volume or amount of retail markets were not recorded.

Table 3.103: Retail market in Saptari district

S.N	Name of the Retail Market	Address		Available of Facilities
		Previous	Present	
1	Hanuman Bazaar, Kankalni	Bhardaha Vdc	Hanuman nagar Kankalni Municipality-1	Electricity, Drinking Water
2	Birendra Bazaar	Taruhouta VDC	Rupani VC-6, Taruhouta	Electricity Drinking Water
3	Phaatapur Bazaar	Saptakoshi VDC-3	Saptkoshi Municipality-3	Electricity Drinking Water
4	Rajbiraj Bazaar	Rajbiraj Municipality	Rajbiraj Municipality-1	Electricity Drinking Water

Cold Store

At present condition only one cold store is in operation at Dharampur, Kanchanrup municipality-12 (previous-8). The name of cold store is Saptakoshi cold store, the capacity of cold store is 2500 mt.

Other Market

Traders/Middlemen were found collecting agricultural commodities from different market centers and also importing low quality, commodities from Indian market, and transporting and selling to small local traders/middlemen, these local traders/middlemen were found selling different agro-commodities in district headquarters, urban and rural areas in an disorganized system, selling in many places near road side, bus stop, tea shops etc.

Vending of fruits and vegetables by bicycle has emerged as a major retailing method. Street hawkers were found selling at any free area near roadside. These vendors are major contributors to littering the city. Small scale framers were also found selling their marketable surplus near the roadside, bus park, teashop and temples.

3.15.6 Locations of AMI to be Developed in Saptari District

Different four type of markets operated in Saptari may be sufficient for another 20 years, so as a outcome of district level interaction meeting, additional market centers are not proposed. However these existing markets need to be strengthened specially with respect to their facilities.

Location (Present address)

Cold Store

- Kadak Municipality-7, Kalyanpur
- Rupani V.C-6, Trhouata.

3.16 Siraha District

3.16.1 Introduction

Siraha has its headquarters in 'Siraha Bazaar'. It is enlisted as less developed and having low quality of life in comparison to other districts of Eastern region. East-west Mahendra Highway passes via the northern part of the district and extends 42.4 km north-south and 39.7 1 km east west. The district headquarters lies 18 km south from the east-west High way and 415 km south-east from Kathmandu.

The district that extends from 76 m to 885 m from the sea level is almost plain except the Churiya hill of the north-west corner. It can be divided into three regions-Churiya region, Bhawar region and Terai region. The Churiya region extends from 350 to 885 m from the sea level, it occupies all the forest of the district. Bhawar region is dry, whereas Terai region includes the plain land, which is most suitable for agricultural cultivation. Like other Terai districts of the north-west, it also has tropical climate. Hot and cold winds blow during the summer and winter respectively. The maximum rainfall occurs from Jestha to Aswin.

The district has a settlement of more than 87 castes and communities, more than 10 religion-cultures and more than 34 language-dialects. The majority includes Yadav (24.38%), Muslim (7.49%), Mushahar (6.27%), Koiri/Kusahawa (6.01%), Chamar/Harijan (5.67%), Teli (4.79%) and Tharu (4.14%) respectively.

The total population of the district is 637,328 out of which female population is 327,227 (51.3%) and male is 310,101 (48.7%). The percentage of literate population is 50.15%. (CBS, 2011).

There are 7 municipalities and 10 village committee in the district. The seven major crops cultivated in the district are paddy, wheat, vegetable, maize, potato, summer fruit and fish. (BPRC, 2017 Field Survey)

Total cultivated land in the district is 60757 ha. The area, production and productivity of major crops are presented in table 3.104

Table 3.104: Area, Production and productivity of major crops in Siraha district

SN	Crop	Area (ha)	Production (mt)	Productivity (mt/ha)
1	Paddy	36,000.00	95,300.00	2.65
2	Maize	1,730.00	3,460.00	2.00
3	Wheat	15,715.00	37,500.00	2.39
4	Millet	640.00	640.00	1.00
5	Potato	1,900.00	24,700.00	13.00
6	Vegetable	4,961.00	73,783.00	14.87
7	Ginger	33.00	90.00	2.73
8	Cardamom	-	-	-
9	Citrus fruit	-	-	-
10	Winter fruit	-	-	-
11	Summer fruit	5,185.60	38,275.00	7.38

Source: Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division

3.16.2 Present Production Situation of Major Agricultural Crops

Production situation of major crops during the last five years in Siraha district is presented in table 3.105.

Table 3.105: Production trend of major agriculture production in Siraha district (mt)

Crop/year	2011/12	2012/13	2013/14	2014/15	2015/16
Paddy	175,150.00	53,814.00	98,303.00	95,300.00	85,000.00

Croplyear	2011/12	2012/13	2013/14	2014/15	2015/16
Maize	6,820.00	3,150.00	4,000.00	3,460.00	5,400.00
Wheat	29,877.00	29,800.00	32,350.00	37,500.00	30,420.00
Potato	19,380.00	24,700.00	24,700.00	24,700.00	24,700.00
Vegetable	67,697.00	72,708.00	73,547.00	73,783.00	73,431.00
Tropical Fruit	98,324.00	41,193.00	41,193.00	38,275.00	38,275.00
Ginger	500.00	136.00	70.00	90.00	124.00
Garlic	355.00	360.00	366.00	295.00	295.00
Turmeric	88.00	64.00	83.00	243.00	243.00
Chilli	242.00	86.00	84.00	397.00	397.00
Fish	2,159.00	2,171.00	2,584.50	2,818.50	3,366.70

Source: Statistical Information on Nepalese Agriculture (2011/12-14/15) and preliminary data of 2015/16 from MOAD

3.16.3 Forecast of the Production and Marketable Surplus

The forecast of the production of major crops and the expected marketable surplus in Siraha district are presented in table 3.106 and 3.017 respectively.

Table 3.106: Forecast of the production of major crops in Siraha district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	72634	46908	30294	19564
Maize	3913	3247	2695	2236
Wheat	34511	39418	45022	51422
Potato	27217	34688	44210	56346
Vegetable	76139	83197	90908	99334
Tropical Fruit	26437	9920	3722	1397
Ginger	53	11	2	
Garlic	280	211	159	119
Turmeric	336	1809	9736	52385
Chilli	413	1457	5135	18100
Fish	3647	6479	11512	20454

Table 3.107: Forecast of the marketable surplus of major crops in Siraha district (mt)

Croplyear	2021/22	2026/27	2031/32	2036/37
Paddy	36,317.12	23,454.11	15,147.00	9,782.15
Maize	2,934.82	2,435.42	2,021.00	1,677.10
Wheat	20,706.79	23,650.61	27,012.96	30,853.32
Potato	21,773.30	27,750.28	35,368.01	45,076.87
Vegetable	62,434.20	68,221.24	74,544.69	81,454.26
Tropical Fruit	18,505.73	6,943.97	2,605.61	977.71
Ginger	48.10	9.70	1.96	-
Garlic	252.34	189.82	142.79	107.41
Turmeric	302.65	1,628.44	8,762.11	47,146.07
Chilli	330.67	1,165.52	4,108.09	14,479.75
Fish	2,917.23	5,183.24	9,209.43	16,363.02

3.16.4 SWOT Analysis of Agricultural Marketing Development

Strength

- Farmers are transforming to semi-commercial and commercial and have knowledge for appropriate marketing technology.
- Agri-climatic condition of the district is suitable for production of off-season onion bulb which has high market value in urban area of Nepal.
- Wholesale market of Biratnagar and Dhalkebar has provided better marketing opportunities to vegetable and fruit producers.

Weakness

- Many markets do not have even minimum facilities.
- Many markets were found not functioning properly.
- In most cases, marketing management committees were found inactive.
- Heavy use of chemical pesticides and fertilizers is resulting in unhygienic marketable products.

Opportunities

- Road are linked at many production areas, thus there is opportunities to increase marketable production.
- Agricultural products have easy access to India, and other districts of Nepal.

Threats

- Agriculture is becoming distracting to youths
- Farmers are not receiving production subsidies compared to the neighboring farmers and the inputs are illegally imported to district, so it is difficult to sell district products in competitive prices.

3.16.5 Present Status of AMI in Siraha District

Present status of AMI in Siraha is not found satisfactory with respect to the facilities available in the market centers.

Collection Center

There are 2 collection centers in Siraha and the details are presented in table 3.108.

Table 3.108: Collection center in Siraha district

SN	Name of Collection Center	Location (previous)	Facility
1	Krishi Upaj Sankalan Kendra	Golbazaar municipality, Asanpur	Electricity, Water
2	Krishi Upaj Sankalan Kendra	Phulkahakatti VDC	Electricity, Water

Source: ADO, Siraha, 2072/73

Haat Bazaar

At present 82 haat bazaars are in operation in Siraha district. Some haat bazaars have permanent sheds, while most others were found operating the business in open place. The details are presented in table 3.109.

Table 3.109: Haat bazaar in Siraha district

Type of Haat on the basis of annual transaction and area covered: Big Haat

S.N	Name of Haat Bazaar	Location		Frequency per week	Facilities
		Previous	Present		
1	Lahan Napa Haat	Lahan Municipality	Lahan Municipality	Monday & Friday	corrugated roofed shed-97, drinking water
2	Golbazaar Haat	Golbazaar VDC	Golbazaar Municipality	Tuesday & Saturday	NA
3	Dhangadi Haat	Dhangarhi, Municipality	Dhangarhi mahi	Sunday/Wednesday	corrugated roofed shed-

S.N	Name of Haat Bazaar	Location		Frequency per week	Facilities
		Previous	Present		
			Municipality		2, Permanent shed-2
4	Choharwa Haat	Ch0harwa VDC		Monday Thursday	shed-1, electricity
5	Mirchaiya Haat	Mirchaiya Municipality	Mirchaiya Municipality	Wednesday/Saturday	corrugated roofed shed-6, electricity, drinking water, drainage
6	Sukhipur Haat	Sukhipur, VDC	Sukhipur VDC	Tuesday/Saturday	corrugated roofed shed-5, electricity, drinking water, drainage
7	Kalyanpur Haat	Kalyanpur VDC	Kalyanpur Municipality-10/11	Sunday/Wednesday	Electricity, Drinking water drainage
8	Bishnupur Haat	Bishnupur VDC	Bishnupur VDC-1	Sunday/Wednesday	Electricity, shed-1
9	Madar Haat	Madar VDC		Monday/Friday	NA
10	Dahipaudi Haat	Dahipaudi		Tuesday/Saturday	NA
11	Siraha Haat	Siraha Municipality	Siraha Municipality	Tuesday/Thursday/Saturday	Pakki shed-10, drinking water, drainage

Mediam Haat

S.N	Name of Haat Bazaar	Location		Frequency per week	Facilities
		Previous	Present		
1	Kalyanpur Haat	Kalyanpur VDC	Kalyanpur Municipality-10/11	Monday/Thursday	NA
2	Sanhaitha Haat	Sanhaitha VDC	Sirha Municipality -12	Sunday/Wednesday	NA
3	Mahanaur Haat	Mahanaur VDC	Arnama VC-1	Monday/Friday	electricity shed-1
4	Karjanha Haat	Karjanaha VDC	Karjanaha VC-4/5	Sunday/Thursday	electricity, drinking water
5	Bastipur Haat	Bastipur VDC		Wednesday/Saturday	electricity, drinking water, drainage
6	Bandipur Haat	Bandipur VDC		Tuesday/Friday	electricity, drinking water, drainage
7	Barchhaba Haat	Barchhaba VDC	Naraha VC-4	Tuesday/Saturday	New shed-1, electricity
8	Gadha Haat	Gadha -5	Lahan Municipality-23	Sunday/Thursday	NA
9	Maheshpur Patari Haat	Maheshpur VDC	Laxmipur Patari VC-3	Sunday/Thursday	NA
10	Belha Haat	Belha VDC	Kalyanpur Municipality -12	Monday/Friday	shed-1, electricity
11	Sothayan Haat	Sothayar VDC	Sakhuwanankar Kathi VC-2	Sunday/Thursday	NA

Small Haat

S.N	Name of Haat Bazaar	Location		Frequency per week	Facilities
		Previous	Present		
1	Saraswar Haat	Saraswar		Sunday/Wednesday	NA
2	Arnama	Arnama Lalpur VDC	Arnama VC-2/3	Tuesday/Friday	shed -1
3	Barchhawa Haat	Barchhawa VDC	Naraha VC-4	Tuesday/Saturday	NA
4	Itari Prasahi	Itari Prasahi VDC	Kalyanpur Municipality-3	Tuesday/friday	NA
5	Arnama(Pra Pi)Haat	Arnama Lalpur VDC	Arnama VC-1		drinking water

S.N	Name of Haat Bazaar	Location		Frequency per week	Facilities
		Previous	Present		
				Tuesday/Saturday	
6	Chikana Haat	Chikana VDC	Kalyanpur Municipality-6	Tuesday/friday	NA
7	Itari Prasahi Haat	Itari Prasahi	Kalyanpur Municipalit-3	Tuesday/friday	NA
8	Malhania Khari Haat	Malhania VDC		Tuesday/friday	NA
9	Naraihiya Haat	Naraihiya VDC		Monday/Friday	NA
10	Ramjanaki Haat	Ramjanaki VDC		Sunday/Wednesday	electricity
11	Rampur Bazar Haat	Rampur VDC		Monday/Friday	electricity, drinking water
12	Bhawanipur Haat	Bhawanipur VDC		Monday/Thursday	electricity, drinking water
13	Parsa Haatiya Haat	Parsa Haatiya VDC		Wednesday/Saturday	NA
14	Bathnaha Haat	Bathnaha		Sunday/Thursday	electricity, drainage, drinking water
15	Sonabarsha Haat	Sonabarsha		Tuesday/Friday	electricity drinking water
16	Jhajpatti Haat	Jhajpatti		Thursday/Saturday	NA
17	Balhi Haat	Balhi		Monday/Friday	drinking water
18	Bhalu bahi Haat	Bhalubahi		Tuesday/Thursday/Saturday	NA
19	Kalyahi Haat	Kalyahi		Tuesday/Friday	NA
20	Naraharigaul Haat	Naraharigaul		Sunday/Thursday	NA
21	Gamahariya Haat	Gamahariya		Wednesday/Saturday	NA
22	Nawarajpur Haat	Nawarajpur VDC	Nawarajpur VC-4/5	Monday/Friday	shed-1, electricity
23	Bhagwanpur Haat	Bhagwanpur VDC	Bhagwanpur VC-1	Tuesday/Friday	store, electricity, drainage, drinking water
24	Itaharwa Haat	Itaharwa VDC	Sakhuwanankarktti VC-5	Wednesday/Saturday	NA
25	Sitapur Haat	Sitapur VDC	Laxmipur Patari VC-6	Sunday/Saturday	electricity, drainage, drinking water
26	Larakanha Haat	Larakanha VDC		Monday/Friday	NA
27	Balkawa Haat	Balkawa VDC		Tuesday/thursday	NA
28	Raghopur Haat	Raghopur VDC		Tuesday/Friday	NA
29	Gautari Haat	Gautari VDC		Tuesday/Thursday	NA
30	Bhediya Haat	Bhediya VDC	Kalyanpur Municipality-7	Monday/Thursday	NA
31	Bariyarpathi Haat	Bariyarpathi VDC	Bariyarpatti VC-3	Sunday/Thursday	NA
32	Badharama Haat	Badharamat VDC	Karjanaha VC-1.3	Wenesday/Saturday	NA
33	Arnama (Pra Ra)Haat	Arnama VDC	Kalyanpur Municipality-1	Monday/Thursday	electricity
34	Bagaha Prayagpur	Bagaha Prayagpur VDC		Monday/Thursday	NA
35	Laxmipur Haat	Laxmipur VDC	Bishnupur VC-5	Monday/Friday	electricity
36	Ghurmi Haat	Ghurmi VDC	Bisnupur VC	Tuesday/Friday	NA

S.N	Name of Haat Bazaar	Location		Frequency per week	Facilities
		Previous	Present		
37	Khaurkiyahi Haat	Khaurkiyahi VDC	Bishnupur VC	Tuesday/Friday	electricity, drinking water
38	Phulwari Haat	Phulwari VDC	Bishnupur VC	Sunday/Wednesday	NA
39	Bhediya Haat	Bhediya VDC	Kalyanpur Municipality-7	Sunday/Wednesday	NA
40	Gadha chok Haat	Gadha chok VDC	Kalyanpur Municipality	Monday/saturday	electricity, drainage, drinking water
41	Chharapati Haat	Chharapati VDC	Kalyanpur Municipality	Tuesday/Saturday	electricity, drainage, drinking water
42	Maubahi Haat	Maubahi VDC	Sakhuwanankarkatti-1	Wednesday/Saturday	NA
43	Jhijhaul Haat	Jhijhaut VDC	Bariyarpati VC-5	Wednesday/Saturday	NA
44	Dahipaudi Haat	Dahipaudi VDC	Bariyarpati	Tuesday/Saturday	NA
45	Ganeshpur Chok Haat	Ganeshpur Chok	Bariyarpati	Monday/Thursday	NA
46	Kasaha Haat	Kasaha VDC	Bariyarpati VC	Wednesday/Friday	pakki-2, kachhi-2, office-2
47	Khairabina Haat	Khairabina VDC	Bariyarpati	Wednesday/Saturday	NA
48	Gulariya Haat	Gulariya VDC	Bariyarpati	monday/ tuesday	NA
49	Pipra(Rra.pi)	Pipra(Pra.pi)VDC	Aurahi VC-3	wednesday/friday	NA
50	Phulkaha Katti Haat	Phulkaha Katti	Aurahi VC	Wednesday/saturday	NA
51	GadmaBishnupurKatti	GadmaBishnuputi	Aurahi VC	Wednesday/Saturday	NA
52	GadmaBishnupurKatti	Katti	Aurahi VC	Saturday	NA
53	Mangalbara Haat	Mangalbara VDC	Aurahi VC	Tuesday	NA
54	Ambas Haat	Ambas VDC	Aurahi VC	Thursday	NA
55	Dodhana Haat	Dodhana VDC	Aurahi VC	Saturday	NA
56	Taregna Govindpur Haat	Taregna Govindpur	Aurahi VC	Monday/Friday	NA
57	Manik Dah Haat	Manik Dah VDC	Aurahi VC-5	Tuesday/ Saturday	NA
58	Aurahi Haat	Aurahi VDC	SirahaMunicipality-	Tuesday/Saturday	NA
59	Hakpada Haat Thalha Haat	Hakpada VDC Thalha VDC	22 SirhaMunicipality	Sunday/Wednesday	NA
60	Thalha	Thalha VDC	-	thuesday/saturday	NA

Source: ADO, Siraha, 2072/73

Retail Market

Seven retail markets are in operation at present condition in Siraha district. The details are presented in table 3.110. The annual transaction volume or amounts of retail markets were not recorded.

Table 3.110: Retail market in Siraha district

S.N	Name of the Retail Market	Address		Available of Facilities
		Previous	Present	
1	Chandralalpur Bazaar	Chandralalpur-1	Chauharba	Electricity
2	Ramjanaki Bazaar	Inaruwa Municipality-4	Inawa Municipality-4	Electricity, Drinking Water
3	Golbazaar	Asanpur -6	Golbazaar Municipality-6	Electricity

S.N	Name of the Retail Market	Address		Available of Facilities
		Previous	Present	
4	Lahan Bazaar	Lahan Municipality-4	Lahan Municipality-4	Electricity
5	Dhangarhi Mai Bazaar	Kabilasa VDC-4	Dhangarhi Municipality-5	Electricity
6	Mirchaiya Bazaar	Mirchaiya Municipality-10	Mirchaiya Municipality-10	Electricity
7	Siraha Bazaar	Siraha Municipality-2	Siraha Municipality-2	Electricity

Source: ADO, Siraha, 2072/73

Cold Store

One cold store situated at Gol bazaar municipality-1 (previous Chandrodayapur VDC-5) is not in operation since last 6 years.

Other Markets

Traders/Middlemen were found collecting agricultural commodities from different market centers and also importing low quality, commodities from Indian market, and transporting and selling to small local traders/middlemen, there local traders/middlemen were found selling different agro-commodities in district headquarters, urban and rural areas in an disorganized system, selling in places near road side, bus stop, tea shops etc.

Vending of fruits and vegetables by bicycle has emerged as a major retailing method. Street hawkers were found selling at any free area near roadside. These vendors are major contributors to littering the city. Small scale framers were also found selling their marketable surplus near the roadside, bus park, teashop and temples.

3.16.6 Locations of AMI to be Developed in Siraha District

Different four type of markets operated in Sirahai may be sufficient for another 20 years, so as a outcome of district level interaction meeting, additional market centers are not proposed. However these existing markets need to be strengthened specially with respect to their facilities.

Location (Present address)

Cold Store

- Golbazaar Municipality-6, Golbazaar

Chapter 4 Overview of Agricultural Marketing Support Activities

4.1 Agricultural Marketing Information

Improvement of agricultural market information services is necessary for domestic market efficiency and to integrate domestic agricultural market with regional and international market for sustainable development of agriculture sector.

A number of initiatives by governments aim to provide market price services, driven by the view that greater price transparency is a public good. Price has been disseminated in many ways—chalked on notice boards, broadcast by local radio stations, published in newspapers, and (more recently) posted on websites. The information on these websites is confined mainly to product standards and specifications as well as market studies—particularly of external markets but increasingly of local value chains—including databases of contacts such as buyers, traders, agricultural processors, and input suppliers. To the extent that these sites become more accessible, their usefulness could increase, but at present in Nepal, they are out of reach for most rural people.

Government-run market information services have been criticized because of their poor accuracy and lacks of timeliness have resulted in little immediate economic impact. Public market information systems collect, analyzes, and disseminates information. They are generally considered to carry out the price analysis satisfactorily. There are weaknesses in price gathering, as there are few incentives for accuracy or for working outside office hours. The major criticism has been that the information does not reach farmers on time, if at all.

Methods of Marketing Information Commonly Adopted

- (a) **Word of mouth communication:** This is practiced usually in remote part of Nepal. Producers as well as traders communicate with the informants who usually visit nearby market centers and share the information.
- (b) **Graphics:** This is traditional system where market information is collected, processed and presented in graphics either written or electronic and broadcast through print or electronic media.
- (c) **Telephone and fax:** This is practiced by traders to know the price and other market information of different wholesale markets. This system works on personal contact basis and also on organized markets which have such facilities.
- (d) **Mobile SMS:** More than 80 percent populations in Nepal, now use mobile phone. Mobile SMS system of market information would be very effective if the system is fed with reliable and sufficient information. The cost can be borne by the user provided the information is reliable and consistence.
- (e) **E-mail, internet:** This is the most advanced from of MIS but the accessibility is quite low. Only elite groups and business oriented stakeholders use the system. The efficiency of the system, as in all other case, depends upon how reliable and consistence is the information provided in the website. This service is being provided by ABPMDD and AEC.

Mode of Dissemination

Some of the activities implemented by the district agriculture development offices for strengthening agriculture marketing information system were found as follows, during field survey.

- Fortnightly price collection
- Inform the marketing activities to farmers and cooperatives through telephone
- Observation visit to show market activities of different districts for the members of collection centers and cooperatives

- Awareness raising programs implemented through agriculture service centers
- Daily broadcast of market information from FM radios of the district
- Agriculture market information provided through phone and on the occasion of different trainings and workshops
- District level workshop for public awareness in agriculture marketing
- Documentary of agricultural program prepared and broadcasted.
- Retail, wholesale and cross border price collection.
- Booklet, leaflet and pamphlet distribution
- Agriculture news writing training in partnership with journalists
- Agricultural market information to farmers groups
- Market information through wholesale market centers
- Mobile training on agricultural marketing at collection centers

The mode of dissemination remained the traditional notice boards and announcements after tender in all the markets. The price information is sent to the news papers, radio, television, DADO office on daily basis whereas, the annual reports are being circulated to the concerned offices once it is published. The markets were disseminating only the prices information and were not able to disseminate other information such as production, prices in other markets, etc., even with such a vast information network for dissemination of market information. Hence, there is a need to incorporate other components of market information such as grade, standards, post harvest handling, storage, transportation etc. along with arrivals and pricing information.

During filed survey, it was found that in haat bazaar the market price is fixed by the mutual understanding between producers and traders. Majority of farmers have to depend on neighbors or relative to receive price information of their commodities. Almost all districts have their own FM broadcasting stations.

Mobile phone applications, especially the android phones, may become one of the best sources of market information. Today almost all the farmers and traders in Nepal have mobile phones. ABPMDD should develop mobile phone application for agricultural market information and uploaded in the website which the concerned individual may have access to such facilities. This will facilitate marketing by linking buyers and sellers.

Apart from this, existing facilities like FM stations and local TV channels can also be utilized for broadcasting market prices of different commodities of appropriate market centers situated inside the district or major outside markets.

4.2 Market Regulation

The regulated markets are considered accountable institutions in discharging all the functions associated with the sale of agricultural produce, keeping in view the overall interest of the farming community and the ultimate consumers. These institutions are intended to regulate unethical trading practices followed in the marketing of agricultural produce. This would help in protecting the interest of both the producers and consumers, thus it contributes towards the growth of organized marketing and price stability through successful competition.

Government of Nepal has yet not been able to bring about the regulated legislation on development of market infrastructure. As the economy of Nepal got liberalized and allowed private sector participation in the agriculture trade, it has been urgent need to bring agricultural marketing legislation. The building up of new market centers with all the modern amenities is believed to influence the market structure and pricing mechanism. An economically resourceful marketing system achieved through enhancement in operational efficiency by developing the market yards, will transfer the benefit of cost and saving in the marketing process to the producers as well as consumers. In short, pricing efficiency is concerned with improving the function of buying, selling, and aspects of the marketing process. Therefore, it will remain responsible to consumers' direction. The means of ensuring this is the presence of competition, which is expected to be improved due to the development of market centers. Involvement of public and

private partnership in the field of trade in agricultural commodities is continuously being affected, especially in those aspects that relates to operational efficiency.

The legislative situation with regard to agricultural markets does not seem satisfactory. "Agricultural market development and management Act" was submitted to parliament by MOAD in 2055, but still it has not been approved. The act was drafted to maintain health and economic interest of the general consumer. It describes procedures for the establishment and management of markets for agricultural products by involving the government or non– government sector to allow openness and competitiveness in the agricultural market systems.

Establishment of MMC at various levels of markets has been considered the basic principle for market management and development, but MMC has no legal status unless the act is approved.

Therefore, there is urgent need to enact the act as soon as possible to streamline the marketing system in Nepal.

4.3 Institutional Development

The term marketing institutions can be considered to embrace a wide range of organizations, including associations of farmers, traders, and others in the value chain, as well as cooperatives and government marketing agencies.

Commodity associations bring together a wide spectrum of interest groups related to a particular commodity or sector. Such associations can draw membership from individual farmers or their associations, from crop buyers, processors, distributors and exporters, as well as from suppliers of support services. Sometimes government agencies are also members.

Market traders associations. Associations of agricultural traders have the potential to facilitate the work of their members and achieve greater efficiency in the marketing chain. Furthermore, with increasing attention again being paid to post-harvest handling improvement, such associations represent a possible way of accessing traders to provide training. Traders can also provide training to farmers and be supported, through their associations to develop improved linkages with farmers.

Farmers and farmer's organizations, traders and traders organizations, local government (Municipalities, VC, DCC) and central government (DADO, ASC) are involved in agricultural marketing development.

Farmers and farmer's organization, Traders and trader's organization are directly involved in marketing whereas local government and central government are providing supports to run the markets efficiently.

Not much work has been found towards institutional development of agricultural marketing except formation of agriculture produce market management committees. Some efforts made by DADO and ABPMDD are listed below.

- Formation of farmers groups and/or cooperatives on agricultural marketing is the basic form of institutional development. This has been in operation in all the districts.
- Users committees have been formed in some districts.
- Establishment of new and strengthening of existing market centers are in progress in some districts. ABPMDD, DADO and certain NGOs are providing capital investment to establish market centers in PPP model.

The role of market management has to be clear, but may vary according to the size and type of market. In general, a management committee would be expected to – (a) develop rules for space allocation, decide on fees and ensure their collection (b) allocate and control space for producers, traders, retailers and access to transporter (c) define and control produce that is traded in the market (d) ensure that traders operate only within their allocated spaces, provide security in the market and (e) arrange for the cleaning of the market, toilets and disposal of the garbage.

Nepal Agricultural Marketing Board should be formed under Ministry of Agricultural Development for policy guidance and steering the agricultural marketing development process. The board will be responsible for coordination among persons/institutions involved in agricultural marketing system, provide policy guidance and overview domestic and international trade of agricultural produce.

The members of the board will be representatives from Ministry of Federal Affairs and Local Development, Federation of Nepal Chambers of Commerce and Industries, Agricultural chief of all seven provinces, Department of Agriculture, Department of Cooperative, national level representatives of traders association, producers association and consumers association, and related academicians and agricultural marketing expert nominated by ministry of agriculture development. The Board will be chaired by Secretary of MOAD and Program Director of ABPMDD will work as a Member Secretary.

4.4 Cooperative/ Group Marketing

Intermediaries in agricultural product marketing are gaining high profit by setting a low price to the farmers and high price for ultimate consumers of agricultural commodities. These intermediaries create a marketing channel through which farmers have to supply their products to the markets, thereby creating a value chain. Despite being an agro based country, the farmers do not get proper price for their products due to not properly managed marketing system of agricultural products.

Farmers groups or cooperatives are established to reduce the influence of intermediaries from the supply chain of agricultural products. The establishment of cooperative ensures the participation of local farmers that can avail fair price for the growers in one hand and consumers on the other.

Small and marginal farmers in the remote rural areas remain ignorant about the current price of their product in the market, their trends, demand and supply which create obstacles for the farmers in getting fair price of their products. Ultimately, the farmers who produce and bear the risks associated with the crop production are deprived of the major benefits of their products. It was found that majority of subsistence farmers (97.8) were forced to sale their products immediately after harvest and only 2.2% were able to sale their products during off-season (BPRC, 2013: Impact Assessment of CADP)

Agricultural marketing through groups and cooperatives was found challenging due to the uncontrolled presence of intermediaries, who are not regulated by related act (agricultural marketing act which is under process of formation). During the survey period, it was observed that in some terai and mid hill districts, cooperatives are implementing collection centers in very efficient way. However, it is necessary to encourage cooperatives in other districts where the cooperatives are not active. Farmer groups formed under district agriculture development office, although has no legal status, are found also collecting agricultural products from members of group, and transporting to retail markets in few districts. However group marketing should be encouraged and supports like marketing training, agricultural marketing information has to be provided. However DADOs are encouraging farmers groups and cooperatives to trade themselves to minimize the price spread. In this regard, the following activities were found implemented by the DADOs.

- Two to three days market management training to members of collection centers and cooperatives
- Participation in central level training/workshops
- Organize interaction workshop for market officials
- Help cooperatives manage markets
- Training on labeling and packaging
- Market management committee formation through cooperatives

Cooperative marketing system usually ensures higher level of producer's share, reducing the number of middlemen and restricting the marketing charges, malpractices during marketing of farm products. So, groups or cooperatives

willing to sell their own products should be given incentives or marketing subsidies to make them competitive with the sole traders.

4.5 Marketing Training

Developing skills in agricultural marketing and agribusiness is essential, government sector has to

- provide relevant advice to policymakers;
- develop an appropriate enabling environment for private sector marketing and agribusiness activities to flourish; (3) advise farmers on becoming more market oriented; and
- ensure improved linkages between farmers and companies buying their produce.

Training is required at all levels, for those who are working with farmers and the farmers themselves. Training should be provided on following topics.

- Defining the market and different ways to access the market.
- Analyzing problems and opportunities for better market solutions.
- Pre and post harvest management.
- Most common mistakes made by groups and cooperatives in agricultural marketing
- Different types of services available for the farmers (linkages with the buyers, contract farming, inputs, market structure, market information, micro finance etc.).
- Market oriented pre-production planning.
- Successful case studies in agriculture marketing.

Agricultural marketing extension should be one of the annual program components of DADO and further emphasis has to be given for marketing training. Training should be provided to three levels of trainees- a) producers b) traders and c) extension workers.

4.6 Reduction of High Price Spread

It is seen that the price spread of vegetables and fruits are high due to the marketing inefficiency. High transport cost, high physical losses, poor management and low competition are the basic factors that contribute to high price spread.

A well-integrated market system is considered to be necessary not only for the efficient allocation of productive resources but also for a reduction in price risks by preventing unnecessary price volatility. In developing countries like Nepal where local markets are fragmented, a localized crop scarcity can lead to famine in the area. The lack of market integration has been a major concern where domestic markets are sparsely located due to low population densities and are isolated from regional and central markets, if such areas are in remote places devoid of road network. Such areas are vulnerable to domestic production shocks and experience large price volatilities. Because poor people, including the urban poor, spend a large share of their total expenditure on food crops, they would benefit from reduced price volatilities due to market integration. Thus, linkages to marketing centers have been found to contribute to rural households' efforts to escape from poverty.

Even if markets are well integrated across space, local farmers would not benefit from market integration if their market access is poor. Many small-scale farmers remain at the subsistence level, not selling their crops at markets. The farm-market price spread is calculated by subtracting the farm-gate price from the market price at the nearest market. Transportation costs contribute to the farm-market price spread significantly.

Government should make effort in reduction of transportation cost, improving the market information system, and improving the bargaining power of farmer in price determination through trainings and awareness programs. To integrate markets and enable the markets, structural adjustment programs should be implemented.

4.7 Women and Small Farmer Participation in Agricultural Marketing

Women participation in agriculture marketing was found very low. It has been reported that women contribute 55 to 82 percent of the total labor in agriculture (WFDD, 2000). Yet, statistics shows that only 8 percent women have a land ownership certificate (CBS, 2011), Less than 10 percent are involved in product marketing (CECI, 2008).

It is generally presumed that women do not know about marketing, price information, and calculation and do not have ability of bargaining. The perception limits women to have access of marketing of agricultural products. Since access to marketing is directly linked with income, women are mostly deprived with such opportunities. In rural area, where market is accessible, women are involved in buying and selling of their small produce like vegetables. Even if women have access of marketing and income, decision-making on expenditure of savings are mostly done by men. Nevertheless, access of marketing, income and saving varies with ethnicity, ecological area, and socio-economic status.

Research studies showed that women belonging to lower socio-economic status such as Dalits participate heavily in such activities as compared to other social groups. This is because dalits are small group or landless poor people who need immediate cash for survival. However, Tharu women are rarely involved in selling. In the hills, janjatis - Magar/ Gurung/ Newar, and Tamang have access to marketing while this is less prevalent for Brahmin and Chhetri women. At present condition representation of women in market management committee (MMC) is almost negligible.

Linking primary producers with global and national markets through fresh food retail chains is seen as one of the emerging agricultural marketing practices to improve small producer's livelihoods. There exists fresh food retail chains in areas where haat bazaar are in operation. The sellers of haat bazaars are mostly small farmers. Even in the retail markets, small farmers and women farmers directly collect fresh vegetables and fruits from the producers (mostly scattered small farmers) and sell them to consumers. Moreover, the role of women farmers and small farmers in post harvest operations is highly applauded. It has been found that the retail chain farmers could realize higher profits compared to non-retail chain farmers. This sort of retail chain procures only a part of the farmers' produce and the remaining produce has to be sold in the local markets.

It is suggested that women representation in MMC should be at least 35%. Ethnic groups having greater role in marketing have to be given skills for improved marketing of agri-produce. For the benefit of small farmers, it is desirable to develop group or cooperative markets and include them in an effective manner.

4.8 Transport Services and Cold Chain

Difficult terrain and consequently, weak road connectivity from the main roads and from the district headquarters to rural areas, especially in mountain and hilly areas, are cause of high in-country transportation costs and reduced reach of private traders. Hence, public market intervention through subsidized prices in mountain and hilly districts remains one response to the lack of functioning markets, though at a high operational cost. The transport network depends heavily on the Mahendra Highway, which serves as the backbone of the country running throughout the length of the country on the foothills. There are a number of feeder roads linking this highway with major towns in Nepal and to India. The point of intersection between the Mahendra highway and the north-south arterial roads is the main basis of the transportation hubs and the major market settlements are evolving in line with these hubs. This combination of transport hubs and market hubs is heavily located in the Terai and almost nonexistent in the mountains. 30 to 40 percent of the rural population is reported to have access to all-weather roads.

The use of special purpose vehicle (refrigerated van) for transportation of perishable agricultural product is very limited. Producers and traders use general-purpose vehicles like truck and jeeps for transportation of agricultural

produce. Transportation loss through such vehicles is very high in case of perishable commodities (Vegetables and fruits).

A cold chain is a temperature-controlled supply chain. An unbroken cold chain is an uninterrupted series of storage and distribution activities which maintain a given temperature range. It is used to help extend and ensure the life of products such as vegetables, fruits, fish etc.

Refrigerated vehicles are found still not in use in eastern development region. Some of the departmental stores have cool chambers to display fruits and vegetables.

Government should promote the use of special purpose vehicle (refrigerated van) for transportation of perishable agricultural product.

Chapter 5 Standard Design of Agricultural Markets

5.1 General Design Considerations

5.1.1 High Hill

- Building orientation should face south for general habitation of rooms. However, certain buildings like cold store require minimum of light, so it is better to orient such building away from the sun.
- Building designed with stone masonry structures with necessary earthquake resistance techniques will be adopted without necessarily raising the cost of the building.
- The design of the building will be kept minimal and functional.
- Slope roof will be given priority over the flat roof in case of high hill and snow fall prone area.
- In case of habitable buildings such as office block or canteen cavity wall construction techniques will be adopted to better cope with the extreme weather conditions.
- The floor to ceiling height of the building will be adopted as ten feet while in larger halls the height will be maintained at minimum of twelve feet for easy circulation of air.
- The size of opening via windows and doors will be minimum of ten percent of the size of the room. There will be provision of separate entry and exit doors in case of larger buildings like wholesale building or retail store building.

5.1.2 Mid Hill

- Building orientation should face south for general habitation of rooms. However, certain buildings like cold store require minimum of light, so it is better to orient such building away from the sun.
- Building designed with reinforced cement concrete structures with necessary earthquake resistance techniques will be adopted without necessarily raising the cost of the building.
- The design of the building will be kept minimal and functional.
- The general thickness of the buildings will be adopted as one full brick size of nine inches.
- The floor to ceiling height of the building will be adopted as ten feet while in larger halls the height will be maintained at minimum of twelve feet for easy circulation of air.
- The size of opening via windows and doors will be minimum of ten percent of the size of the room. There will be provision of separate entry and exit doors in case of larger buildings like wholesale building or retail store building.

5.1.3 Terai

- Building orientation should face away from the sun, preferably north, habitation of rooms.
- Building designed with reinforced cement concrete structures with necessary earthquake resistance techniques will be adopted without necessarily raising the cost of the building.
- The design of the building will be kept minimal and functional.
- Where possible the buildings will be planned according to courtyard system for better ventilation system and thermal comfort.
- The general thickness of the buildings will be adopted as one full brick size of nine inches.
- The floor to ceiling height of the building will be adopted as ten feet while in larger halls the height will be maintained at minimum of twelve feet for easy circulation of air.
- The size of opening via windows and doors will be minimum of ten percent of the size of the room. There will be provision of separate entry and exit doors in case of larger buildings like wholesale building or retail store building.

5.2 Design Considerations for the Agricultural Markets

- **Ease of Access:** The location of market of service center should preferably be by the side of main road or high way such that it will be easily accessible to all the user groups.

- Location of the market: As far as possible, the location of the market should be near the towns or villages with relatively dense population.
- Building Infrastructures: The building infrastructures should have all the necessary amenities such as adequate parking facilities, well set up office buildings, canteens, clean and tidy bathrooms.
- Garbage Collection and Management Facilities: All the agricultural markets including wholesale, retail, collection centre, cold store and haat bazaar must have proper garbage disposable mechanism as the relatively large quantities of wastes are generated in the process.
- Cold Store Facilities: The cold storage facilities should be well equipped with mechanical coolers with uninterrupted power supply to regulate the favorable temperature for the storage of the fruits and vegetables. Different fruits and vegetables require different temperatures in order to maintain freshness. So, cooler facilities must be given an optimum priority.
- The collection center must be well equipped with necessary machineries such as weighing machines. Necessary decking facilities should be provided for easy loading and unloading of goods from the loaders.
- Haat bazaar generally takes place in the open space. However, open space with covering of the roof truss to protect from the heat and cold of the day would be preferable.

5.3 Tentative Cost Estimation

The cost estimation of proposed infrastructures are presented below. These figures are tentative estimations only. To calculate the exact cost, a proper detailed engineering design has to be performed. The surveyed/analyzed data are inadequate to perform detailed cost estimation of each proposed infrastructure. The data lacks exact location on land map, market demand, road accessibility, etc.

Also, material market price can fluctuate quite often resulting in change in the estimations given below.

Table 5.1: Tentative cost estimate of wholesale market in high hill

Building	Area	Unit	Rate	Amount
Wholesale	1740	Sq.Ft.	3,500.00	6,090,000.00
Auction Building	312	Sq.Ft.	3,500.00	1,092,000.00
Washing, Sorting, Store, Garbage Collection	1660	Sq.Ft.	3,500.00	5,810,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	17860.96	Sq.Ft.	450.00	8,037,432.45
Total				27,938,432.45

Table 5.2: Tentative cost estimate of retail market in high hill

Building	Area	Unit	Rate	Amount
Retail Building	1740	Sq.Ft.	3,500.00	6,090,000.00
Washing, Sorting, Store, Garbage Collection	1660	Sq.Ft.	3,500.00	5,810,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	17860.96	Sq.Ft.	450.00	8,037,432.45
Total				26,846,432.45

Table 5.3: Tentative cost estimate of collection center market in high hill

Building	Area	Unit	Rate	Amount
Collection Centre Building	2732	Sq.Ft.	3,500.00	9,562,000.00
Washing, Sorting, Store, Garbage Collection	1841	Sq.Ft.	3,500.00	6,443,500.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	19000	Sq.Ft.	450.00	8,550,000.00
Total				31,464,500.00

Table 5.4: Tentative cost estimate of cold store in high hill

Building	Area	Unit	Rate	Amount
Cold Store Building	1740	Sq.Ft.	3,500.00	6,090,000.00
Store and Garbage Collection	624	Sq.Ft.	3,500.00	2,184,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	15315	Sq.Ft.	450.00	6,891,750.00
Total				22,074,750.00

Table 5.5: Tentative cost estimate of haat bazaar in high hill

Building	Area	Unit	Rate	Amount
Haat Bazaar	3262	Sq.Ft.	2,500.00	8,155,000.00
Store and Garbage Collection	846	Sq.Ft.	3,500.00	2,961,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	15315	Sq.Ft.	450.00	6,891,750.00
Total				24,916,750.00

Table 5.6: Tentative cost estimate of wholesale market in mid hill

Building	Area	Unit	Rate	Amount
Wholesale Market Building	2900	Sq.Ft.	2,500.00	7,250,000.00
Washing, Sorting, Store, Garbage Collection	1700	Sq.Ft.	3,500.00	5,950,000.00
Auction Building	482	Sq.Ft.	3,500.00	1,687,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	21240	Sq.Ft.	450.00	9,558,000.00
Total				31,354,000.00

Table 5.7: Tentative cost estimate of retail market in mid hill

Building	Area	Unit	Rate	Amount
Retail Market Building	1740	Sq.Ft.	2,500.00	4,350,000.00
Washing, Sorting, Store, Garbage Collection	1700	Sq.Ft.	3,500.00	5,950,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	21240	Sq.Ft.	450.00	9,558,000.00
Total				26,767,000.00

Table 5.8: Tentative cost estimate of collection center market in mid hill

Building	Area	Unit	Rate	Amount
Collection Centre Building	2732	Sq.Ft.	3,500.00	9,562,000.00
Washing, Sorting, Store, Garbage Collection	1841	Sq.Ft.	3,500.00	6,443,500.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	19000	Sq.Ft.	450.00	8,550,000.00
Total				31,464,500.00

Table 5.9: Tentative cost estimate of cold store in mid hill

Building	Area	Unit	Rate	Amount
Cold Store Building	3364	Sq.Ft.	3,500.00	11,774,000.00
Store and Garbage Collection	624	Sq.Ft.	3,500.00	2,184,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	15315	Sq.Ft.	450.00	6,891,750.00
Total				27,758,750.00

Table 5.10: Tentative cost estimate of Haat Bazaar in mid hill

Building	Area	Unit	Rate	Amount
Haat Bazaar	3885	Sq.Ft.	2,500.00	9,712,500.00
Store and Garbage Collection	846	Sq.Ft.	3,500.00	2,961,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	15315	Sq.Ft.	450.00	6,891,750.00
Total				26,474,250.00

Table 5.11: Tentative cost estimate of wholesale market in terai

Building	Area	Unit	Rate	Amount
Wholesale	4100	Sq.Ft.	3,500.00	14,350,000.00
Auction Building	312	Sq.Ft.	3,500.00	1,092,000.00
Washing, Sorting, Store, Garbage Collection	1660	Sq.Ft.	3,500.00	5,810,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	17860.96	Sq.Ft.	450.00	8,037,432.45
Total				36,198,432.45

Table 5.12: Tentative cost estimate of retail market in terai

Building	Area	Unit	Rate	Amount
Retail Building	1740	Sq.Ft.	3,500.00	6,090,000.00
Washing, Sorting, Store, Garbage Collection	1660	Sq.Ft.	3,500.00	5,810,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	17860.96	Sq.Ft.	450.00	8,037,432.45
Total				26,846,432.45

Table 5.13: Tentative cost estimate of collection center market in terai

Building	Area	Unit	Rate	Amount
Collection Centre Building	2732	Sq.Ft.	3,500.00	9,562,000.00
Washing, Sorting, Store, Garbage Collection	1841	Sq.Ft.	3,500.00	6,443,500.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	19000	Sq.Ft.	450.00	8,550,000.00
Total				31,464,500.00

Table 5.14: Tentative cost estimate of cold store in terai

Building	Area	Unit	Rate	Amount
Cold Store Building	5000	Sq.Ft.	3,500.00	17,500,000.00
Store and Garbage Collection	624	Sq.Ft.	3,500.00	2,184,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	15315	Sq.Ft.	450.00	6,891,750.00
Total				33,484,750.00

Table 5.15: Tentative cost estimate of Haat Bazaar in terai

Building	Area	Unit	Rate	Amount
Haat Bazaar	3262	Sq.Ft.	2,500.00	8,155,000.00
Store and Garbage Collection	846	Sq.Ft.	3,500.00	2,961,000.00
Office	894	Sq.Ft.	3,500.00	3,129,000.00
Canteen	635	Sq.Ft.	3,500.00	2,222,500.00
Guard House	195	Sq.Ft.	3,500.00	682,500.00
Rest Room	250	Sq.Ft.	3,500.00	875,000.00
Land Development Cost	15315	Sq.Ft.	450.00	6,891,750.00
Total				24,916,750.00

Table 5.16: Summary Sheet

S.No.	Description	Amount
1	High Hill	
a	Wholesale Market	27,938,432.45
b	Retail Store	26,846,432.45
c	Collection Centre	31,464,500.00
d	Cold Store	22,074,750.00
e	Haat Bazaar	24,916,750.00
2	Mid Hill	
a	Wholesale Market	31,354,000.00
b	Retail Store	26,767,000.00
c	Collection Centre	26,767,000.00
d	Cold Store	31,464,500.00
e	Haat Bazaar	27,758,750.00
3	Terai	
a	Wholesale Market	36,198,432.45
b	Retail Store	26,846,432.45
c	Collection Centre	31,464,500.00
d	Cold Store	33,484,750.00
e	Haat Bazaar	24,916,750.00

5.4 Standard Design of Agricultural Markets

Figure 5.1: Standard design of wholesale market plan (High hill)

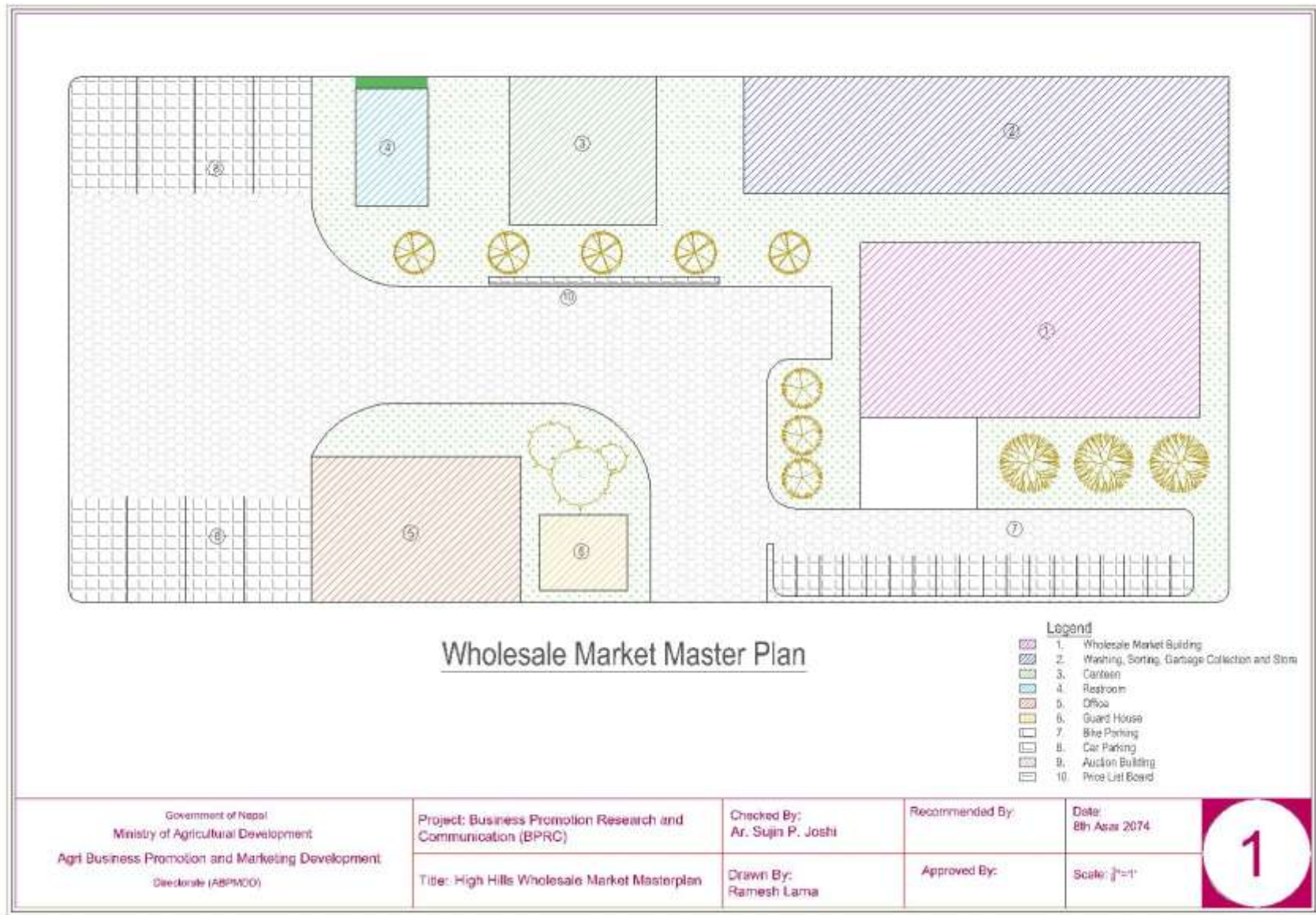


Figure 5.2: Standard design of wholesale market building (High hill)

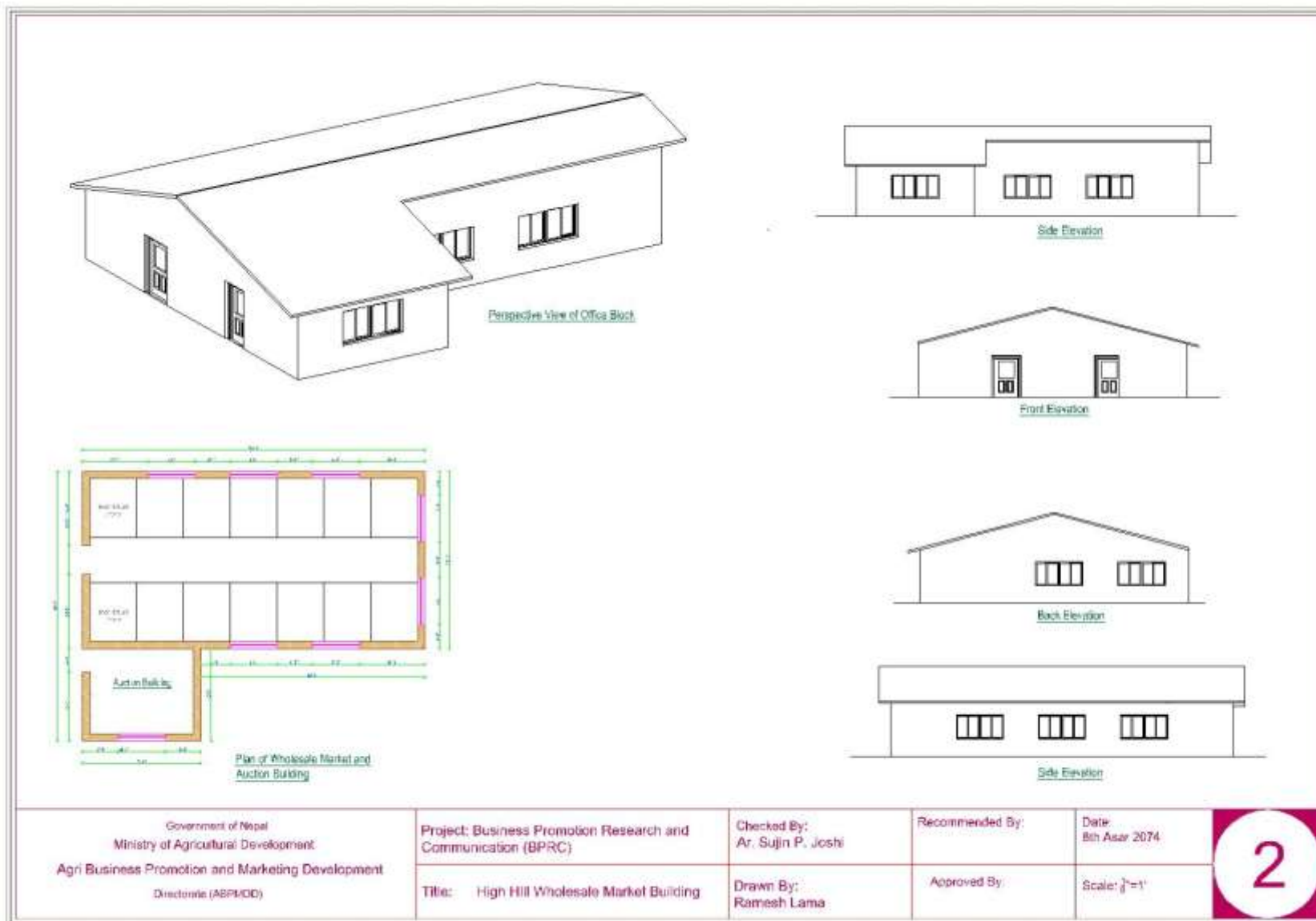


Figure 5.3: Standard design of wholesale market details (High hill)

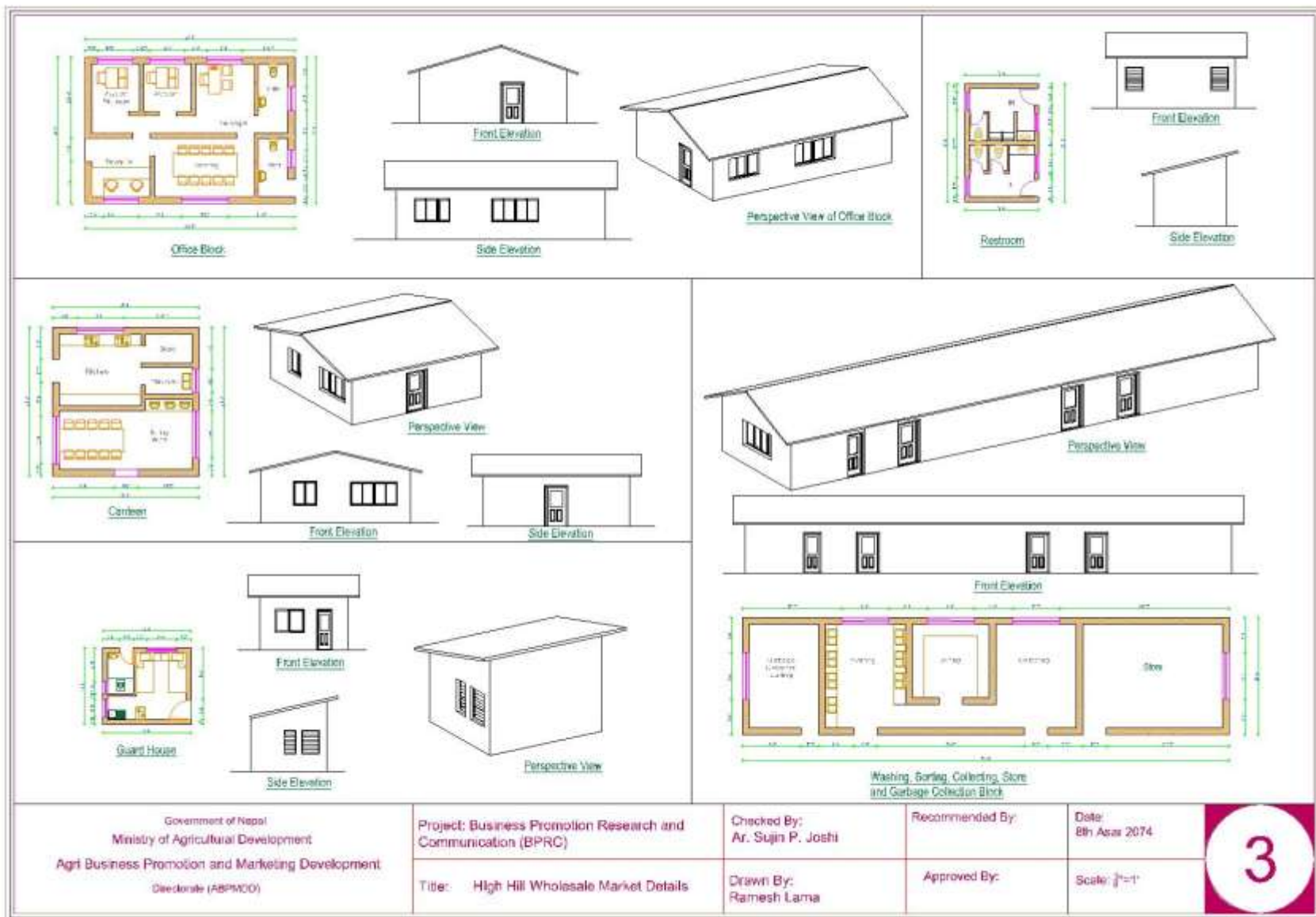


Figure 5.4: Standard design of retail market Plan (High hill)

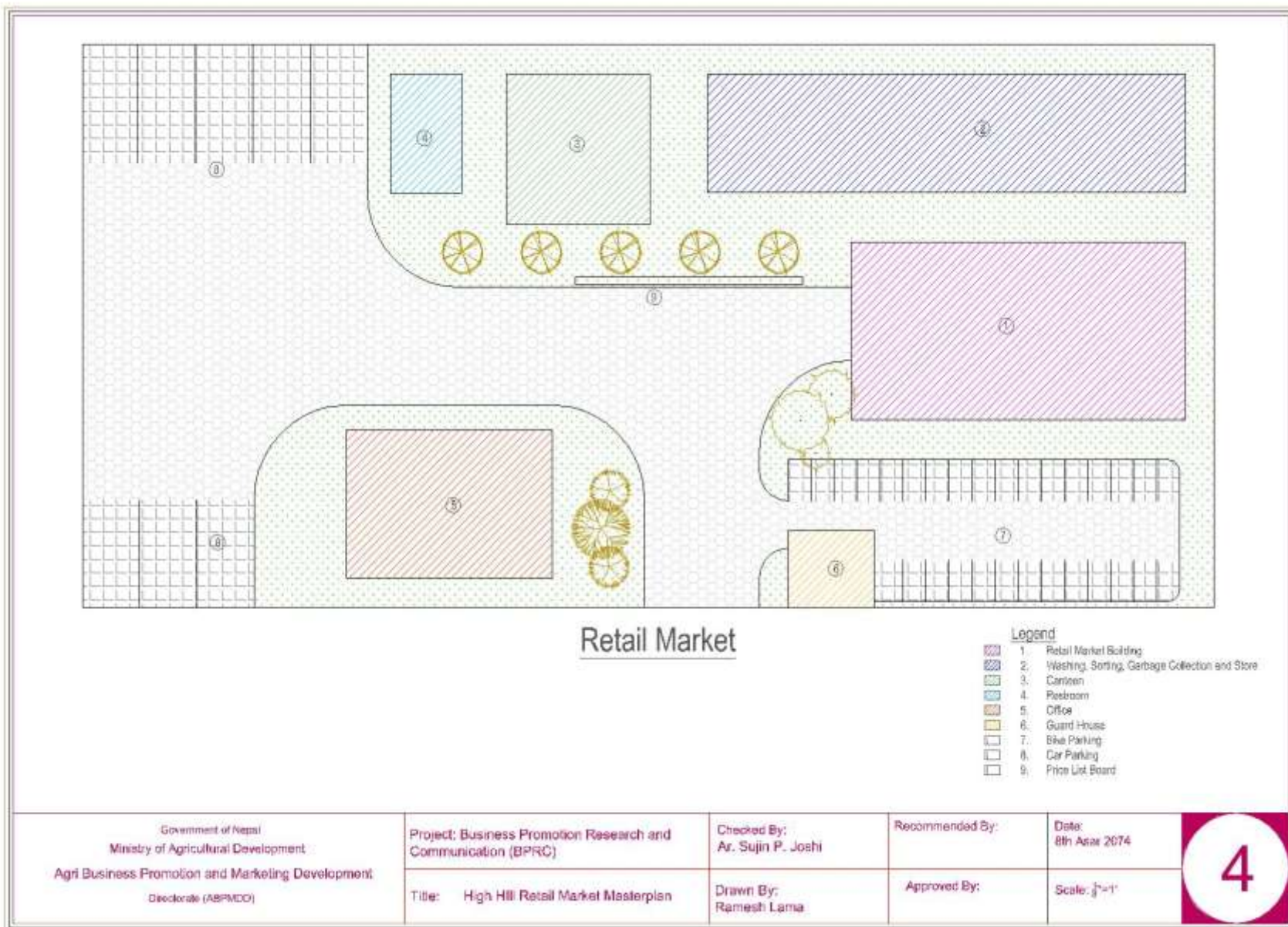


Figure 5.5: Standard design of retail market building (High hill)

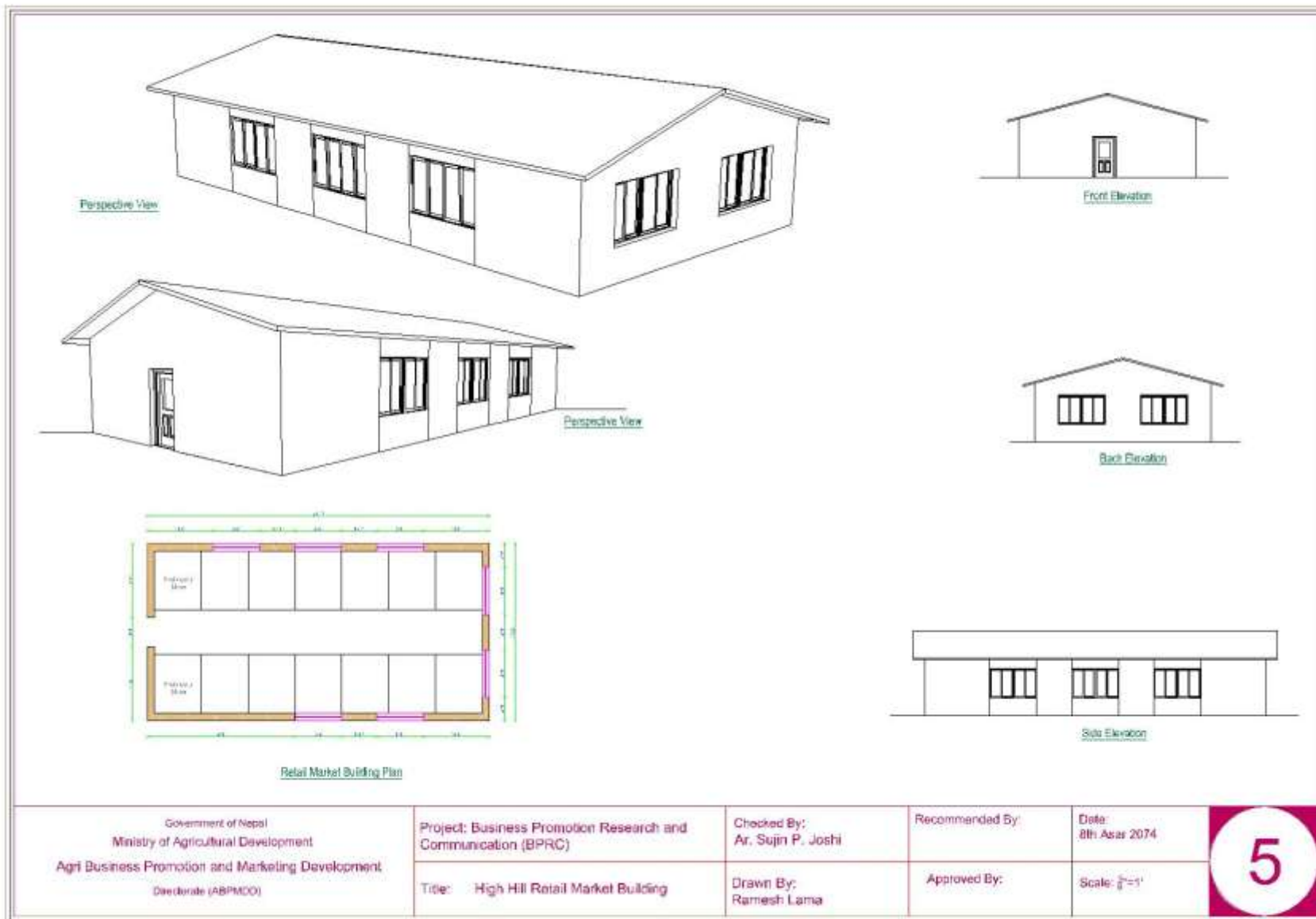


Figure 5.6: Standard design of retail market detail (High hill)

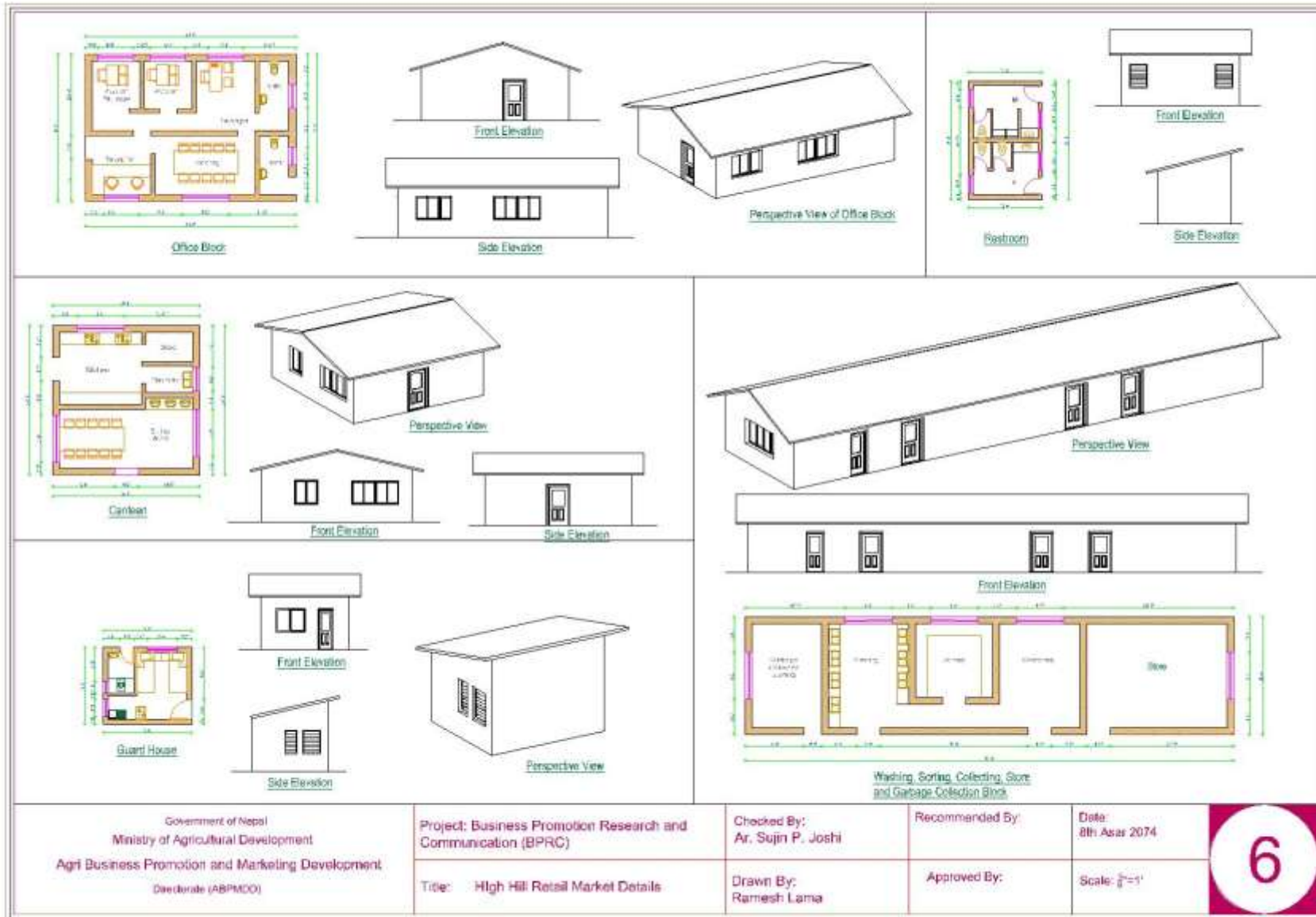


Figure 5.7: Standard design of collection center plan (High hill)



Figure 5.8: Standard design of collection center building (High hill)



Figure 5.9: Standard design of collection center detail (High hill)

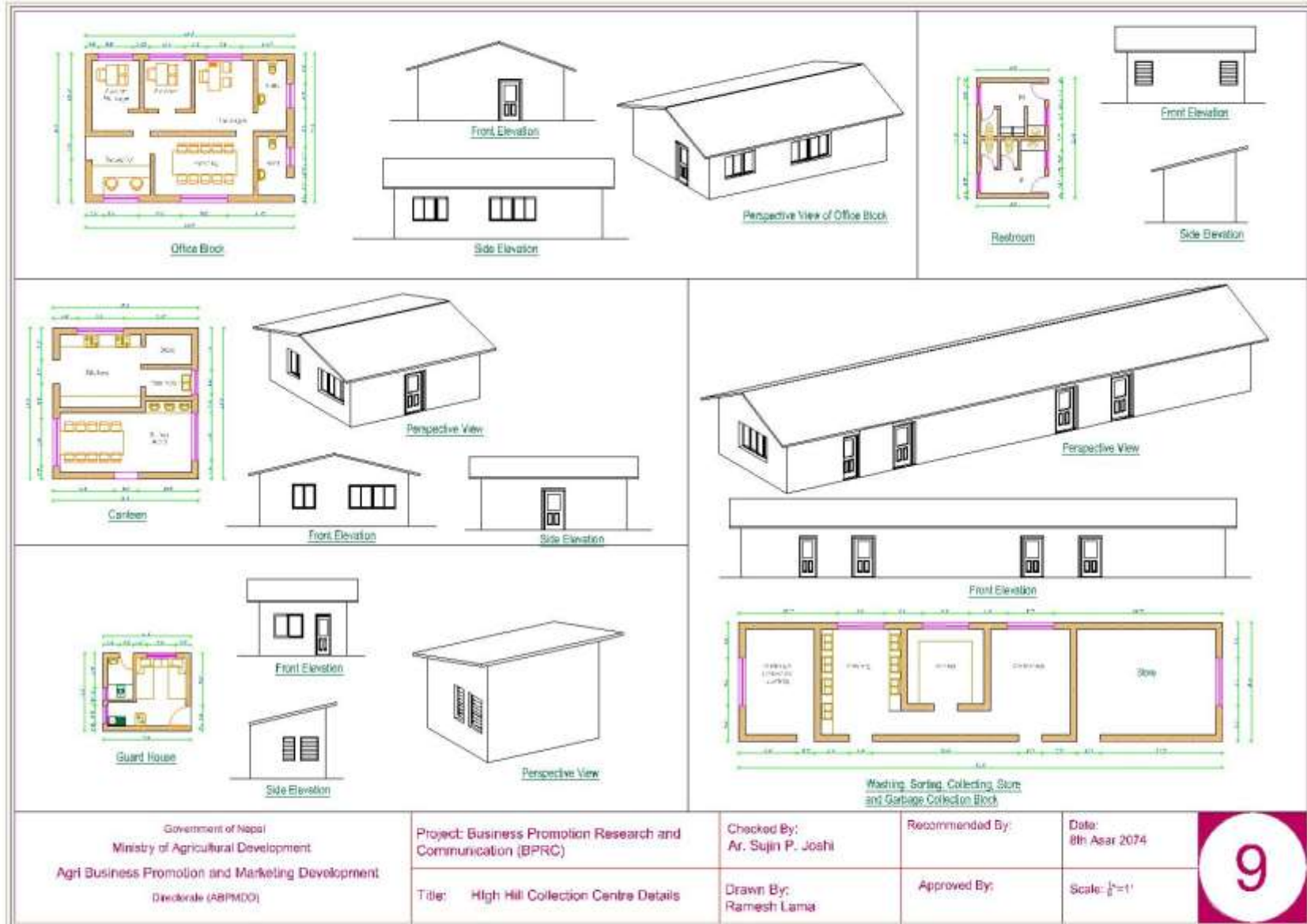


Figure 5.10: Standard design of cold storage plan (High hill)



Figure 5.11: Standard design of cold storage building (High hill)

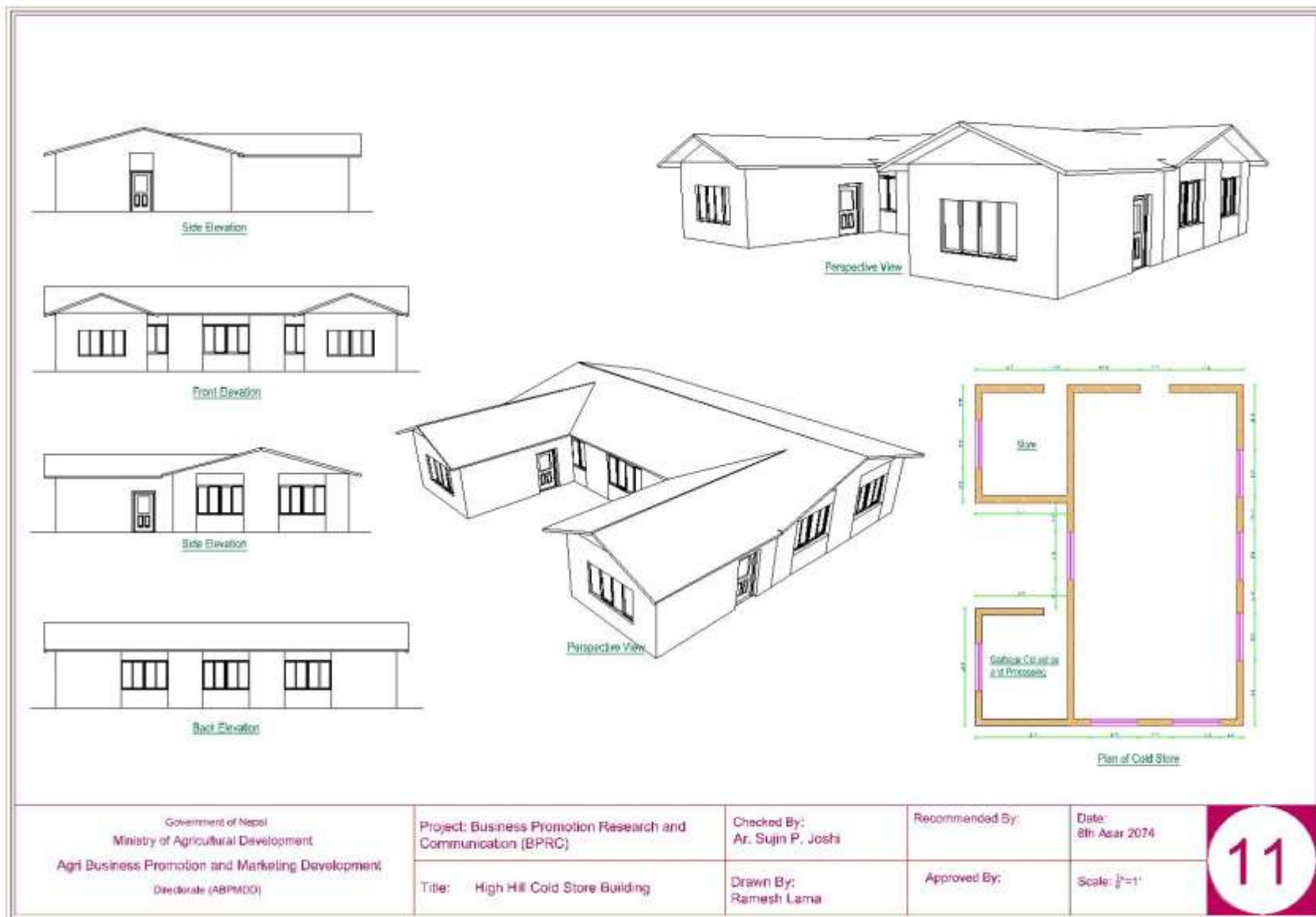


Figure 5.12: Standard design of cold storage detail (High hill)



Figure 5.13: Standard design of haat bazaar plan (High hill)

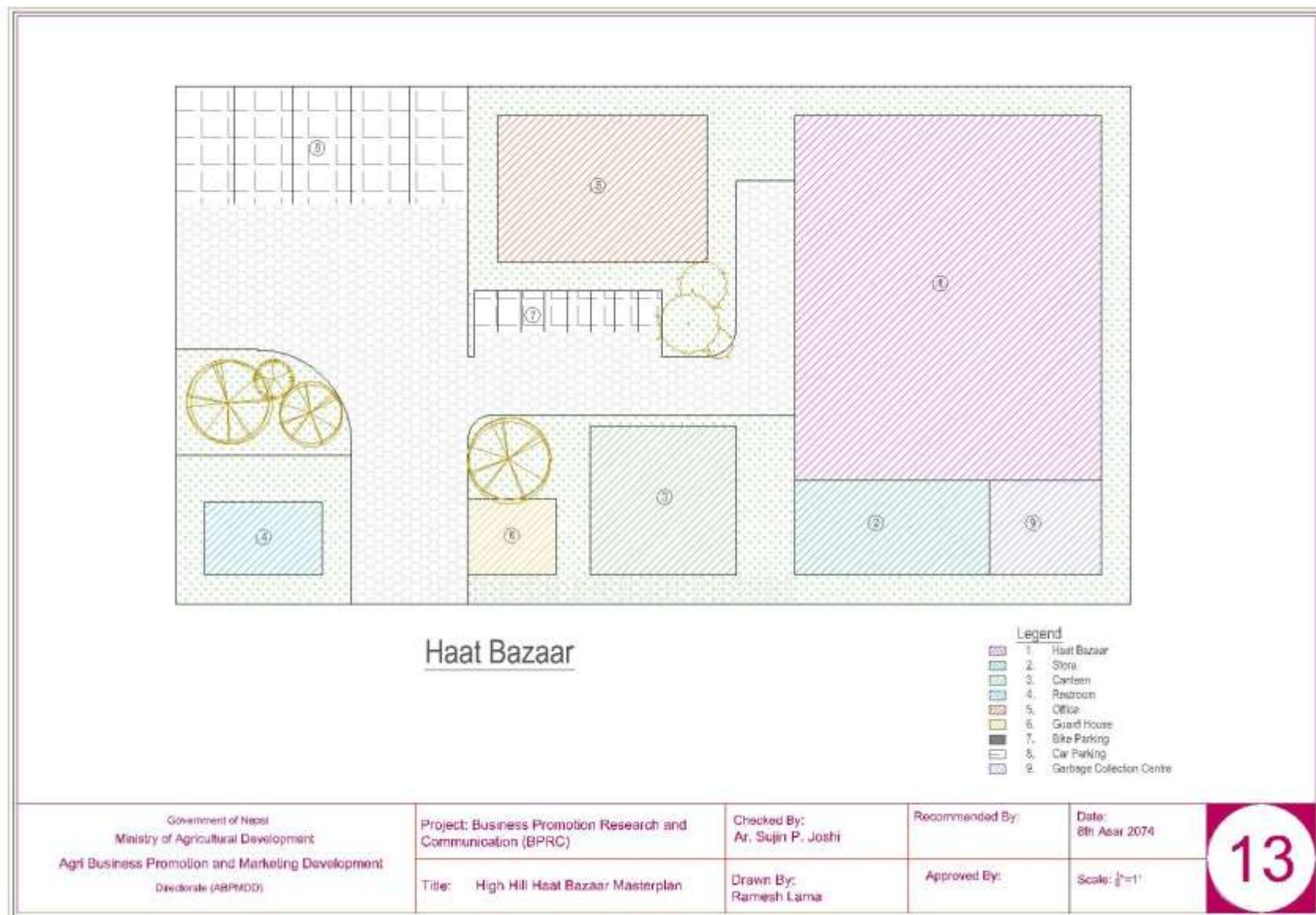


Figure 5.14: Standard design of haat bazaar building (High hill)



Figure 5.15: Standard design of haat bazaar detail (High hill)



Figure 5.16: Standard design of wholesale market plan (Mid hill)

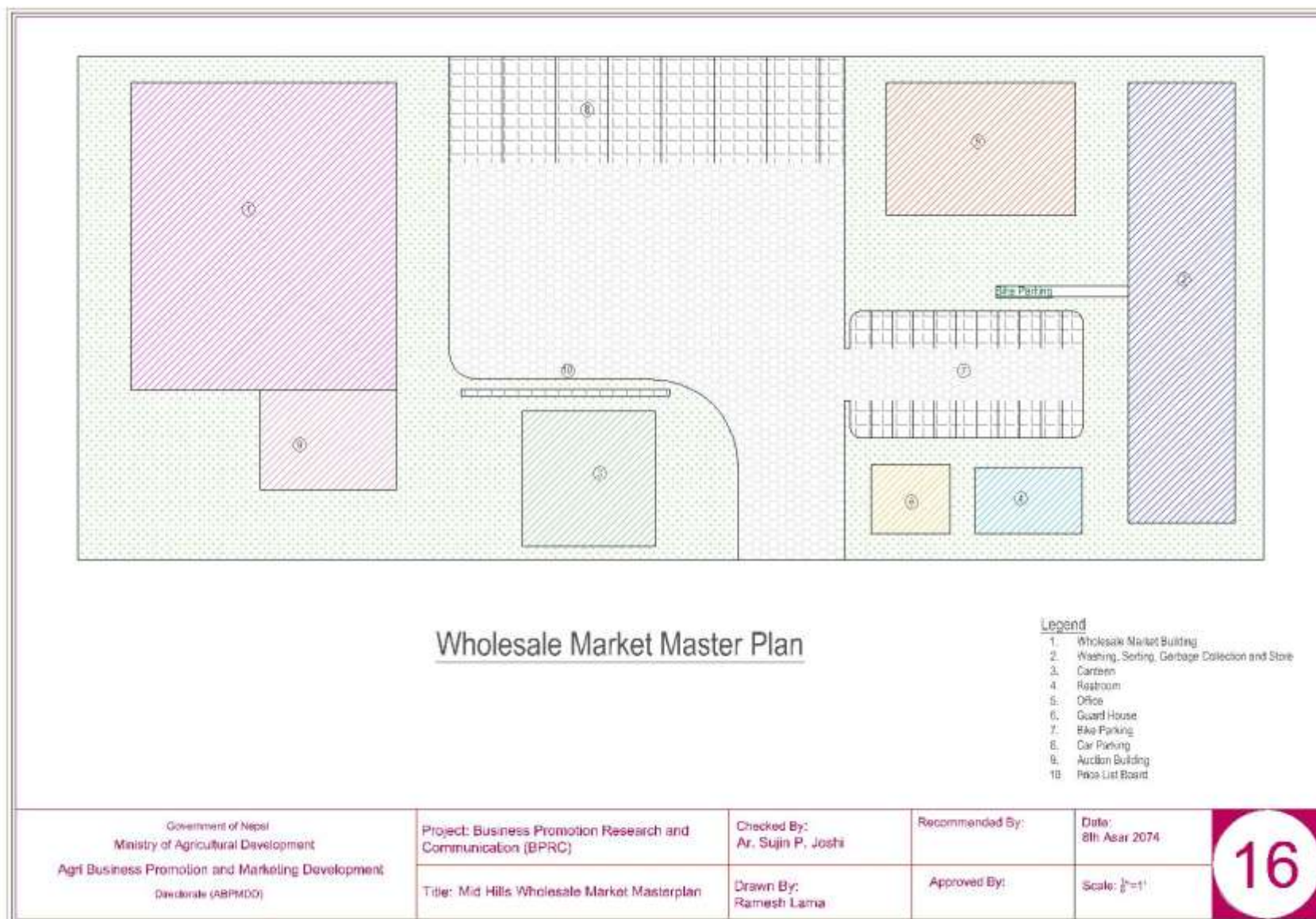


Figure 5.18: Standard design of wholesale market detail (Mid hill)

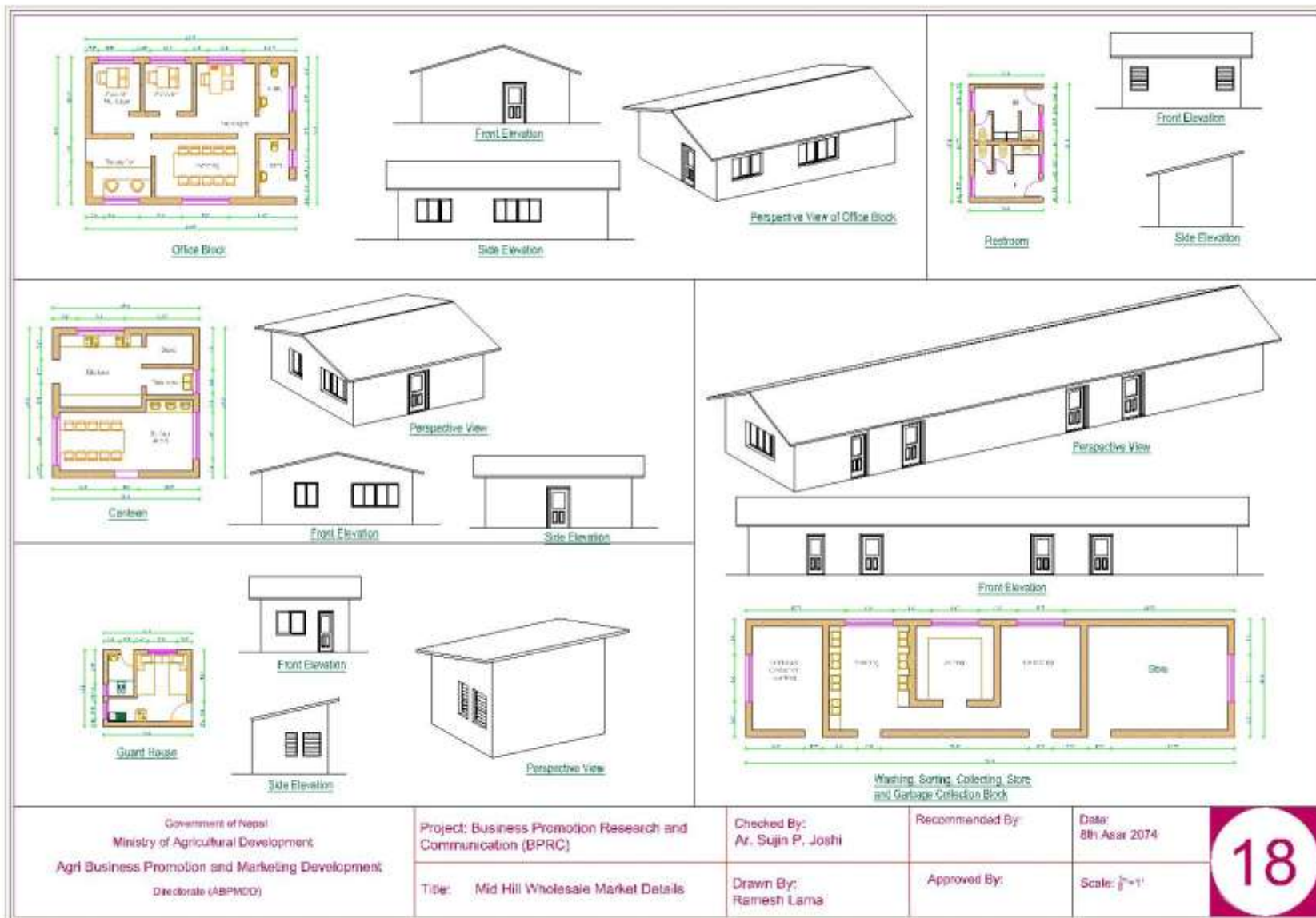


Figure 5.19: Standard design of retail market plan (Mid hill)



Figure 5.20: Standard design of retail market building (Mid hill)



Figure 5.21: Standard design of retail market detail (Mid hill)



Figure 5.22: Standard design of collection center plan (Mid hill)



Figure 5.23: Standard design of collection center building (Mid hill)

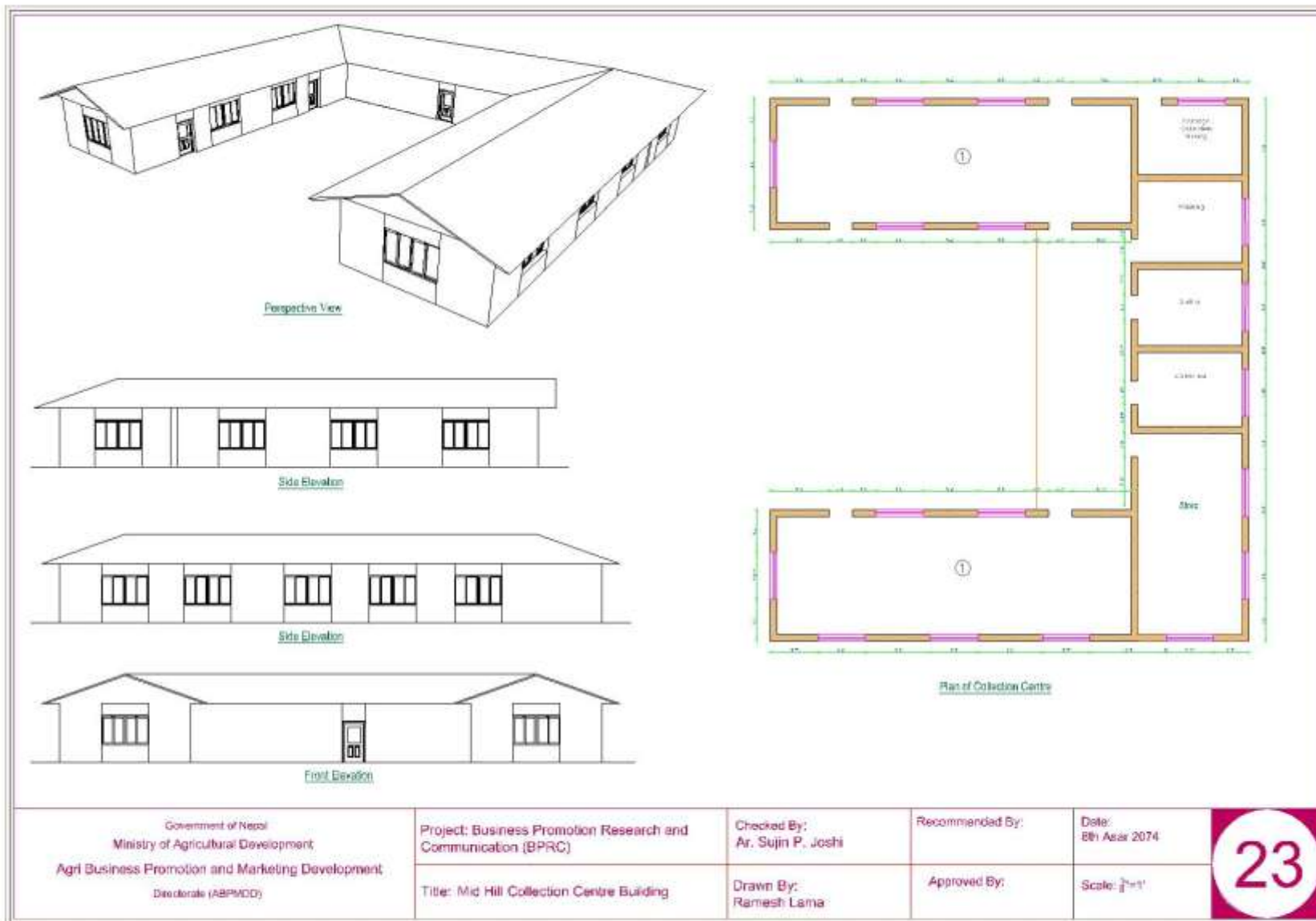


Figure 5.24: Standard design of collection center detail (Mid hill)

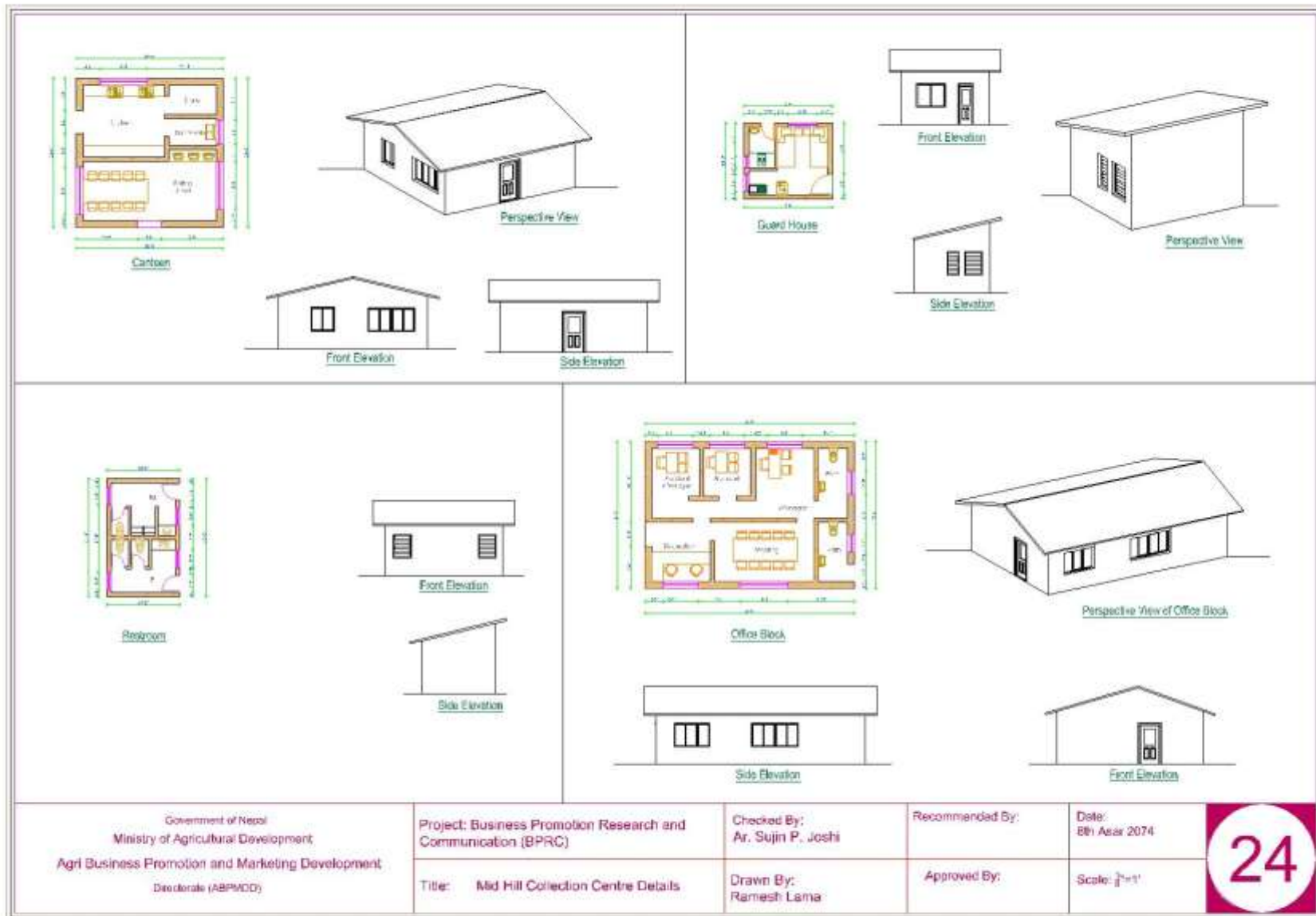


Figure 5.25: Standard design of cold storage plan (Mid hill)



Figure 5.27: Standard design of cold storage detail (Mid hill)



Figure 5.28: Standard design of haat bazaar storage plan (Mid hill)



Figure 5.29: Standard design of haat bazaar building (Mid hill)

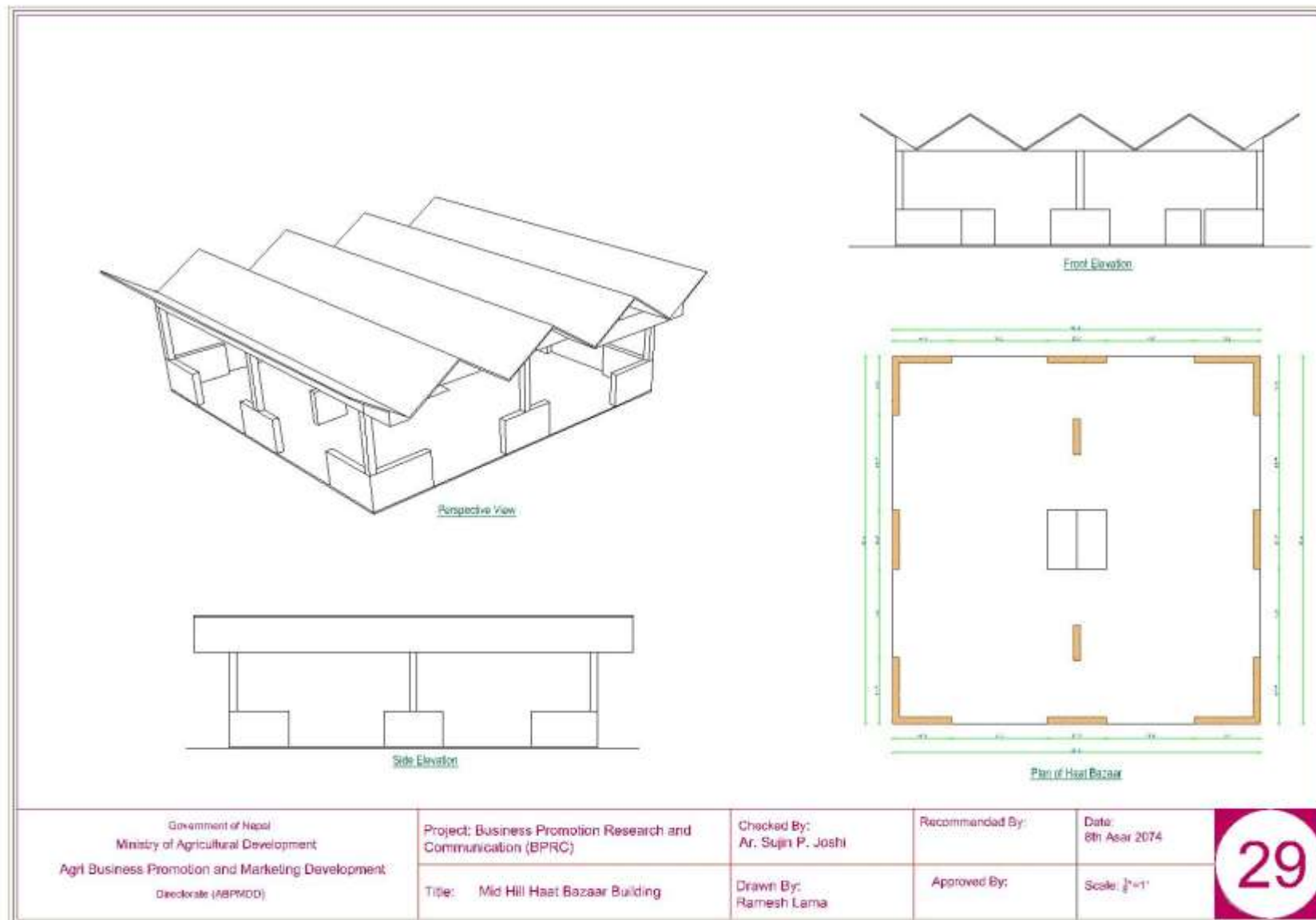


Figure 5.30: Standard design of haat bazaar detail (Mid hill)

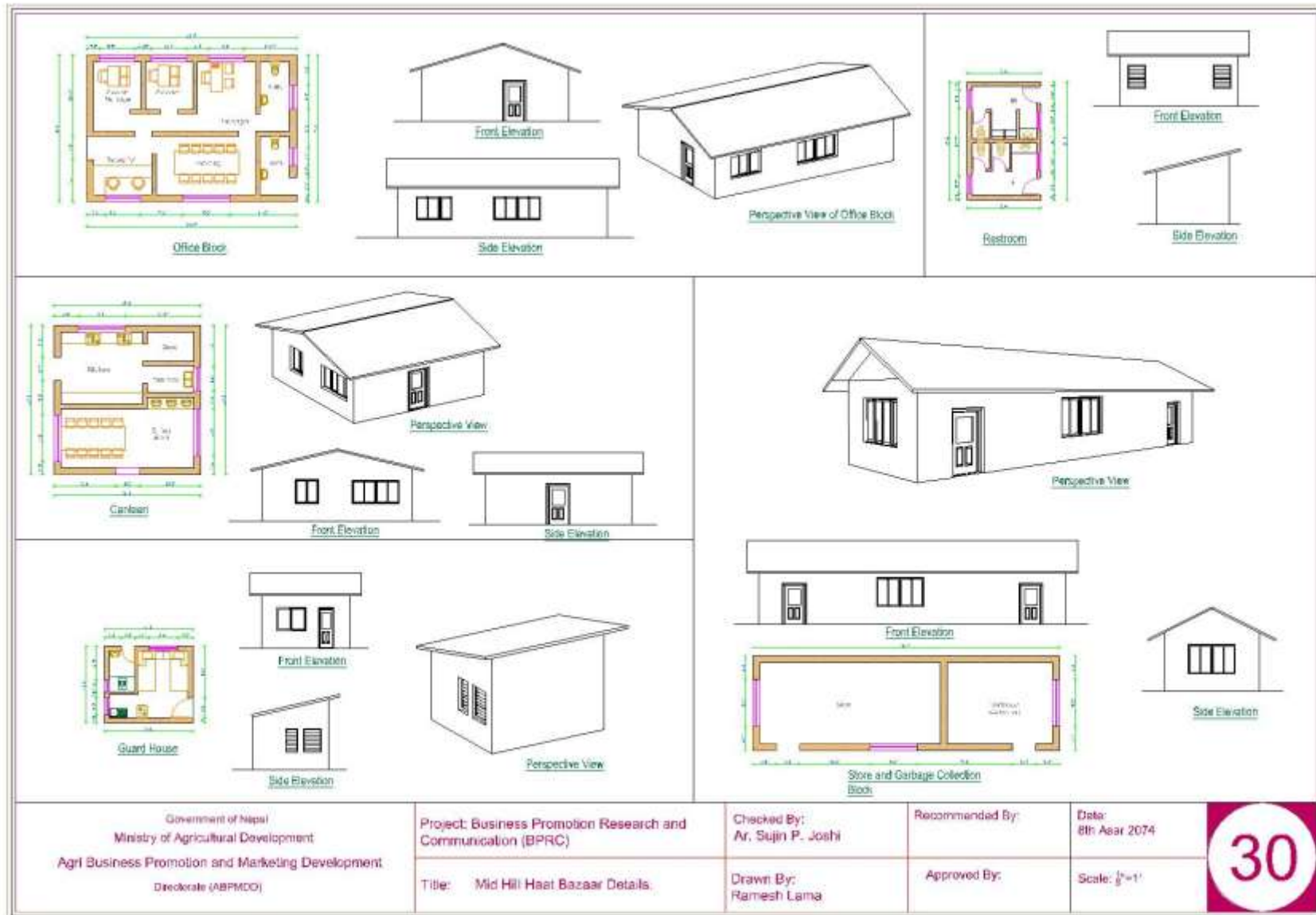


Figure 5.31: Standard design of wholesale market plan (Terai region)

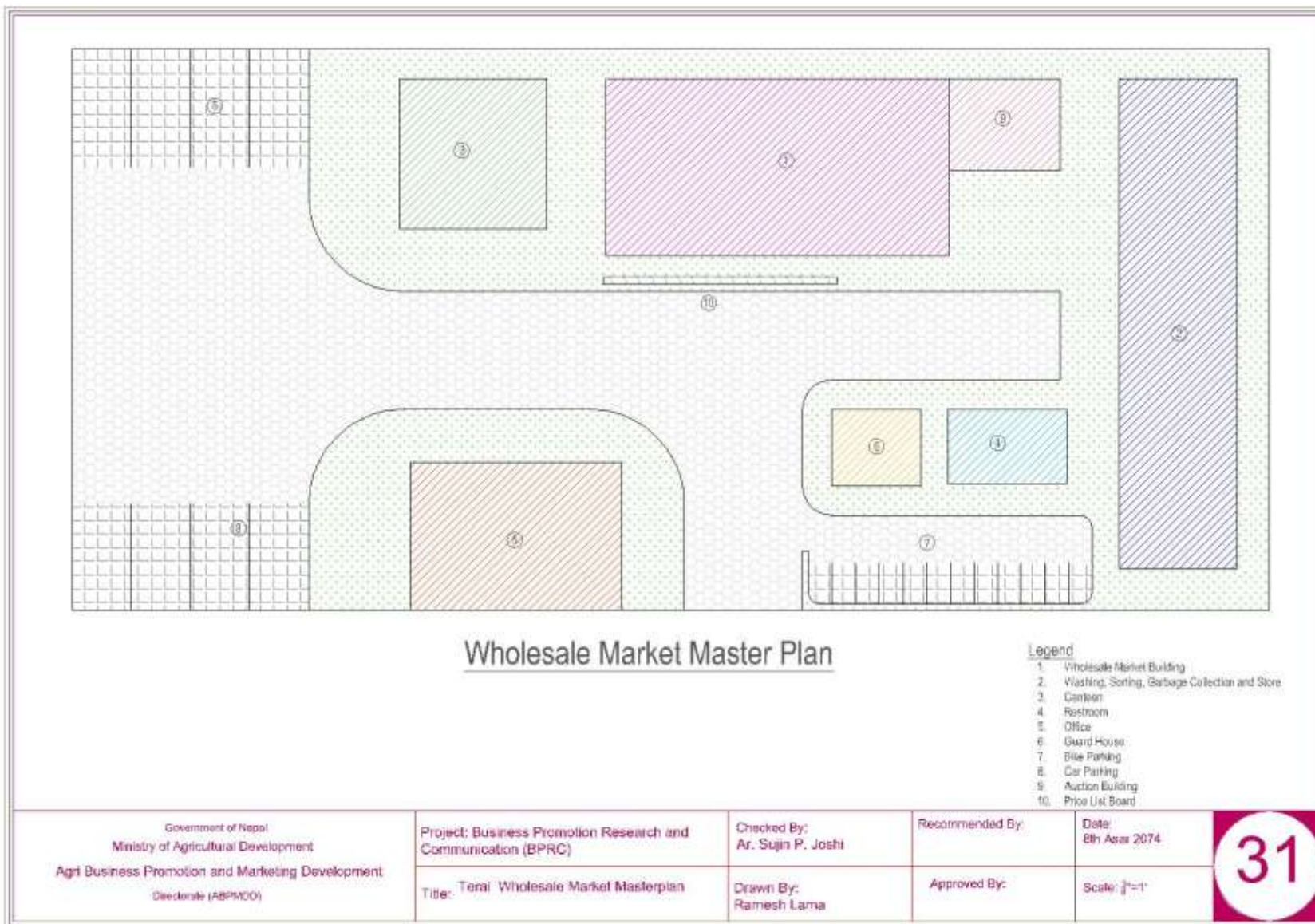


Figure 5.32: Standard design of wholesale market building



Figure 5.33: Standard design of wholesale market detail (Terai region)



Figure 5.34: Standard design of retail market plan (Terai region)

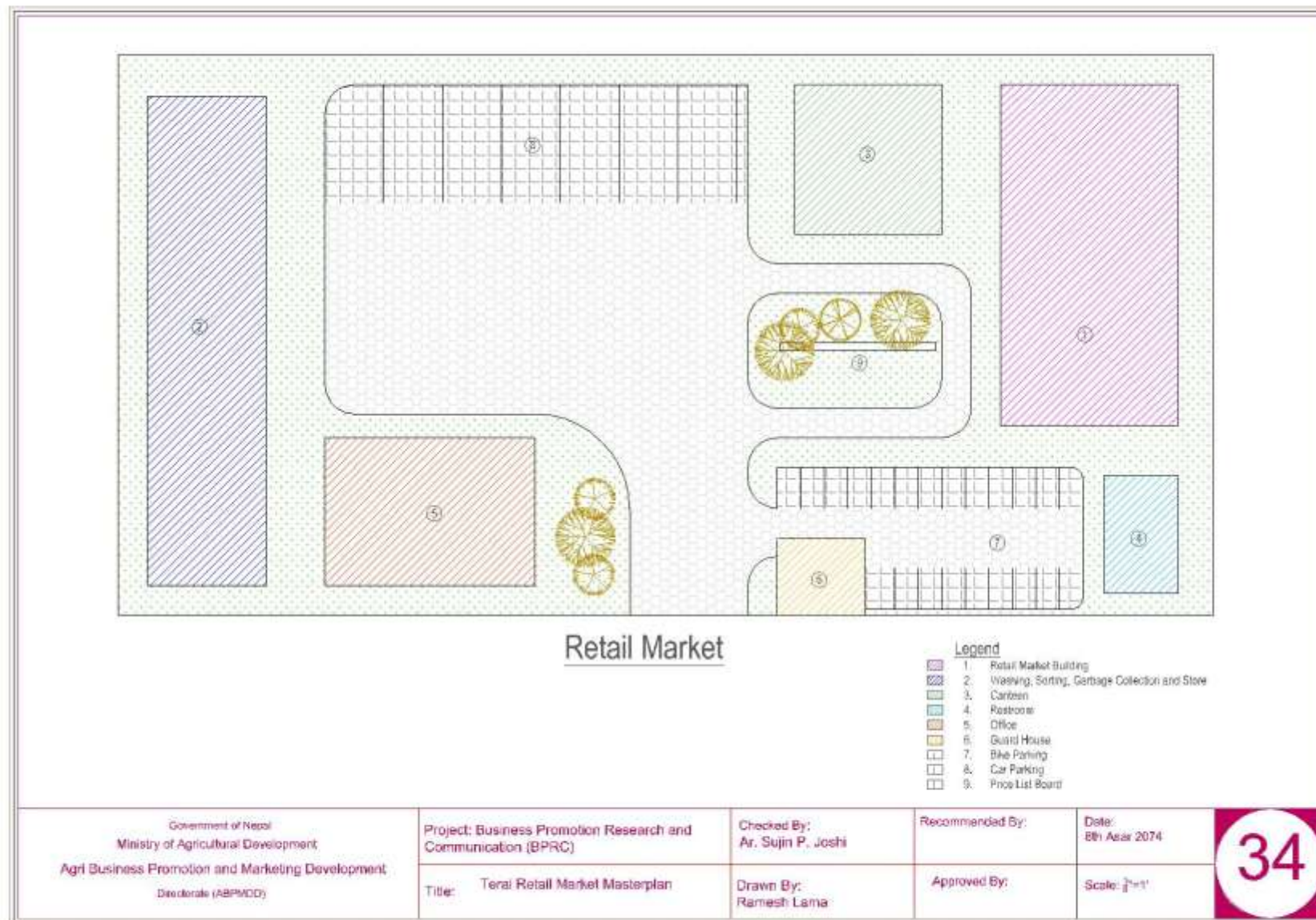


Figure 5.35: Standard design of retail market building (Terai region)

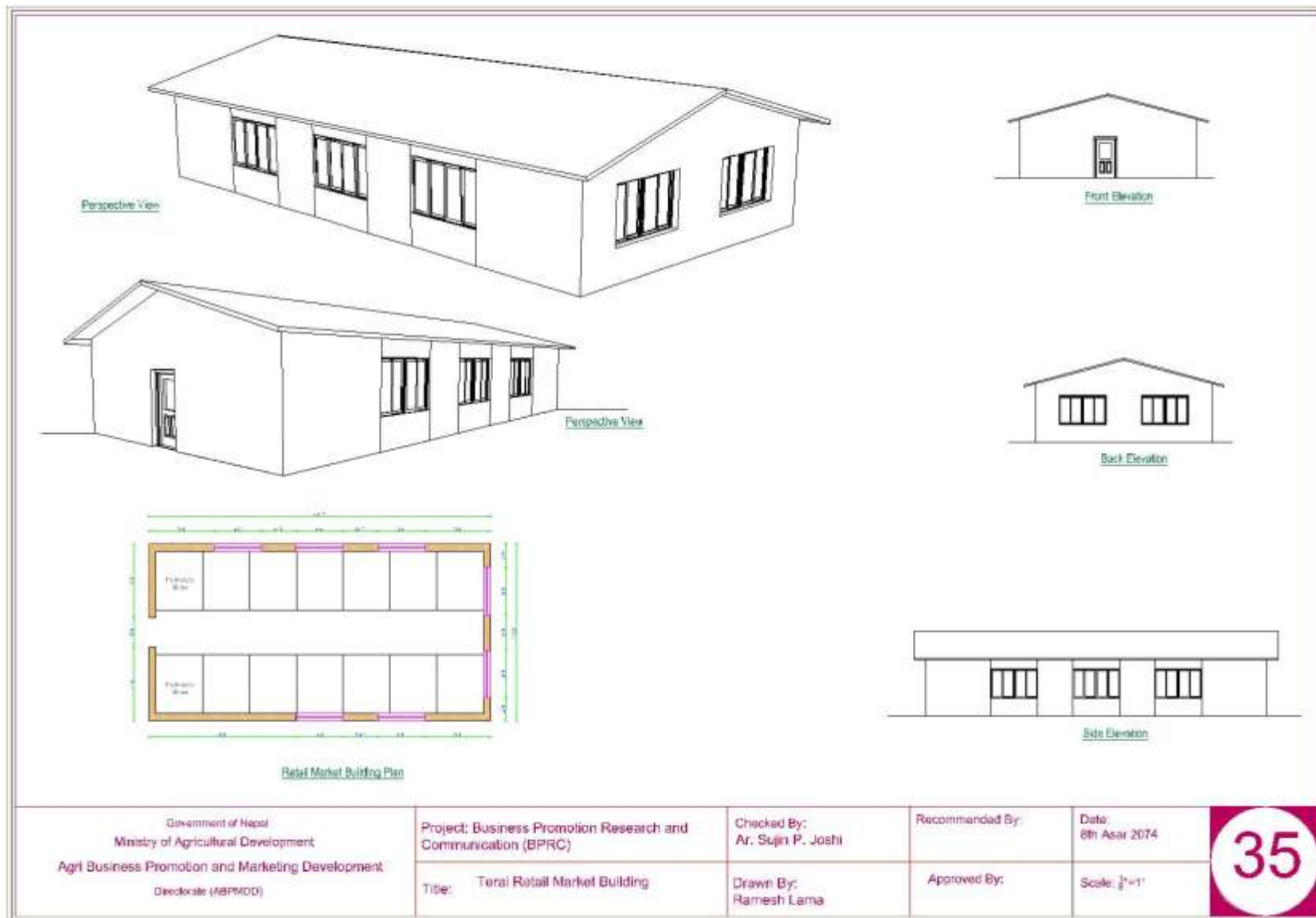


Figure 5.36: Standard design of retail market detail (Terai region)

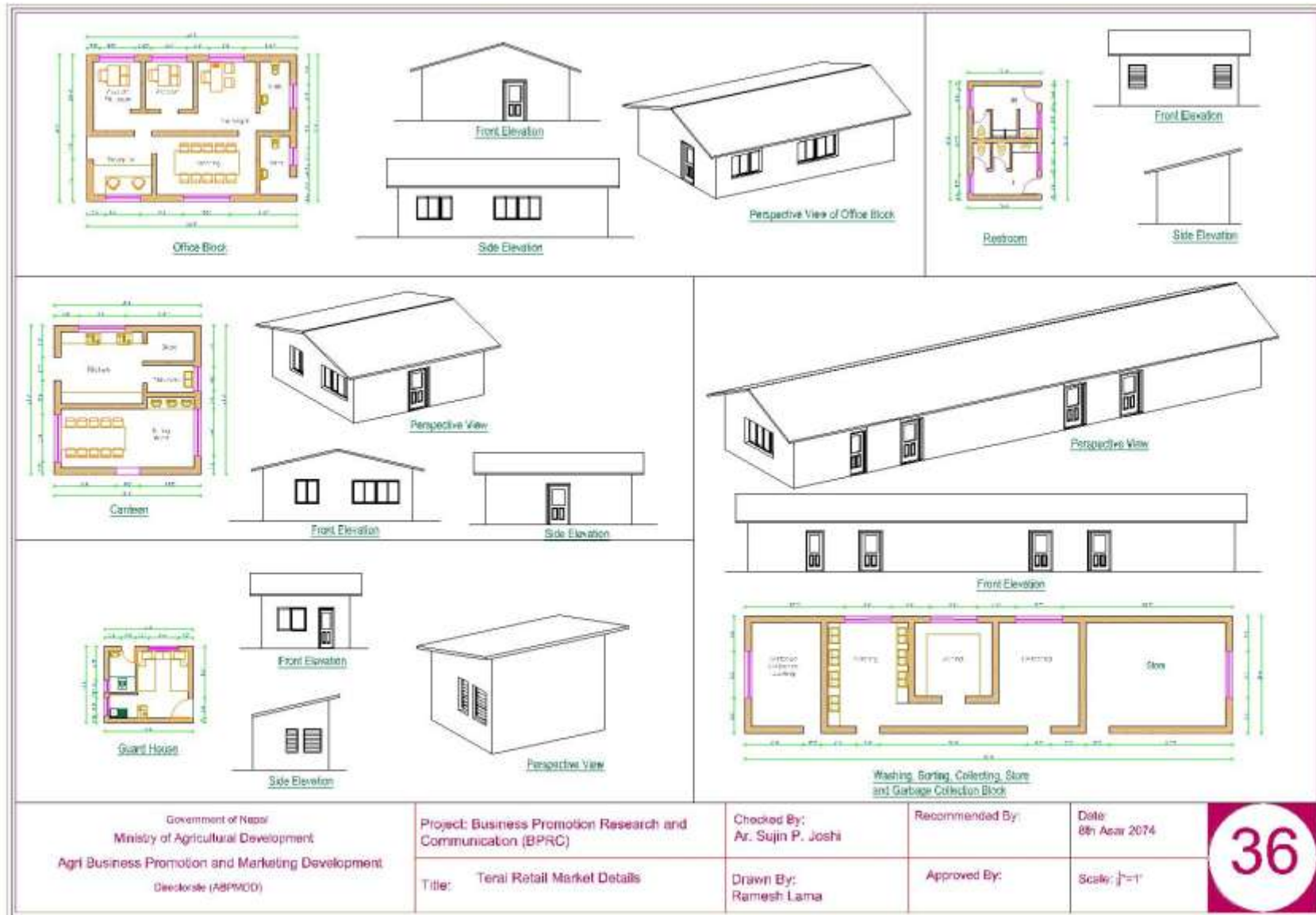


Figure 5.37: Standard design of collection center plan (Terai region)

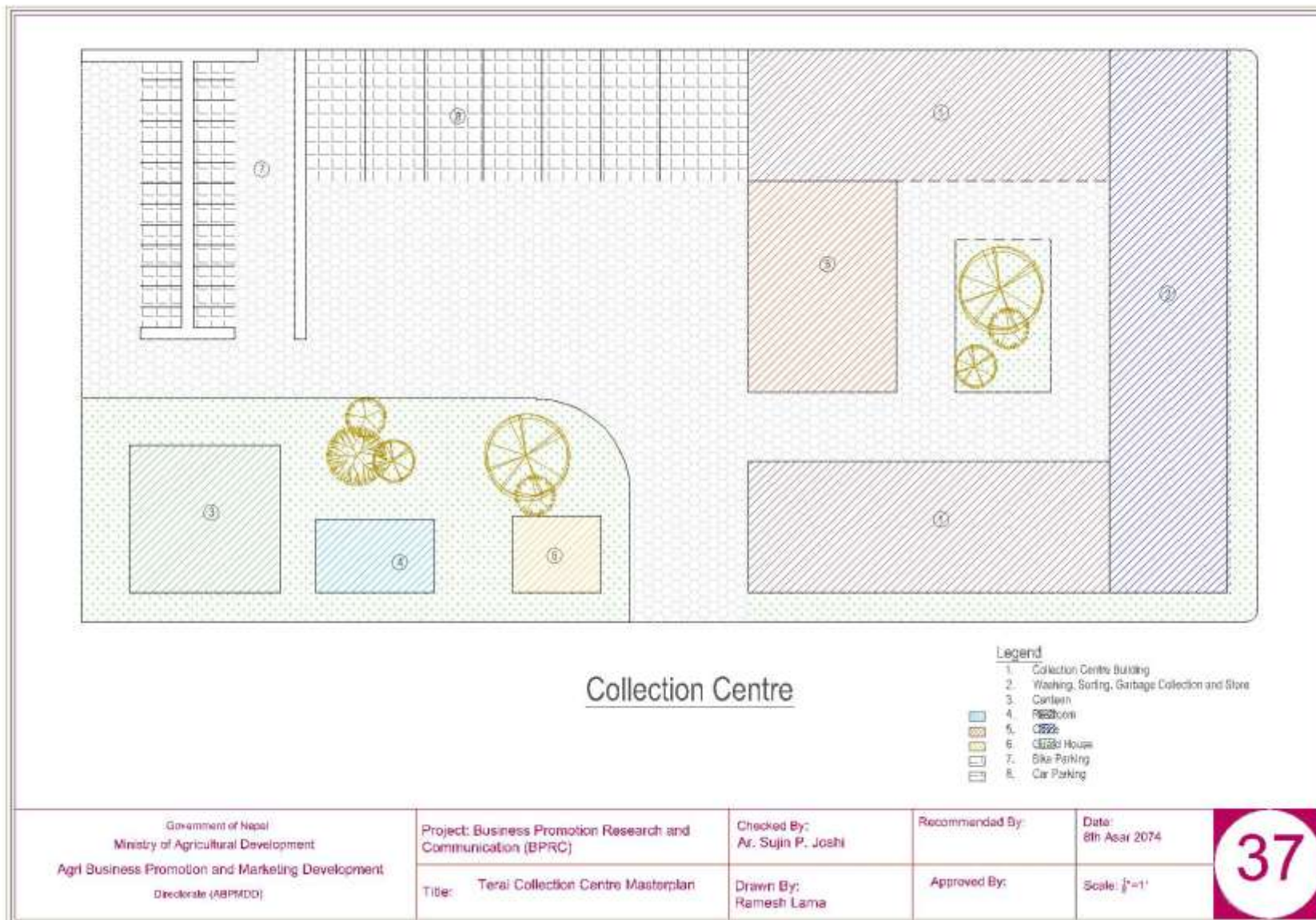


Figure 5.38: Standard design of collection center building (Terai region)

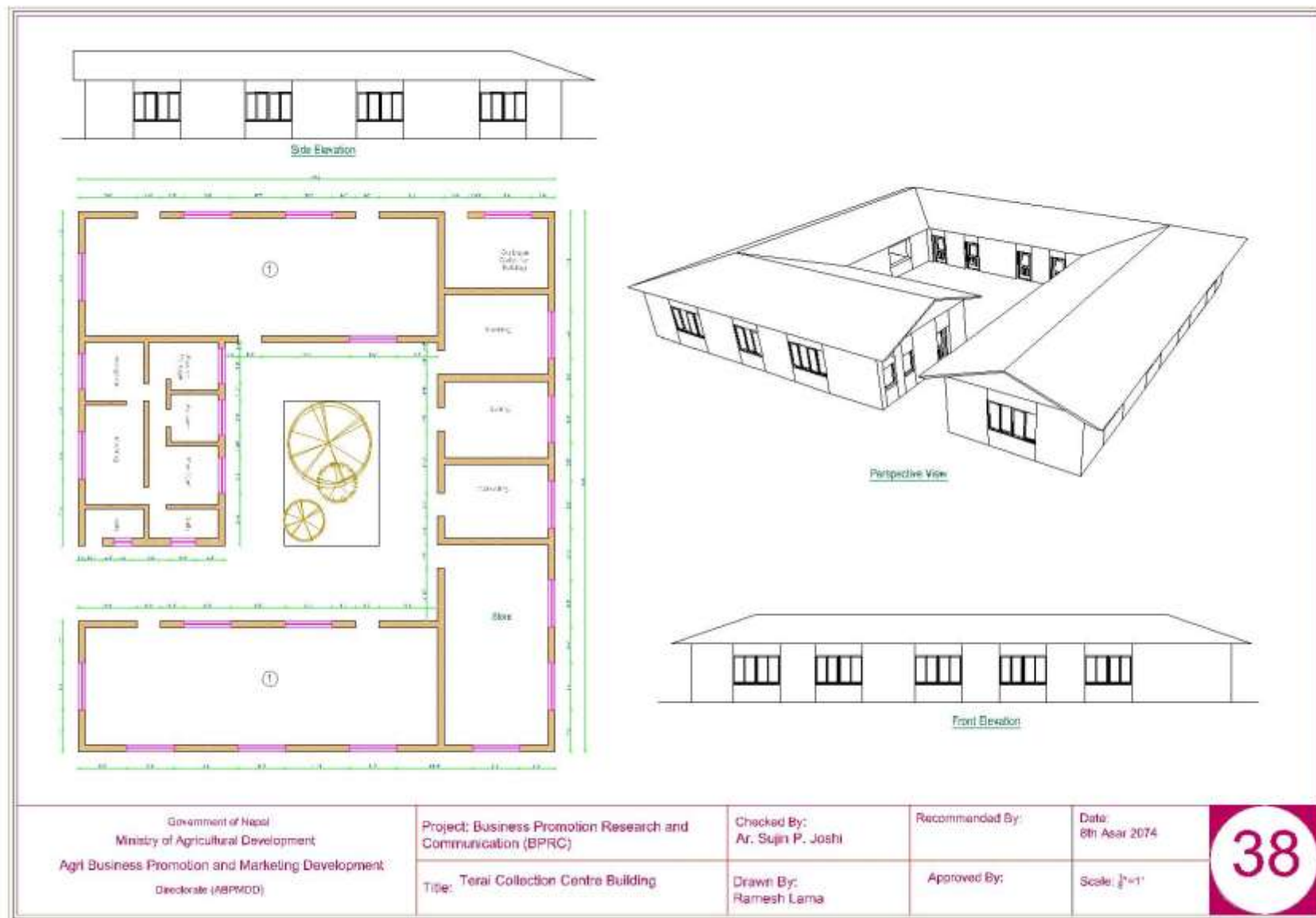


Figure 5.39: Standard design of collection center detail (Terai region)

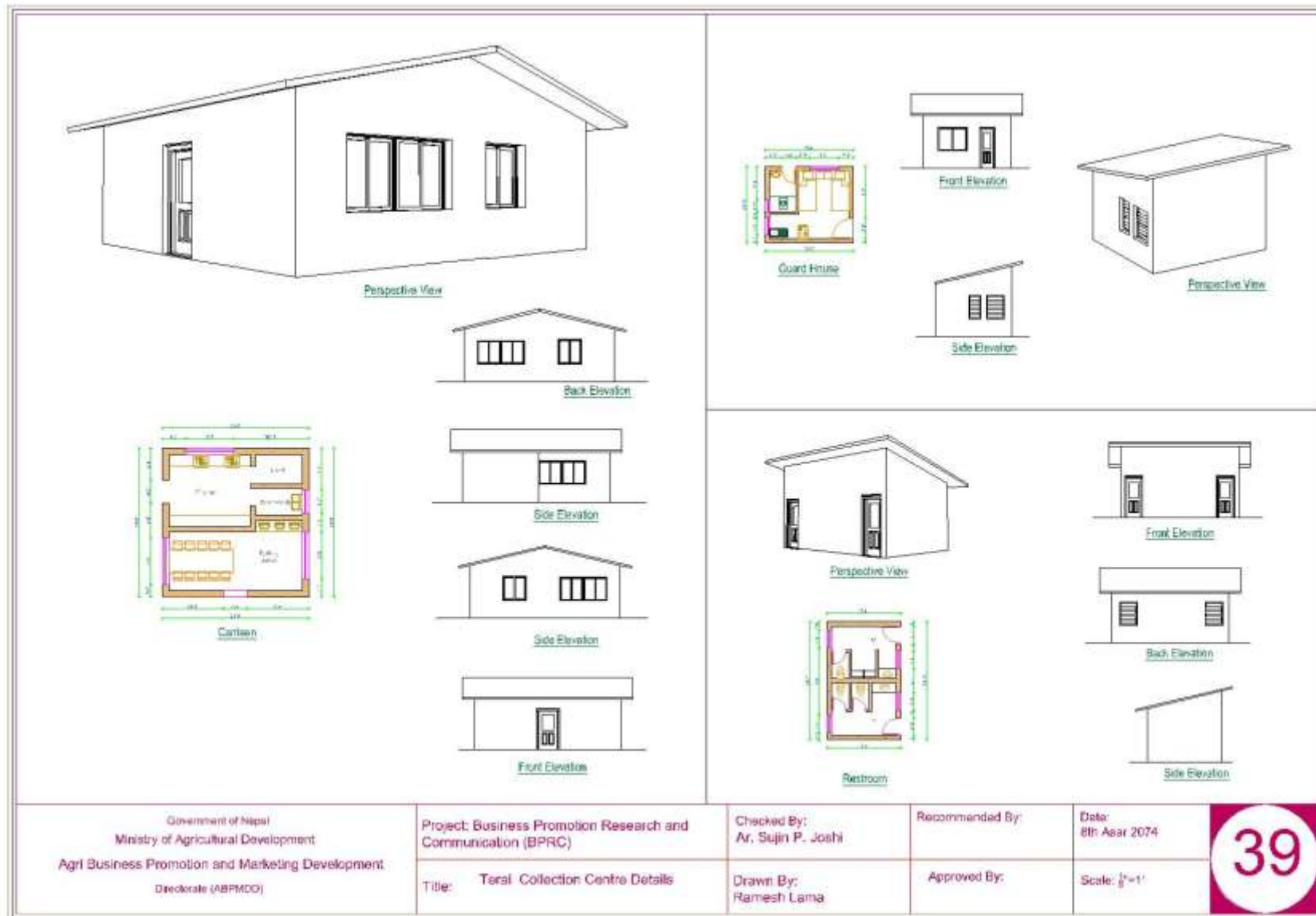


Figure 5.40: Standard design of cold storage plan (Terai region)



Figure 5.41: Standard design of cold storage building (Terai region)

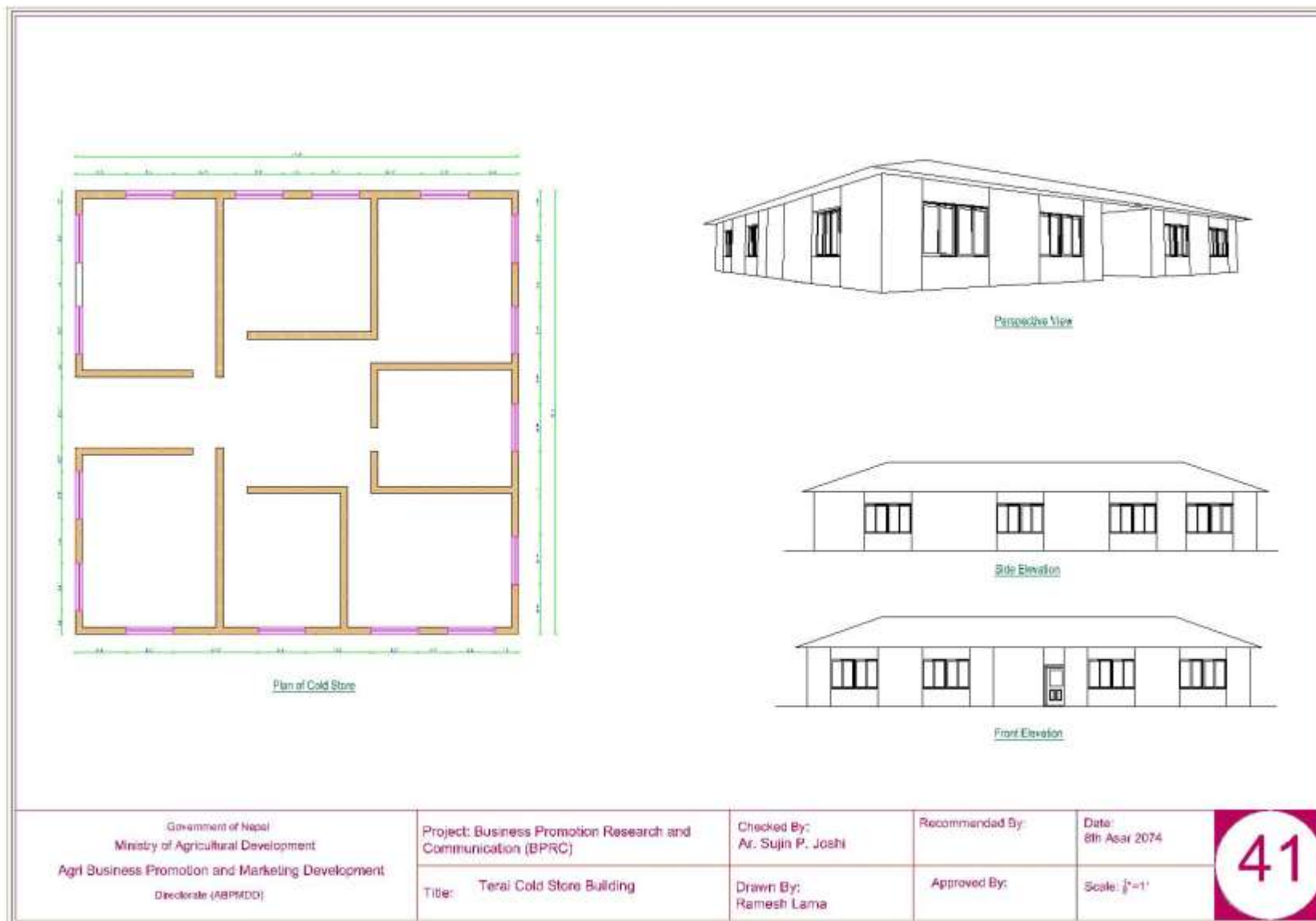


Figure 5.42: Standard design of cold storage detail (Terai region)



Figure 5.43: Standard design of haat bazaar plan (Terai region)

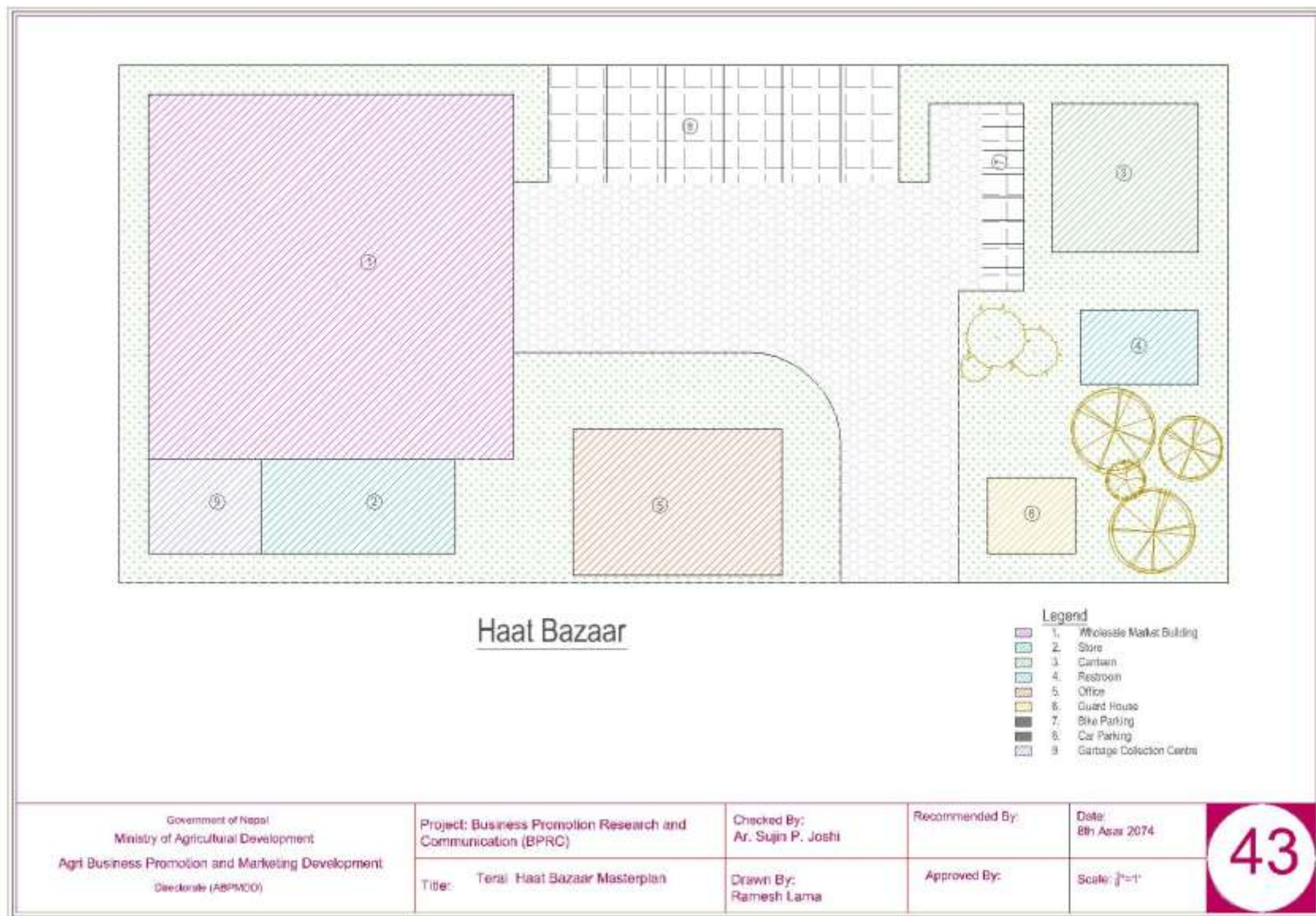


Figure 5.44: Standard design of haat bazaar building (Terai region)

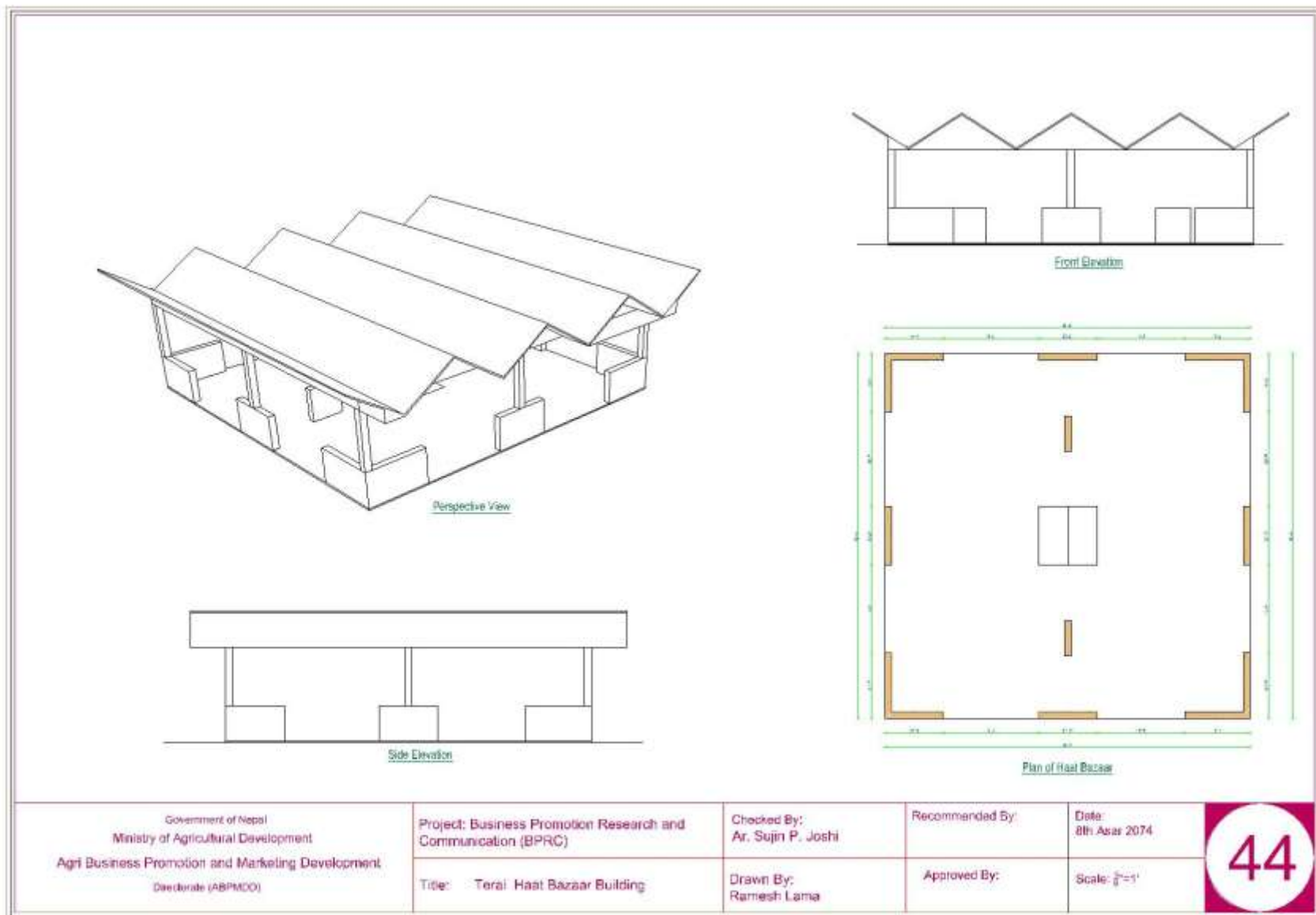
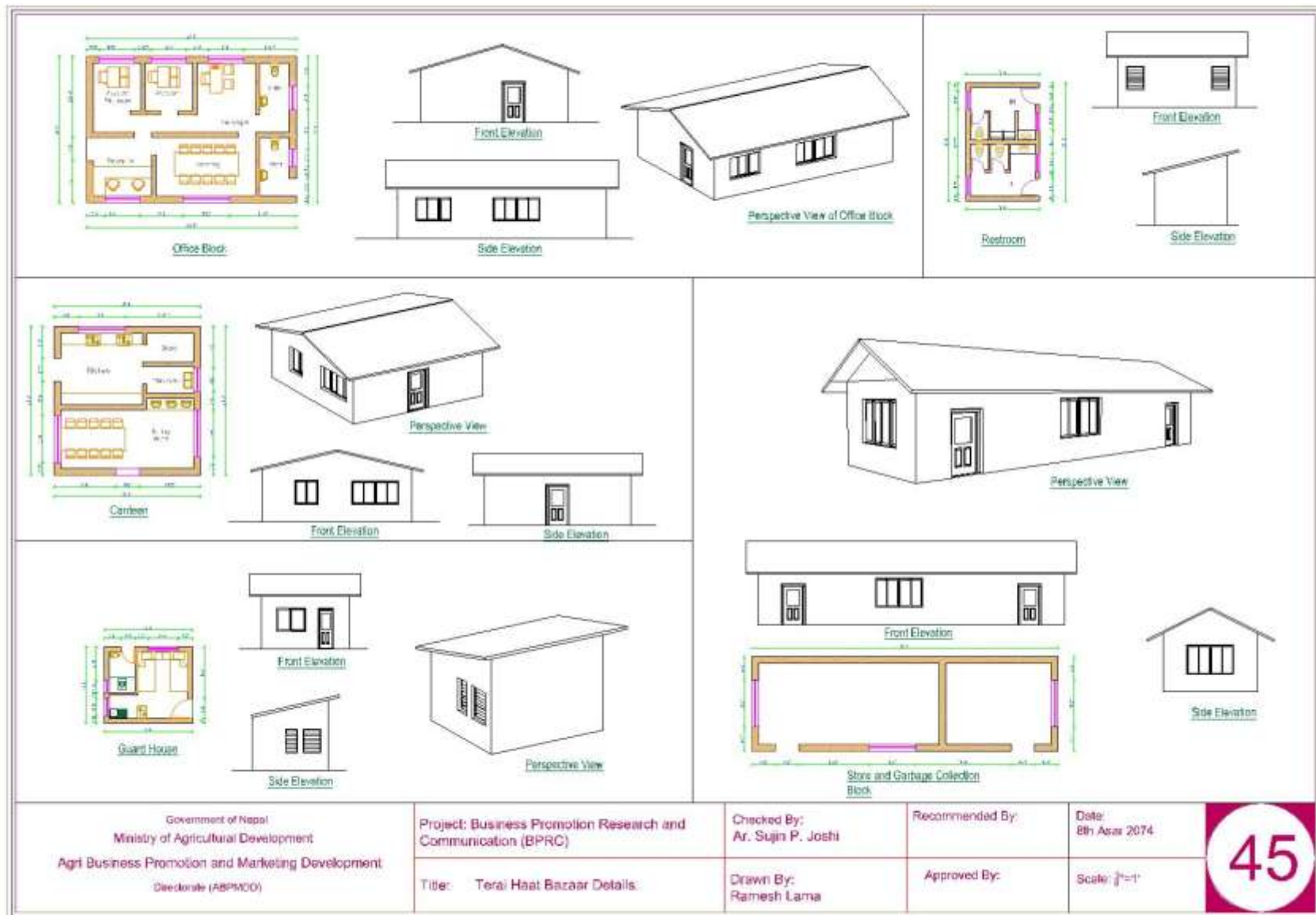


Figure 5.45: Standard design of haat bazaar detail (Terai region)



Chapter 6 Recommendations and Action Plan

6.1 Recommendations

6.1.1 Specific Recommendations

1. Nepal Agriculture Marketing Board (Apex body) should be formed with responsibility to develop agricultural marketing policies and strategies, coordinating marketing research, development and training programmers and provide supports and facilities for marketing information and development of legal environment.

The members of the board will be representatives from Ministry of Federal Affairs and Local Development (MoFLD), Federation of Nepal Chamber of Commerce and Industries, Agricultural Chief of all seven provinces, Department of Agriculture, Department of Cooperatives, national level representative of Traders Association and Consumer Association, related academicians and marketing experts nominated by MoAD. The board will be chaired by Secretary of MoAD and Program Director of ABPMDD will work as Member Secretary.

2. The Legislative provision for agricultural marketing does not seem satisfactory and the only legal basis available is the directives issued by the MoAD. "Agricultural Market Development and Management Act" Draft was submitted to parliament by MoAD 2055, but it has not been approved.

Establishment of MMC at various levels of markets has been considered the basic principle for market management and development, but MMC has no legal status unless it is promulgated under agricultural marketing act. Therefore, there is urgent need to enact the act as soon as possible to streamline the marketing system in Nepal.

3. Farmers groups are not legal though they are registered in District offices while associations are legal entities. Marketing cannot be regulated through these groups and cooperatives unless they are formed under the marketing act. There should be provision to legalize farmers groups by registering them under provision of some act.
4. Cooperative marketing system usually ensures higher level of producer's share, reducing the number of middlemen and restricting the marketing charges, malpractices during marketing of farm products. So, groups or cooperatives willing to sell their own products should be given incentives or marketing subsidies to make them competitive with the sole traders.
5. Agricultural marketing extension at present is more production oriented having less marketing orientation. The planning officers is designated to provide services required for marketing purpose, however these official are found working in isolation having not much interaction with other technical staffs. In view of this situation, it is recommended DADO should be given a clearly defined terms of reference to get involved in marketing extension. So agricultural marketing extension should be one of the annual program components of DADO and further emphasis has to be given for marketing training.
6. Lacking knowledge on post harvest management on the part of producers as well as intermediaries involved in the pipeline moving produce from farm to market and non availability of packaging materials is resulting heavy losses. Training should be conducted postharvest loss reduction and packaging to farmers, traders and others intermediaries like loader, truckers etc.

7. NARC is dedicated to conduct agricultural research, however the research of agricultural marketing so far have been negligible. It is recommended to establish marketing research unit under NARC, which should identify the need of stakeholders, there by conducting the technical research for the fulfillment of their needs.
8. Government should make effort in reduction of transportation cost, improving the market information system, and improving the bargaining power of farmer in price determination through trainings and awareness programs. To integrate markets and enable the markets, structural adjustment programs should be implemented.
9. Mobile phone applications, especially the android phones, may become one of the best sources of market information. Today almost all the farmers and traders have mobile phones. ABPMDD should develop mobile phone application for agricultural market information and uploaded in the website to which the concerned individual may have access to such facilities. This will facilitate marketing by linking buyers and sellers.

Apart from this, existing facilities like FM stations and local TV channels can also be utilized for broadcasting market prices of different commodities in the market centers situated in the district or major outside markets.

10. It is suggested that women representation in MMC should be at least 35%. Ethnic groups having greater role in marketing have to be given skills for improved marketing of agri-products. For the benefit of small farmers, it is desirable to develop group or cooperative markets and include them in an effective manner.
11. During field visit it was found that most of the market does not have even minimum physical facilities (drinking water, drainage, fencing, communication facilities- email, internet, fax), so government should provide certain financial and technical supports to MMC, to upgrade the existing facilities.
12. The residue (mainly vegetables and fruits) left in the market builds up a huge pile of garbage, which needs disposal arrangement, however these can be used effectively in marking compost. By making compost market centers will be cleaned, attractive to consumers and also earning extra income, so necessary instructions should be given to all markets to construct compost pits.
13. Government should promote the use of special purpose vehicle (refrigerated van) for transportation of perishable agricultural product. A need is seen to streamline the policy to enhance the private sector involvement in agricultural marketing development.
14. If possible Government should build cold store or formulate policy to attract private investment in building such facilities by providing relaxation in tax for import of equipments, electricity at cost price and provide incentives for fabrication for such unit.

6.1.2 Recommended Strategy for Market Infrastructure Development

Haat Bazaar

Haat Bazaars need minimum investment in its structure. These are the rural markets and a place where villagers meet and socialize. The traders have to pay minimal fee for the space they occupy during the day of haat. A truss structure, open all sides, with CGI roofing and paved floor will serve the purpose. Such structures should be built on public land and regulated by the local bodies. The minimum requirement should be

- Open sheds
- Weighing facilities
- Drinking water facilities
- Lavatories
- Dumping site

- Cleaning, grading and packaging yard
- Small office room
- Toilets

Retail Market

The retail markets should be located in district headquarters, municipalities, city/town and other places having relatively large settlements. Retail markets will be developed on PPP model or through private entrepreneurs in public or private land. The ownership should be either public or private. Market should be regulated and controlled by the local bodies.

As retail markets will be located in densely-populated areas, it is likely that such places tend to be overcrowded and unhygienic. Care should be taken that the markets have wider space between the stalls for easier movement of consumers and the stalls aligned in straight rows. The walkways should preferably be concrete for easier cleaning and hence better hygiene. There should be plenty of light and air. The minimum facilities will be

- Structure with roof
- Lavatories
- Drinking water
- Dumping site
- Market information board
- Separation of different types of specialized products

Wholesale Market

The wholesale market should be located in the outskirts of municipalities, district headquarters and big city/towns having access through wide road. The construction should include large sheds with secure places for storage, parking lot, lavatories, drainage, dumping/compost pits, water and electricity. This should be constructed by PPP model or through private entrepreneur. Such markets should be controlled and regulated by the government. The minimum facilities should be

- Facilities for in and out of local transportation means
- Shed with roof
- Office with meeting and training halls
- Weighing Facilities
- Grading and packaging facilities
- Loading and unloading ramp
- Lavatories
- Drinking water
- Dumping site
- Fire extinguisher
- Market information board
- Canteen
- Clock tower
- Bank counter
- Quarantine facilities
- Pesticide residue testing lab
- Security guard
- Ripening and cold chamber
- Common room for traders
- Auction shed
- Hording board
- Bio-gas generation and its use along with solar power for energy use in the center

Collection Center

The Collection Center is the place where the primary produce is collected and forwarded to retail or wholesale market. This usually should be located at the road head or at exit of the production pocket. Simplicity of the structure is the key to low costs during construction and its future sustainability. The structure should be simple enough. A steel truss structure open all sides with CGI roofing and paved floor will serve the purpose. Other facilities like parking lot, lavatories, drainage, dumping/compost pit, water and electricity are compulsory in each collection center. Permanent storage space under lock and key is not the requirement. The weighing balance and other utilities should always be under the care of closest resident in the area. The site of the collection centers should preferably be on the public land. Collection centers should be controlled and regulated by the local bodies. The minimum requirements will be

- Facilities for in and out of local transportation means
- Shed with roof and fencing
- Office
- Weighing facilities
- Grading and packaging facilities
- Loading and unloading ramp
- Lavatories
- Drinking water
- Dumping site
- Fire extinguisher
- Market information board
- Canteen
- Cold chamber
- Pesticide residue testing lab
- Security guard
- Auction shed
- Hording board
- Bio-gas generation and its use along with solar power for energy use in the center
- Weighing machine (truck load)
- Input sales counters
- Farmers call center

All the infrastructures should be gender friendly and should have greenery around the structures.

Cold Store

Cold stores are the special purpose storage structures meant for storing perishable commodities. Traditional cold stores, single chamber or multi-chamber, are very expensive and not feasible in areas having less production for storage. Prefabricated cold stores of various dimensions and for storing different types of perishable commodities are available in the market. Feasibility study of cold storage should be made and decide upon the size and type of cold store to be established at the recommended site.

6.2 Implementation

6.2.1 Implementation of the Master Plan

The overall purpose of preparing a Master plan is to provide a framework to guide the public and private sector in making appropriate site selection and planning decisions.

Implementation of the master plan and subsequent activities related to management of the market will involve the co-ordination of activities of municipalities, district coordination committee (DCC), village committee (VC) as well as central government ministries and departments.

ABPMDD of DOA has overseen past activities in the field of agricultural market development. It would, therefore, seem most logical for ABPMDD to take over the co-ordination role for the implementation of master plan, although for it do successfully would appear to require considerable increase in its staffs and financial resources.

The role of government is to regulate and facilitate agriculture marketing by sanctioning prevalent rules and regulations and providing marketing extension including market information service and other support services. ABPMDD's role in supporting these activities would be the upgrading and enhancement of the present market information system, creating suitable atmosphere to establish and operate new markets. Market management and operation should be in the hands of democratically elected market management committees.

The ABPMDD should encourage private sectors cooperatives for the construction of different agricultural markets.

6.2.2 Action Plan

SN	Activity	Within 5 years	5-10 years	10-15 years	15-20 years	Responsibility
General						
1	Approval of agricultural marketing act					ABPMDD/ MoAD
2	Identify exact location of market centers (regular)					DADO/ Local bodies
3	Develop agriculture market information system					ABPMDD
4	Institutional Development for agricultural marketing					ABPMDD/ DADO
5	Regulate market activities					ABPMDD/DADO
6	Develop PPP model of agriculture market development					ABPMDD
7	Establish market centers					DADO/ Local bodies
Specific						
1	Develop and upload Mobile phone applications in the website					ABPMDD
2	Make provision to broadcast marketing information through FM stations and local TV channels in the districts.					ABPMDD/DADO
3	Legalize farmers groups by registering them under provision of some act.					MOAD/ ABPMDD
4	Provide incentives/subsidies to groups or cooperatives willing to sell their own products					MOAD/ABPMDD
5	Reformulate district agriculture program with agricultural marketing extension as one of the program components and marketing training to three levels of trainees- a) producers b) traders and c) extension workers.					MOAD/DOA/ABPMDD
6	Make policy adjustment in reduction of transportation cost, improving the market information system, and improving the bargaining power of farmer in price determination.					MOAD
7	Revisit present structure of agriculture marketing and implement structural adjustment programs.					MOAD
8	Make policy adjustment for women representation in MMC to make at least 35%.					MOAD
9	Make policy adjustment for provision of use of special purpose vehicle (refrigerated van) for transportation of perishable agricultural product.					MOAD
10	Make policy adjustment to create an enabling environment to attract private sector investment in the development of different levels of markets					MOAD

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29. Planning Norms and Standards, 2013, Department of Urban Development and Building Construction, Kathmandu
30. Statistical Information on Nepalese Agriculture, 2009-14, Ministry of Agricultural Development, Kathmandu
31. Statistical Year Book of Nepal, 2013, Central Bureau of Statistics, Kathmandu
32. Agriculture Development Strategy (ADS), 2014, Ministry of Agricultural Development, Singhdurbar, Kathmandu
33. Statistical Information on Nepalese agriculture 2014/2015, MoAD, Agri-Business Promotion and Statistics Division, Singhdurbar, Kathmandu

Annex 1: Criteria developed/adopted for selection of different Agricultural Products Marketing Centers.

Collection Center

The identification of potential collection centers was undertaken through a two stage process. First district interaction meeting was held in each district to identify areas where there is a need of collection centre, second 2-3 production pockets were visited in each district, informal discussion were held with local producer retailers, traders and consumers on their marketing problems. These resulted in the preparation of a list of potential areas. To assure the market access of commercial agricultural products collection centers are proposed near the potential production pockets.

Haat Bazaar

It is very common to have a Haat Bazaar at a particular day of the week at a designated place in a village. It is mostly a collection of individual framers bringing their produce for sale. The buyer may be another farmer, a local resident of the village, a local retailer, who will purchase that day or a pelt trader.

The selection of sites and number of Haat Bazaar was mainly based on (i) outcome of suggestion of district interaction meeting (ii) around the neighborhood and (iii) projected production and population growth.

Retail Market

The Retail Markets serves the local consumers; it should be within the walking distance of the consumer. The products are acquired from local wholesalers. But in practice, retailers were also found procuring agricultural products directly from farmers at a cheaper rate.

Thus the selection of sites for Retail Market was mainly based on (i) Feedback from district interaction meeting (ii) close to neighborhood and projected population growth.

Wholesale Market

The volume of transaction is large and produces are dispatched to several retail markets and even to other districts after meeting the demand of the particular area. Large producer and cooperative farmer groups have direct access to these markets.

Thus the selection of sites for wholesale markets was mainly based on (i) suggestion of district interaction meeting (ii) volume of transaction (District / domestic production) and possibilities of import from other district.(iii) Out skirts of town or cities having direct access to all weather road.

Cold Store

At present condition, ware potato, seed potato, fruits, onions, ginger, garlic are major commodities, which are stored in cold store. Thus the selection of site of cold storage in each district was also based on the (i) projected production of these commodities.(ii) Out skirts of town or cities having direct access to all weather road.

Annex 2: Norms and standards for agricultural market infrastructures

2.1 Minimum area and prioritized facilities for agricultural markets (Norms and standards for agricultural market infrastructures to be developed by government sector, 2066)

SN	Type of Market	Minimum area		Prioritized Infrastructure
		Terai	Hills	
1	Whole sale	1.5 bigha	13 ropani	Compound wall, Approach road, Toilet, Office, Information Centre, Store/godown, Drinking water
2	Retail	2 kattha	1 ropani	Stall, Store, Drinking water, Toilet
3	Collection center	3 katha	1 ropani	Shed, Store, Weighing facility, Drinking water, Information-communication facility
4	Hat bazaar (with collection center)	10 kattha	3 ropani	Shed, Toilet, Drinking water, Information-communication facility
5	Hat bazaar (without collection center)	7 kattha	2.75 ropani	Shed, Toilet, Drinking water

Note: For mountain districts, minimum area should be at least half the area for hill districts.

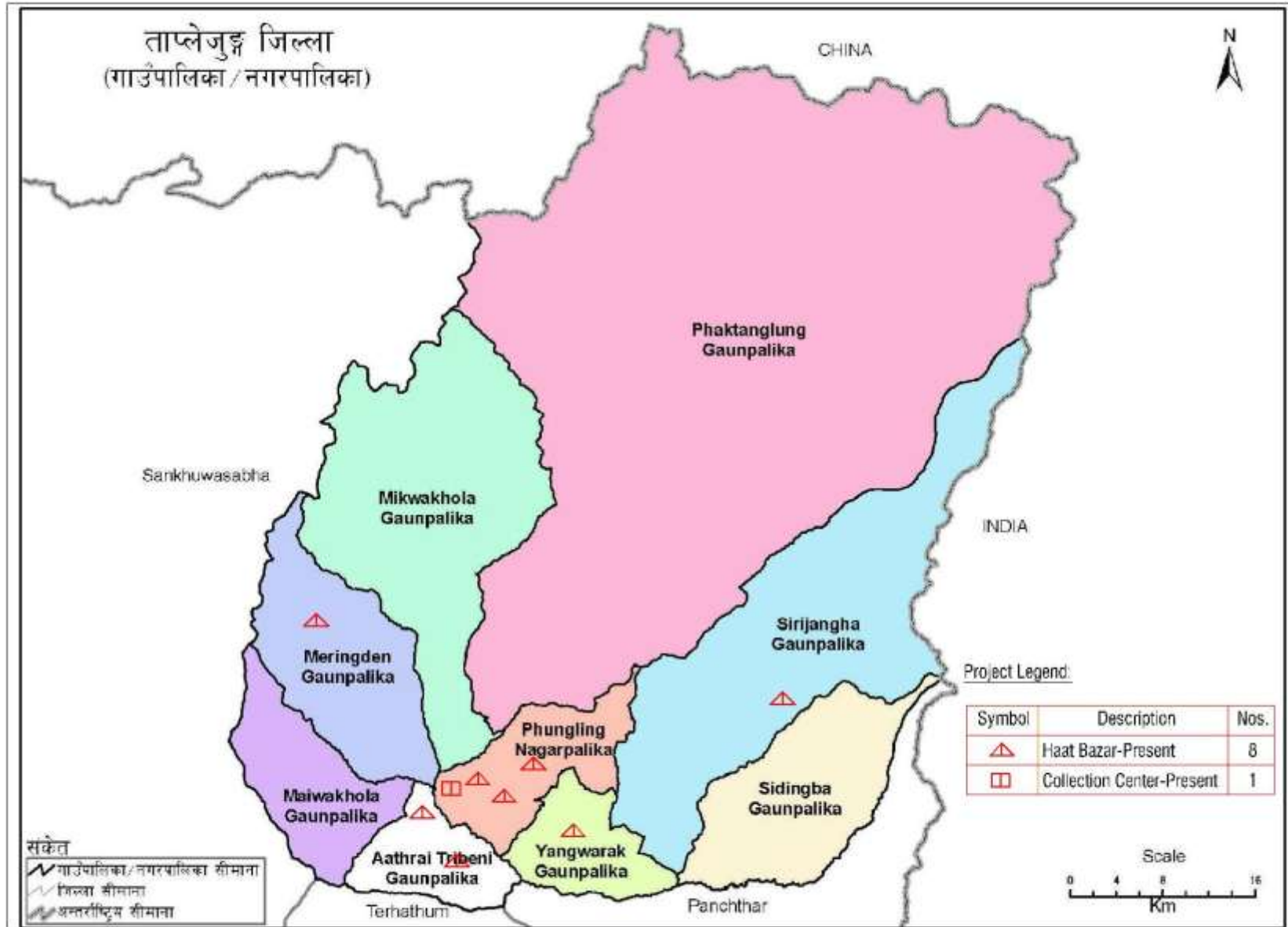
2.2 Planning norms and standards 2013, Department of urban development and building construction

Infrastructure norms and standards

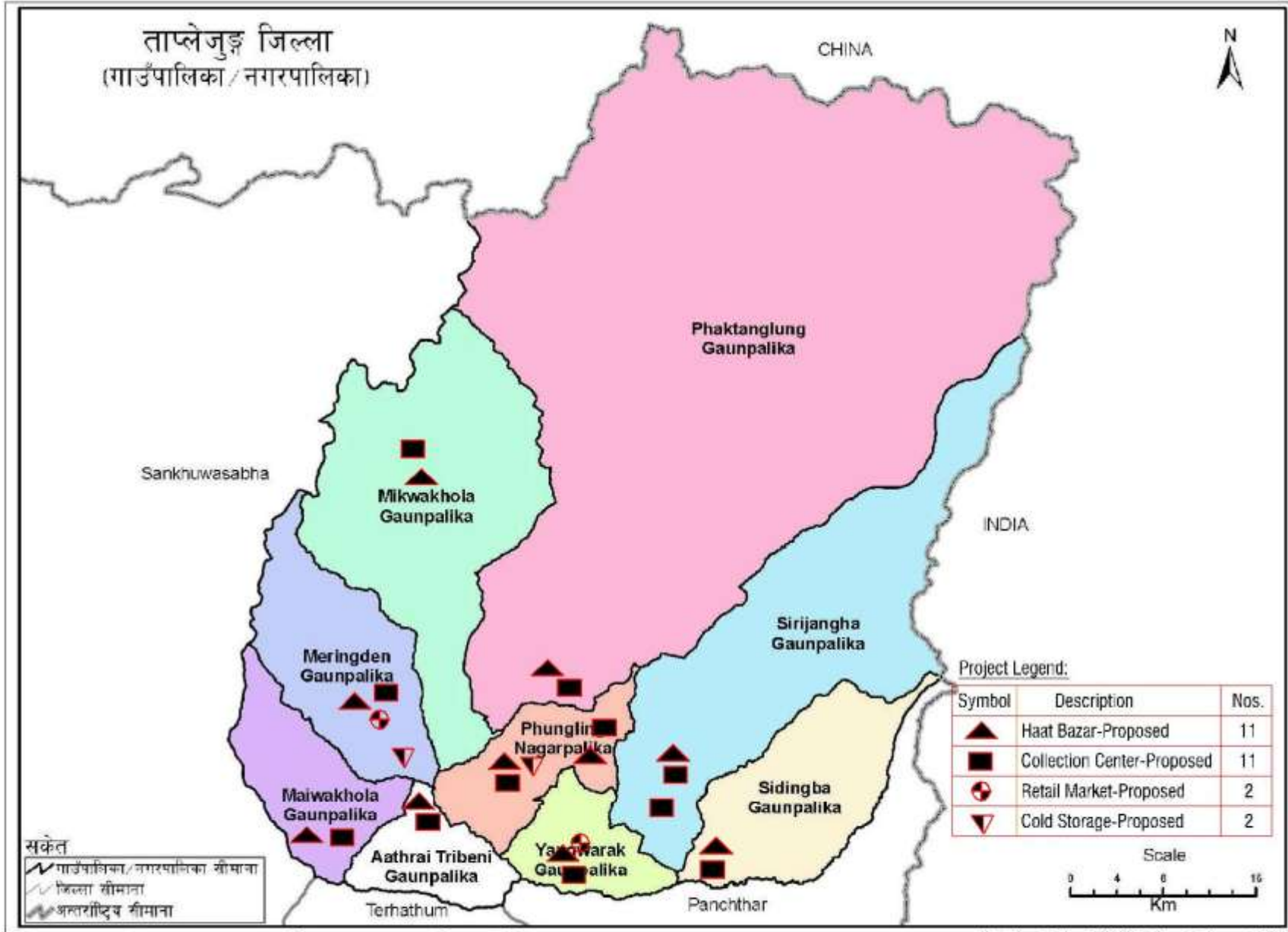
SN	Type of infrastructure	Norms	Standard	Source
Market center (above 50 shops)				
1	Hat bazaar	Twice a week (open area) Vegetable/ meat market with cold storage facility	0.2 ha per site	Master Plan of Delhi, Delhi Development Authority (DDA), 2001
Sub city (10,000-40,000 population)				
2	Vegetable Market	1 vegetable/ meat market with cold storage facility and other commodities	0.5 ha per site	
City (40,000- 100,000 population)				
3	Vegetable Market	Neighborhood Level	1 wholesale, 1 retail and 1 Slaughter House for 2 neighborhood 0.5 ha per site (1 Neighborhood = 3000 population)	Periodic Plan of Lekhnath, 2063
Submetro (100,000-300,000 population)				
4	Vegetable Market	Neighborhood level	1 wholesale, 1 retail and 1 Slaughter house for 2 neighborhood (0.5 ha per site) 1 Neighborhood = 3000 population	Periodic Plan of Lekhnath, 2063
Metro city (above 3 lakhs population)				
5	Vegetable markets with wholesale(Central/regional/district/local)	Neighborhood Level	1 wholesale, 1 retail and 1 Slaughter house for 2 neighborhood (0.5 ha per site) 1 Neighborhood = 3000 population	Periodic Plan of Lekhnath, 2063

Annex 3: GIS maps

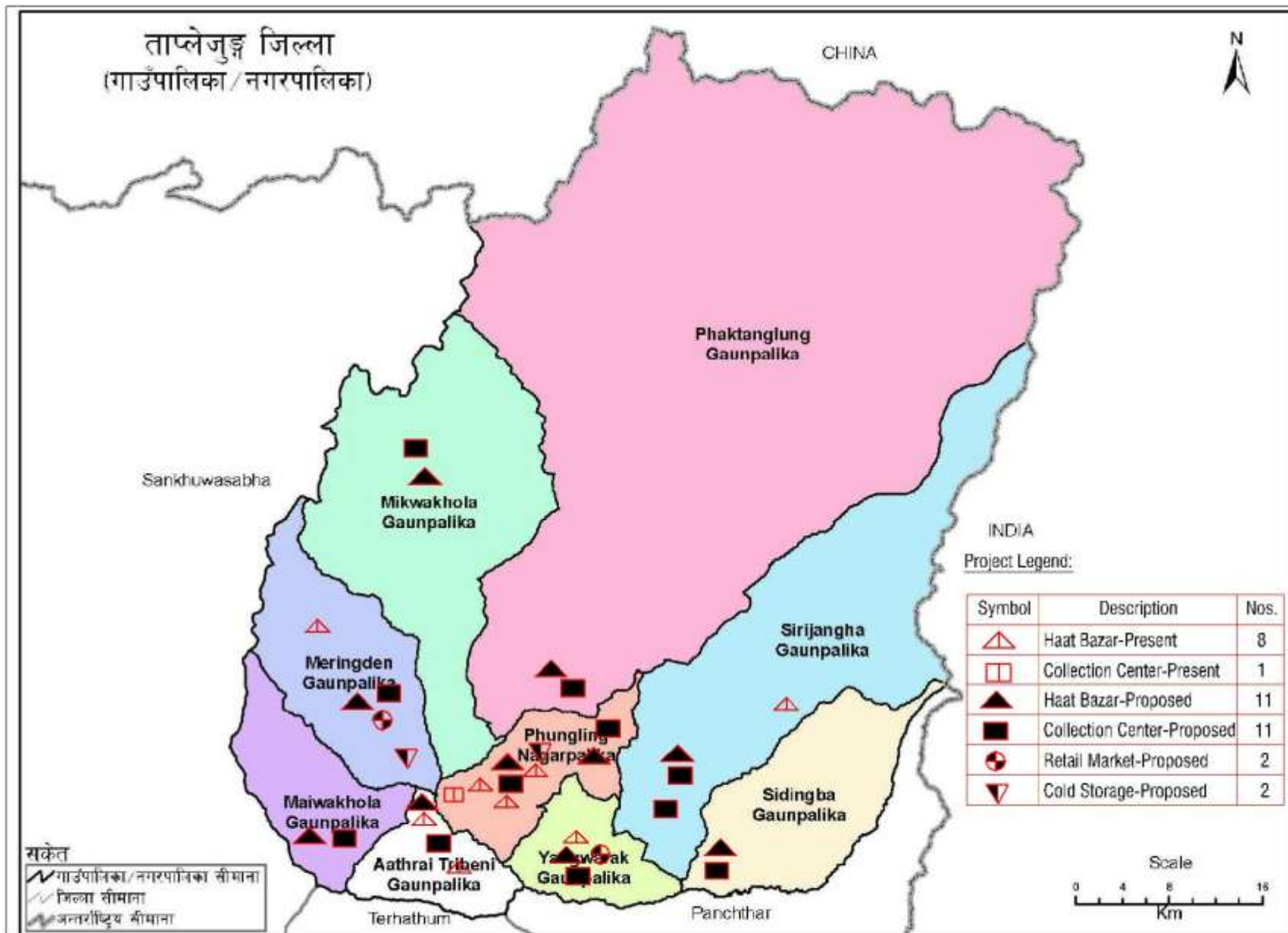
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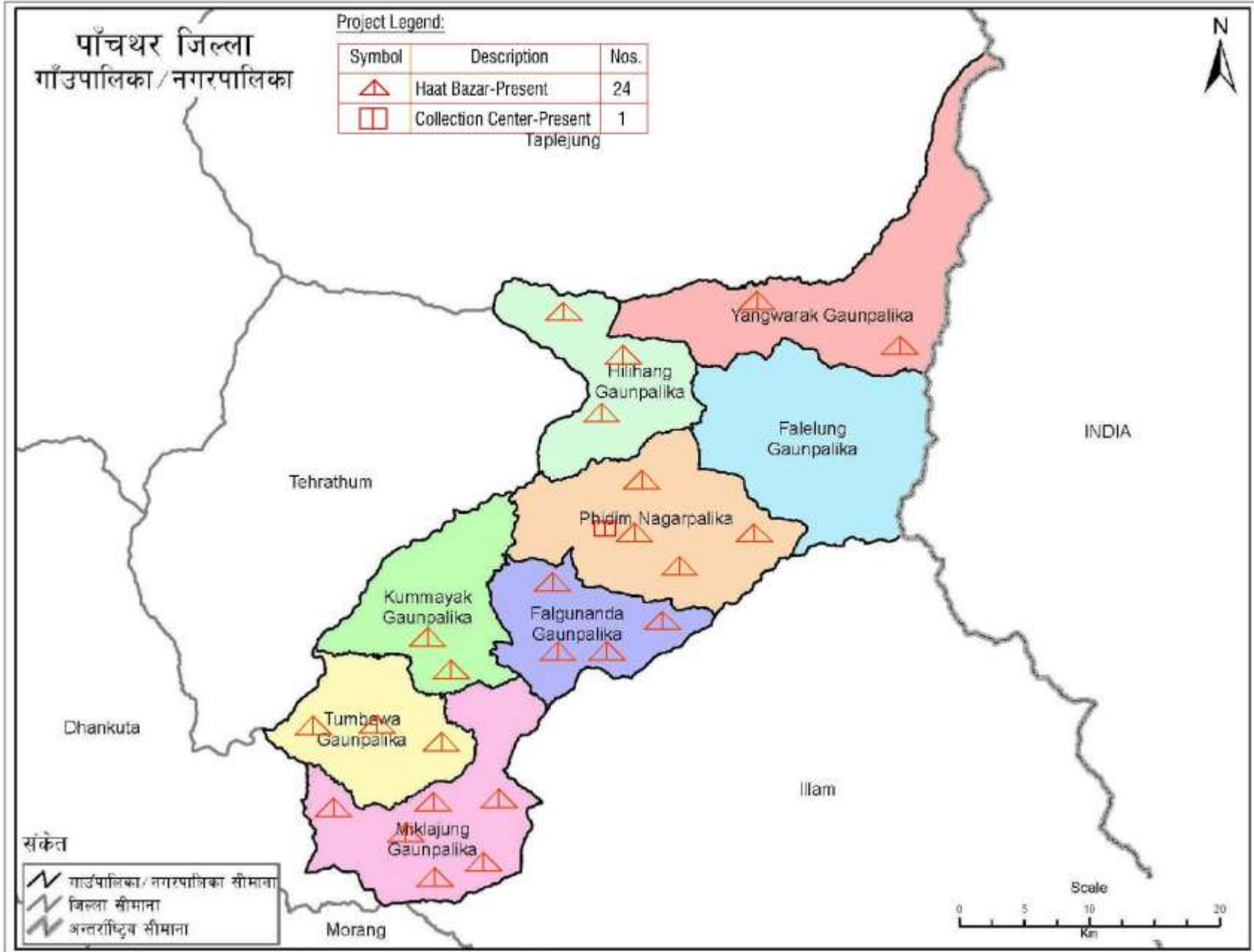
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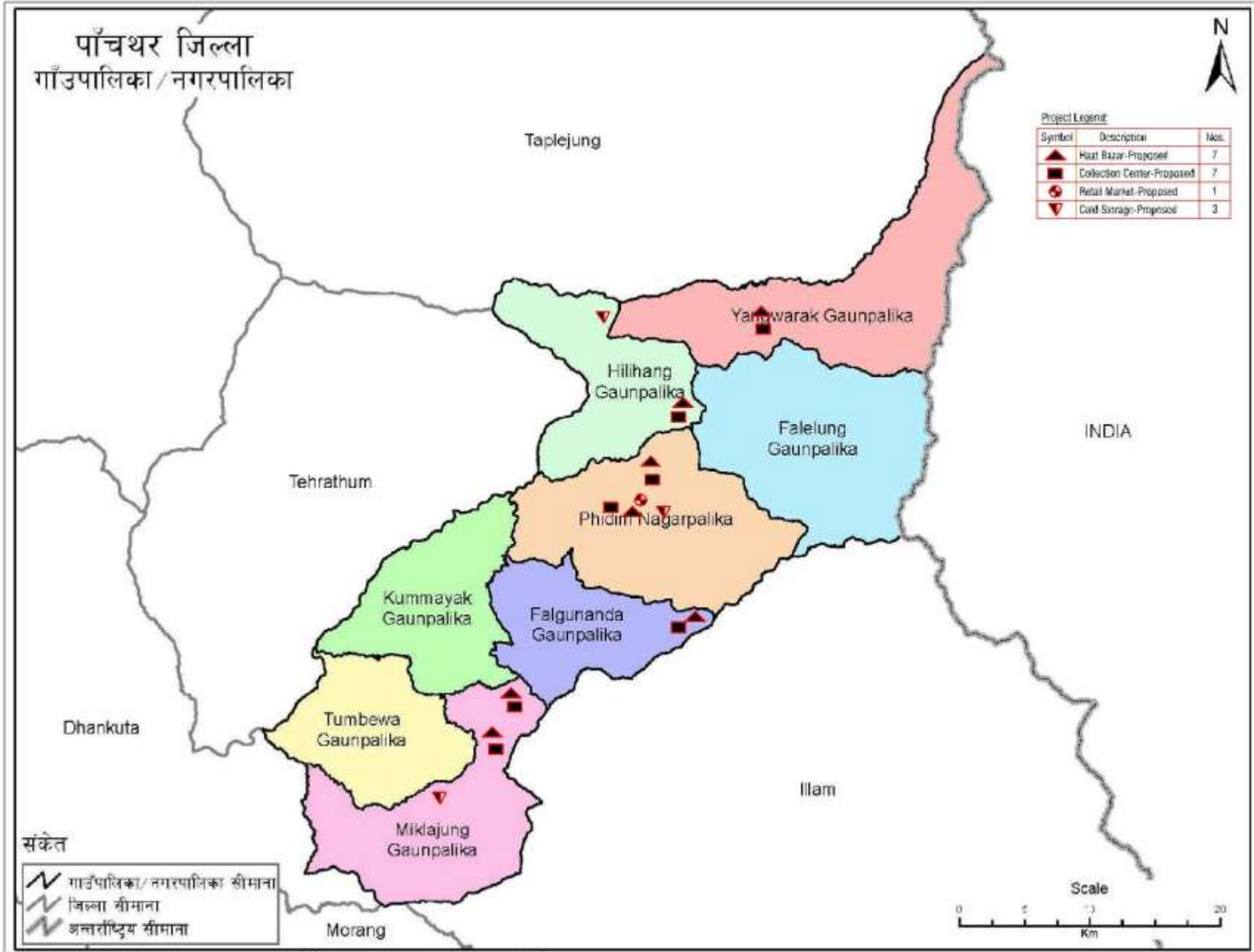
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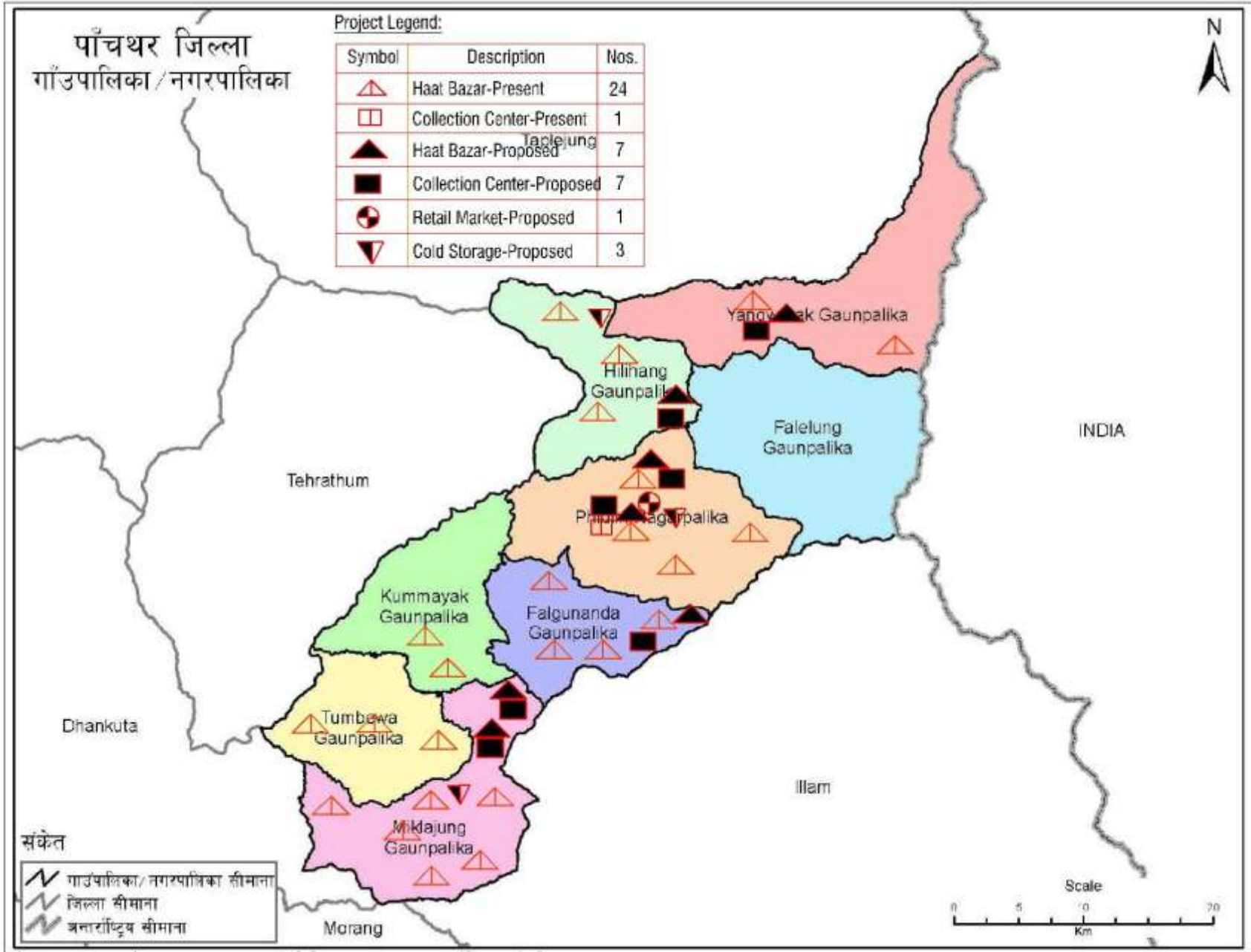
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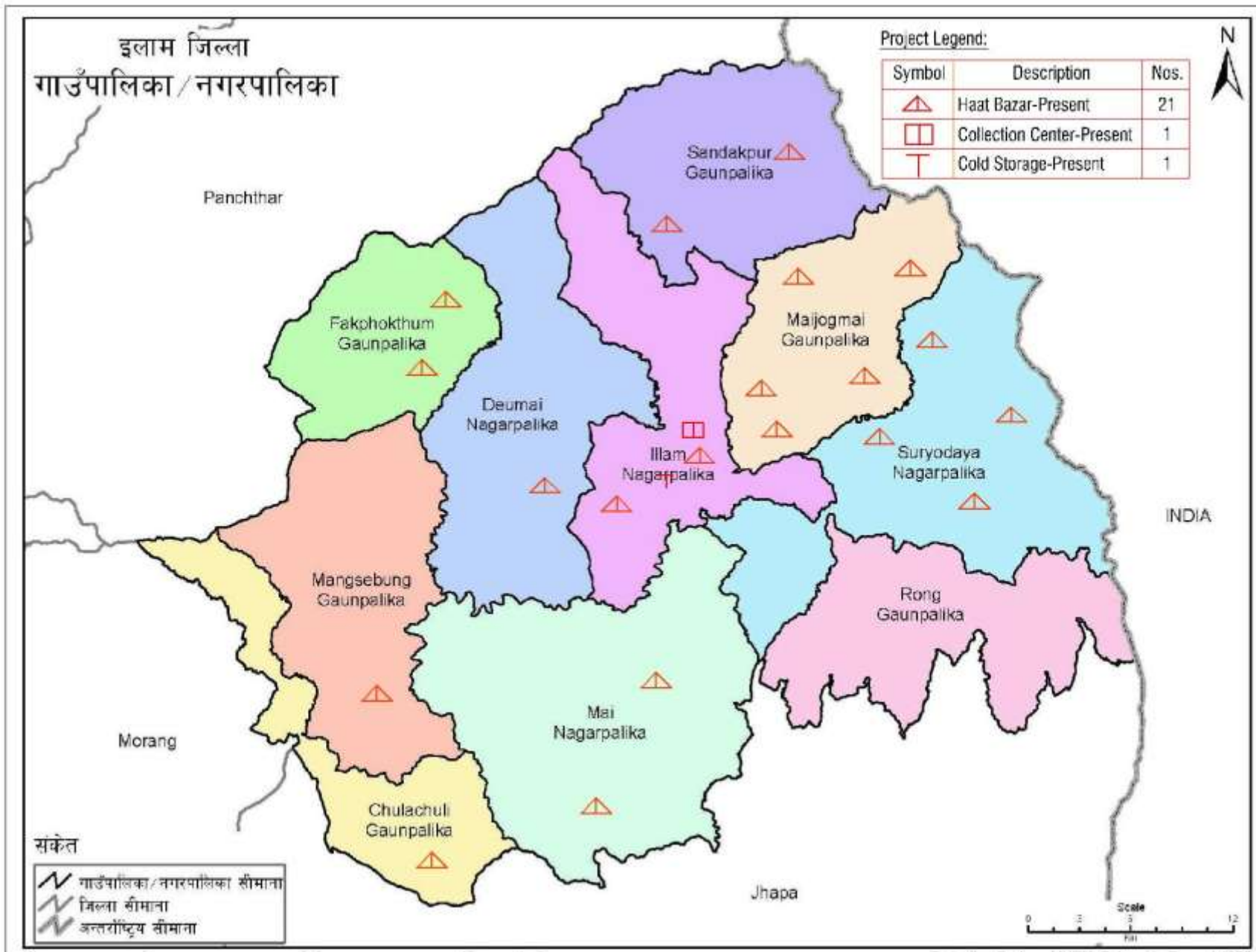
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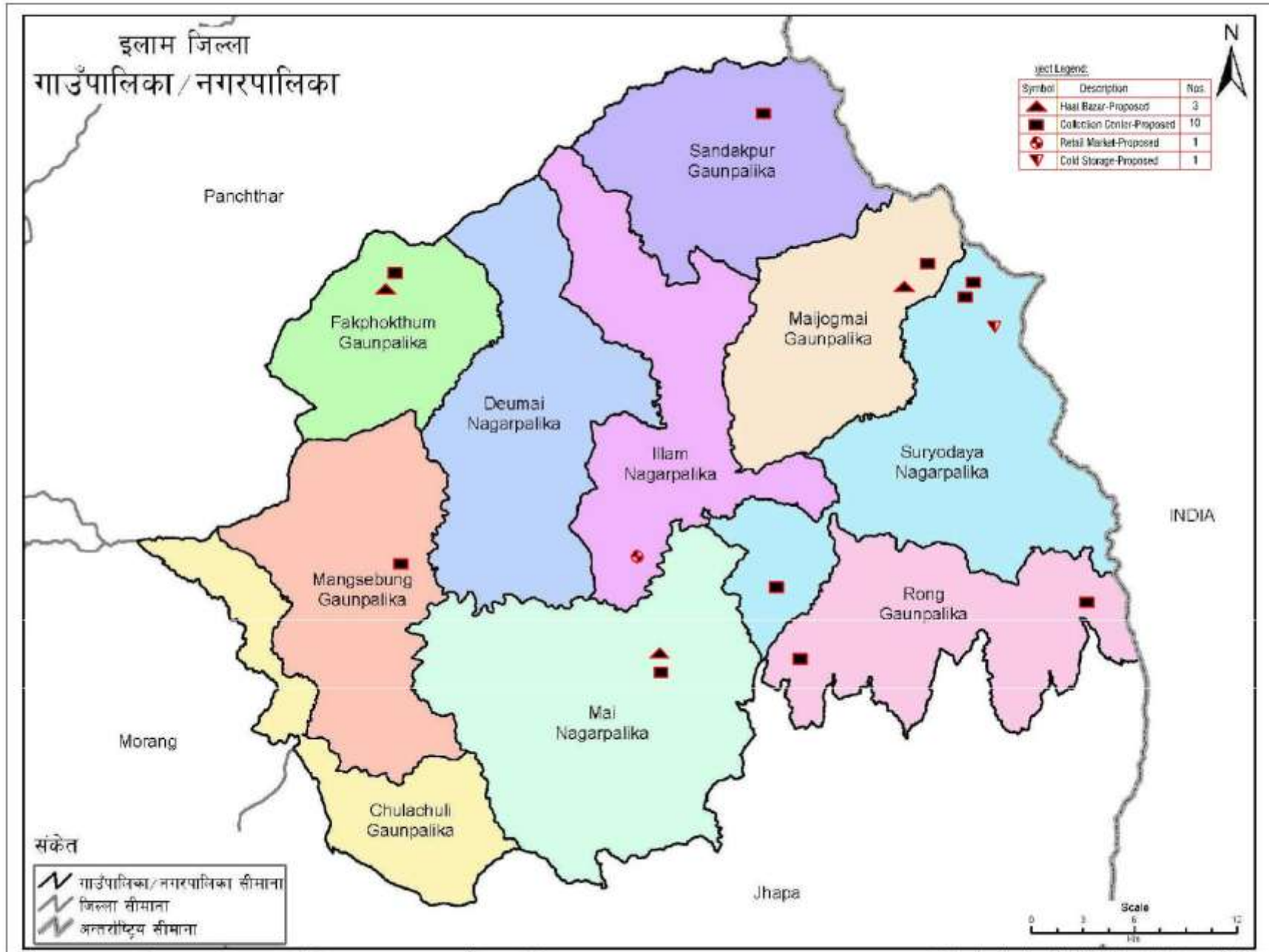
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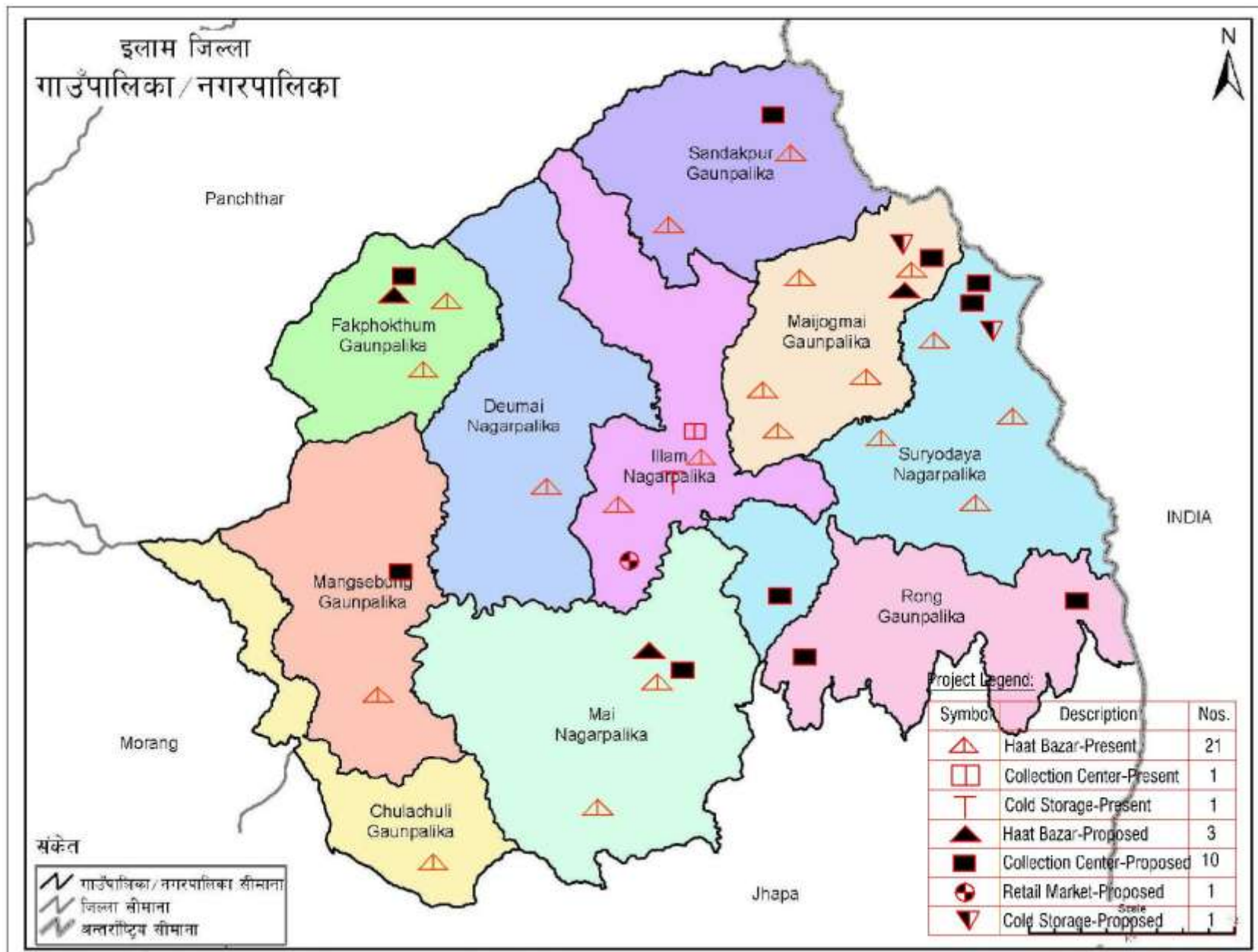
Existing AMI in Ilam District



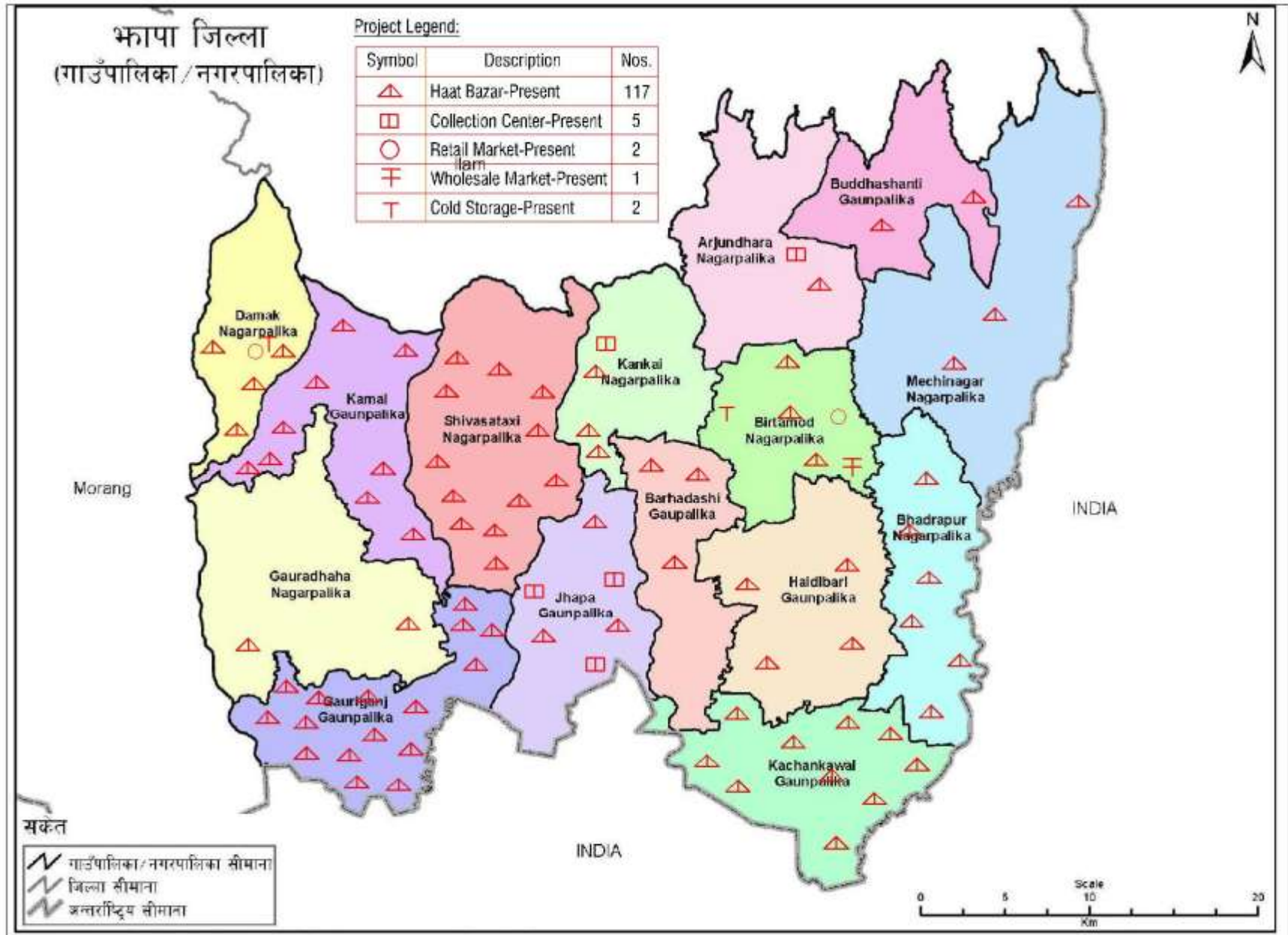
Proposed AMI in Ilam District



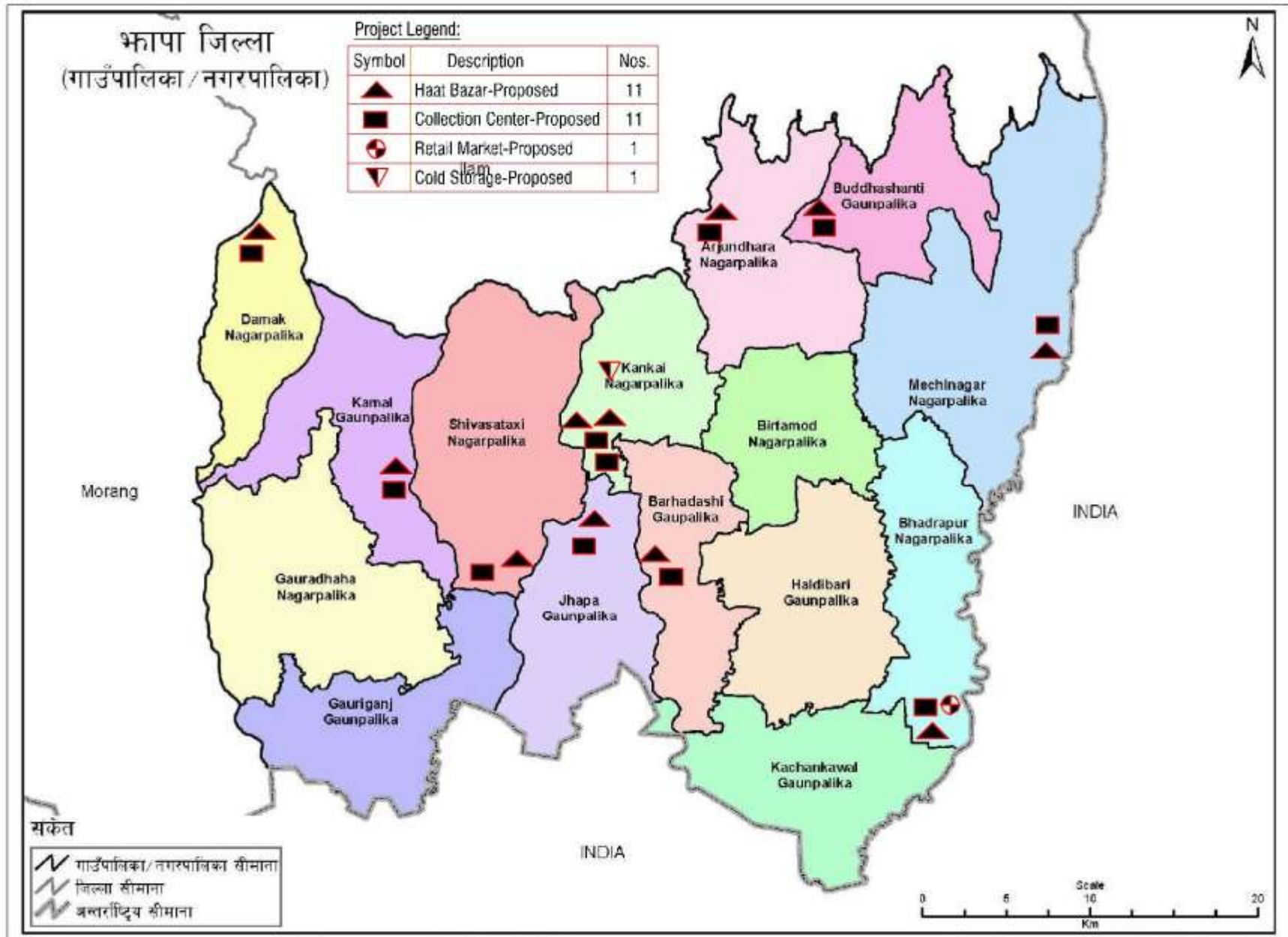
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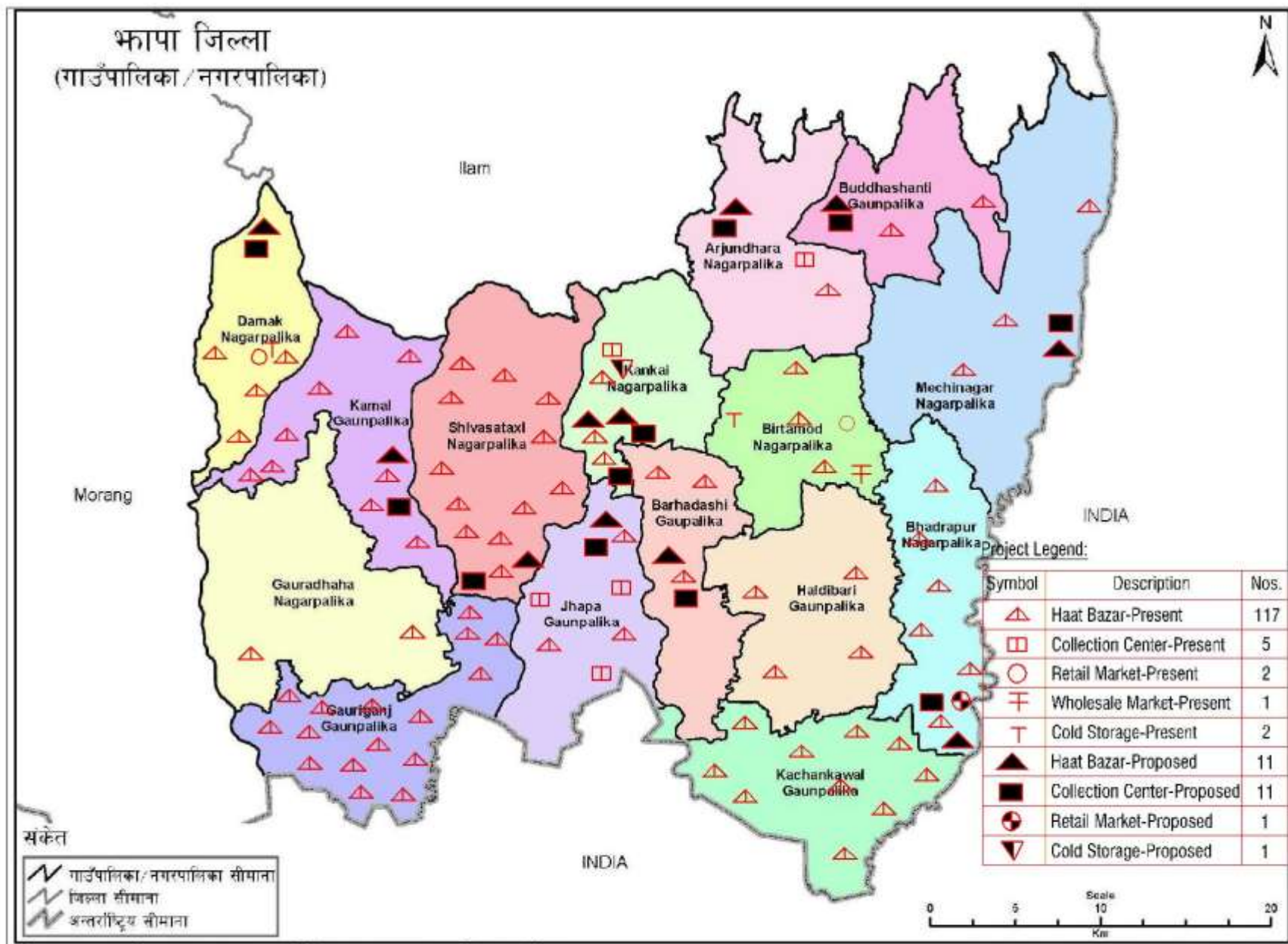
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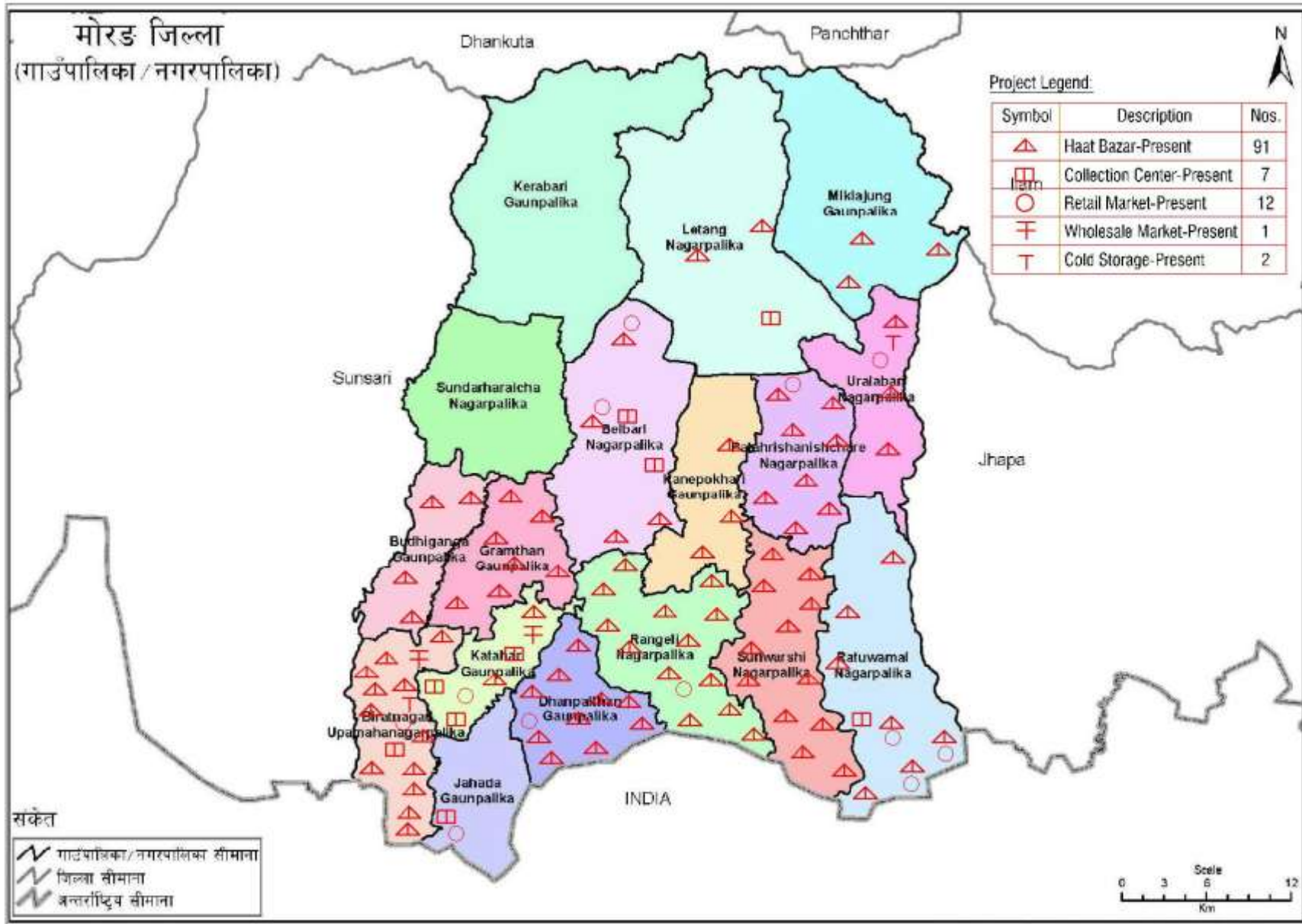
Proposed AMI in Jhapa District



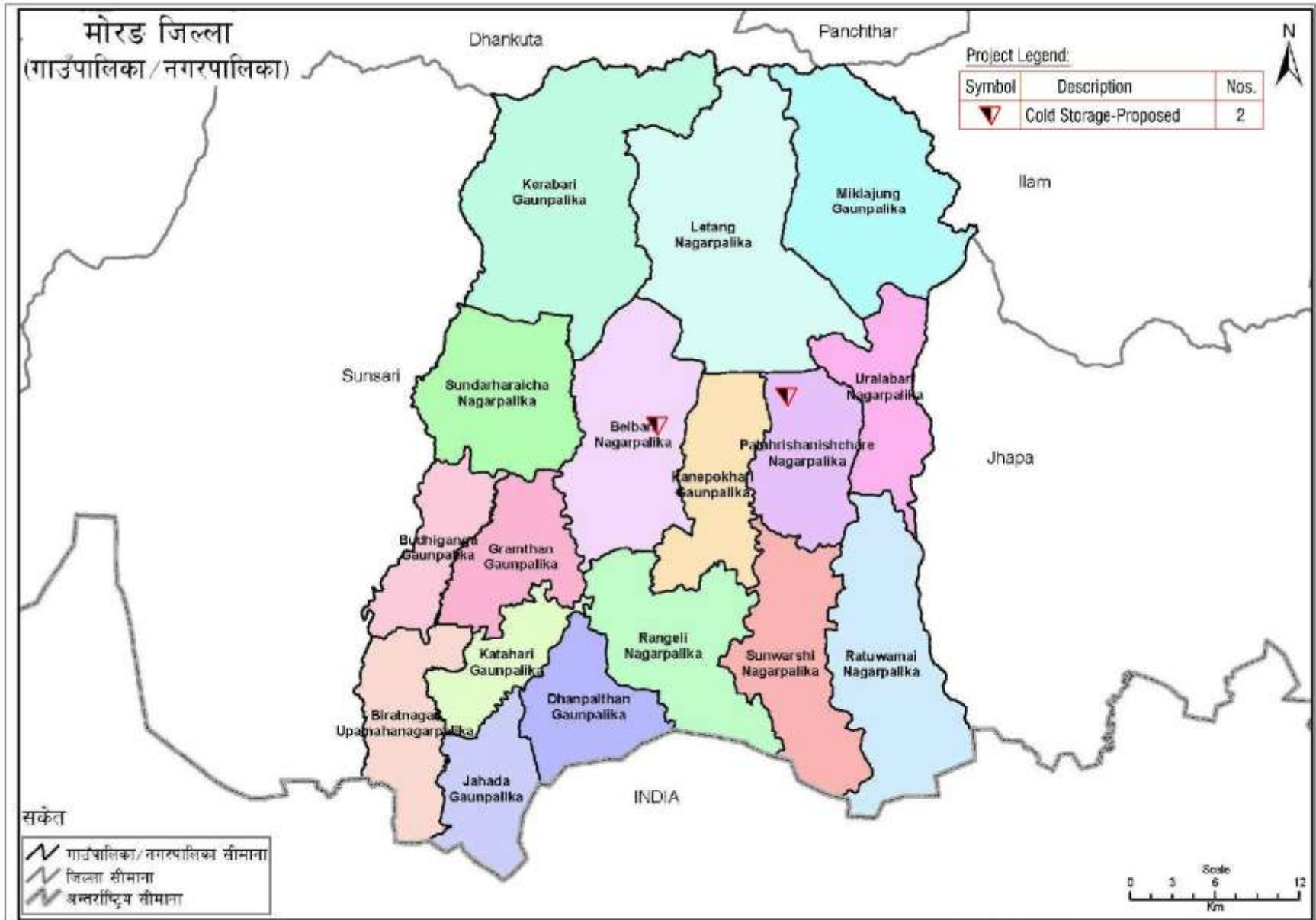
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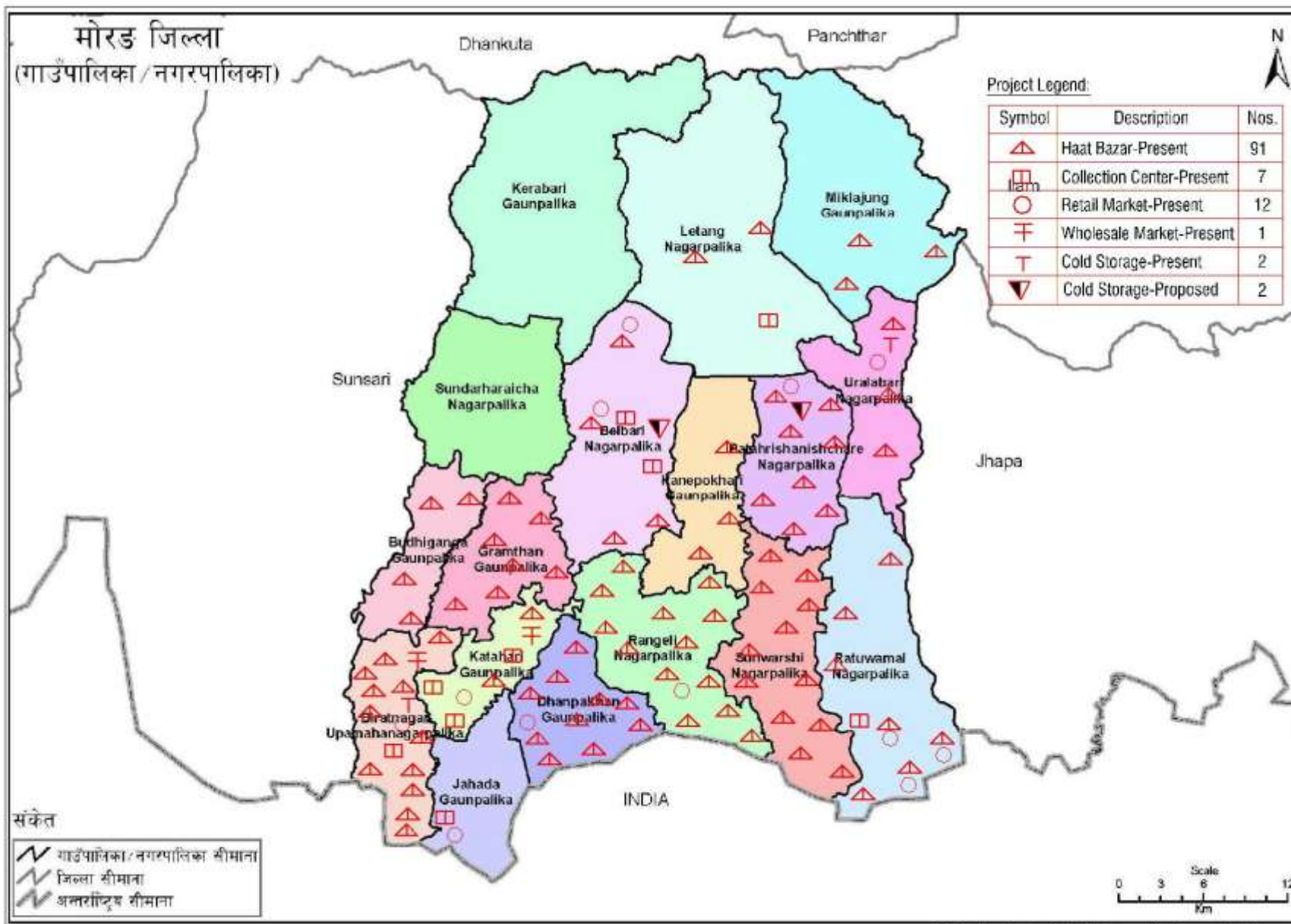
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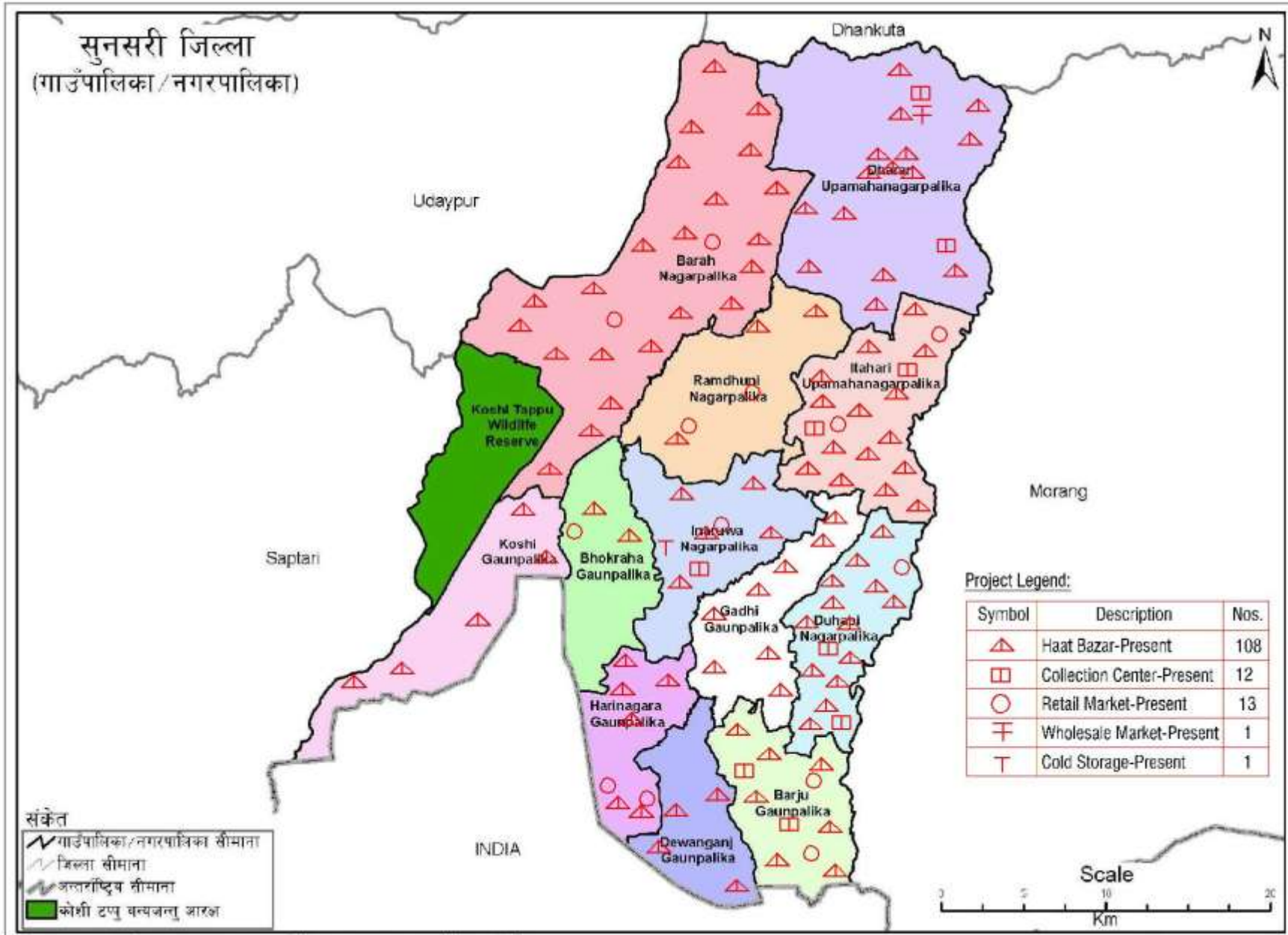
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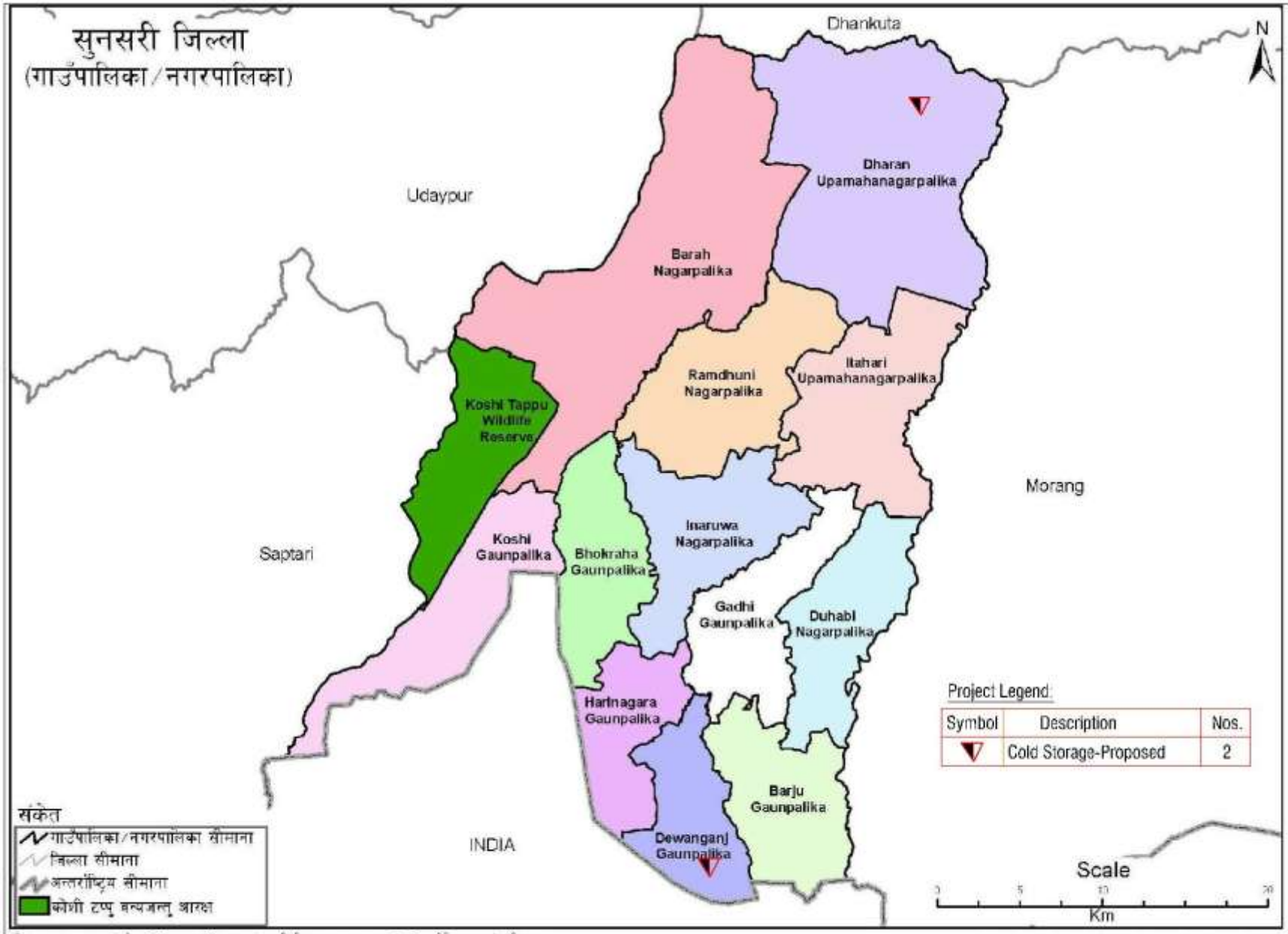
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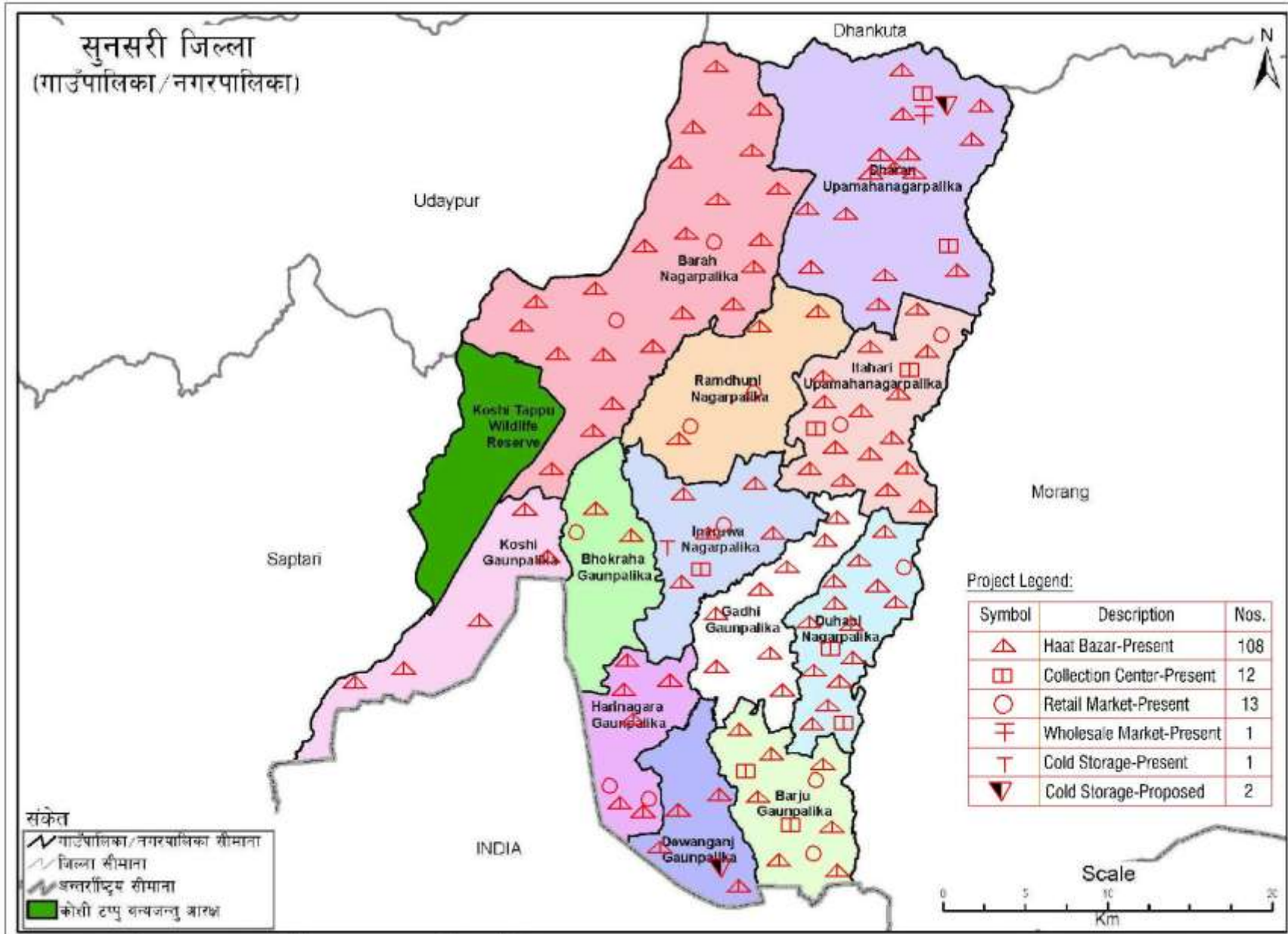
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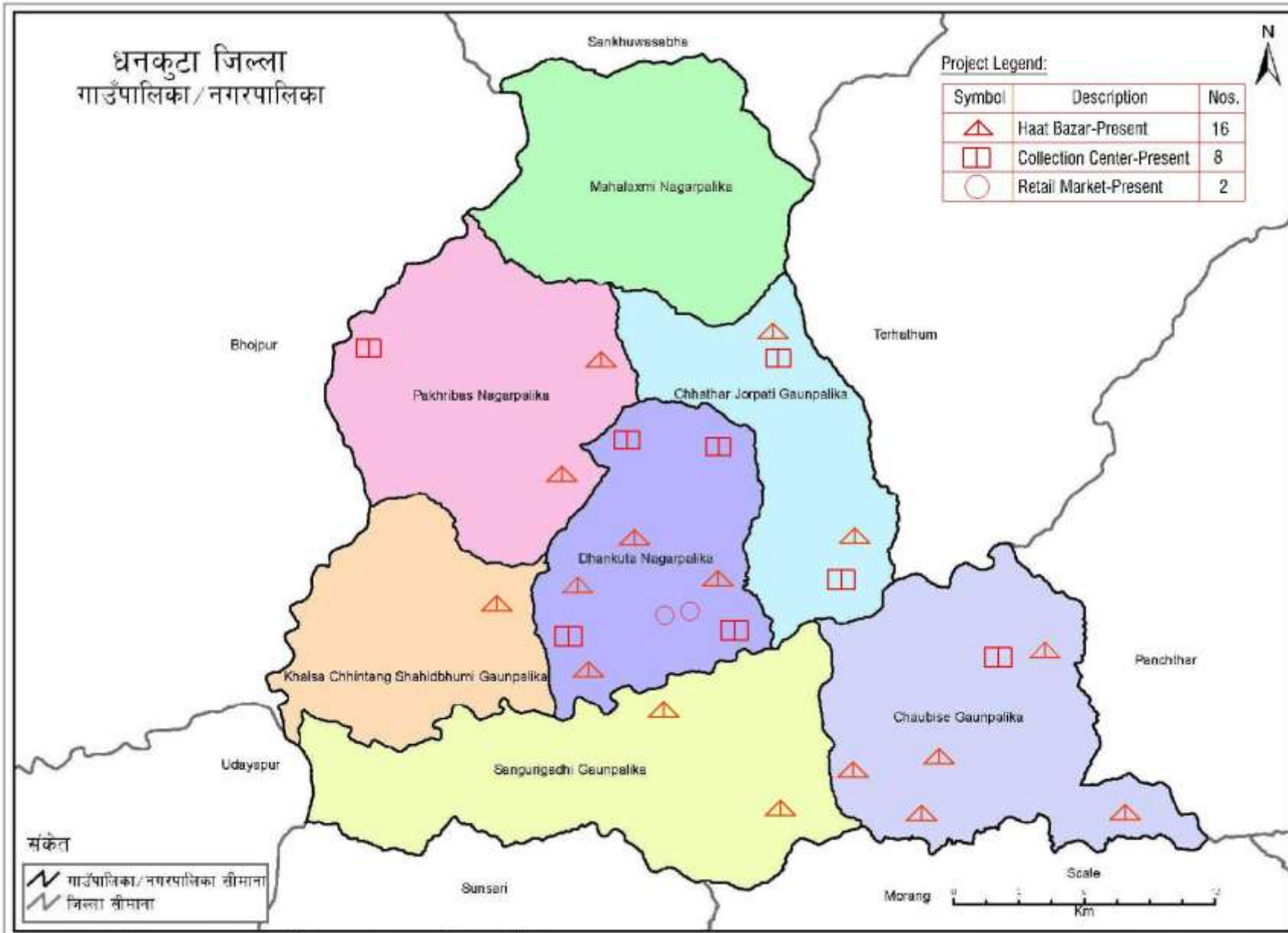
Proposed AMI in Sunsari District



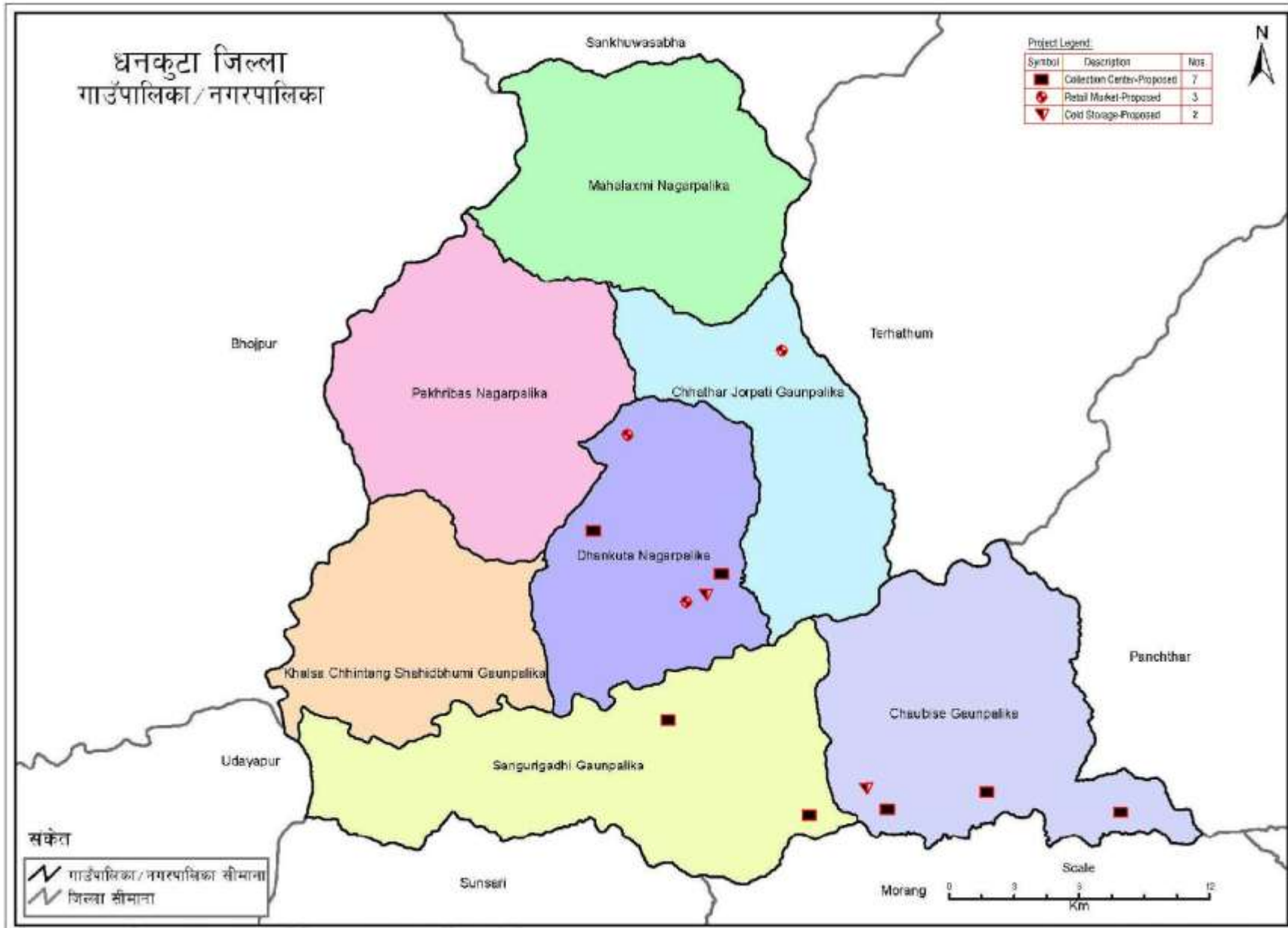
Existing and Proposed AMI in Sunsari District



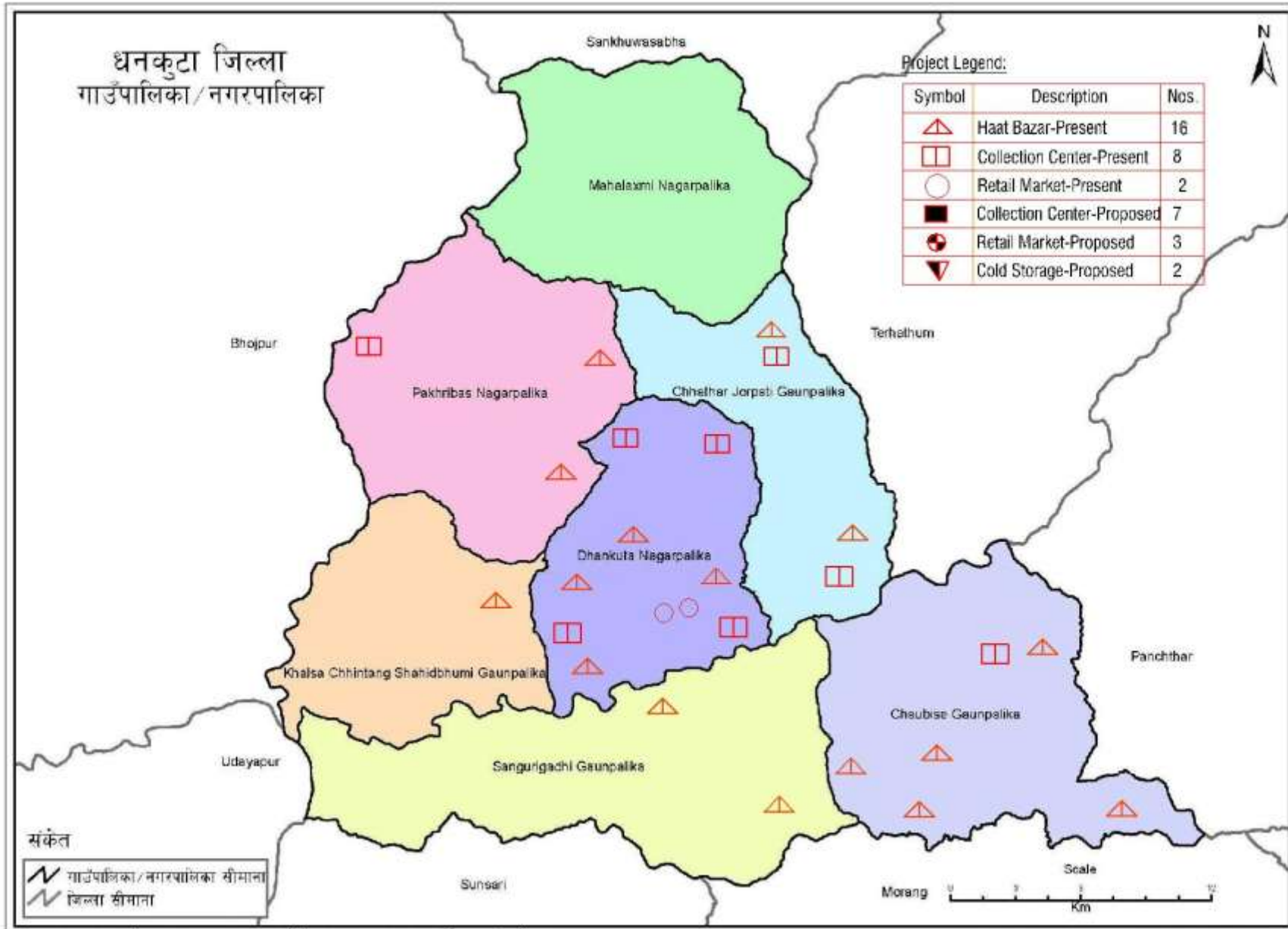
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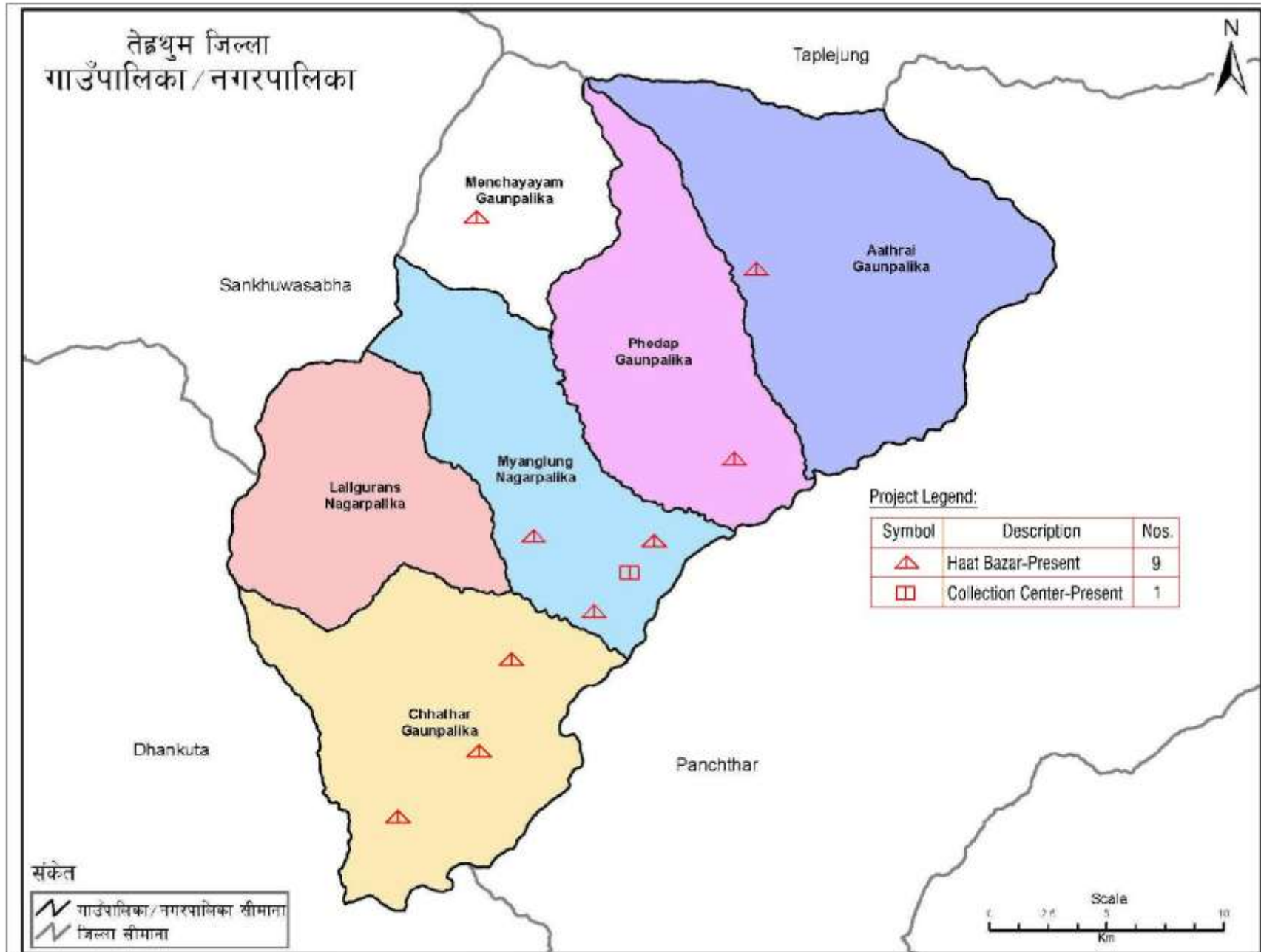
Proposed AMI in Dhankuta District



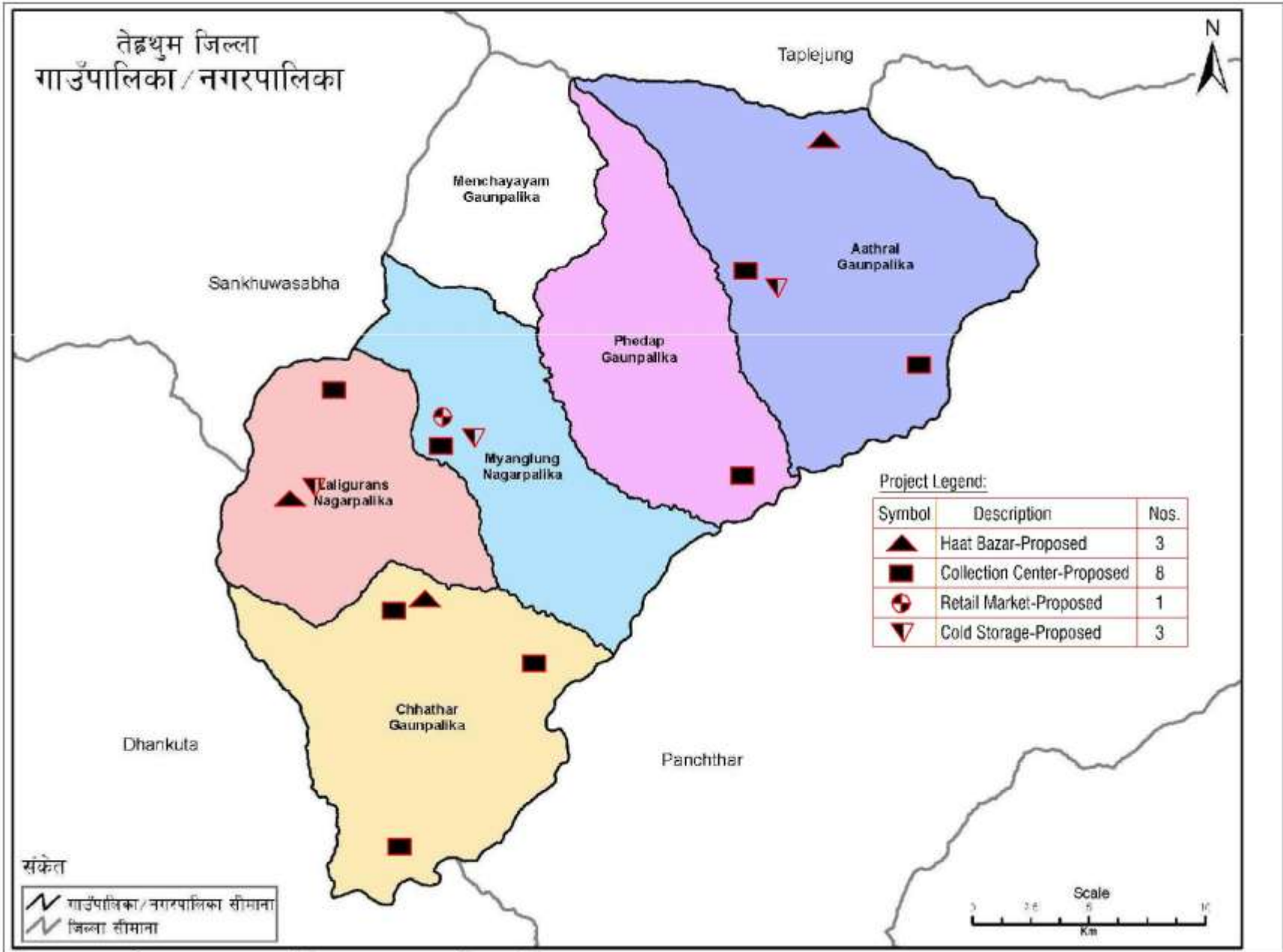
Existing and Proposed AMI in Dhankuta District



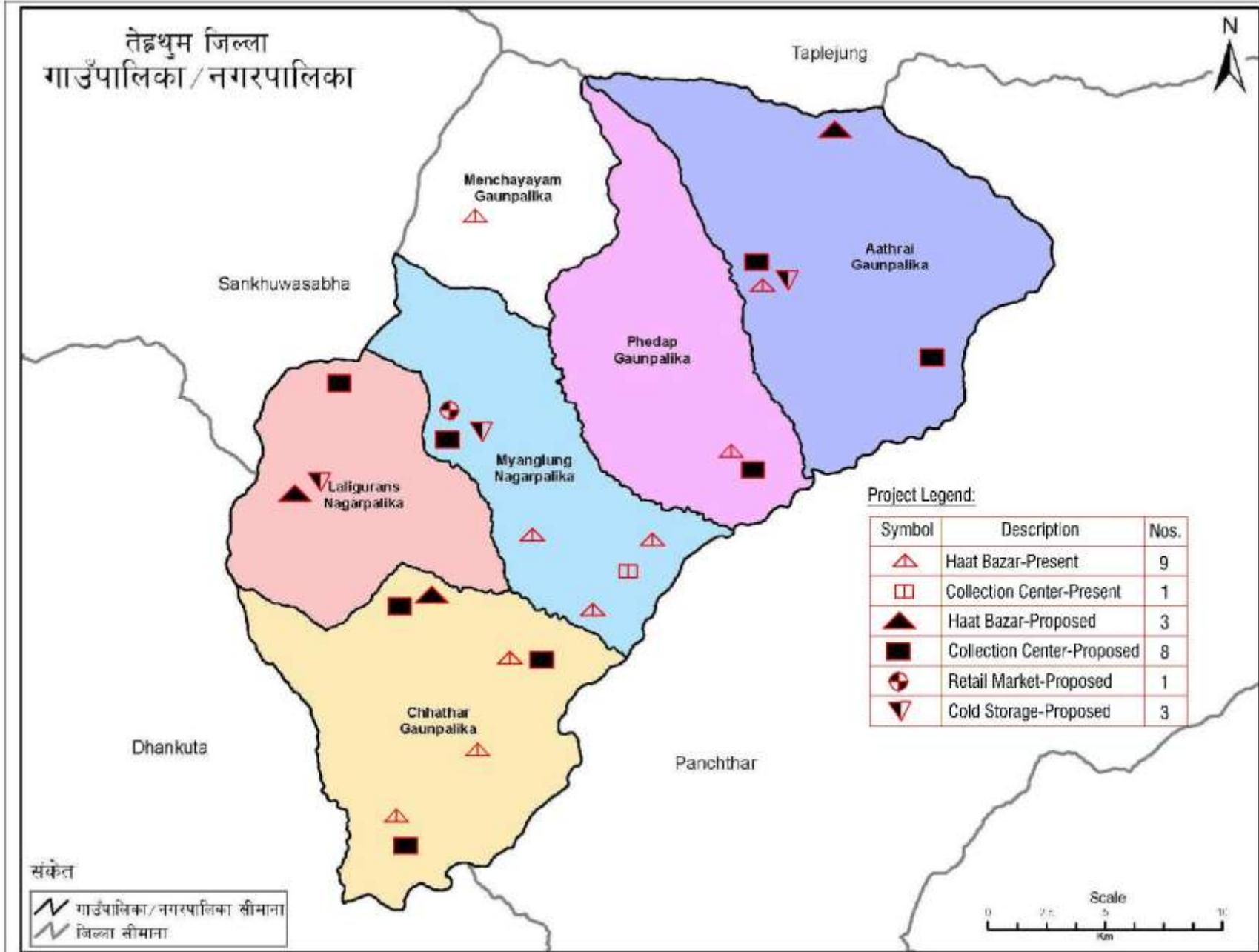
Existing AMI in Tehrathum District



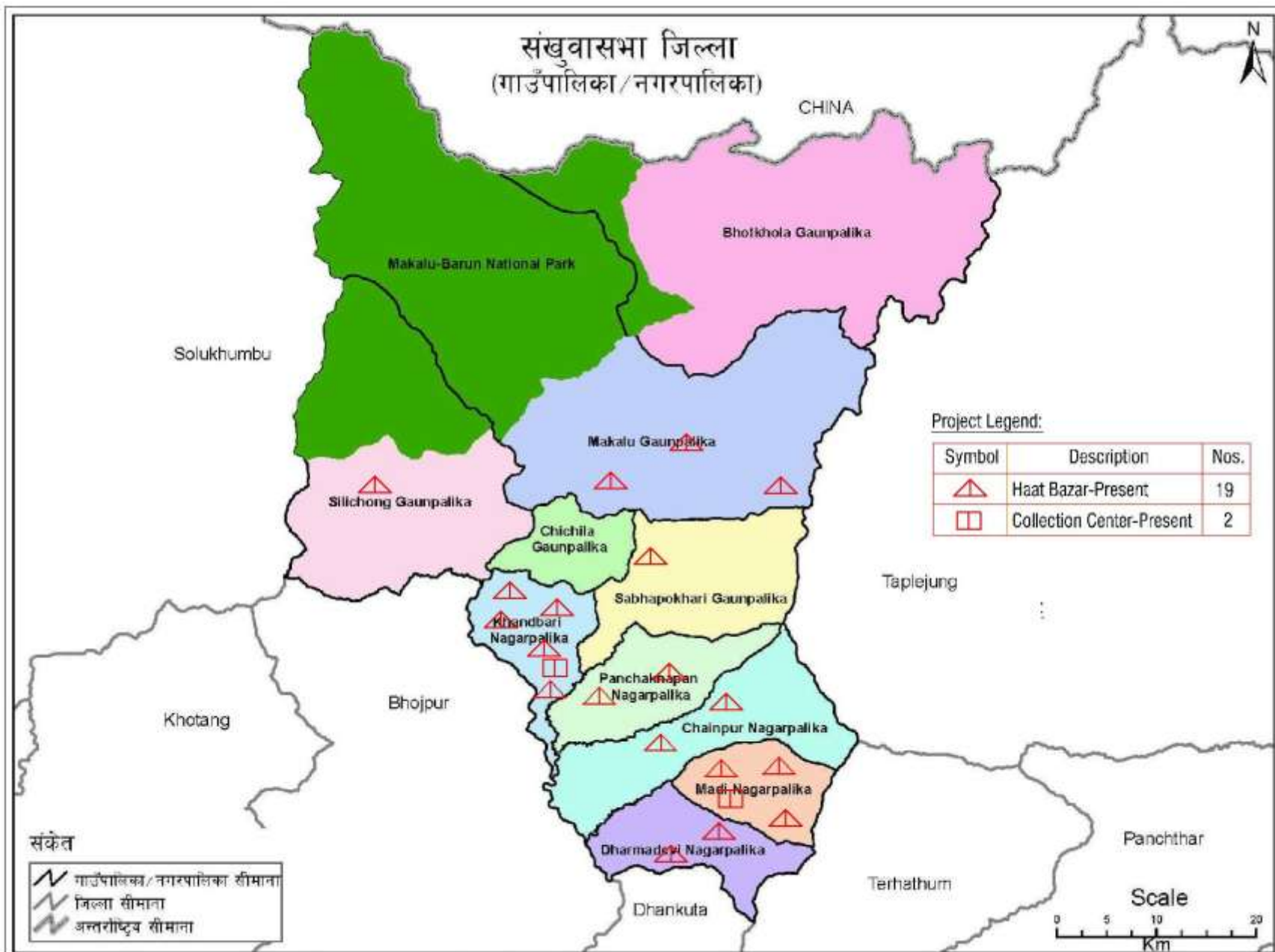
Proposed AMI in Tehrathum District



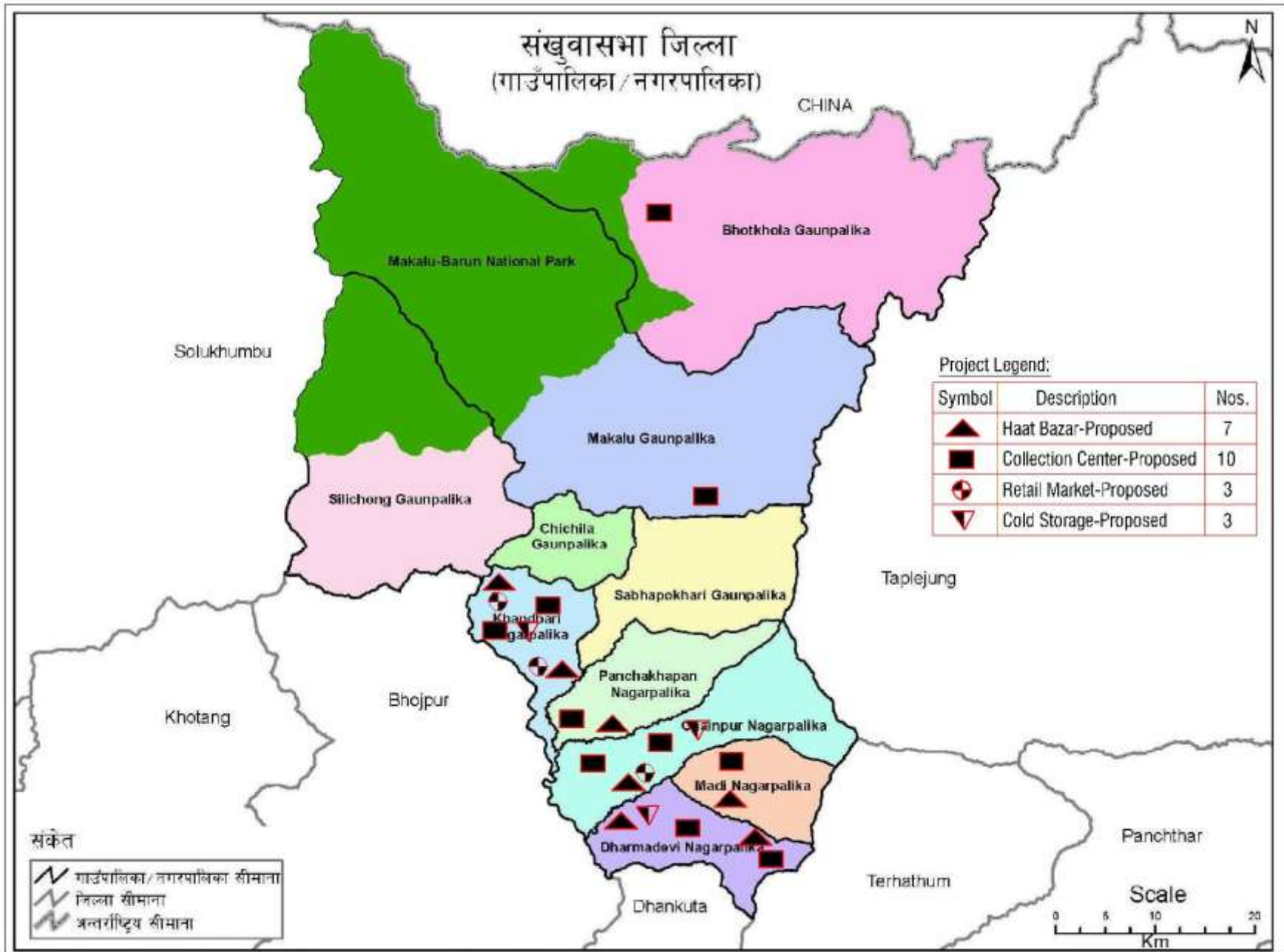
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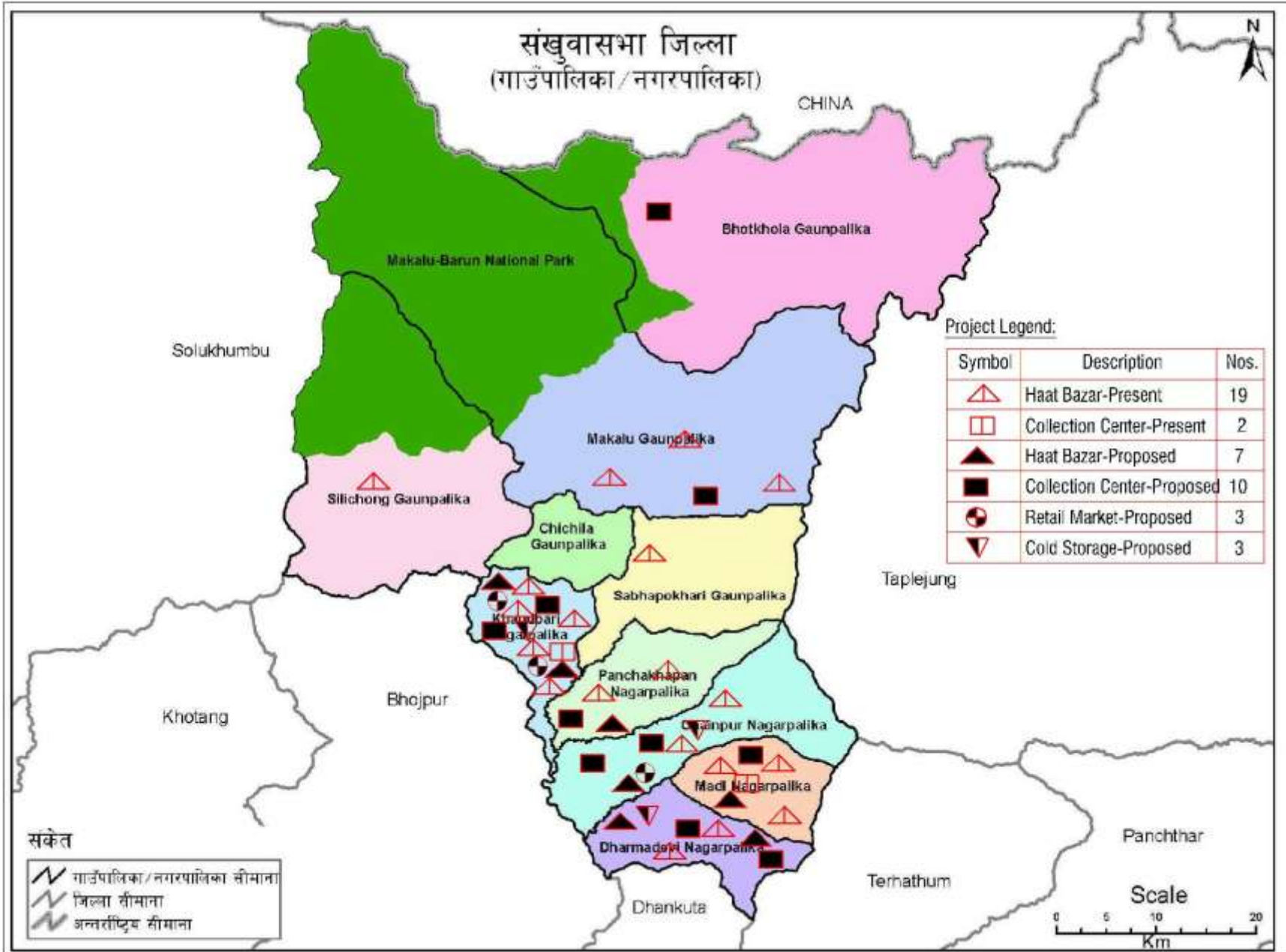
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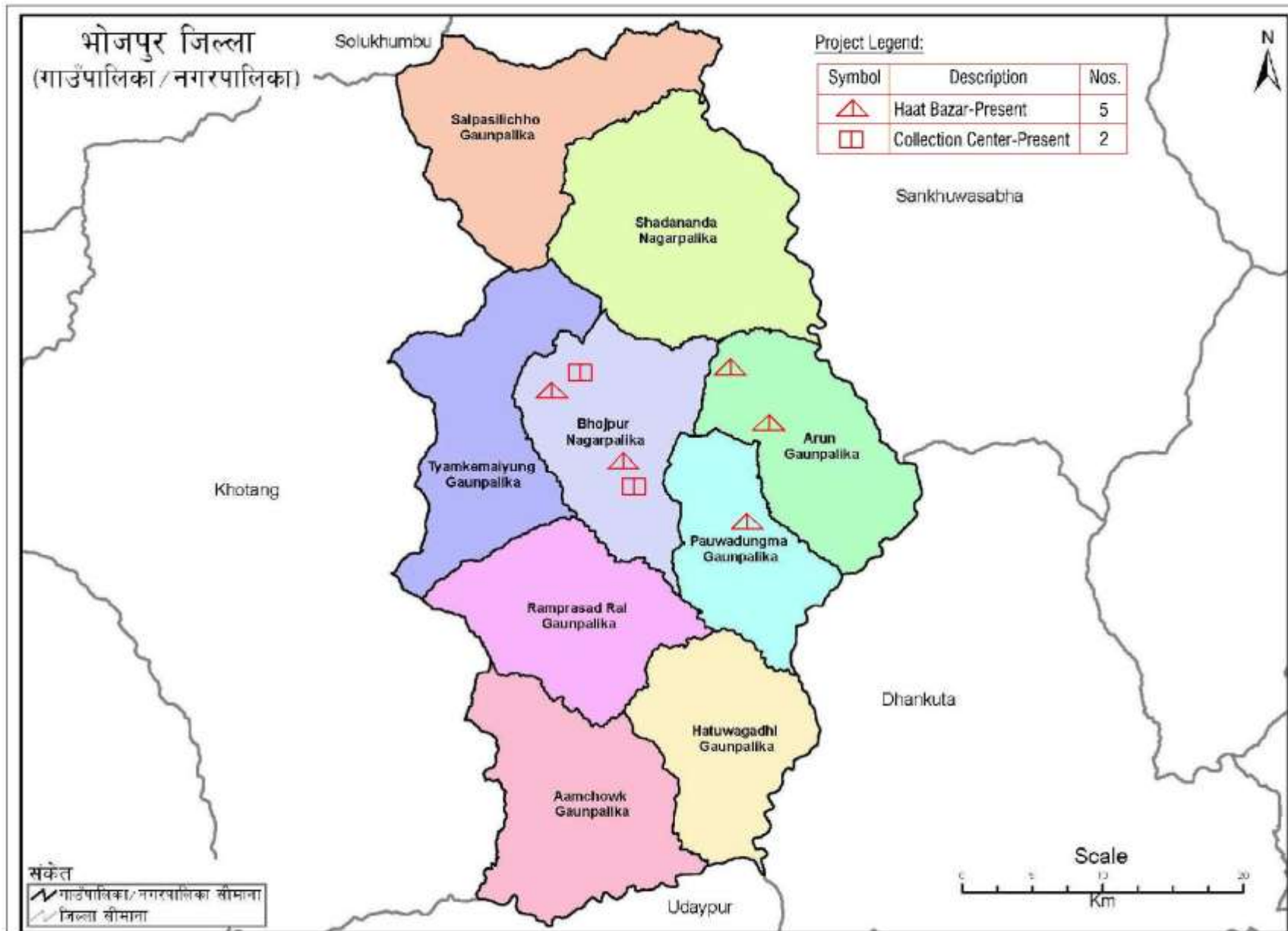
Proposed AMI in Sankhuwasabha District



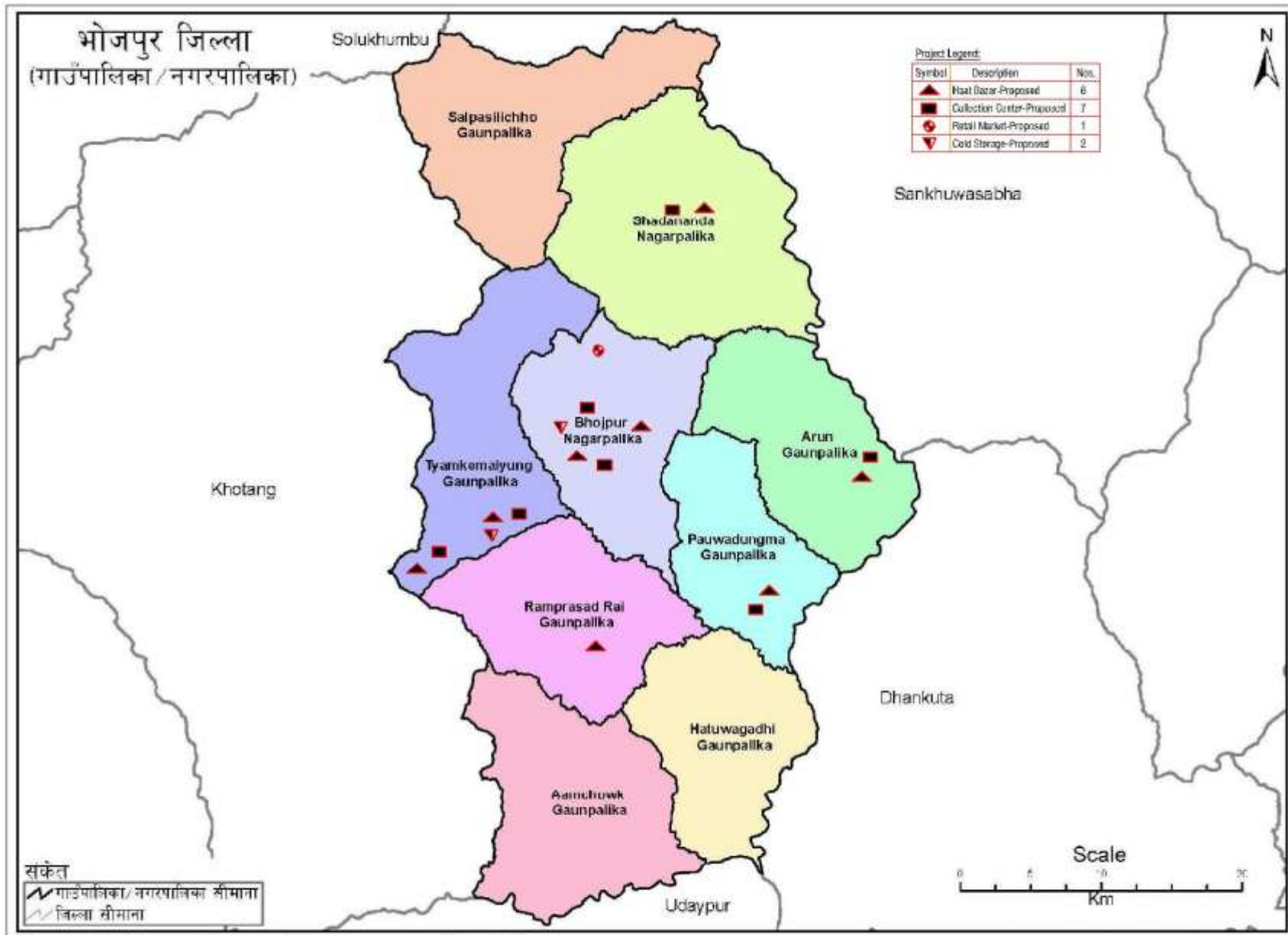
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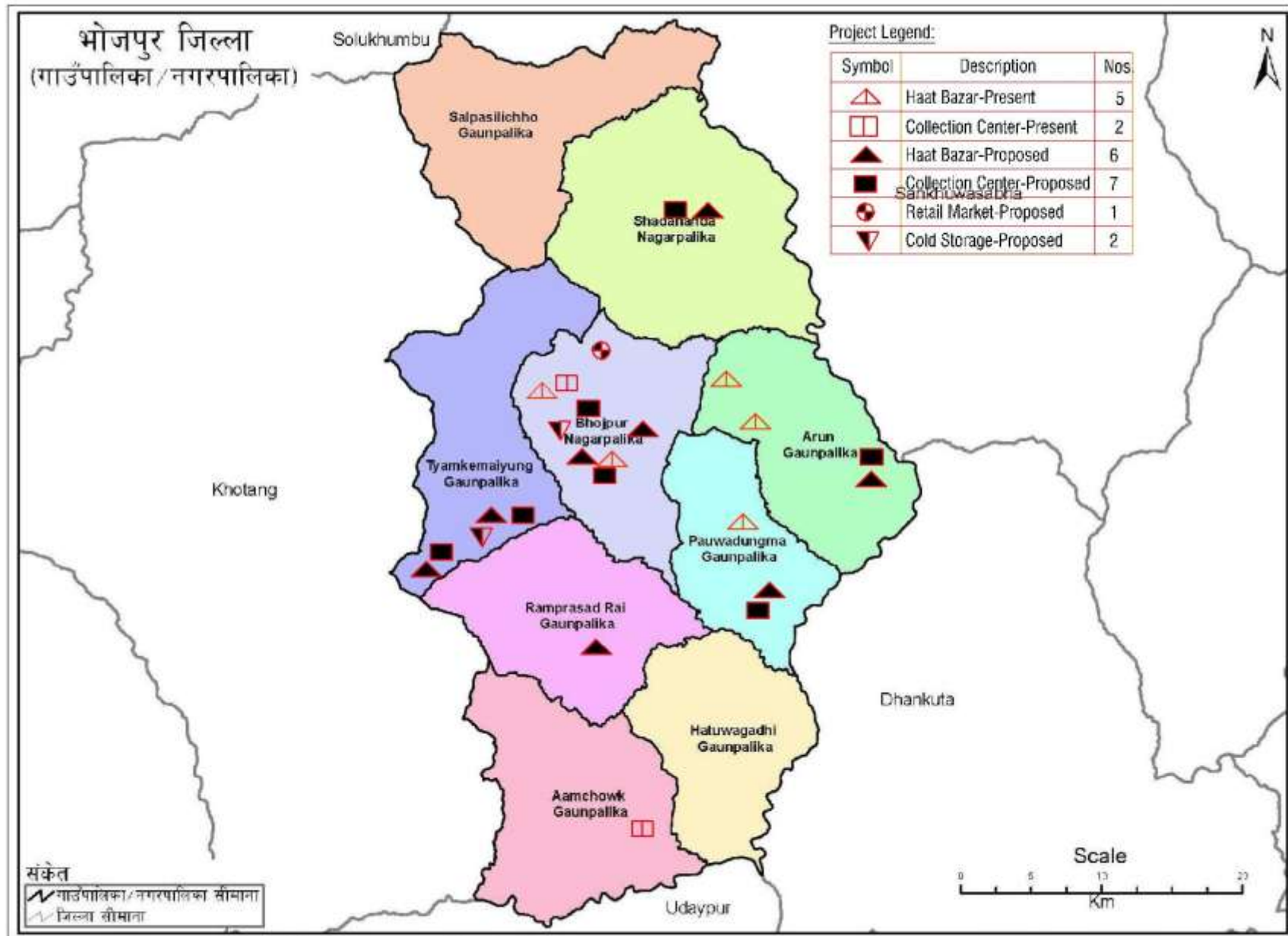
Existing AMI in Bhojpur District



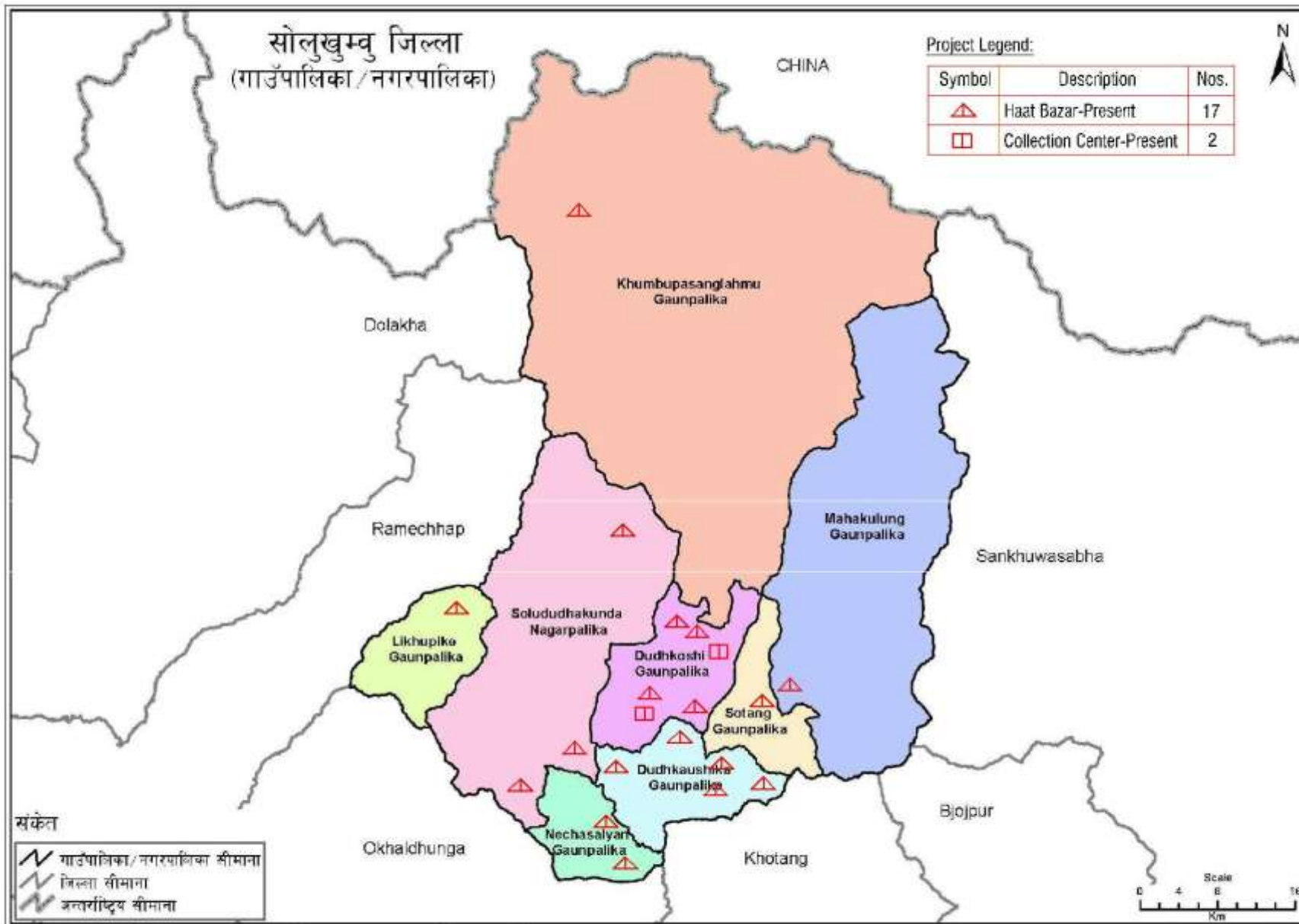
Proposed AMI in Bhojpur District



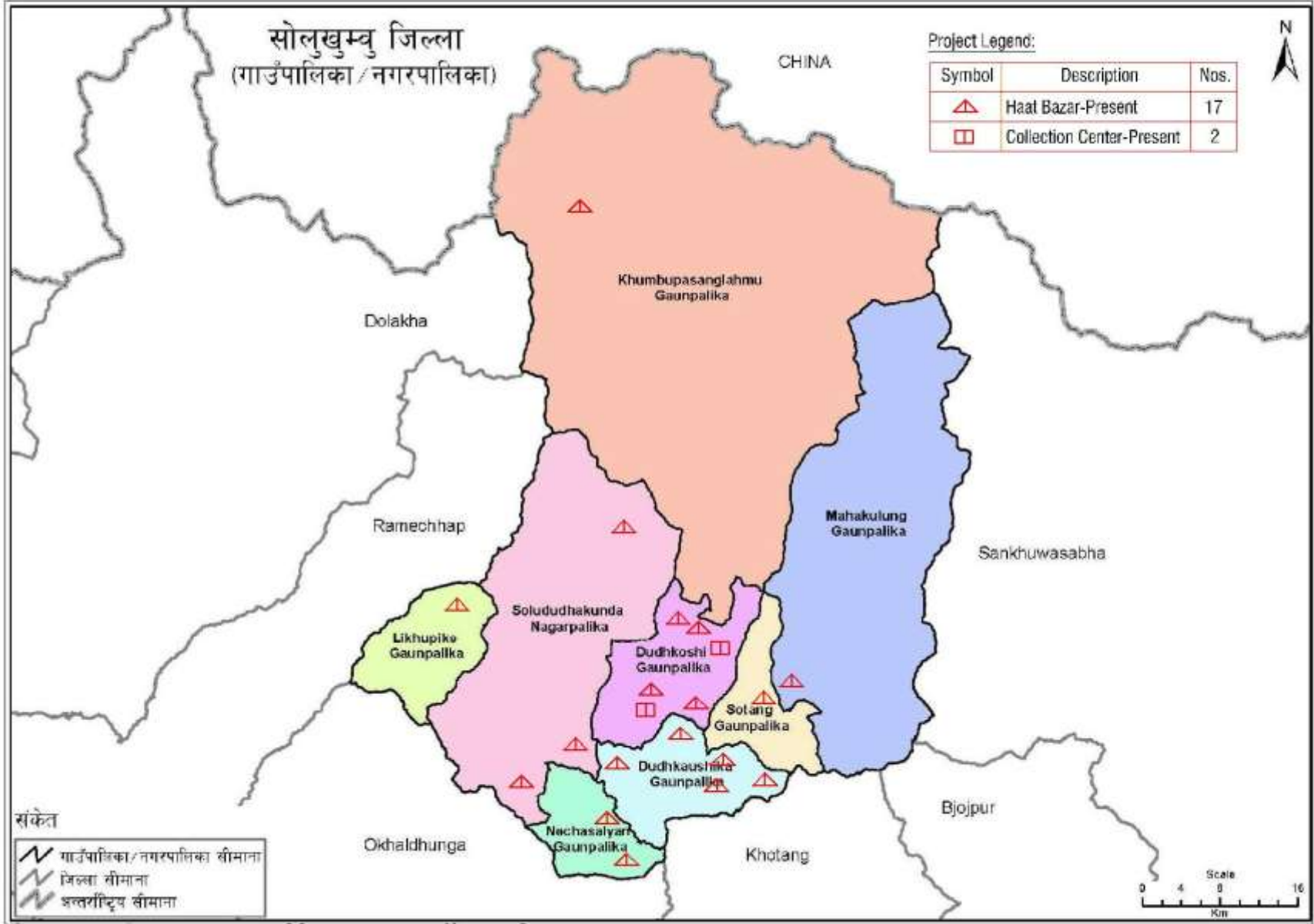
Existing and Proposed AMI in Bhojpur District



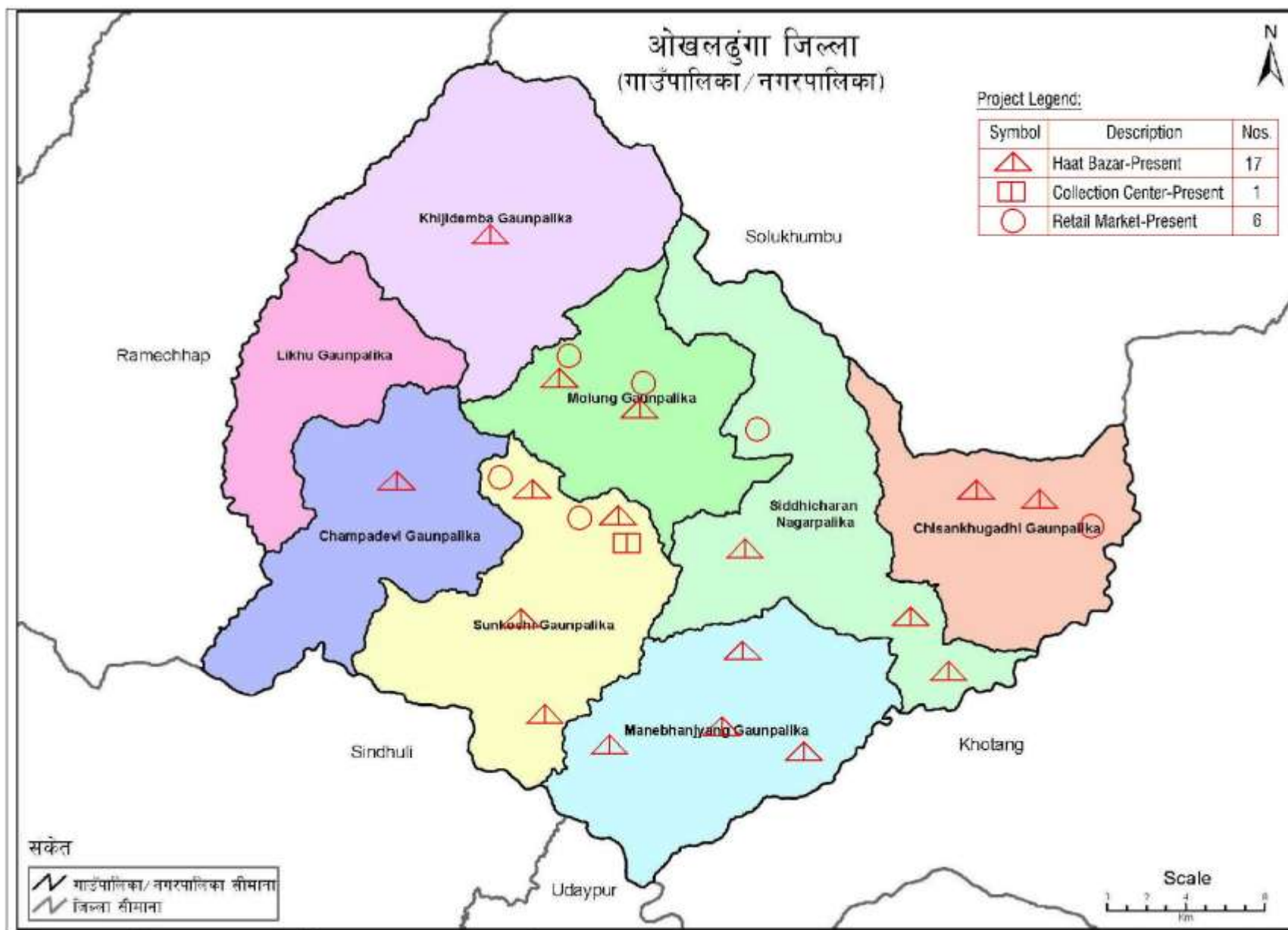
Existing AMI in Solukhumbu District



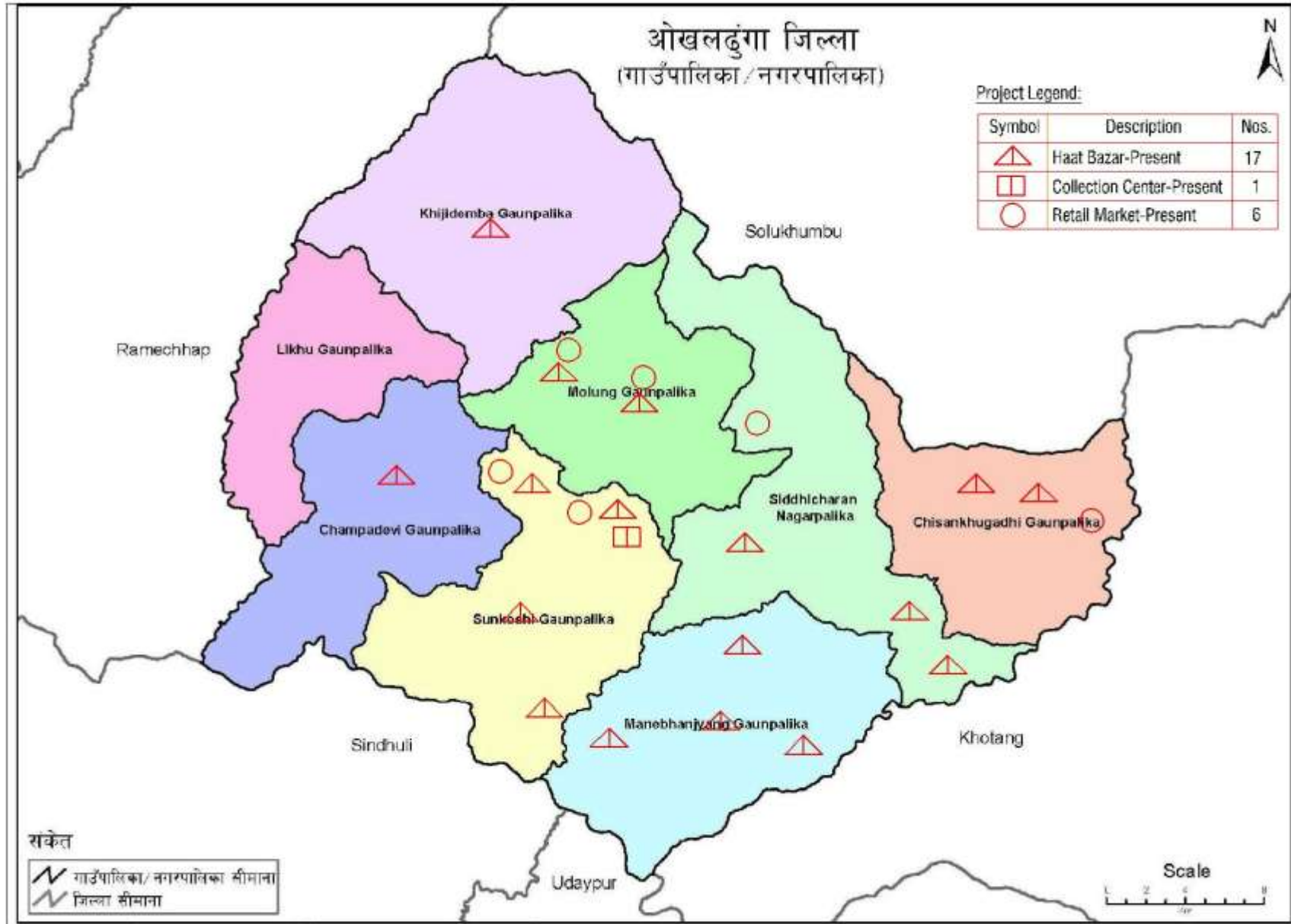
Existing and Proposed AMI in Solukhumbu District



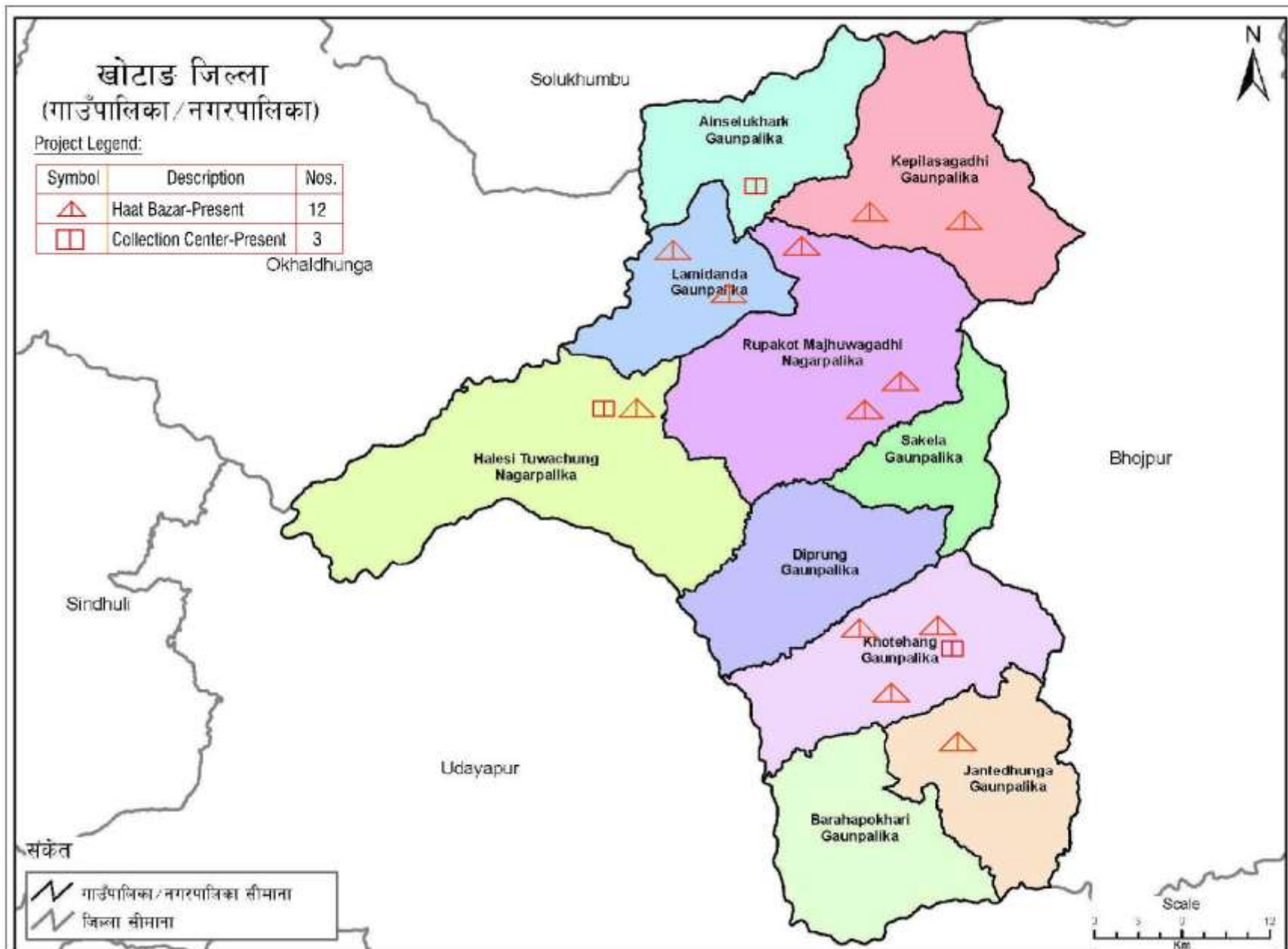
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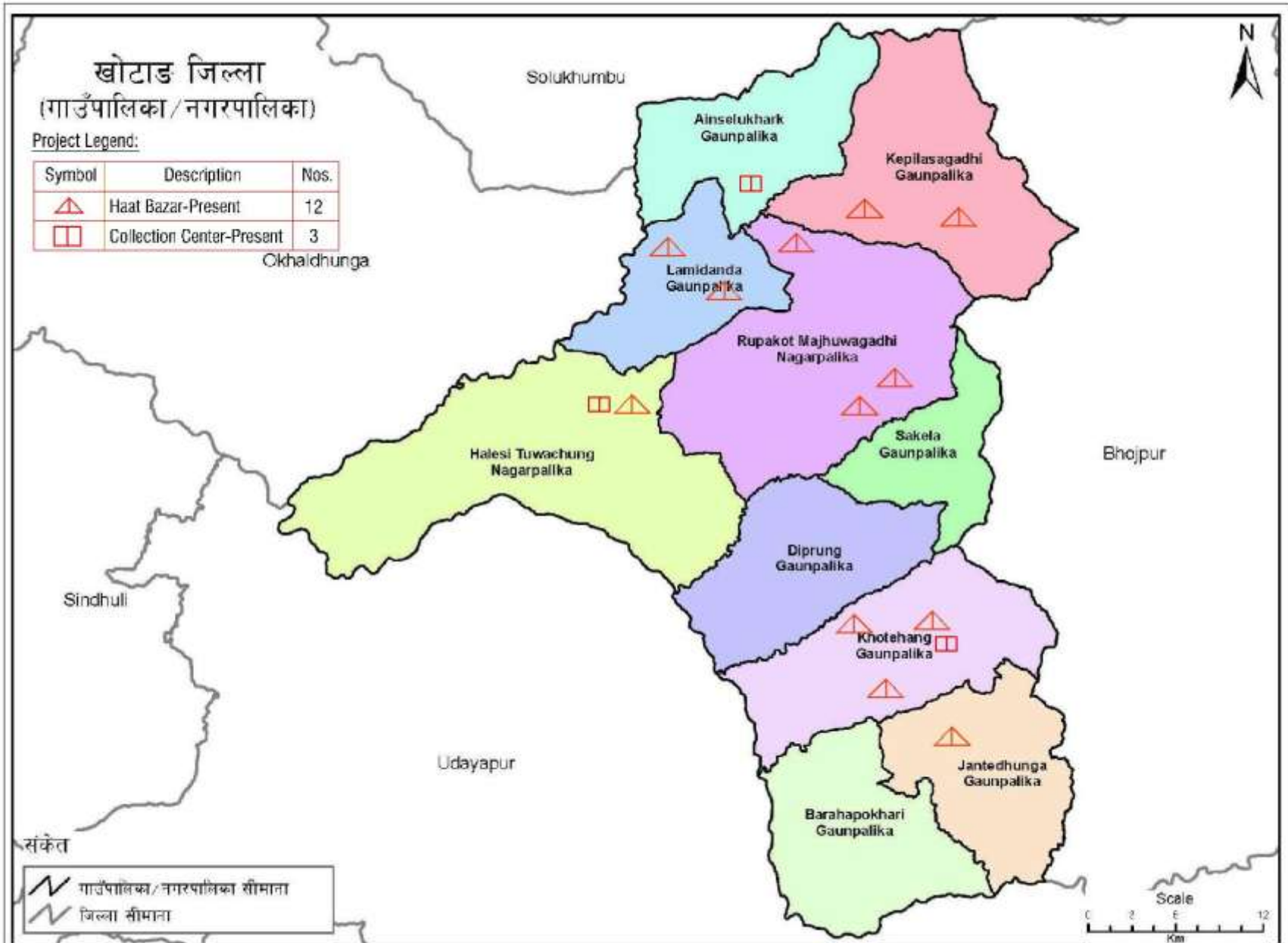
Existing and Proposed AMI in Okhaldhunga District



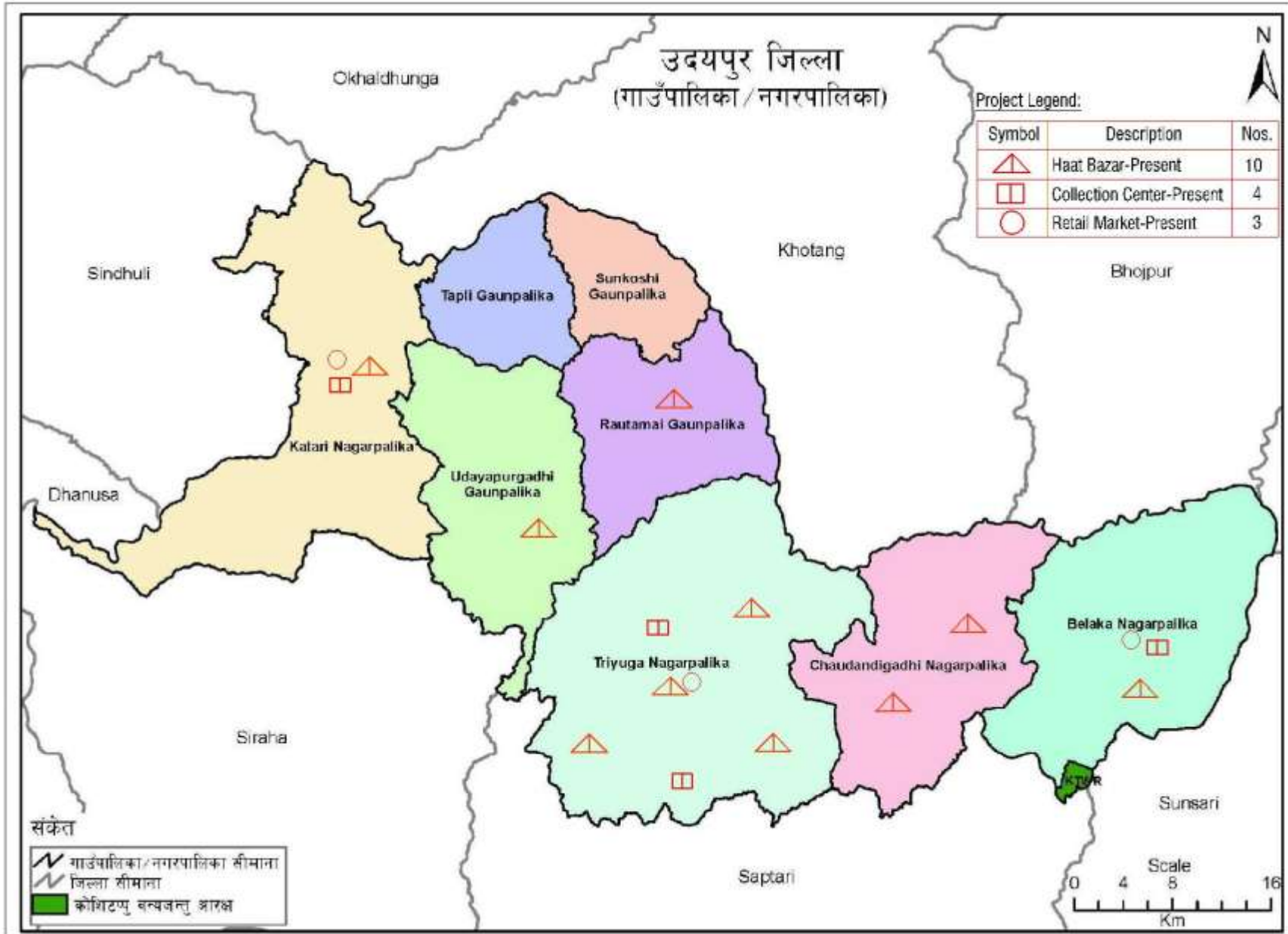
Existing AML in Khotang District



Existing and Proposed AMI in Khotang District



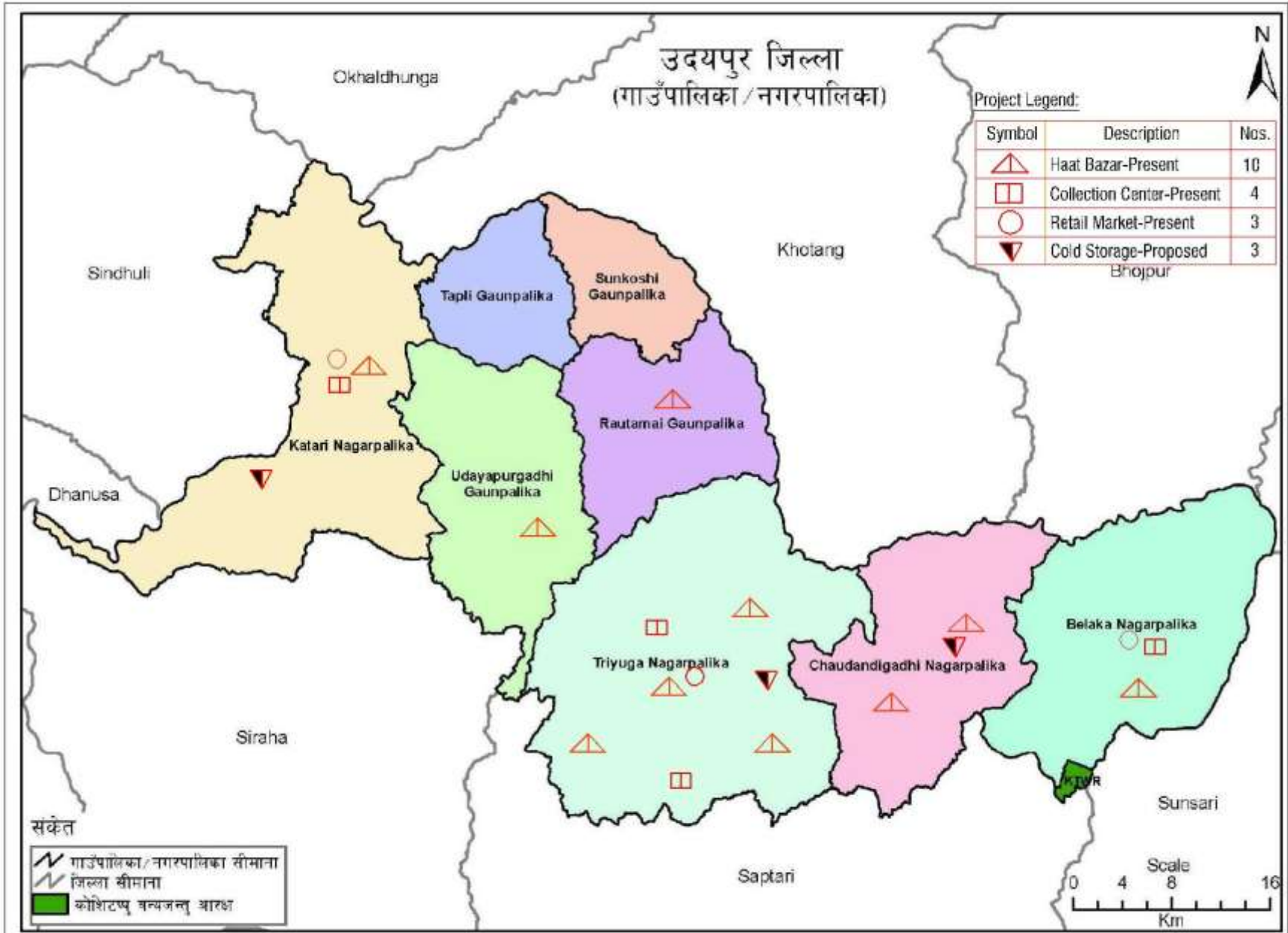
Existing AMI in Udaypur District



Proposed AMI in Udaypur District



Existing and Proposed AMI in Udaypur District



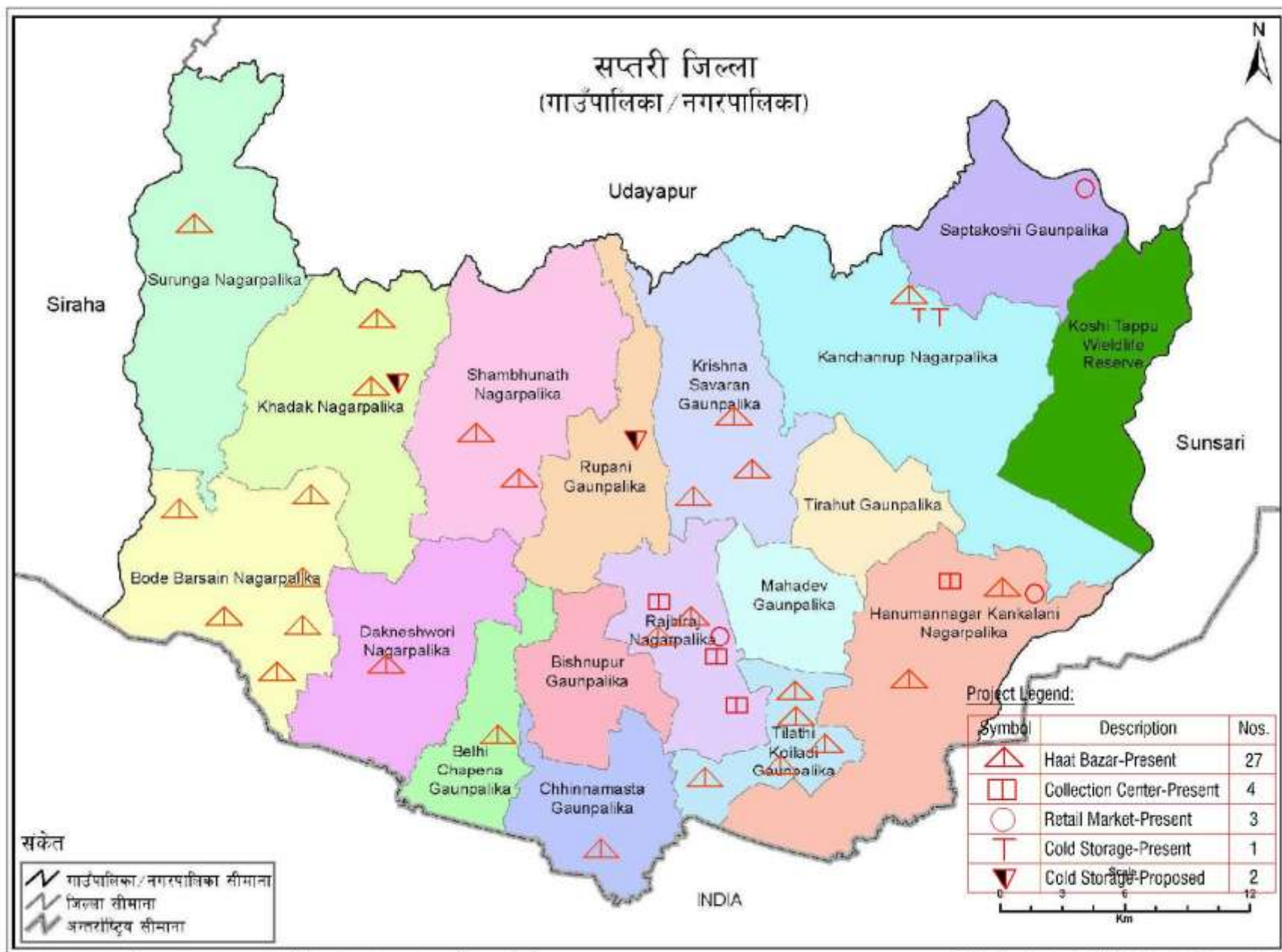
Existing AMI in Saptari District



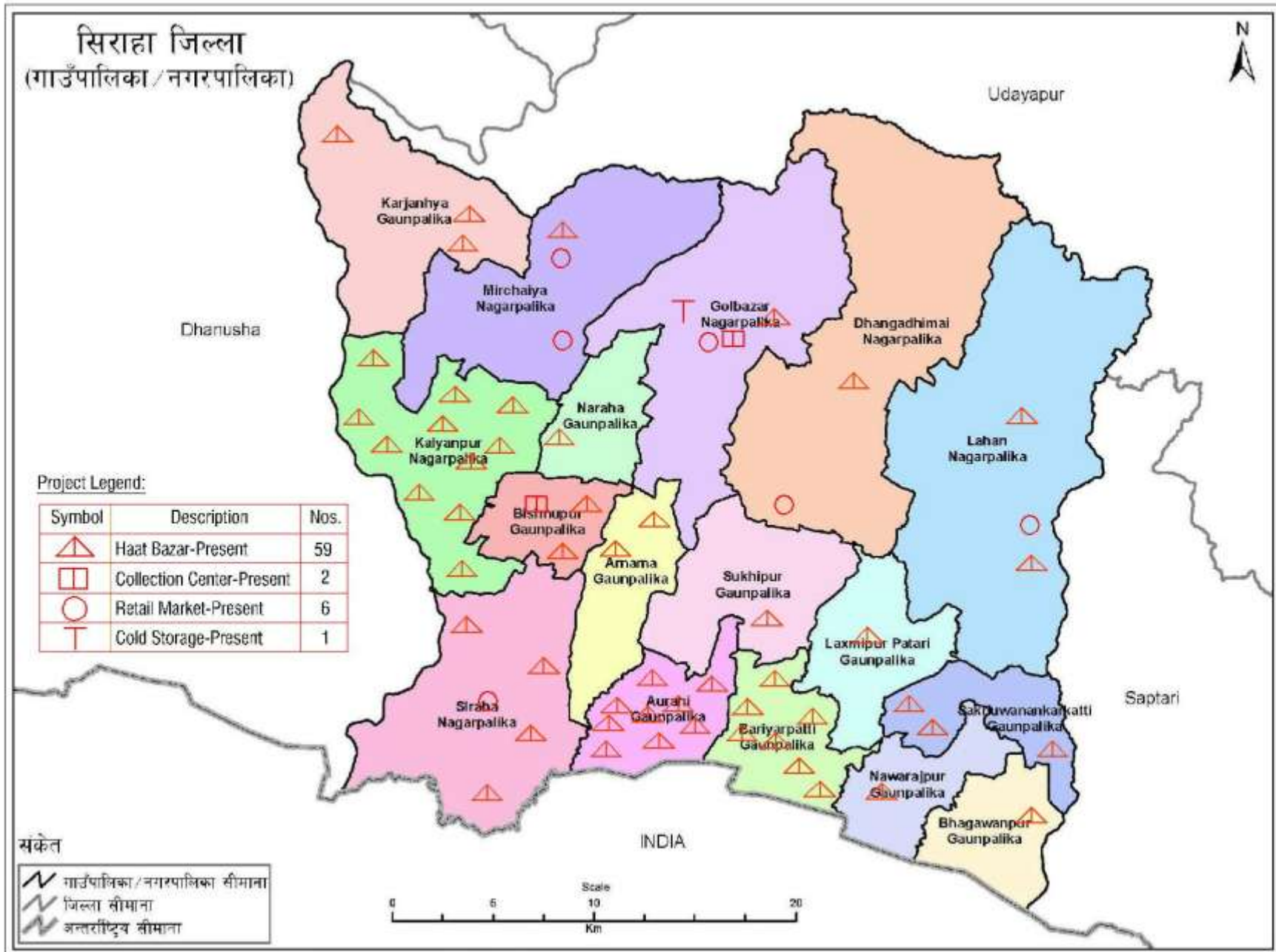
Proposed AMI in Saptari District



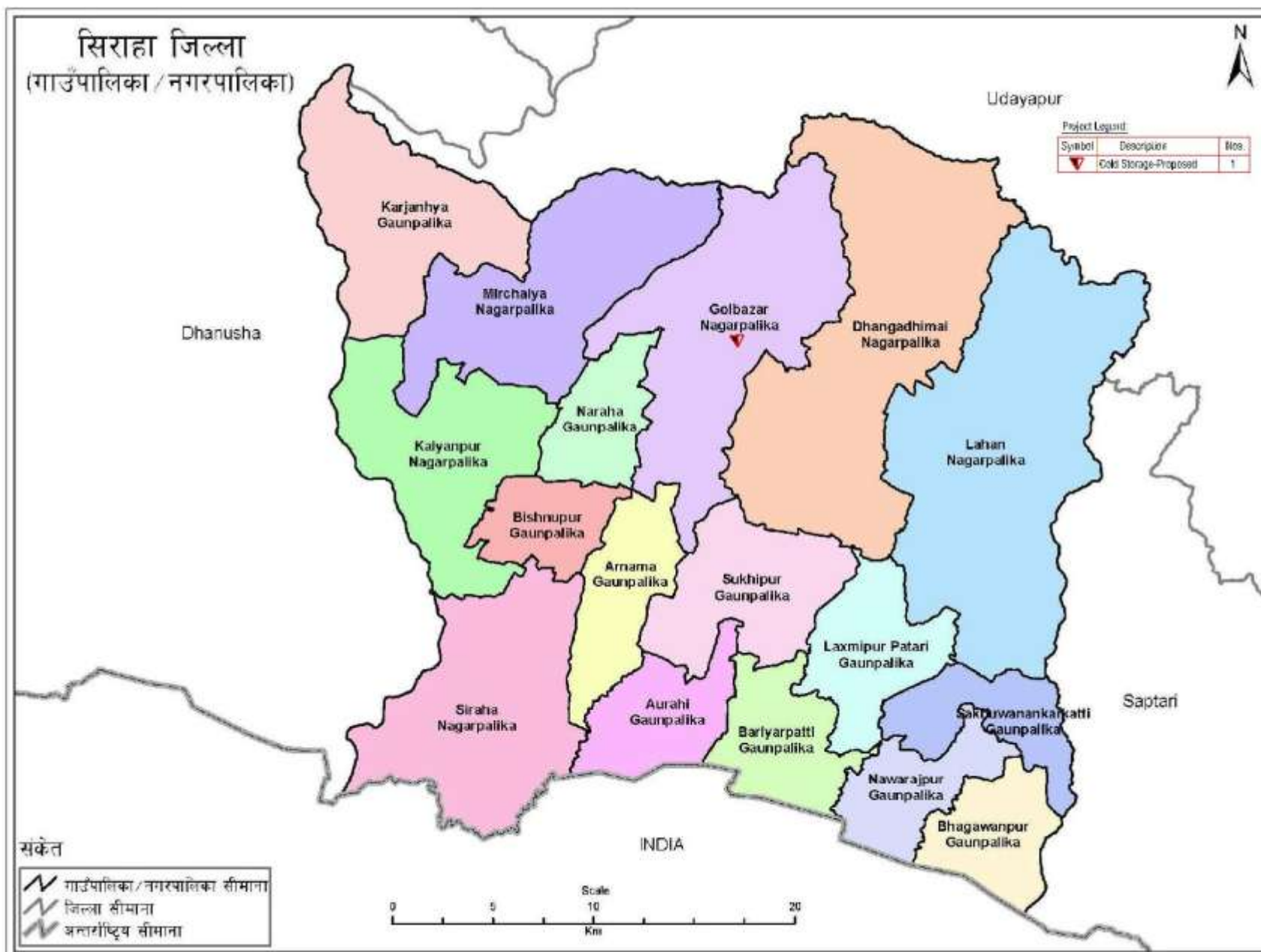
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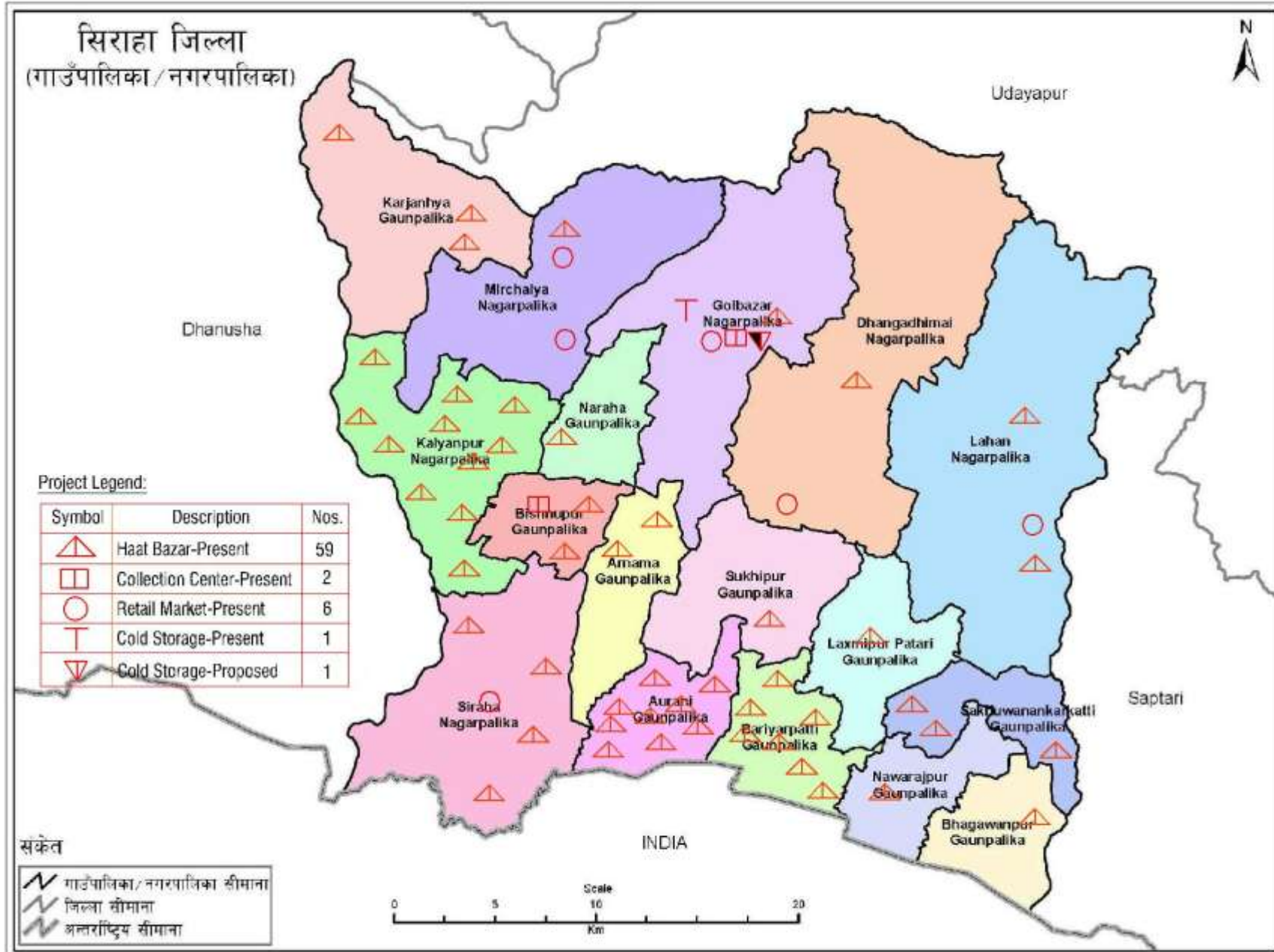
Existing AMI in Siraha District



Proposed AMI in Siraha District



Existing and Proposed AMI in Siraha District



१.२ वर्तमान अवस्थामा रहेको वजार स्थलको क्षमता विस्तार गर्न सम्भावना भए सोको विवरण

क्र.सं.	वजारको किसिम	क्षमता विस्तार गर्न सम्भावना भएका स्थलको नाम			कैफियत
		हालको अवस्था (पूर्वाधार, वजार सूचना, व्यवस्थापन सुविधाहरू,)	उपयोगको अवस्था	हुनुपर्ने	
१	संकलन केन्द्र (Collection Center)	क. ख..... ग.	क. ख..... ग.	क. ख..... ग.	
२	हाट वजार (Hat bazar)	क. ख..... ग.	क. ख..... ग.	क. ख..... ग.	
३	खुद्रा वजार (Retail Market)	क. ख..... ग.	क. ख..... ग.	क. ख..... ग.	
४	थोक वजार (Whole sale Market)	क. ख..... ग.	क. ख..... ग.	क. ख..... ग.	
५	शित भण्डार (Cold Store)	क. ख.....	क. ख.....	क. ख.....	

		ग.	ग.	ग.	
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१.३ सम्भाव्यताको आधारमा प्रमुख ७ कृषि वस्तको नाम (अन्नवाली, तरकारी, आलु, फलफुल, मसला, माछा तथा अन्य बढी मूल्य जाने बालीहरु) प्राथमिकरण सहित (उत्पादन क्षेत्रफल, उत्पादकत्व तथा थोक मूल्य सहित)

- क) ख)
- ग) घ)
- ङ) च)
- छ)

नोट: * अन्नवालीमा वालीको नाम उल्लेख गर्नुपर्ने (धान, मकै, गहुँ, कोदो इत्यादी)

* मसला वालीमा वालीको नाम उल्लेख गर्नुपर्ने (अदुवा, लसुन, खुर्सानी, इत्यादी)

* फलफुल वालीमा हिउँदे फलफुल/वर्षे फलफुल/सुन्तला जात फलफुल उल्लेख गर्नुपर्ने

१.५ कृषि बजार विकास प्रवर्द्धनको लागि यस जिल्लामा के कस्तो कार्यक्रम संचालन भै राखेका छन् ?

क) कृषि बजार सूचना प्रवाह (Agricultural Marketing Information)

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ख) संस्थागत विकास (Institutional Development)

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ग) सहकारी/समूह बजार व्यवस्थापन (Cooperative/Group Market Management)

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घ) कृषि बजारिकरण तालिम (Agricultural Marketing Training) (विषय वस्तु र अवधि)

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ड) बजार व्यवस्थापनमा महिलाको सहभागिता (Women Participation on Market Management)

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-

६. कृषि बजार विकास/विस्तारका सवल पक्ष, दुर्बल पक्ष अवसर तथा चुनौतीहरुको विश्लेषण

सवल पक्षहरु (Strengths)

- क)
- ख)
- ग)
- घ)
- ड)

दुर्बल पक्षहरु (Weakness)

- क)
- ख)
- ग)
- घ)
- ड)

अवसर (Opportunity)

- क)
- ख)
- ग)

घ)

ड)

चुनौती (Threats)

क)

ख)

ग)

घ)

ड)

७. कृषि वजार संचालन तथा व्यवस्थापनलाई अझ प्रभावकारी वजाउन के के गर्नु आवश्यक छ?

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Annex 5

Preparation of Master Plan of Agricultural Marketing in Eastern Development Region, Nepal (पूर्वाञ्चल क्षेत्रमा कृषि बजारहरुको गुरुयोजना तयारी)

कृषि विभाग, कृषि व्यवसाय प्रवर्द्धन तथा बजार विकास निर्देशनालय, हरिहरभवन, ललितपुर

समूहगत छलफल (Focus Group Discussion)

Solukhumbu, Taplejung, Dhankuta, Ilam, Morang and Siraha districts

(Members of agri marketing management committee, private sectors and concerned stakeholder - (7 to 11 participants))

जिल्ला : स्थल:

सहभागीहरुको संख्या.....

१. यहांको उत्पादन कुन बजार स्थलमा पुर्याइन्छ ?

- क) थोरै उत्पादन भएकोले नजिकको हाट बजार/खुद्रा बजारमा पुर्याएर बेच्ने गरिन्छ ()
- ख) संकलन केन्द्रमा पुर्याएर व्यापारीहरुलाई सिधै विक्री गर्ने गरिन्छ ()
- ग) व्यापारीहरु घरमा नै लिन आउछन् ()
- घ) संकलन केन्द्रमा पुर्याएर कृषि समूह मार्फत थोक बजारमा ()
- ङ) उत्पादित वस्तुहरु बजारमा पुर्याउने गरेको छैन, घरायसी खपत हुन्छ ()
- च) अन्य केही भए ()

२. संकलन केन्द्र, हाट बजार, थोक बजार, कोल्ड स्टोर मा पुर्याउंदा के मा प्याकिङ गर्नुहुन्छ?

- क) जुटको बोरा () ख) डोको ()
- ग) प्लास्टिक क्रेट () घ) पोलिथिन व्याग ()
- ङ) अन्य ()

३. उत्पादित सामग्री विक्री गर्न कत्तिको सजिलो/अपुयारो छ?

- क) सजिलो छ () ख) गाह्रो छ () ग) ठीकै ()

गाहो छ भने किन?

- संकलन केन्द्र निकै पर छ ()
- संकलन केन्द्रमा राख्ने ठाउँको कमि छ ()
- हाट वजार/थोक वजार स्थल नभएको ()
- हाट वजार/थोक वजार स्थलमा राख्ने ठाउँको कमि ()

४. उत्पादित वालीको ग्रेडिङ गर्ने गरेको छ छैन?

क) छ () ख) छैन ()

छ भने कसरी गर्नु हुन्छ?

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५. उत्पादित वालीको मूल्य कति छ भन्ने कसरी थाहा पाउनु हुन्छ?

- क) थाहा हुदैन () ख) व्यापारीले भने बमोजिम ()
- ग) छिमेकी वाट () घ) रेडियो वाट ()
- ड) जे.टि./जेटिए वाट () च) एस.एम.एस. मार्फत ()
- ज) अन्य भए खुलाउने ()

६. यस क्षेत्रमा उत्पादन गर्नु भएको कृषि वाली अनुमानित कति प्रतिशत आफै खपत गर्नुहुन्छ?

क्र.सं.	वालीको नाम	उत्पादन मे.ट	खपत प्रतिशत	विक्री प्रतिशत
१	अन्न वाली			
	धान		..... प्रतिशत	
	गहुं		..... प्रतिशत	

	मकै		..... प्रतिशत	
	अन्य		..... प्रतिशत	
२	तरकारी वाली			
	हिउंदे तरकारी		..... प्रतिशत	
	वर्खे तरकारी		..... प्रतिशत	
	आलु		..... प्रतिशत	
३	मसला वाली			
	अदुवा		..... प्रतिशत	
	खुर्सानी		..... प्रतिशत	
	अन्य		..... प्रतिशत	
४	फलफुल वाली			
	हिउंदे फलफुल		..... प्रतिशत	
	वर्खे फलफुल		..... प्रतिशत	
	सुन्तला जात फलफुल		..... प्रतिशत	
५	अन्य वाली			
	क. ....		..... प्रतिशत	
	ख. ....		..... प्रतिशत	
	ग. ....		..... प्रतिशत	
	घ. ....		..... प्रतिशत	

Annex 6

Preparation of Master Plan of Agricultural Marketing in Eastern Development Region, Nepal (पूर्वाञ्चल क्षेत्रमा कृषि बजारहरूको गुरुयोजना तयारी)

कृषि विभाग, कृषि व्यवसाय प्रवर्द्धन तथा बजार विकास निर्देशनालय, हरिहरभवन, ललितपुर

उत्पादन क्षेत्र अवलोकन (Visit of Production Area)

जिल्ला : गा.वि.स./वडा/स्थलको नाम:

अवलोकनकर्ताको नाम: मिति:

१. उत्पादन क्षेत्रमा लगाईएको वाली
२. वालीको अवस्था
३. उत्पादन क्षेत्र नजिकको बजार
४. उत्पादक कृषक, उत्पादन स्थल वरपरका कृषकहरू तथा थोक विक्रेताहरू, उपभोग कर्ता तथा बजार व्यवस्थापनमा संलग्न व्यक्तीहरू संग भेटी अनौपचारिक छलफल गर्ने, छलफलका बुँदाहरू तपशिल बमोजिम हुने छन् ।
 - (क) उत्पादन अवधिमा देखिएकमा समस्याहरू
 - (ख) उत्पादन भण्डार तरिका
 - (ग) ग्रेडिङ तथा प्याकेजिङ तरिका
 - (घ) बजार स्थल सम्म ढुवानी साधन
 - (ङ) कुन किसिमको बजारमा जाने गरेको
 - (च) विक्री वितरणमा व्यापारीहरूको वर्तमान भूमिका
 - (छ) बजार व्यवस्थापन तथा संचालनमा देखिएका समस्याहरू
 - (ज) बजार मूल्य सम्बन्धमा जानकारी भएको/नभएको सम्बन्धमा
 - (झ) कृषि बजार विकास तथा विस्तारको लागि सुझावहरू
 - (ञ) अन्य केहि भए:.....

नोट: प्रत्येक जिल्लामा २/३ वटा उत्पादन क्षेत्रको अवलोकन गर्ने

Annex 7: Field Visit Photo