

**LIVESTOCK BASED MICRO-ENTERPRISES AND ITS
EFFECTIVENESS ON POVERTY REDUCTION**

A STUDY IN HASPOSHA VDC OF SUNSARI DISTRICT

A THESIS

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RECOMMENDATION LETTER

This is to certify that the thesis submitted by **Bhim Kumari Younghang** entitled **Livestock Based Micro-Enterprises and its Effectiveness on Poverty Reduction: a Study in Hasposha VDC of Sunsari District** has been prepared under my supervision in the partial fulfillment of the requirements for the degree of Master of Arts in Geography. I recommend this thesis to the evaluation committee for examination.

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Abbreviations

ADB	Asian Development Bank
CBS	Central Bureau of Statistics
CDG	Central Department of Geography
DSAO	District Service Animal Office
Et.al.	Alli, aliae (Latin word)
Etc	Etcetera
GIS	Geographic Information System
HH	Household
i.e.,	that is
ICIMOD	International Center for Integrated Mountain Development
IFAD	International Fund for Agriculture Development
ILO	International Labor Organization
ILRI	International Livestock Research Institute
MEDEP	Micro Enterprise Development Programme
MoICS	Ministry of Industry Commerce and Supply
NDDB	National Dairy Development Board
No.	Number
PRSP	Poverty Reduction Strategy Paper
UNDP	United Nation Development Program
VDC	Village Development Committee
WB	World Bank
%	Percent

Glossary of Selected Words

Aadibasi	Indigenous or aboriginal tribe such as Rai, Limbu, Shrepa, Newar etc.
Brahmin	The highest caste in the hierarchy of Nepalese caste system. Generally they suppose to perform religious function of the community
Chhetri	The second higher caste in Nepalese caste system and they are known as warrior groups
Dalit	Lower caste people in so called hierarchy of neplease caste system. Damai (tailor), Kami (blacksmith), Sunar (goldsmith), Sarki (cobbler) etc are grouped under the Dalit community.
Damai	One of the lower caste in Nepalese caste system
Tharu	An ethnic group in Nepal particularly inhabited in Tarai area.
Tamang	An ethnic group in Nepal

INTRODUCTION

1.1 Background

Livestock is the animal kept or raised on a farm, such as cattle, buffalo, horse, pig, poultry, sheep and so on (www.answer.com). Livestock refers to domesticated animals that may be kept or raised in pens, houses, pastures, or on farms as part of an agricultural or farming operation, whether for commerce or private use (see <http://www.worldiq.com/defination/animal>). The process of breeding, raising and caring for livestock is known as animal husbandry and is an important component of modern agriculture. The livestock sector is an important component of the Nepalese economy in terms of income, employment and equity. Following sustained economic growth and rising domestic income, the demand for livestock products has increased considerably. This has encouraged rapid expansion of livestock output during the last 10 years (DLS, 2009). It is estimated that the countries' livestock resources are now: 7.0 million cattle, 4.4 million buffalos, 0.8 million sheep, 8.1 million goats, 1.0 million pigs, 24.6 million chickens and 0.4 million ducks (APSD, 2008/2009).

Livestock enterprise has been taken as an important factor for poverty reduction especially in the periphery of market towns. Livestock based micro-enterprise subsector in the economy of rural Nepal is of high importance in two ways. Firstly, it is a source of calories and also the income generating business. Secondly, it provides manure for the agricultural land (Sharma, 1988). Nepal is facing various problems in livestock enterprise sector. It is due to the depletion of forest and lack of grazing land in Tarai. Forest has been decline day by day due to rapid increase in population. Nepal's agricultural sector depends upon monsoon and it is only for one season. In this situation livestock being home industries/ enterprise can employs those (local people) and increases their income as well as raises their living standard. Thus, livestock being a branch of agriculture sector plays a vital role in the economy as an extra income generating activity as well as poverty reduction.

In the context of research about the micro enterprise, first of all it is important to understand what an enterprise is. Enterprise is the entire organization, including all of its subsidiaries. It implies a large corporation or government agency, but it may also refer to a company of any size with many systems and users to manage (www.businessdictionary.com). An enterprise includes any economic unit engaged in production of goods and services. A micro enterprise is known as a type of small business that is often unregistered and run by poor individual. Broadly stated, a micro business is a little capital as possible or less capital than would be usual for a business. Micro and Home Business Network, an Australian organization, defines a micro- business as one with five or less employees same definition is followed by USA. In Europe a business with less than ten employees may be officially considered a micro-business. Different parameters are used to define micro-enterprise in developing countries such as; number of employees, employees and turnover etc. Micro enterprise activities are undertaken mainly at the individual or household level employ, relatives and neighbors, where salaried labor is negligible. (see <http://en.wikipedia.org/wiki/micro-enterprise>).

In the context of Nepal, the micro enterprise policy (2007) has defined micro enterprises as “any industry, enterprise or other service business, based particularly on agriculture, forest, tourism, mines and handicrafts” (MoICES, 2008) that meets the following conditions.

- In the case of a manufacturing industry, enterprise, involving the investment of fixed capital of not exceeding two hundred thousand rupees, except house and land.
- In the case of a service enterprise, and industry, and enterprise involving the investment of fixed capital of not exceeding one hundred thousand rupees.
- The entrepreneur himself or herself is involved in the management.
- A maximum of nine workers including the entrepreneur.
- It has annual turnover of less than two million rupees.
- If it uses engine or equipment, the electric capacity of such engine or equipment is less than five kilowatt.

Many rural communities depend upon goods and services provided by the natural resources while these communities need to protect and improve environmental equality, they also need to improve their own quality of life in areas that include, income food security and nutrition and equity. To address these issues Micro Enterprise Development Programme (MEDEP) promotes low impact poverty reduction micro enterprises in areas as agriculture, forest, and livestock farming. The MEDEP is a multi-lateral donor funded poverty reduction initiative supported by the ministry of industry (GoN) and the United Nation Development Programme (UNDP) in Nepal since 1998. To support Nepal's poverty reduction efforts, the MEDEP has been identifying poorest of the poor. The programme has been working with poor people, especially, women, indigenous Nationalities, Dalit, Muslim, other Madhesi groups and involving them in micro-enterprises (CDG, 2009).

Poverty reduction is the sole issue of under developing countries; poverty generated more interest among academicians, planners and policy- makers. According to World Bank definition "Poverty is hunger. Poverty is lack of shelter. Poverty is being sick and not being able to see a doctor. Poverty is not having access to school and not knowing how to read. Poverty is not having a job, is fear for the future, living one day at a time. Poverty is losing a child, to illness brought about by unclean water. Poverty is powerlessness, lack of representation and freedom". In short, it can be viewed as failure to meet the basic requirements of a daily life. Poverty reduction involves improving the living conditions of people who are already poor. Poverty reduction is always the main objective of every plan, although the fact is an ironic, poverty reduction is being more slogan than actions.

1.2 Statement of the Problem

Poverty, unemployment, low economic growth, social inequalities and political instability are the major problems in Nepal. Although Nepal is known as rich in natural resources and natural scenery, but poor management of resources and ignorance of its value could not improve the livelihood of the poor. Animal husbandry is one of integral component in rural areas of Nepal. It provides various income generating opportunities through establishment of the livestock based micro enterprises. But micro enterprise development activities are not free from problems;

lack of skill development training; lack of awareness of market chains and ways of delivering of the product are the constraints to sustainable development of livestock based micro enterprises in local level (Poudel, 2003).

Population pressure on agriculture land of Nepal is considerable, i.e. cultivated land is severely limited by hill topography. Productivity of land has been declining owing to decreasing fertility of soil caused by unscientific land use practice and environmental deterioration. Agriculture techniques and practices have remained traditional. Use of external inputs in farming is minimal and mechanization negligible. In this situation, livestock can employ farmers and improve their income as well as raise their standard of living. In developing as well as developed countries livestock plays a vital role in the life of human beings as an extra income generation activity or by providing food and nutrition for people (Dahal, 1993).

Traditionally, it has been an integral part of Nepali culture to raise livestock. For example, cow's urine and dung are essential ingredients for performing several cultural as well as religious ceremonies. On the other hand if there will be a sufficient investment towards livestock enterprise it will play an important role to the poverty alleviation as well as development of the nation. To sum up, the farmers of Nepal, especially in the rural areas depend heavily on livestock; it plays a multiple role in the socioeconomic set-up of rural Nepal. In this context the present study seeks to explore aspects of livestock based micro enterprises and poverty reduction in Hasposha VDC of Sunsari district.

This research will be attempted to answer the following research questions:

1. What are the pocket areas of livestock enterprises in Sunsari district?
2. What kind of market channels are there for the micro economic enterprises?
3. What are the potentialities and challenges of livestock based micro-enterprises?
4. How they improve their standard of living through livestock based micro-enterprises?

1.3 Objective of the Study

Each research seeks to explore something new in the specific issues. The present research intends to explore and analyze the livestock based micro enterprises and its effectiveness on poverty reduction in Sunsari district of Nepal. However the specific objectives are as:

- to identify the spatial distribution (pocket areas) of livestock rearing in Sunsari district;
- to study the marketing channels of livestock and its product in Hasposha VDC of Sunsari district;
- to analyze the potentialities and challenges of livestock based micro-enterprises and
- to analyze the poverty reduction efforts through livestock-based micro enterprises in the study area.

1.4 Significance of the Study

The micro enterprise and small business has always played a significant role in the economic development of a country. Its role might not have been as spectacular as that of the large corporation involving the development of enormous physical, financial and human resource. However, the impact of micro enterprises has been tremendous, particularly in the area of job creation. Study about livestock based micro enterprises has always an importance for researcher and also an asset for the nation. It will be useful for general readers as well as planners.

Livestock farming has been playing an important role in the socio-economic life of the rural population of Nepal. In spite of the significance of livestock only few studies have been conducted. The study helps to explore the potentialities and challenges of sustainable livestock micro-enterprises. Moreover, it also helps in understanding more about the role of livestock on poverty reduction. However, the present study on various aspects of livestock based micro enterprises seems pertinent and the findings and recommendations of the present study may useful for other studies of this kind.

1.5 Limitations of the Study

Each and every study has its own limitations. Due to the time and financial constraints the study does not cover the whole area of Sunsari district rather it confines within Hasposha VDC only. The present study is based on the survey of forty seven entrepreneurs of Hasposha VDC, Sunsari. It was not possible to go through all the individuals of the VDC. Besides, the present research does not cover other aspect of livestock such as trends, types of diseases and quantity of product etc. Similarly, the study has been limited to commercial livestock farmers only.

Chapter II

REVIEW OF LITERATURE

Review of literature is an essential part of all studies. It is a way to discover what other research in the area of problem has uncovered. A critical review of the literature helps the researcher to develop a thorough understanding and insight into previous research works that relates to the present study. It is also a way to avoid investigating problems that have already been definitely answered. The purpose of literature review is, thus, to find out what research studies have been conducted in one's chosen field of study, and what remains to be done (Wolff and Pant, 2007).

2.1 Literature Related to Livestock

A group of livestock specialists from the World Bank prepared a book (2001) entitled "Livestock development: Implication for Rural Poverty, the Environment and Global Food Security". They argue for a people focused approach to livestock development, giving big priority to the public goods aspects of poverty reduction, environmental sustainability, food security and safety and animal welfare. It outlines the primary policy/ technologies framework for the main production systems. Moreover, it also draws attention of the fact that the global livestock sector is changing fast with a strong and growing demand. Finally, they concluded with the Banks' action plans for the future. The first plan was to maintain a livestock development adviser at the rural development department with excellent bank and international discussion on current critical global issues in livestock development. Second one was to develop closer cooperation with the International Finance Corporation and together show how

commercial livestock development can be used for poverty alleviation. The last plan was to maintain formal or informal networks with livestock specialists.

Tulachan and Hokkonen (2002) in their paper “Community Empowerment in Livestock Resource Planning” advocate that livestock have a critical role to play in poverty reduction. It emphasized for an institutional and policy framework to empower local communities for integrated livestock planning and management. Furthermore, it ensures maximum participation of women; improve income and livelihoods by promoting value addition, diversification and marketing development. However, they also identified some common problems like shortage of feed, poor animal health, lack of market development, product diversification and inappropriate policy and institutional programmes as to be face by livestock dependent farmers. This study shows that due to the conflicts in the use of common property resources there was decline in population of sheep and cattle in some areas of the mountainous region.

Poudal (2003) made a study about livestock management in middle mountain. He has analyzed the change in livestock composition, its trend and contribution on household economy. He also studied about the livestock management particularly transhumance systems in relation to land use pattern in Pasgoun VDC of Lamjung district. He found transhumance system within the area for hundreds of years. People keep their animals in community and these animals are grazed in different herds. Poudel concluded that people are gradually shifting to new profession from their traditional profession. High breed animals should be provided to increase the quality of livestock by government and by other concerned authorities. Further understanding on the processes of resources and livestock need to be investigated.

Aryal (1999) made a cost benefit analysis of poultry farming in Thankot area. To him, in recent years the new technology has given various kinds of benefits to the entrepreneurs through broiler chickens. They take less time to be mature, consume less feed and can be grown more in number in a limited area. It only takes 7-8 weeks to gain weight of 2 kg and become ready to sell but in the past it could take 14-16 weeks to be same weight. He observed the demand of chicken meat and manure is increasing in Nepal. Moreover, it also provides direct and indirect employment. High incidence of mortality of chickens, unstable market price of chicken, increase in price

of feed materials and substantial higher cost of productions are the problems related to this industry. He recommended that, government should formulate appropriate policy and necessary measures to protect the local farming from unfair competition of industrialists from across the border.

2.2 Literature Related to Poverty Reduction

Ghimire (1999) carried a study entitled “Impact of South Asia poverty Alleviation Programme on the Alleviation of Rural Poverty in Syangja District”. SAPAP has been implementing the programme within the area with the financial support from UNDP. Through social mobilization approach poor are organized, generate their own capital through saving and enhance skills through training. In this way poor are empowered through organization and capital are generated and skill enhancement. He has pointed a success of poverty alleviation model only through harnessing of locally available resources.

Adhikari, (2002) carried out a study on rural poverty in Madhesha VDC in Sunsari district. He identified and measured the absolute and relative poverty in the area. The absolute poverty was defined as the poor whose level of income is insufficient even to fulfill the basic needs such as education and health. He also found relationship between poverty and unemployment. He concluded that poverty in Nepal arises due to various reasons, such as small land holding, low productivity, lack of market facilities and other basic infrastructure, lack of farm jobs, lack of rural credit, lack of agricultural training etc. So far as their feeding is concerned, the poor people were suffering from hunger and malnutrition. They were found to be frequently ill due to insufficient nutrition. Their clothing is concerned they were rags and torn clothes. Regarding education most of the poor people in the study area were found to be illiterate because of their poverty.

2.3 Literature Related to Plans, Policies and Programmes

2.3.1 Poverty Reduction Program of Nepal Government

Poverty has always been an overriding concern in development planning in Nepal since the Sixth Plan (1981-1985) it has been explicitly stated as a development

objective. During the Seventh Plan period (1986-1990), the Government formulated its program to fulfill the basic needs, the first separate plan for reducing poverty. Incorporating it as an integral component the seventh plan envisaged to eliminate poverty from within a 15- years period. Similarly, poverty alleviation was one of the major objectives of the Eighth Plan (1993-1997) too, the first national plan formulated after restoration of multi-party democracy in 1991.

The Ninth Plan (1998-2002) adopted poverty alleviation as its sole objective and unlike previous plans, established long- term goals for improving development indicators in all sectors, based on the potential of each for reducing poverty. One of the goals of the Ninth Plan was to lower poverty incidence from 42% to 32% by the end of the plan period. The Tenth Plan (2003-2007), with the main objective to alleviate poverty by mobilizing optimally the means and resources on the mutual participation of government, local agencies, non-government sectors, private sectors and civil society. It seeks to extend economic opportunities and open new ones enlarging employment opportunities and economic achievements for women, Dalits people of remote areas and poor and backward groups through programmes thereby to improve the status of overall economic, human and social indicator.

2.3.2 Interim Plan (2008-2010)

The interim Plan (2008-2010), aims to improve change to majority of people through reducing poverty and disparity as well as to establish peace (NPC 2007). The interim plan has also envisaged in reducing poverty with focus on employment-oriented programme and poverty-alleviated based wide economic growth. It has further prioritized agriculture, tourism and industrial sectors which are also the major sectors of micro enterprise development. The strategies for development of micro enterprises include; ensuring participation of women, *Dalit, Adibasi Jjanajatis*, the poor and backward groups in trainings and promoting the micro enterprises that involves those targeted groups.

2.3.3 Industrial Sector Policy, Strategy and Program

The industrial sector Policy (2004), has clearly stated “support poverty alleviation by putting emphasis on social inclusion through micro, cottage, and small industries”. It has adopted the following strategies particularly in relation to the development of micro enterprises.

-) To make the selection mechanism effective in order to ensure the participation of women, *Dalit, Adibasi, Janajatis*, the poor and backward groups and those affected by the conflict, in trainings related with micro, cottage and small industries.
-) To promote micro, small and traditional cottage industries, which have the involvement of these marginalized and socially dejected groups such as Dalit, women, *Madhesis, Muslim, Adibasi, Janajatis*, and disable people.
-) To run capacity enhancement programs in order to provide assistance to the development of micro, cottage, small and traditional industries.
-) To campaign like, “Be Entrepreneur, Reduce Youth Unemployment” and “One Village One Production” for employment generation.

2.3.4 Micro Enterprise Policy 2007(2064 BS)

The Micro Enterprise Policy for the first time came in 2007 as a policy guideline to address the micro enterprises based on locally available raw materials, indigenous technology and small capital investment. The policy has mainly emphasized to the goal of poverty alleviation and improvements in the living standard of the people below the poverty line particularly women, Dalits, indigenous nationalities, Madhesis and other backward communities as specified by the Government of Nepal by providing opportunities of employment self employment and entrepreneurship development in the micro enterprises.

The micro enterprise policy 2007 has defined micro enterprises as “any industry, enterprise or other service business, based particularly on agriculture, forest, tourism, mines and handicrafts” (MoICES, 2008) that meets the following conditions.

- In the case of a manufacturing industry, enterprise, involving the investment of fixed capital of not exceeding two hundred thousand rupees, except house and land.
- In the case of a service enterprise, and industry, and enterprise involving the investment of fixed capital of not exceeding one hundred thousand rupees.
- The entrepreneur himself or herself is involved in the management.
- A maximum of nine workers including the entrepreneur.
- It has annual turnover of less than two million rupees.
- If it uses engine or equipment, the electric capacity of such engine or equipment is less than five kilowatt.

2.4 Conceptual Framework

The review of literature shows that some studies have linked livestock with forest and agriculture whereas others have regarded livestock as a source of income. The present study has attempted to link livestock with microenterprises as effectiveness means for poverty reduction. It has also tried to find out the spatial locations of livestock based micro enterprises in the study area and identify market channels of the enterprises and analyze the challenges and potentialities of livestock based micro enterprises as well. The conceptual framework for the study is shown in Figure 2.1.

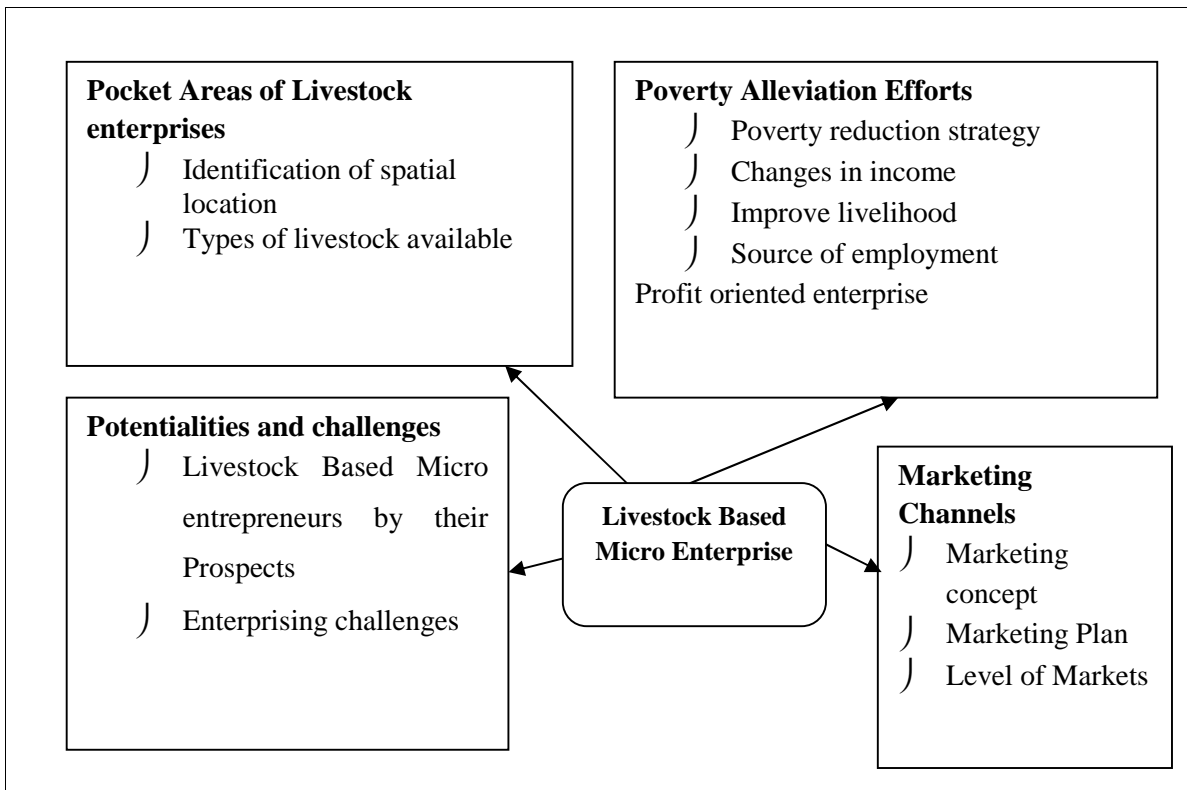


Figure 2.1: Conceptual Framework and Study Approach

Spatial locations, market linkage, enterprising challenges and potentialities are interrelated to each others. Moreover, marketing plan and market channels are other important variable for the sustainable development of an enterprise.

There are lots of potentialities for the development of livestock based micro enterprises in Nepal. Most of the rural Nepalese people are still dependent on agriculture, therefore; it is impossible to improve livelihood of poor without developing the livestock enterprises. No studies have done on livestock based microenterprises linking with poverty reduction although there are many potentialities. So, this small research was done hoping that, study will be fruitful for planners and development projects, NGOs and INGOs who wants rural development and improve livelihood of poor. These concerns have motivated the researcher to do research on this particular issue.

Chapter III

RESEARCH METHODOLOGY

Research methodology clarifies the approaches adopted and contains a description on how data has been collected and analyzed.

3.1 Selection of the Study Area

This study has been carried out in Sunsari district which is working area of the MEDEP program. MEDEP has selected the district due to its huge potentialities to develop livestock based micro enterprises. Sunsari district covers 49 VDCs among them this study has chosen Hasposha VDC as a study area. The area is a plain area and due to this circumstance greater part of people relies on the farming: livestock and agriculture.

3.2 Nature and Source of Data

Both primary as well as secondary data has been collected to meet the objectives of the study. The primary data has been collected through different research tools like questionnaire, key informant interview and informal interview.

The secondary data has been obtained from different sources such as books, reports articles, website, newspaper, published and unpublished research reports and other reliable sources.

3.3 Method and Tools of Data Collection

Various research tools were used for the collecting data which are mentioned below.

3.3.1 Reconnaissance Survey

Reconnaissance survey had been conducted before starting actual field work. Reconnaissance survey was essential to know the local micro enterprises and to find out location of survey site.

Several information regarding livestock based enterprises and ideas have been grasped in the informal talks with people of district headquarters, persons of district animal office, local people, enterprisers and other agencies. For example, types of livestock based enterprises the local people adopted and number of household

involved in it. Moreover, different settlement and *toles* have been identified for the survey, in addition to this, other concepts like livestock based micro enterprises, their products, market centers and their linkage and roles etc were also discussed.

3.3.2 Questionnaire Survey

Questionnaire survey was one of the major surveys of this research work. This survey has been used to gather, information on livestock enterprises, its types, market channels, income, profit, advantages, constraints to enterprising activities and potentialities of livestock micro enterprises.

Sampling is an essential part of any investigation. The exact number of livestock based micro entrepreneurs are not known so snowball sampling has been used to get the information. Altogether forty seven respondents have been interviewed in different localities/settlements (Table 3.1).

Table 3.1: Sampling Frame

Settlements	Sample of micro entrepreneurs		Total
	Male	Female	
Bhawanipur	8	5	13
Tamang tole	9	12	21
Himshikhar tole	4	2	6
Ekatamarga	2	5	7
Total	23	24	47

Source: Field Survey, 2010

Both structured as well as unstructured questionnaire was designed consisting 35 questions. It was administrated personally to a respondent. So this helped the researcher to explain the nature and purpose of investigation and to make the meaning of the question clear to the respondents. The questionnaire survey was conducted during nine days. The questionnaire has been included in appendix of the report.

3.3.3 Observation survey

Field observation is an important weapon of research in every field. Observation has been carried out in order to get additional information including spatial phenomenon such as locational features and also observed the 'access'; road access, market access, means of facilities available in the study area. In the same way, the condition of livestock based micro enterprise also been observed. And found that most of the entrepreneurs kept their livestock in a traditional way.

An observation, protocol sheet has been used to acquire additional information. An important thing observed during the field visit was there is a huge potentiality of livestock-based micro enterprises development because of its market access and road assess and high demand of milk, meat, egg and other livestock products.

3.3.4 Key Informant Survey

Interview with key persons was one way to get detail information about this issue. Therefore, key informant interview was used to get detail information that were not explored through questionnaire survey.

The survey was based on KIS checklist; checklist has been used as a survey tool. Officer and Veterinary Surgeon of District Animal Service Office, MEDEP Coordinator and local livestock entrepreneur and teacher in local school were the key persons/informants of this study. KIS has been basically used to gather information to find out the pocket areas of livestock micro enterprises in Sunsari, potentialities, challenges and the market channels of micro economic enterprises.

3.3.5 Field Note

Field note was mentioned to record necessary information observed during field survey. It was meant to record supporting information not captured by then survey questionnaire. Important information for the study such as incidence, events discussions which has not been included in either structure or unstructured question has been record in the diary. Some respondents have interested to share their enterprising background, problems and benefits but some were really not ready to share information such as education, name, income, expenditure, problems etc. Most

of the poor farmers are suffering from financial problem to run their enterprise. These were the notes taking after completion the daily field work.

3.4 Data Processing and Analysis

The purpose of analyzing the data is to change from an unprocessed form to an understandable presentation. The collected data from questionnaire has been manually tabulated. Information from the key informant and observation has been presented in descriptive way wherever relevant. Information has been generated as required to meet the objectives. Tables, diagrams, graphs, and other illustrations has been generated using Microsoft Excel programme. Other descriptive analysis has been accomplished in a contextual manner wherever relevant. Mapping work has done through (Arc view 3.2) Geographic Information System program.

3.5 Field Experience

First of all, it was very difficult to determine the study area and to find out respondents because this study was not like household survey that identify the sample and fill the questionnaire. For this research, researcher must find out the micro entrepreneurs who raised animal commercially. The reconnaissance survey made it easier to find out location livestock based micro enterprises.

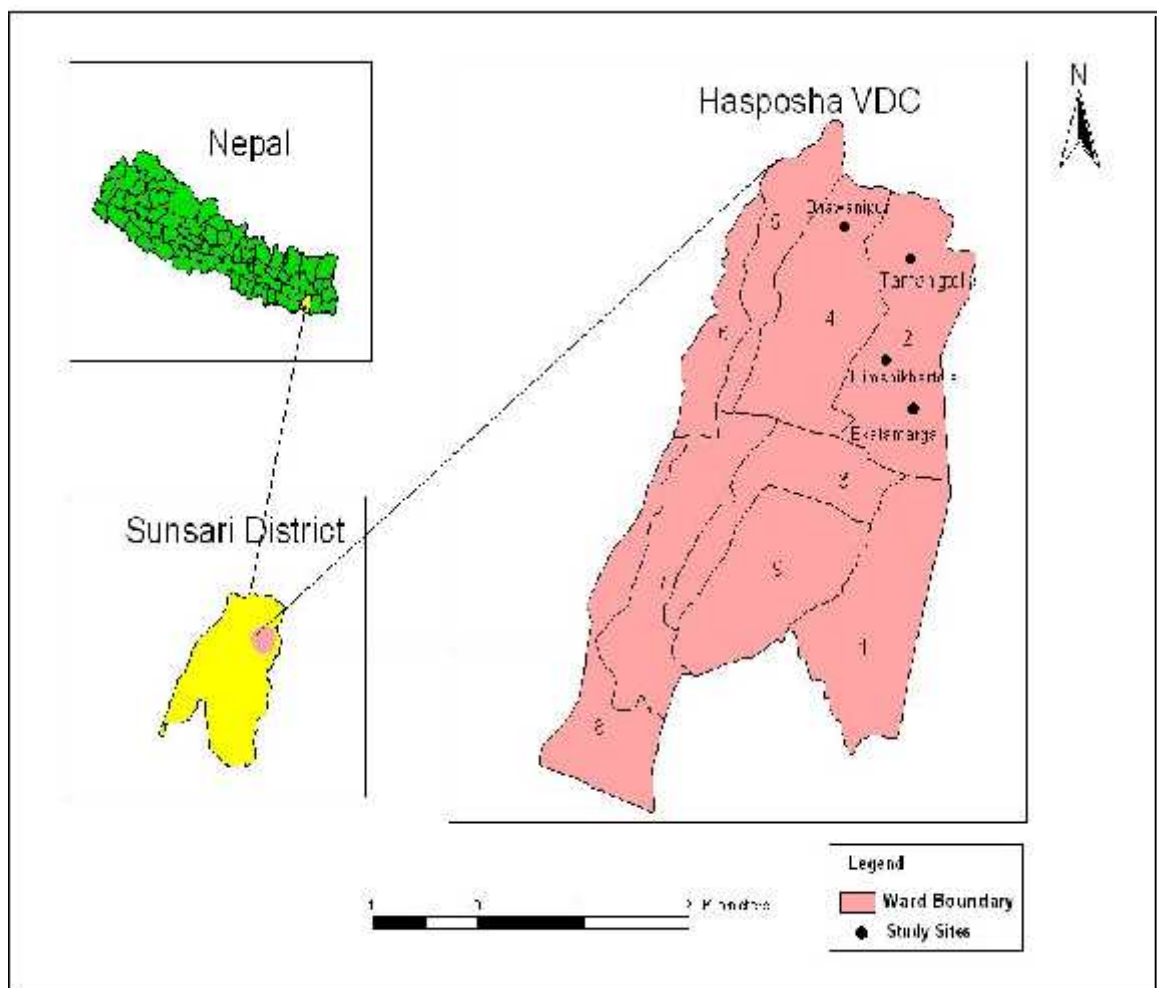
Most of the respondents were illiterate and women but well mannered. They understand the purpose of researching and helpful to response. However, it was time consuming to select the respondents and nine full days from 9 am in the morning to 6 pm in the evening was devoted for this. Very few respondents were behaving in a little bit rude way but in overall it was a wonderful experience.

DESCRIPTION OF THE STUDY AREA

4.1 Location of the Study Area

Hsaposha VDC lies in north western corner of Sunsari district. Geographically it is located between $26^{\circ}40'13''$ to $26^{\circ}43'16''$ north latitude and $87^{\circ}14'22''$ to $87^{\circ}16'41''$ east longitude. The VDC is bounded by Itahari municipality of Sunsari district in the South western and Dharan municipality of Sunsari district in the north, Pakali VDC in the east and Ekamba VDC in the south. The VDC has total area of (approximate) 11 square kilometer. Bhawanipur, Tamangtole, Ekatatamarga and Himshikhartole are chosen the specific study sites (figure 4.1).

Figure 4.1: Location of Study Area



4.2 Physical Setting

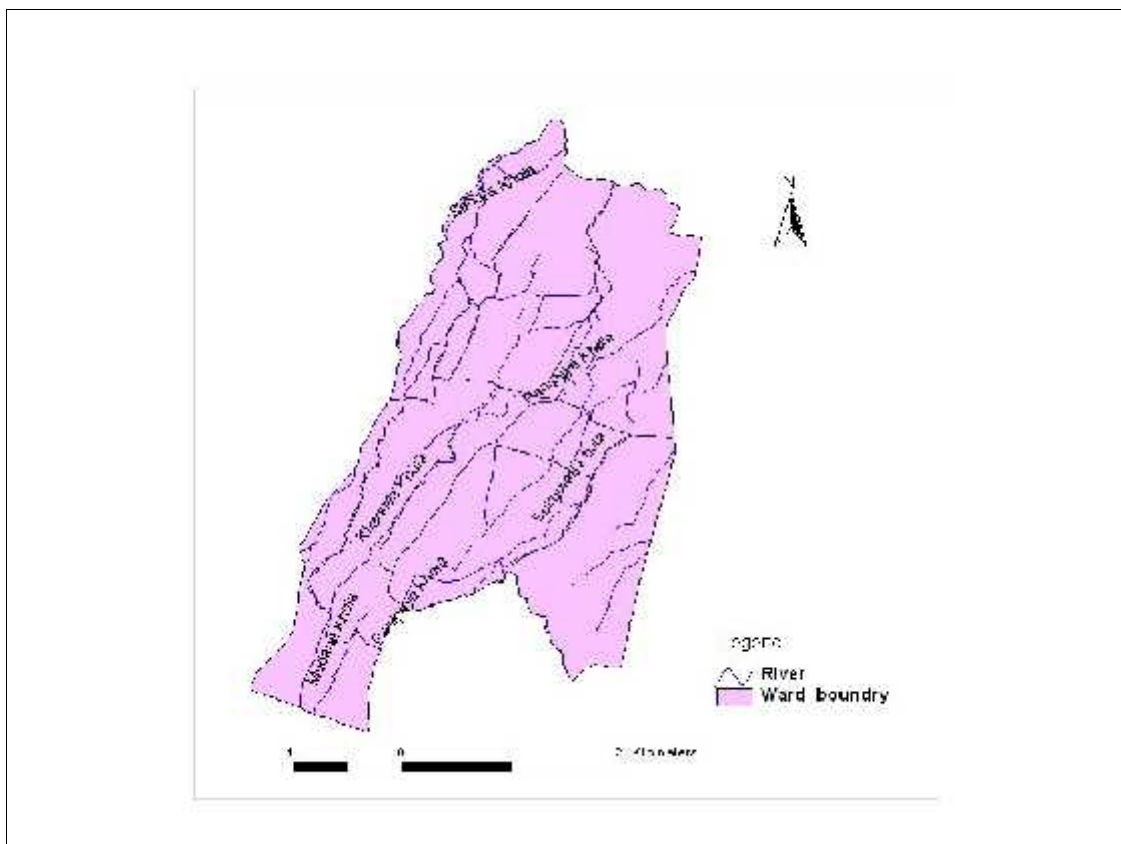
4.2.1 Topography

Hasposha VDC is situated in Tarai region. It is composed of fertile alluvium and has a huge significance from the agriculture point of view. The elevation ranges from 110 meter to 140 meter from mean sea level. The area is a plain area and due to this circumstance greater part of people relies on the farming; livestock and agriculture and sustained their livelihood. Livestock fodder is easily available from agriculture activities; therefore there are high potentialities of livestock rearing in the VDC.

4.2.2 Drainage Pattern

Panipaya khola and *Sukumari khola* are the main rivers of Hasposha VDC. *Kharsal khola* is another main khola of the VDC. This khola is one of the tributary of *Tengra khola* (figure 4.2). These rivers and *khola* are some of easy sources of water requirements for the livestock.

Figure 4.2: Drainage System



Besides these two major rivers there are many others small streams which flow through the village. Villagers collect grass from the river side it is an alternative grazing land for animals.

4.2.3 Vegetation

Hasposha VDC consists vegetation of sal (*shorea robusta*) forest and Tarai hardwood forest. Especially forest area in the northern part of VDC is known as Charkoshe *Jhadi*. These forest are dominated by *sal* trees and *asna* (*terminal alata*), *bajhi*, *barro*, together with several other bush species *sissoo* (*dalbergia sissoo*) and *khair* (*acacia catechu*) mixed forest are also important. Likewise, Tarai mixed hardwood forest includes, *sal*, *kalo siris*, *Khayer, gutel*, *haldu*, etc. Large number of livestock is supported by this natural vegetation in village area itself. But, owing to low consciousness regarding the need for environment conservation among the people, the forest is becoming thinner every year.

4.2.4 Land use Pattern

Hasposha VDC has a total area of 10.82 square kilometer. Topographical map prepared in 1995 shows five major types of land use such as cultivated land, forest, scattered tree, pond/lake and building. The area under different land use/cover categories shown in table 4.1 and figure 4.3.

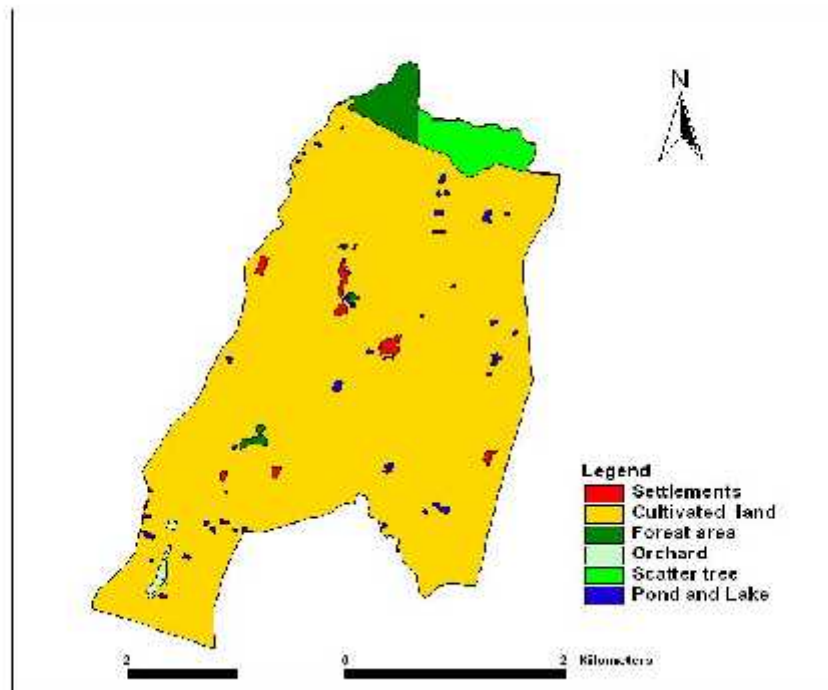
Table 4.1: Land Use /Land Cover Categories, 1995

Land use/land cover	Area(km ²)	Percent
Settlements	0.08	0.74
Cultivated land	9.97	92.14
Forest area	0.31	2.87
Orchard	0.04	0.37
Scatter tree	0.38	3.51
Pond and lake	0.04	0.37
Grand Total	10.82	100

Source: Toposheet, 1995, Survey Department of Nepal

The table illustrates the area of different land use categories of Hasposha VDC. Almost, 92.81 percent of the area is covered by cultivated land which is the largest land among all the six land use categories. This means that a huge area of land is used in agriculture purpose in Hasposha. In contrast, the lowest area is 0.34 percent is under orchard whereas scattered tree covers about 3.21 percent, followed by forest area with 2.62 percent. Similarly, pond and lake and orchard land have occupied smaller area than builtup area/settlements.

Figure 4.3: Land Use Categories of Hasposha VDC



Source: Toposheet 1995, Survey Department

In short, the cultivated land is the dominant among the land use categories of Hasposha VDC and pond/ lake and orchard covered very few area of land.

4.3 Social Setting

4.3.1 Population

The total population of Hasposha VDC is 18,364 (CBS, 2001). Male consists 48.36 percent and female 51.64 percent. It has a total number of 3,864 households. Tarahara bazaar (ward number 2) has the highest population of 7,617. On the other hand, Ward number 3 and 7 have smallest population size 680 and 703 respectively. The average family size of VDC is 4.8 persons which is smaller than the national average of 5.45 (CBS, 2001).

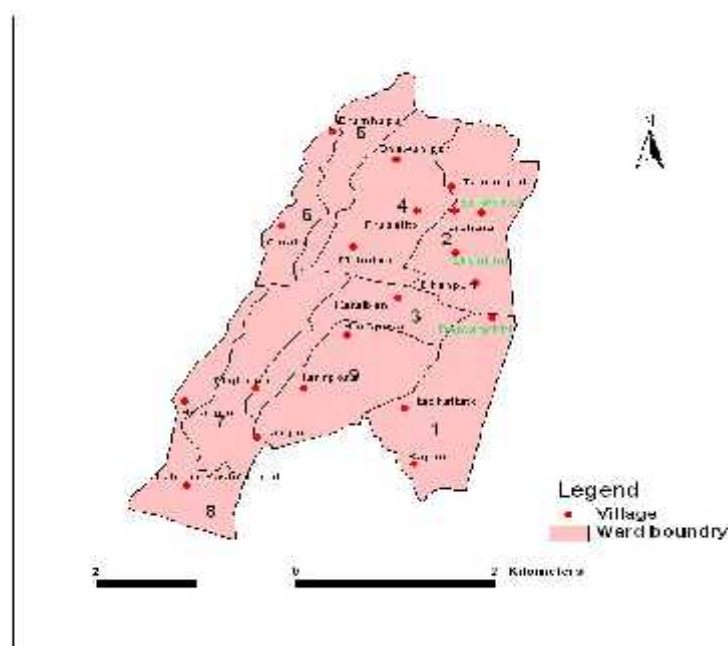
4.3.2 Caste /Ethnicity

Hasposha VDC consists of 41 distinct caste ethnic groups. Janajatis comprise 56.50 percent is consider as highest percent and Dalit shares 6.78 percent which is second largest ethnic group of village. Likewise, Tarai communities (Muslim, Teli, Yadav, Musahar and other) occupy 4.03 percent. However, Chhetries forms the largest caste sharing over 18.49 percent of the VDC population; similarly, Bramin comprises 12.43 percent which is the second largest caste. Buddhism, Hinduism, Christianity and Kirat are the major religion followed by these ethnic groups.

4.3.3 Settlement Pattern

Hasposha VDC has more than 18 major settlements (figure 4.4). Among them, five major settlements are situated in ward number 2 including Tarahara.

Figure 4.4: Major Settlements of Hasposha VDC



Pragatitole, Muhulia and Bhaiwanipur village are in ward number 4. Among them Bhawanipur is dominant for buffalo and cattle keeping. On the other hand, most of the farmers raise pig in Tamangtole.

4.3.4 Educational Status

Education is one of the major social components. The literacy rate of the VDC is 67.28 percent, of which male literacy is about 75.80 percent as compared to the female literacy of 59.44 percent (District Profile, 2066).

Table 4.2: Educational Attainment, Hasposha VDC.

Educational level	Total (percent)	Male (percent)	Female (percent)
Pre primary	1,150 (11.05)	583 (5.58)	567 (5.42)
Primary	3,440 (33.05)	1,851 (17.70)	1,589 (15.19)
Lower secondary	3,884 (37.31)	2,033 (19.45)	1,851 (17.70)
Above SLC	1,935 (18.59)	1,199 (11.17)	736 (7.03)
Total	10,409 (100)	5,666 (55.1)	4,743 (45.3)

Source: District Profile of Sunsari, 2066.

Note: Figures in parenthesis refer to percentage.

The table demonstrates the educational attainment of Hasposha VDC between male and female. There is a considerable gender gap in all levels of education. Although a significant proportion of females have obtained lower secondary level. Of the total literates, only 18.59 percent completed secondary education and among them females constitute only 7.03 percent which is lower than the males 11.17 percent.

There are altogether 4 Government schools, 2 primary and 2 lower secondary schools in the VDC. However, it has 9 private schools including 6 secondary, 2 primaries and 1 preprimary. (District Profile, 2066).

4.4 Economic Activities

The table shows the number and percent of people engaged in different activities. Agriculture is the main occupation of the majority of people in the district; about 55 percent are involved in this activity. On the other hand, the non agricultural activities sector which employs about 45 percent households. Next occupation is service sector, which constitutes second place with almost 16 percent followed by business with about 9 percent. However, considerable decline can be seen on transportation and small industry declined dramatically to nearly 2 percent.

Table 4.3: Distribution of Households by Occupation

Types of Activities	No. of Households	Percent
Agriculture	1,970	54.55
Small industries	46	1.27
Business	341	9.44
Transportation	97	2.68
Service	589	16.30
Other	570	15.78
Total	3,613	100

Source: District Profile of Sunsari, 2066

In conclusion, agriculture seems to be the major occupation of VDC households while least households are involved in small industry sector.

SPATIAL DISTRIBUTIONS OF LIVESTOCK REARING IN SUNSARI DISTRICT

5.1 Pocket Areas of Livestock Keeping in Sunsari

Animal husbandry is an integral part of the farming system in rural Nepal. Almost all the Nepalese rural people are dependent on agriculture so, it cannot be imagined without animal husbandry. Livestock rearing is also important for sustaining livelihood of the local people as well as for developing micro and large enterprises. The rural area of the Sunsari district is not an exception to it. The household engaged in livestock rearing is only 9.1%, however, agriculture and livestock together accounts for 27 percent of the total households (table 5.1).

Table 5.1: Household having Agriculture Land, Livestock and Poultry

Household Activities	Households	
	Number	Percent (%)
Agriculture land only	8,993	7.5
Agriculture and livestock	22,703	18.9
Livestock only	10,938	9.1
Poultry only	1,853	1.5
Livestock and poultry	7,355	6.1
Agriculture and poultry	1,272	1.05
Agriculture, livestock and poultry	25,319	21.06
None	41,752	34.7
Total	120,185	100

Source: District Profile Sunsari, 2066

The given table provides the information about the most common farming activities adopted in Sunsari district in 2066. It gives figures for both agriculture and livestock and clearly shows that their farming interest tends to be different.

According to the table (5.1), 7.5 percent households belong to agriculture land only. Similarly, agriculture and livestock shares 18.9 percent which is the second highest households. Moreover, third highest household percentage is 9.1 which is of livestock only whereas poultry only and agriculture and poultry have got the lowest household percentage among all the household activities. Finally, households having agriculture, livestock and poultry comprise about 21 percent which is the largest category of the household activities. Beside these activities about 34 percent households involved in other sectors such as business, service and transportation etc.

Thus, the agriculture sector comprising crop cultivation and animal husbandry is the most potential in terms of household resources and employment.

The pocket areas of livestock rearing are shown in table 5.2.

Table 5.2: Pocket Areas of Livestock Rearing in Sunsari

S.N	Types of livestock	VDCs	Number
1	Cattle	Itahari, Inurwa, Singiya and Chatara	4
2	Buffalo	Itahari, Mahendranagar, E.Kushawa, Harinagara , Hasposha, Medhasa and Bhokraha	7
3	Goat	Baklauri, Dumrha, Bishnupaduka, Panchakanya and Babiya	5
4	Pig	East Kusuwa, Aurawani, Dharan municipality, Sonapur, Khanar and Madheli	6
5	Poultry	Itahari, Inaruwa, Pakali, Duhawi and Dharan municipality	5

Source: DASO-Sunsari, 2065/066

The given table demonstrates the livestock pocket areas in Sunsari district. District Animal Service Office of Sunsari devised the pocket areas of livestock to initiate the development programme in these VDCs such as improved buffalo rearing programme, commercial cattle rearing programme and income generating pig rearing programme. According to the table 5.2 Itahari, Inaruwa, Singiya and Chatara four VDCs are identified as pocket areas for cattle farming. Nevertheless, the most popular

livestock type in the district is buffalo, with pocket areas reaching almost 7 VDCs. Moreover, pig farming is also getting popular than poultry farming and goat farming.

Overall, the table shows that farmers keep different types of livestock however; small gap can be seen in the pocket numbers.

5.2 Livestock Composition

The people of the Sunsari district from long time ago are practicing animal husbandry. Among the livestock population cattle, buffaloes, chicken and goats are the important livestock reared by the local farmers (table 5.3).

Table 5.3: Number and Types of Livestock in Sunsari District

S.N	Types of livestock	Number	Percent (%)
1	Cattle	304,972	23.6
2	Buffalo	147,093	11.4
3	Goat	316,261	24.5
4	Sheep	6,085	0.5
5	Pig	76,563	5.9
6	Chicken	441,242	34.1
	Total	1,292,216	100

Source: DASO-Sunsari, 2065/066

The table illustrates total number and types of livestock in Sunsari district in 2065/066. According to the table 5.2, there were 1,292,216 total numbers of livestock in the Sunsari district. 23.6 percent of the total livestock belongs to cattle which is comparatively lower than goat. Despite that, buffalo and pig constitute 11.4 and 5.92 percent respectively. The lowest percentage is 0.5 percent that is sheep; however, chicken soared to the highest with almost 34 percent.

5.3 Marketing Places for Livestock Trade

There are different weekly markets held for livestock trade in Sunsari district. Sonapur is one of the major weekly market place for pig and chicken marketing in the

district that take place on every Thursday. It is some 25 kilometer away from Inaruwa the district headquarter. *Sombare* (Monday) hat in Inaruwa, Dharan bazaar in every Thursday and Dhubabi bazaar are the important trading places for livestock (table 5.4).

Table 5.4: Major Market Places for Livestock Trade

S.N.	Market	VDC/Municipality	Distance from headquarter (in kms)	Types	Day to held	Livestock sold
1	<i>Sombare hat</i>	Inuruwa - 3	-	weekly	Monday	Cow, ox, buffalo, goat, chicken, pigeon, duck
2	<i>Bihibare hat</i>	Inaruwa-7	-	weekly	Thursday	Goat, ox, pig, chicken, duck
3	<i>Haripur hat</i>	Haripur	12	weekly	Saturday	Cow, ox, buffalo,
4	Dharan bazaar	Dharan-3	35	weekly	Thursday	Buffalo, goat, pig, pigeon, he-goat,
5	Prakash pur hat	Prakash pur	8	weekly	Friday	Goat, he-goat, Billy-goat, pig, chicken. dock
6	Bange bazaar	Mahendarnagar-5	20	weekly	Wednesday	Cow, ox, buffalo, goat, chicken, pigeon, duck
7	Madhuban hat	Madhuban-5	7	weekly	Sunday	Cow, ox, buffalo, buffalo bull
8	Dhubabi bazaar	Dhubabi-5	13	weekly	Tuesday	Cow, ox, buffalo, goat, chicken, pigeon, duck
9	Khanar chock	Khanar	20	weekly	Saturday	Pig, duck, chicken
10	Chimdi	Chimdi	10	weekly	Wednesday	Cow, buffalo, goat
11	Sonapur	Sonapur	25	weekly	Thursday	Pig, chicken
12	Bharoul	Bharaul	20	weekly	Saturday	Buffalo, cow, ox, buffalo bull, goat,
13	Dharan hat	Dharan-17	35	weekly	Tuesday	Buffalo, goat, chicken, , he-goat

Source: DASO-Sunsari, 2065/066

The table 5.4 provides information about the major market places for livestock trade in Sunsati district. In addition, it also gives the information about types of livestock sold and available in the market. Bange bazaar located on the mahendranagar-4 is an important trading place for livestock, which is 20 kilometer away from headquarters it held on every Wednesday. However, very few types of livestock are sold at Sonapur,

Khanar chock, Chimdi and Haripur hat. These weekly market places are playing significant role for strengthening micro enterprise related to livestock in the district.

Chapter VI

MARKETING PLAN AND MARKET CHANNELS OF LIVESTOCK BASED MICRO ENTERPRISES

6.1 Marketing Concept for Micro Enterprises

In simple term market is a public place where people meet to buy and sell goods. Similarly, market center is a place where exchange of goods and services takes place, so it is also a place for exchange of services and ideas a place for processing different products; a place for community and production services; a place for periodic market (hat) and place for transport service. Thus market center possesses various activities including micro enterprise development (Poudel, 2009).

According to Kotler (1999) “marketing is social process by which individuals and groups obtain what they need and want through creating and exchanging product and value with others.” In marketing terms, a market is made up of people with needs to satisfy, the money to spend, and willingness to spend it (Poudel, 2009). It does not simply mean a physical marketing place. For the market demand for any given product, there are three factors to consider.

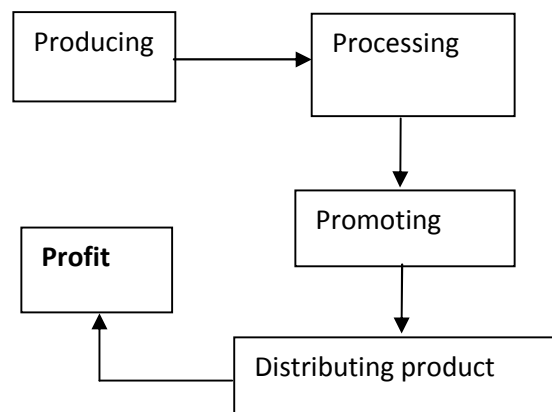
- a. People with product needs;
- b. Their purchasing power and
- c. Their buying behavior.

Marketing is often defined as the movement of a product from where it is produced to the ultimate consumer or processor.

Micro entrepreneur \longleftrightarrow product \longleftrightarrow consumer.

Marketing however, is not only the movement of goods, but also a process. It is a process of exploring which products customers will purchase and then producing, processing and promoting and distributing them at a profit (Kotler, 1990).

Figure 6.1: Framework of Marketing Concept



Marketing is not only selling the product, but in business point of view best marketing includes: the first step is producing second step is processing and promoting product then only distributing products and gaining profit.

6.2 Micro Enterprise and Marketing Plan

In order to make a success of the enterprise that needs to have a good marketing plan. In the marketing plan the key factors to be considered are location, pricing, buying and channels of distribution of goods and promotion, strategies and selling skill. Further a plan for the inventory, credits should also form a part of the marketing plan (Harper, 2008). Micro entrepreneurs have to decide on the best way to tell potential customers about services. Marketing plans covers various market related information which support to micro entrepreneurs to make long term marketing strategy.

Marketing plan has played prime role to improve selling skill of entrepreneurs. From the field survey, it has analyzed that, there is lacking of business literacy and awareness to micro entrepreneurs to make marketing plan. Due to lacking of

entrepreneurship knowledge, entrepreneurs are not motivated to make marketing plan. Informal sector business has not in any strong association so they are far to get any types of business knowledge from the government and other development agencies.

6.3 Marketing Channels of Livestock and Product

Market is one of the most important components required for the sustainable and profitable operation of micro enterprises. An entrepreneur needs to have a market oriented approach at all levels and stages in the life cycle of enterprise development. Most of the development programmes geared towards poverty alleviation through micro enterprise development and income generation basically focuses on credit skill training and entrepreneurship development training, technology study support etc. unfortunately enough attention is rare paid to the marketing needs of the business.

Market may be local, district, regional, national and international. There are different level of markets for livestock and it product in study area (table 6.1).

Table 6.1: Major Destination Places to Sell Livestock Product

Destination	Number of Entrepreneurs	Percent
Local level	46	46.94
District level	22	22.45
Regional level	12	12.24
National level	9	9.18
International level	9	9.18
Total	98	100

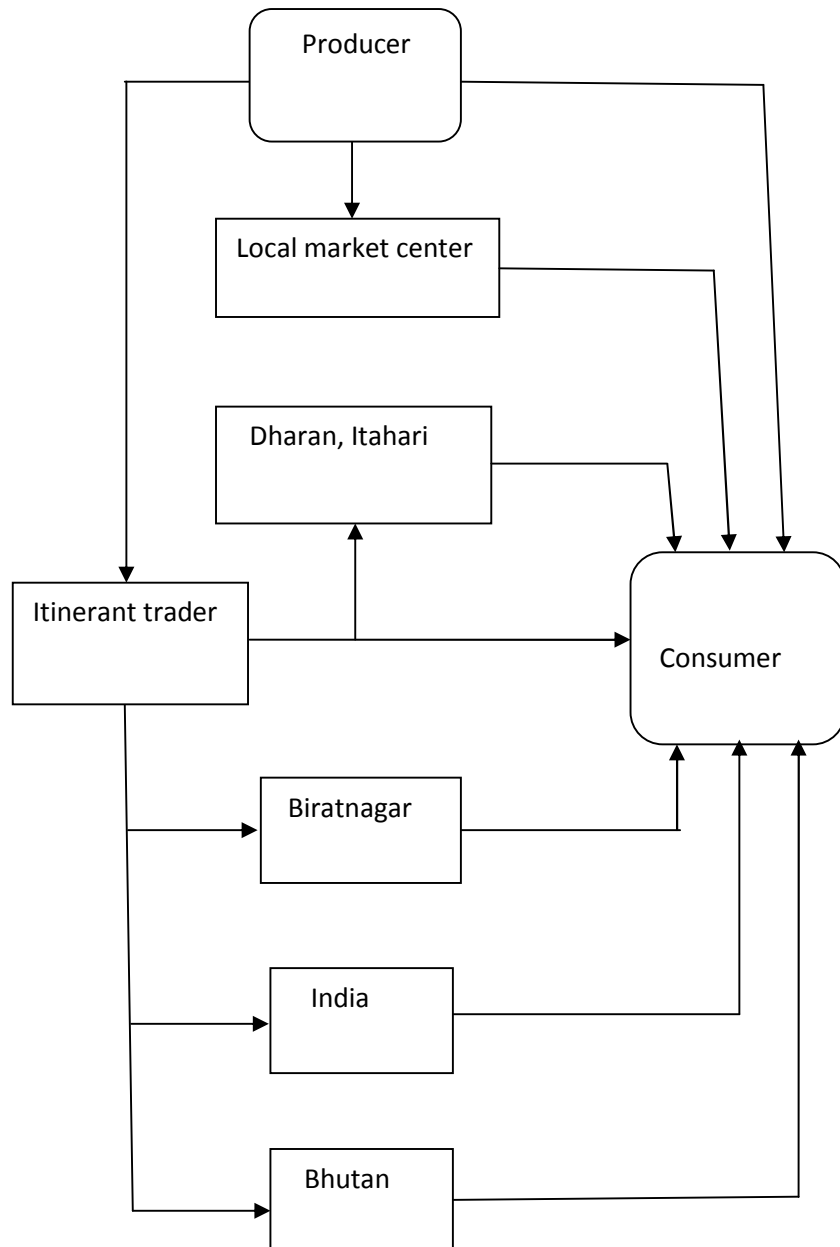
Source: Field Survey, 2010

The table 6.1 shows the relation of the study area with its service centers and five type of interaction. Local level markets shares about 45 percent which is the highest among all the five level of markets. However, about 22 percent entrepreneurs sell their product at district level and it is taken as the second largest destination place. On the other hand, entrepreneurs sell their product at national and international level of markets is minimal compare to regional level which is more than 5 times less than that of local level.

The way of selling the products through different markets is said to be the marketing channels (Poudel, 2009). Marketing channels are necessary for each and every product to be sold. And it is much more necessary especially for livestock products.

On the whole, a good marketing system can be generating higher income to the farmer in the form of a reasonable price. The marketing of livestock and its product at study area (Hasposha VDC) of Sunsari to market centers is concerned, there are five levels of intermediaries between production sources and the final markets figure 6.2.

Figure 6.2: Marketing Channels of Hasposha VDC



6.4 Market for Milk Production

Milk is such a livestock product which must be sold within a very short period. Milk also requires the nearest market which is called the local market. In the case of study area also farmers sell milk at the local hotels in the village and Tarahara bazaar which is the nearest market which takes about 30 minutes to reach from the village. If the distance of destination place is longer, greater will be the risk for milk. Milk cannot be stores like other items. The time factor plays an important role in terms of selling milk.

It has found from the field observation that most of the farmers kept animals like cow and buffalo for milk production. Farmers sell milk every morning with in the village and outside the village or Tarahara bazaar (table 6.2). They also use milk for household consumption.

Table 6.2: Major Spatial Locations for Selling the Milk

Destination	No. of HHs	Percent	Quantity (liters/day)
Within the village	6	40	58
Outside the village	9	60	105
Total	15	100	164

Source: Field Survey, 2010

The given table 6.2 shows, in each morning milk from the study area is supply to the two major destination places. According to the table, every morning almost 40 percent entrepreneurs supply milk within the village. At the same time, about 58 liters of milk sold by them with in the village. Still majority of the micro entrepreneurs 60 percent sell outside the village including Tarahara bazaar furthermore total quantity of milk supplied is almost 105 liters per day. The reason for such considerable variation between these two locations is mostly the price/rate and demand of high quantity which this product is sold in these two places.

Summing up, comparing to spatial locations majority of farmers supply milk outside the village.

6.5 Market for Pig, Poultry and Egg productions

Pig is especially used for meat and poultry is also kept for meat as well as egg purposes. Boiler chickens are used for meat purposes, while layers are used to produce egg and also for meat. Livestock entrepreneurs sold poultry and its production at local as well as district and regional level of markets. Though flow of pig is substantial and marketing channel for pig is wider than poultry in the study area, although it is sold at local level of market to international level of markets (table 6.3)

Table 6.3: Markets for Poultry and Pig Production

Level of market	Production sold households		Total (percent)
	Poultry (%)	Pig (%)	
Local	11(13.92)	19 (24.05)	30 (37.97)
District	7 (8.87)	12 (15.19)	19 (24.05)
Regional	2 (2.53)	10 (12.66)	12 (15.19)
National	0 (0)	9 (11.39)	9 (11.39)
International	0 (0)	9 (11.39)	9 (11.39)
Total	20 (25.32)	59 (74.68)	79 (100)

Source: Field Survey, 2010

Note: Figures in parenthesis refer to percentage

The table 6.3 shows level of markets to supply poultry and pig production by sample household in the study area. Nearly 38 percent of total households supply both types of production at local level of markets. Likewise, pig shares about 24 percent and 13.92 percent by poultry at local level are considered highest percentage. However, dramatic fall can be seen at district level to international level for poultry production. On the other hand, for pig production, it declined minimally from district through international level of market. But at the same time, none of the poultry farmers supply their production to national and international level of markets, while similar percent 9 percent of pig farmers supply their production to these two markets. On the contrary,

pig farmers have wide markets about 75 percent compare to only 25 percent of poultry farmers.

6.6 Travelling Pattern of Villagers

Table 6.4: Number of Household Covered a Distance to Reach Local /Nearest Market Center

Distance (km)	Number of households	Percent
Less than 1	16	34.04
1-2	19	40.43
More than 2	12	25.53
Total	47	100

Source: Field Survey, 2010

The table 6.4 gives information on distance that take to reach local market from production areas. About 34 percent household need to travel less than 1 kilometer to reach local market which is the shortest distance. While nearly 40 percent travel 1-2 kilometer. However, the fewest entrepreneurs who travel more than 2 kilometer to reach local market center Tarahara bazaar.

6.7 Marketing Problem

The presence of a market place does not suggest the existence of an efficient market. Functions of a good marketing system are, a) market should have capacity of absorbing the supply, b) price received by the farmers should be high enough, c) input price should be reasonable d) price paid by the consumer should be reasonable.

Table 6.5: Marketing Problem

Response	Number of livestock entrepreneurs	Percent
Yes	5	10.64
No	42	89.36
Total	47	100

Source: Field Survey, 2010

The data in the table shows that most of the livestock entrepreneurs have not confronted market problem to sell their livestock product. Though very few about 10 percent faced market problem in the study area.

As has been said, in the study area there is no marketing problem especially for livestock products. Local market and milk collection center are sufficient to hold the supply of milk production.

Chapter VII

POTENTIALITIES AND CHALLENGES OF LIVESTOCK BASED MICRO ENTERPRISES

Population and unemployment are growing day by day with high rate. Lacking of technology, lack of high skill manpower, lacking of political commitments and vision. Consequently, unemployment is increasing; government has no specific idea and vision to provide opportunities of job. So, to solve these problems livestock microenterprises is a potential sector for employment and income generation. Moreover it will play important role to provide more opportunity also to utilize local resources and to capture local market and skill.

7.1 Potentialities of Livestock Enterprises

Livestock rearing offers best opportunity to enterprising development in the study area. Moreover, the Koshi highway has further facilitated to increase the livestock based business. Still livestock rearing is and important activity of the local people of the study area. Potential enterprises in this regard are poultry, pig and buffalo. Furthermore, these activities have potentiality at household level to enhance their living condition. Livestock based activity could also be important enterprise because of potential market not only in the county but also neighboring parts of India and Bhutan.

Table 7.1: Distribution of Livestock Based Micro entrepreneurs by Their Prospects

Prospects/factors	Micro entrepreneurs	Percent
Good demand	25	53.19
Available livestock feeding	17	36.17
Access of road	9	19.15
Interest on financing	5	10.64

Source: Field Survey, 2010

The data in the table shows prospects of livestock entrepreneurs about its potentialities in the study area. More than 50 percent entrepreneurs believe that good demand of their products is one of the important potentialities. Even so, about 10 percent think interest on financing, some of the individuals, DASO and other institutions give interest on livestock enterprise can be a profitable occupation to reduce poverty of the local people. On the other hand, availability of livestock feeding in the study area occupies the second highest percentage among the four prospects. Last, access of road also shares the significant percentage which is almost one fifth of the total.

7.1.1 Profitable and Commercial Occupation

Livestock based micro-enterprise can be taken as a purely profit oriented small business. Livestock based micro-entrepreneurs have felt this occupation is more profitable as well as commercial. In rural areas, there are very few employment opportunities, so self employment in small-scale (micro-level) of business presents an option for income generation as well as poverty reduction.

7.1.2 Dense Population

Increasing number of population and their demand of livestock product is an important to motivate towards livestock based micro-enterprises. Moreover, Itahari municipality and Dharan municipality are the nearest big markets. So livestock micro-enterprises (poultry, pig and milk etc) have lots of market potential.

7.1.3 Small Investment

From small invest also different livestock enterprise can be run and get benefit within very short time and start own business. For example, to start poultry farm (boiler or layers) with 100 chicks it only cost (Rs. 6,500) Rs. 65 per chick. And it will become ready for meat within 2 months, and result is profitable and commercial oriented. These types of enterprises tend to be relatively small having informal structure; flexibility, low capital needs, and commonly these enterprises are not registered.

Table 7.2: Investment at Beginning to Start their Livestock Based Micro-Enterprise

Invest in Rs. (000)	Micro-entrepreneurs	Percent
Less than 20	25	53.19
20-40	7	14.89
40-60	6	12.77
Above 60	9	19.15
Total	47	100

Source: Field Survey, 2010

Table 7.2 illustrates that more than 50 percent entrepreneurs invest less than 20,000 at the beginning of their business which is the least amount of all. While, about 19 percent invest above 60,000.

7.1.4 Available Livestock Feeding

Agriculture crop residues are the important feeds for livestock, supplied from the extensive southern agricultural belt. Specially to feed cow and buffalo grass, hey and grains are locally available and for poultry also different dealer provide poultry feed and chicks for farmers locally.

Table 7.3: Scope of Livestock Based Micro Enterprises

Response	Number of LMEs	Percent
Scope	38	80.85
No Scope	9	19.15
Total	47	100

Source: Field Survey, 2010

The table 7.3 shows the responses of livestock based micro-entrepreneurs' on the scope of this micro business in the study area. According to the table, more than 80 percent have said the huge scope of livestock based micro enterprise which seems to

be a very positive sign. However, about 19 percent entrepreneurs feel no scope of the activity.

As has been said, the study area has an enormous scope although they have two different thought.

7.2 Challenges for Livestock Based Micro- Enterprises

In Nepal generally the rural people are dependent on agriculture. And livestock being a part of agriculture sector plays a vital role in the economy as an extra income generating business. However, the sector with small farmers are facing various challenges (table 7.4). The most common problems for livestock based micro enterprise development in the study area are the lack of financial institutions, poor breed and seasonal problems.

Table 7.4: Distribution of Livestock Based Micro-Entrepreneurs by Their Challenges/Problems.

Challenges	Micro-Entrepreneurs	Percent
Seasonal problems	27	57.45
Middle man	24	51.06
Diseases	19	40.43
Low level of technology	14	29.79
Lack of fresh house	11	23.40
Exploitation	9	19.15

Source: Field Survey, 2010

Table 7.4 shows that the different challenges of livestock based enterprise in the study area. Seasonal problem is the most serious challenge among all and almost 57 percent of the entrepreneurs have faced this problem. Extreme winter and summer season are not favorable for livestock. Second considerable challenge is middle man. Who determine the price of product and the flexible price system in the study area has acted as an obstacle. In the same way, diseases seems to be another important problem which shares about 40 percent tougher with low level of technology by 30 percent. On

the contrary, exploitation seems to be the minimal among all the challenges. Still farmers are exploited by higher classes of community and also by middle men.

Livestock based micro-entrepreneurs are facing various problems which are given below in brief:-

- i) Lack of financial institutions and banks for providing loans, institution for trainings, extensive service and business enterprises are the major problems faced by entrepreneurs to develop their enterprising activities. So, these are the acute problems for sustainable development of livestock based micro-enterprises in the study area.
- ii) Lack of modern livestock rearing methods and business plan: Livestock rearing is still of subsistence in nature and there is lack of systematic cultivation of fodder grasses. Farmers don't have knowledge long term plan entrepreneurship knowledge and business information. Moreover, inadequate government supports to improve livestock rearing are constraints to the livestock enterprise development.
- iii) Vaccination/Medicine Problem: many farmers reported death of their chicken and livestock by unknown diseases, which could be due to lack of vaccination and appropriate treatment.
- iv) Strike is the greatest problem for livestock entrepreneurs who particularly dependent on sell of milk day to day. During long term strikes which are not uncommon in Nepal farmers have to bear the problem in livestock feeding and selling livestock products.
- v) Lack of hybrid variety of chicken and livestock: Most of the buffalos, chickens and goats are poor breed. Therefore, the productivity of poor breeds hinders the development of livestock based enterprises.
- vi) Seasonal problems: Extreme winter and summer season are not favorable for livestock based entrepreneurs. The cold season requires warming for chickens.

Most of the farmers use traditional methods like hanging a tin box with fire which seems very risky.

- vii) Exploitation by higher classes of community is also common. Livestock micro-entrepreneurs are always exploited by higher classes of community who are also informal money lenders. Despite that, less belief of big business houses to micro-entrepreneurs is the challenge facing by livestock micro-entrepreneurs.
- viii) Marketing Problem and Fodder Problem: Lack of awareness about market chains, to make more effective livestock development, no efforts are being made for its market promotion of national regional and international level. Moreover, markets to selling livestock product are limited on the local level.

The study area has quite high potential for livestock development. However, with the growing number of human population, land for pasture is getting limited. Similarly, the increasing price of livestock feeding is also the crucial problems for development of livestock micro-enterprises in the study area.

Chapter VIII

POVERTY REDUCTION EFFORTS THROUGH LIVESTOCK BASED MICRO-ENTERPRISE

8.1 Poverty Reduction Strategy

The term poverty refers not only to material deprivation but also to low achievements in education and health, vulnerability and exposure to risk, and lack of voice and empowerment. All these elements severely restrict the capacity of an individual to escape poverty (see <http://www.adb.org>). However, poverty is an important issue for Nepalese development process. Various short and long term plans have been implemented for reducing the poverty. Likewise, at the turn of millennium, the Asian Development Bank (ADB) issued a poverty reduction strategy which could be considered in any poverty alleviation strategy.

Similarly, access of land is regarded as a key element in any poverty alleviation effort. It is a basic requirement for developing a financial sector and security for loans, credit worthiness is difficult to establish. Next, livestock is considered as the important resource for producing foods, generating income and employment in all areas. In addition to direct production, livestock sector helps to promote the other economic activities and support of day-to-day life of the people. The development of the livestock sector would be helpful to affect the life of all people so that poverty alleviation would be possible.

Economic growth is the most powerful force for sustained poverty reduction. Therefore, investment should be effective in promoting economic growth, particularly growth in which all can share. Lastly, gender equality is also the important element in

poverty alleviation effort. Active participation of both men and women also requires improving livelihood of the poor.

The Ninth Plan (1998-2002) adopted poverty alleviation as its sole objective and unlike previous plans, established long- term goals for improving development indicators in all sectors. Moreover, the Tenth Plan (2003-2007), came as Poverty Reduction Strategy Paper (PRSP) with the main objective to alleviate poverty by mobilizing optimally the means and resources on the mutual participation of government, local agencies, non-government sectors, private sectors and civil society. It seeks to extend economic opportunities and open new ones enlarging employment opportunities and economic achievements for women, Dalits people of remote areas and poor and backward groups through programmes thereby to improve the status of overall economic, human and social indicator.

8.1.1 Role of Livestock in Food and Household Maintenance

The potential of livestock to reduce poverty is enormous. Livestock can help to poor along a pathway out of poverty. Livestock also play many other important roles in people's lives. They contribute to food and nutritional security. They provide transport and on-farm power; their manure helps maintain soil fertility; and they fulfill a wide range of socio-cultural roles (ILRI 2002).

In the study area, livestock played a vital role to improve livelihood, about 30 percent household has given credit for livestock to reduce poverty or improve livelihood and the most important reasons to keep them (figure 8.1). The data collected from the field supports that the economic conditions of the livestock based micro-entrepreneurs have been considerably improved especially after they started it as a major occupation.

Figure 8.1: Main Reasons for Keeping Livestock

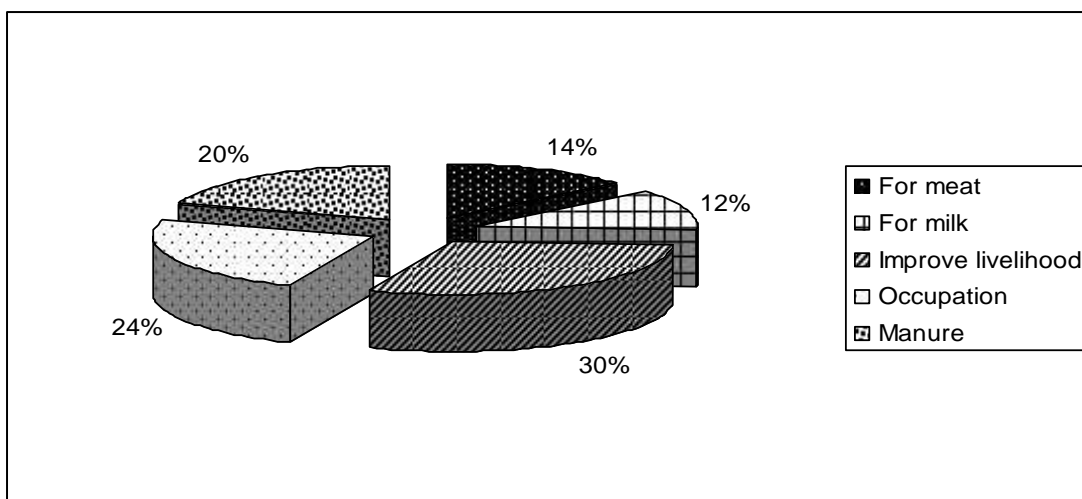


Figure 8.1 demonstrates the main reasons to keep livestock in the study area. Among all, 30 percent of the responds credited livestock for improve livelihood. It existed by one third of all type of reasons. Similarly, one-fourth reported livestock keeping as their primary occupation. Likewise, manure seems to be important factor for about one-fifth households. The Livestock borne manure can increase crop yields many times. At the same time, about 14 percent farmers keep livestock for meat to sell and also for household consumption. However, percentage of milk seems to be the minimal because among the livestock types cow and buffalo are the only source of milk. Finally, farmers in the study area have started to practice animal husbandry as best way to sustain their livelihood as well as reduce poverty.

8.1.2 Livestock by Settlement and Household

Different types of livestock are raised in different settlements, it may because of location or different ethnic groups are involved in livestock enterprises. Composition of livestock in study area can be analyzed in different ways one can look at the composition in terms of the settlements (table 8.1).

Table 8.1: Number and Types of Livestock Owned by Settlements and Household (HH)

Livestock types	Bhawanipur		Tamangtole		Ekamarga and Himshikhartole		Total livestock No.	No. of livestock per HH
	HH	Livestock	HH	Livestock	HH	Livestock		

	No.	No.	No.	No.	No.	No.		
Buffalo	7	20 (2.09)	-	-	1	2 (9.09)	22 (100)	0.47
Cattle	2	6 (31.58)	3	3 (15.79)	3	10 (52.63)	19 (1000)	0.40
Poultry	2	650 (17.57)	2	35 (9.46)	10	2,700 (72.97)	3,700 (100)	78.72
Pig	3	6 (8)	19	69 (92)	-	-	75 (100)	1.59
Goat	3	12 (36.4)	3	13 (39.39)	3	8 (24.24)	33 (100)	0.70

Source: Field Survey, 2010

Note: Figures in parenthesis refer to percentage

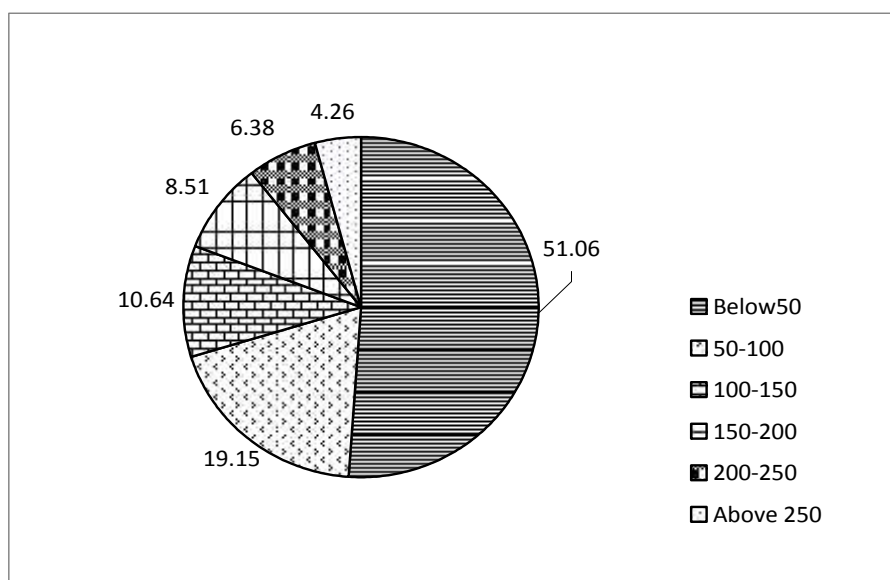
The table 8.1 shows the number and types of livestock owned by households. It gives figures for all four settlements and clearly shows that their livestock rearing preferences tend to be slightly different.

According to the table, Bhawanipur settlement is characterized for buffalo and poultry. Even though, maximum buffalo keeping households belongs to Bhawanipur. Likewise, Tamangtole is specialized for pig rearing. On the other hand they do not keep even a single head of buffalo. While Ekatamarga and Himshikhartole are famous for poultry and cattle rearing. Despite that, maximum households rear poultry in these settlements. Yet they do not keep a single pig at all. On the whole, all types of livestock are equally important for the settlements.

8.1.3 Livestock as a Source of Cash Income

The major sources of cash income from livestock are milk, meat, manure and live animals like chickens and pigs. The study area is located near from Trahara bazar, so fresh milk can be sold every day in the village itself and also to Kamadhenu milk collection center which is located at Tarahara bazaar. Livestock based micro-entrepreneurs sell their pigs either to butcher or to middle-man come from India, Bhutan, Kathmandu and Dharan. Live poultry and eggs are also selling to the middle man. There is high demand of live pigs and chicken due to quite high demands in the local markets too.

**Figure 8.2: Yearly Cash Income from Sale of Livestock and its Product
(in Rs. 000)**



The pie chart shows the considerable cash income from sale of livestock and products almost 50 percent of the sample households are earning annually less than NRs 50,000 because of only one or two buffalos or cattle or pigs. There are about 19 percent entrepreneurs who earned NRs 50,000-100000 annually. There are very few entrepreneurs who earned more than NRs. 250000, particularly those who kept 500 and more poultries. Because 500 poultries can be easily kept in small area and it becomes ready to sell within two months of period. Therefore, livestock and their products are vital source of income in the study area.

8.1.4 Profit from Livestock and its Product

Livestock and its product can't to sell every day or month. It requires at least two months for poultry and six months for pig and 2-3 years for goat. So to analyze the profit from livestock annual profit is presented in table 8.2.

Table 8.2: Annual Profit from Livestock and its Product

Profit in rupees (000)	Number of entrepreneurs	Percent
Less than 10	16	34.04

10-20	13	27.7
20-30	3	6.4
30-40	4	8.5
Above 40	11	23.40
Total	47	100

Source: Field Survey, 2010

The table shows one-third of the total households are earning less than NRs 10,000 profit annually. Likewise, about 27 percent entrepreneurs earn 20-30 thousand annually. On the other hand, dramatic fall of percentage can be seen of 20-30 thousand and 30,000 to 40,000. However, about 23 percent gained profit annually more than 40,000. In comparison, poultry entrepreneurs earn more profit than others.

Overall, the table shows that a range of profit is quite different, and the household percentage is also not remained stable.

8.1.5 Livestock as a Source of Employment

In rural areas of Nepal, there are very few employment opportunities, so self employment in small scale business like livestock farming presents a viable option for income generation as well as self employment for poverty reduction. in the study area livestock becomes a source of employment and provides considerable amount of benefits to the farmers. They have reared different types of animals and perceive benefit from it, they engaged in their own business.

Table 8.3: Number of Persons Employed

Category	Family members	Percent
Male	45	46.39
Female	52	53.61
Total	91	100

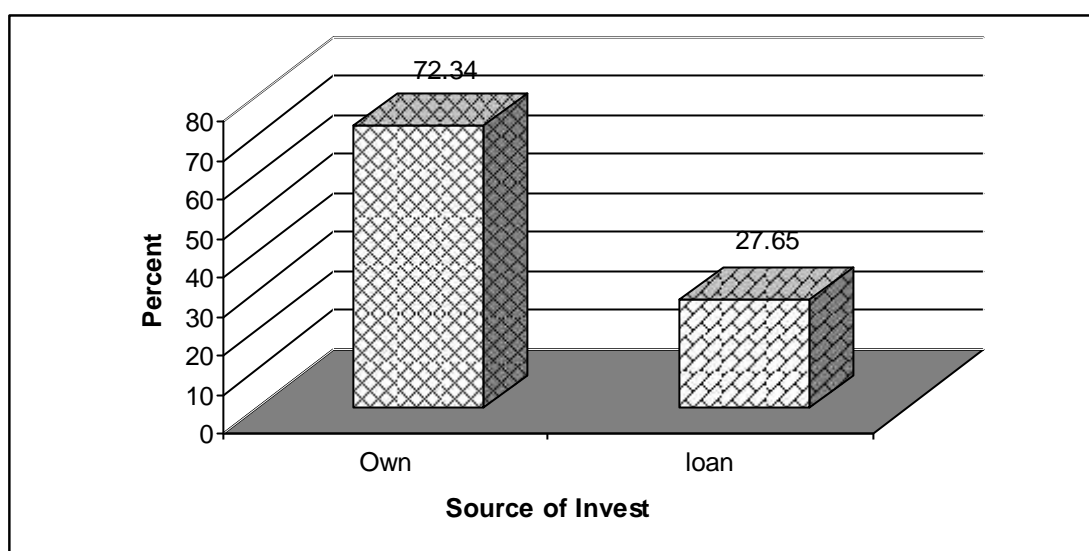
Source: Field Survey, 2010

Table 8.3 shows that, more than 50 percent female family members are involved in this business; it gives information that maximum females are employed in their household enterprise as livestock based micro-enterprise. In the same way, about 46 percent males are also employed by starting their own business at locally. Moreover, children under 14 years of age and elderly people over sixty are considered unfit for employment but of this very age group are engaged to manage it.

8.1.6 Source of Invest

Livestock micro-entrepreneurs, have received loans from merchants and money lenders. Most of the farmers in the study area invest their own money to keep livestock (figure 8.3). For poultry farmers, significant credit comes from poultry dealer who distributes poultry feed and chickens for small farmers as a credit. Credit help to alleviate poverty for poor farmers in the study area, it is because of livestock generally have been raised for subsistence or for profit. Raising livestock is important factor for modern agriculture as well as for poverty reduction.

Figure 8.3: Source of Invest



The bar graph illustrates the pattern of invest either it is own source of invest or loan. Nearly 73 percent entrepreneurs invested their own money to start their livestock

based micro enterprise. On the contrary, loan receivers seem to be minimal with about 27 percent.

Finally, it can be analyzed investing own money is more practice than receiving loan.

8.1.7 Alternative Source of Income

Beside livestock most of the entrepreneurs have their alternative source of income. They easily run other activities along with livestock occupation so it is very supportive for poverty alleviation effort. In the family, some members especially women are involve in livestock enterprise and male members involved in driving other activities.

Table 8.4: Alternative Source of Income

Alternative source of income	Number of entrepreneurs	percent
Livestock only	12	25.53
Livestock and agriculture	19	40.42
Livestock and business	10	21.27
Others	6	12.67
Total	47	100

Source: Field Survey, 2010

The table 8.4 shows the alternative source of income. Livestock rearing as only occupation it carried out by one-fourth respondents. Livestock and agriculture is common activity and it shares the highest percentage. Similarly, livestock with business also adopting by nearly 21 percent. And other sectors like driving, teaching etc. also occupies about 12 percent. On the whole, an agriculture activity is the backbone to sustain livestock enterprise.

8.1.8 Livestock Feeding and Fodder Situation in the Study Area

Fodder is one of the important aspects to be considered on the development of livestock enterprise in the study area. The fodder trees and green grass as part of livestock feed play a multiple and significant role. However, livestock fodder in study area consists mainly of leaves from fodder trees such as *Taki*, *kutmiro*, *koiralo*, *badhahar* and so on. The straw from maize, paddy, wheat and natural grazing along

the road side is popular livestock feeding. Farmers also use livestock feeding such as choker, rice-husk for buffalo, cattle and for pig.

Different types of livestock feeding practices seasonally, green grass in rainy season and paddy strew and maize stoves in winter season are common practice. The above mentioned feeding practices bring out the fact that livestock are not given the same sort of feed all the seasons. However, the livestock sector contributes a large share of family income in the study area.

Chapter IX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

9.1 Summary

This study reveals the situation of livestock farming in Hasposha VDC, Sunsari. The survey was carried out with 47 sample households. It examined the livestock based micro enterprise linking with poverty reduction, marketing channels and potentialities and challenges. Only four settlements: Bhawonipir, Tamangtole, Ekatomarga, and Himshikhartole have been taken as the study site for this research.

Sunsari district has been divided into several pocket areas (VDCs) on the basis of livestock types. Itahari, Inaruwa, Chatara VDCs are cattle areas whereas Itahari

Haspossha, Medhasa , Bhokraha, Madhendranagar, Harinagar are for buffalo and Dharan, East Kusha, Sonapur, Khanar, Aurawani are known for pig rearing . Similarly, Itahari, Inaruwa, Pakali, Dhuhabi and Dharan are known for poultry farming.

Livestock composition in the district shows, goat, chicken, cattle and buffalo are the dominant types. Total number of livestock in Sunsari district is 129,246. Chickens hold highest percentage which about 34 percent but goat shares highest percentage (24.5) among the four footed animals. Likewise, cattle also hold nearly 23 percent. Sheep accounts low percent among all livestock.

Sunsari district has 13 major weekly markets for livestock trade. Different types of livestock are sold on weekly markets. Bange bazaar of Mahendranagar is an important trading place for livestock held on every Wednesday. However, very few types of livestock are sold at Sonapur, Khanar, Chimdi and Haripur hat. These weekly market places are playing significant role for strengthening micro enterprise related to livestock in the district.

For any enterprise marketing plan is necessary to make success of it. In the marketing plan the key factors to be considered are location, pricing, buying and channels of distribution of goods and promotion. The field survey shows that there is lacking of business literacy and awareness among micro entrepreneurs to make marketing plan.

There are different levels of market for livestock and its product in study area. Five levels of intermediaries have been identified between production sources and the final markets. Farmers in the study area sell milk at local markets. Marketing channel for pig has been found quite impressive because it has local to international level of market. Poultry farmers have sold live chicken and eggs at local market (Tarahara Bazaar) and also in Dharan and Itahari (district level of markets).

The study has found high potentialities of livestock based micro-enterprise in the study area. High demand of livestock products, transportation facilities, market access and increasing number of population are also important factors. So, farmers are motivated toward livestock based micro-enterprise as it is a profit oriented small business. From small invest also different livestock micro enterprise can be run and get benefit within

short time. Availability of livestock feed is another factor for sustainable development of livestock enterprise in study area.

Various challenges have been confronted to livestock entrepreneurs. Seasonal problem and middle man, who determine the price of product together with the flexibility of price system in the study area has acted obstacles. In the same way, diseases seem to be the third highest challenge. Still farmers are exploited by higher classes of community and also by middle men.

Livestock plays a vital role to improve livelihood, about 30 percent household considered poverty reduction or improve livelihood is the most important reasons to keep them. Main reasons to keep livestock varied according to the type of livestock. Among the entire household maintenance, improve livelihood is the most important reason. Similarly, it acted as occupation for one-fourth of local people to keep livestock. Likewise, manure seems to be third largest percent reason to adopt livestock in the study area.

Different types of livestock are raised in different settlements; it is because of location and/or ethnic groups that involved in livestock enterprises. Composition of livestock in study area can be analyzed in terms of the settlements. Almost 41 percent buffalo keeping households belongs to Bhawanipur and they keep 3 buffaloes in average. An equal percentage of household keep poultry and cattle in Bhawanipur. Likewise, when it comes to goat and pig similar pattern is repeated.

In the Tamangtole, about 70 percent households keep pig and it has the highest share among the four footed animals in Tamangtole. Similarly, poultry keeping households are less compare to goat and cattle.

Ekatamarga and Himshikhartole, on the other hand, are popular for poultry keeping. More than 50 percent sample household rear poultry. On the other hand, hardly any households keep buffaloes and pig in this settlements.

The major sources of cash income from livestock are milk, meat, manure and live animals. Small enterprises earn annually less than 50,000 because who keep only one or two buffalos or cattle or pigs. There are about 19 percent entrepreneurs who earned

Rs 50,000-100,000 annually. There are very few entrepreneurs who earned more than Rs. 250,000.

Profit from livestock and its product can't be measured daily or monthly except milk. About 34 percent of livestock micro entrepreneurs have Rs of 10,000 profit annually among the sample households. Secondly, about 27 percent earn 20-30 thousand annually. Similarly almost 23 percent gain profit more than Rs 40,000 annually.

Nearly 73 percent entrepreneurs invested their own money to start their livestock based micro-enterprise. Whereas about 27 percent has taken loans from merchants and money lenders.

Beside livestock most of the entrepreneurs have their alternative source of income. However, linkage of livestock and agriculture was the best combination. Similarly, livestock with business also shares significant percent nearly (21 percent).

Livestock fodder in study area consist mainly of leaves from fodder trees such as *Taki, kutmiro, koiralo , badhahar* and so on. And straw from maize, paddy, wheat and natural grazing along the road side is popular livestock feeding. Nowadays farmers are using choker, rice-husk for buffalo, cattle and for pig. However, the livestock sector contributes a large share of family income in the study area.

9.2 Conclusions

The research has tried to study issues of the livestock based micro-enterprise pocket areas, role on poverty reduction, marketing channels and its potentialities and challenges in the study area. Various data collection tools have been used to gather data and were fruitful to gather information and to understand the issues.

Due to lacking of entrepreneurship knowledge, entrepreneurs are not motivated to make marketing plan. Informal sector business has not in any strong association so they are far to get any types of business knowledge from the government and other

development agencies. There are five levels of intermediaries between production sources and the final markets. The study area has no marketing problem especially for livestock products.

Livestock rearing offers best opportunity to enterprising development in the country like Nepal. Livestock is considered as the important resource for producing foods, generating income and employment in all areas. And it is an important element for poverty alleviation efforts. Livestock entrepreneurs easily make money, save money, as well as gain considerable profit and educate their children through this enterprise. Therefore, incentives by government and line agencies on the development of livestock in Nepal could be one of vital step for poverty alleviation.

9.3 Recommendations

Livestock development is essential for the development of rural economy, it is important for increasing production, productivity in agriculture and for raising the income of rural poor. The study area has seen high prospective on the development of the livestock enterprises as it is one of the main source of income.

On the basis of issues identified in the research, some recommendations are suggested.

- a) This study does not cover the livestock trends, and diseases because of limited time so future researcher could foresee these issues to have a in- depth knowledge about animal disease both old and new (bird flu in the present day).
- b) This study does not survey non commercial livestock farmers who kept livestock only for household use or consumption. So, further researcher who have interested in the similar issues, would make a comparative study between commercial and non commercial farmers.
- c) The study covers a very small area. Future researchers can pursue a larger study area so that better understandings can be derived.

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