

**SOCIO-ECONOMIC IMPACT OF AANDHIKHOLA
MILK PRODUCTION CO-OPERATIVES IN SYANGJA
DISTRICT**

A Thesis

**Submitted to the Central Department of Economics, Tribhuvan
University, Kirtipur, Kathmandu, Nepal in Partial Fulfillment of the
Requirements for the Degree of Master of Arts in Economics**

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LETTER OF RECOMMENDATION

This thesis entitled **Socoi-economic Impact of Aandhikhola Milk Production Co-operatives in Syangja District** has been prepared by Mr. Damodar Timilsina as a partial fulfillment of the requirements for the Degree of Master of Arts in Economics under my supervision and guidance.

I forward it with recommendation for acceptance.

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LETTER OF APPROVAL

We certify the thesis entitled **Socoi-economic Impact of Aandhikhola Milk Production Co-operatives in Syangja District** submitted by Mr. Damodar Timilsina to the Central Department of Economics, Faculty of Humanities and Social Sciences in partial partial fulfillment of the requirements for the Degree of Master of Arts in Economics has found satisfactory in scope and quality. There fore we accept this thesis .

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ABBREVIATIONS AND ACRONYMS

AMPCS	Aandhikhola Milk Product Co-operative
ADB/N	Agriculture Development Bank of Nepal
BMPCU	Baglung Milk Producer's Co-operative Union
CBS	Center Bureau of Statistics
CMPCU	Central Milk Producer's Co-operation Union
CMPS	Central Milk Producer's Co-operative Union
DDC	District Development Committee
FAO	Food and Agriculture Organization
FY	Fiscal Year
Ha.	Hectare
HH	Household
ICA	International Cooperative Society
INGOs	International Non-Governmental Organizations
Ltr.	Litre
M.A.	Master of Arts
MPA	Milk Producer's Association
MPCS	Milk Producer's Cooperative Society
MOF	Ministry of Finance
No.	Number
NDDDB	National Dairy Development Board
NGOs	Non-Governmental Organizations
NPC	National Planning Commission
PC	Percent
TU	Tribhuvan University
UN	United Nations
US	United States
USDA	United States Development of Agriculture
VDC	Village Development Committee
WWW	World Wide We

CHAPTER-ONE

INTRODUCTION

1.1 Background of the Study

Nepal is a least developed and agricultural country. It is a land locked country in between the two neighboring countries India and China with the area of 147181 sq. km. It has 2,64,94,504 populations. It is along the least developed country with a per-capita income of 719\$ per year. The literacy rate of the population of the age group above 15 years is 57.3% of the total population of Nepal. Agriculture covers about 35% of the GDP and around 67% of the people are engaged in this sector (CBS,2011). It has been seen that 25.2% of the total population still live below the poverty line (NLSS, 2009/2010). In the terms of purchasing power around 21.67% people are found to have income below 1\$ per day. Among the population of age of 15 or above 74.3% are employed, 2.9% are unemployed and remaining 22.8% are economically in active (MOF, 2013).

Livestock in Nepal kept in integrated form with agriculture. There is high linkage between livestock's and other agricultural production in different form in all ecological regions. Farmers are keeping some number of cattle, buffaloes sheep goats etc. either in the single form or in joint form in their sheds depending on the environmental situation and available manpower at family. They use such animals as the means of production and source of income in all regions. Livestock farming is an important component of Nepalese agriculture and also plays a vital role to the economic development of Nepal. Meat, milk, hide, bone, dung and the farming are the major components of livestock. Dairy products are important outcomes of the livestock farming from which we gain overall component of balanced diet which makes the life of the people healthy. Healthy life is very important for the efficiency of the main power of the country. It is obvious that dairy development play a vital role in improving the socio-economic condition of the people. As livestock has been popular in all parts of country, it can be used for income generation and poverty alleviation.

Dairy farming is considered as the second important profession beyond agriculture. It also plays an important role in gross income of the rural household. Dairy farming has

a long tradition in our country. Livestock farming is a wide spread practice all over our country. It is found that the daily consumption of milk per person per day is 37 ml. in our country which is considered to be lowest in the SAARC region. Buffaloes, cows, yaks, goats as well as sheep are the main domestic animals for the milk purpose. Cows and buffaloes are found in terai as well as hilly regions where as yaks and sheep are found in the mountainous region.

Livestock has been old traditional practices for farmers as an integrated profession with in agriculture but specification on the milk production is necessary for the economics growth that is needed for the modernization on the livestock farming. Modern techniques should be introduced in dairy products. Keeping dairy animal for their fulfillment of their domestic consumption should be established in the rural area and higher level of investment is required to develop the farming.

In local level the participation in dairy farm is necessary for the people. The cooperation is the main and suitable for the purpose and the government sector should help them. The basic infrastructure should be established by the government and the market should be organized. Milk market has many problems. Sometimes it does not get the market because of many kinds of obstacles. Similarly our society has many kinds of traditional thought like milk should not be bought or sold. To remove the concept general level of social awareness is needed to take them into economic activities.

On the other hands farmers are suffering from financial problems. Financing through credit is not always possible. Lone is taken from banking and non banking financial institutions. Nonbanking credits or informational credit from sahu-mahajans. Sahu-mahajans provide loan under their motives and high interest rate. On the other hand financial institutions create the difficult procedure constrains to get the loan.

Breeding and medicinal facilities for livestock are far from the access. Most of the remote village area has not reach to the veterinary center. The insurance of the animals is limited only to the animal purchased under bank loan arrangements. The risk of loss of animals due to the fettle disease is also significant problem.

In urban area the establishment of the new city and the rapid increasing population, the demand of the milk and its products is growing rapidly but the supply is limited.

In this case to make Nepal independent on milk products the livestock farming and the production of the milk must be enhanced. For that purpose the cooperation is the most favorable idea to solve the problems with the collective effects and conduct the business activities. Through collective instruments in the field of dairy industries and other activities related to the milk because of the nature with the blinds of the co-operatives norms, values and principles. The major objective of any MPCs is to serve its members needs and aspiration. In real practices the dairy co-operatives of Nepal are providing technical inputs serve like balanced, cattle feed protein food, better fodder varieties, dairy equipment, veterinary services, facilities for animal's inseminations etc. at suitable rates. Dairy co operatives are playing a leading role to make their member free from exploitation and providing competitive price with easy accessibility to the market (Kishor, 2008)

A cooperative is an autonomous association of persons who voluntarily cooperate for their mutual, social, economic, and cultural benefit. Cooperatives include non-profit community organizations and businesses that are owned and managed by the people who use its services (a consumer cooperative) or by the people who work there (a worker cooperative) or by the people who live there (a housing cooperative). Cooperation dates back as far as human beings have been organizing for mutual benefit. Tribes were organized as cooperative structures, allocating jobs and resources among each other, only trading with the external communities.

Cooperatives are established under following principles.

-) The user ownership principle: Co -operative is owned by people who use it.
-) The user control principle: Cooperative is controlled by people who use it.
-) The user benefit principle: Benefit is distributed in proportionate among the members of cooperatives.

1.2 Statement of the Problem

Although the benefits that could be obtained from cooperatives are numerous, yet the development of cooperatives is not satisfactory in Nepal. The government has declared cooperative as one of the three pillars of Nepalese economy and interim

constitution has focused on same, but practically, implementation as per the declaration is weak and the speed of development need to be accelerated but yet it is not done. Even though governmental agencies, international institutions, Non-Governmental Organizations, and other stakeholders have put some effort into the cooperative movement in Nepal, the results are far from satisfactory. There is no remarkable progress in major cereal crops production. About 1760 dairy cooperative are established primarily but both liquid and powdered milk needs to be imported. The reasons behind the unsatisfactory development of cooperatives in Nepal could possibly be the following;

-) Most profitable cooperatives are urban-based, and except for finance, credit and dairy cooperatives, the rural sector has not felt the presence of the cooperative movement in the country.
-) Cooperative movements have to strive for the inclusion of women, dalits, poor people, and other oppressed classes of society. Lack of inclusion of every sector for the cooperative movement is a cause for its failure.
-) Lack of clarity about mission, national vision and adequate monitoring on the part of government with respect to cooperative movement.
-) Lack of managerial skills and professionalism, sound planning and implementation.
-) Lack of working capital, appropriate research, extension and education about cooperative movement.
-) Lack of technological support and development.
-) Lack of creditability.

Nepal is a small landlocked country and its economy is not well developed although there are various potentialities for the development activities. Livestock farming can play an important and valuable role in economic activities for rural area. In livestock farming the role of dairy cooperation is an important from cooperative exercises. It helps to enhance the people farming activities and helps to reduce the weakness and drawbacks so that the cooperation of the dairy products has been growing gradually day by day in the country.

The demand of the dairy products is increasing due to the urbanization and increasing in the population. On the other hand the rural farmers are suffering from the problem

of milk holiday. The MPC's are established and managed to solve the problem of the mass people. The economic condition of Nepalese farmer is poor and hence they cannot self produce their products and do self-marketing.

In this case the cooperatives can help them to solve this problem. Many researchers have been done in the field of dairy but they do not reflect the present socio-economic condition and related problem to the farmers. In developed countries 5 to 10% people are involved in the agriculture from which they can grow much more production for consumption.

In Nepal livestock is an important component of agriculture. The major component of livestock are milk, meat, wool hide etc. the dairy farming is going popular among the farmers but the lack of appropriate policy and adequate availability of financial service the dairy farming is not growing as it should have been in rural level dairy products development the cooperatives is in exercise but they are not working satisfactory so we have to find their problem and to solve this problem we have find the answer of the following questions:

-) Why are the farmers not successful to produce much milk and dairy products?
-) Why the economic condition of the dairy farmers is not well developed?
-) What are the problems and prospect of dairy farming in Syangja?
-) What should be done to improve the present condition?

1.3 Significance of the Study

This study is considered with the importance of Aandhikhola milk co-operative as dairy farmers of Syangja district which is developing as a major occupation in the rural people. Few studies have been done in dairy farming and there is lack of essential information for policy maker and researcher to set priorities from development of dairy farming.

In this way this study will tries to fulfill the gap of knowledge about various like production, marketing economic condition of the dairy farmers of Syangja. The findings of the result after the study will be used by the project designer's planner's administrator as well as policy makers in the view of people's welfare and their

betterment. It will also help increase the capacity and quality of dairy producer which makes the sustainable future for the inviter and help to make the economy self dependent in dairy product.

1.4 Objectives of the Study

The general objective of the study is to determine the overall economic impact of the dairy cooperatives on local dairy cooperation of the study area. The specific objectives of the study are as follows:

-) To examine the trend of milk collection and marketing system of Aandhikhola milk production co-operatives AMPCS.
-) To analyze the socio economic impact of AMPCS on its member.
-) To identify the problems and prospects of the member of AMPCS.

1.5 Limitations of the Study

The present study has also some limitations which are as follows:

-) It covers only the member of AMPCS.
-) The study area is very small so the result may or may not represent the total co-operative movement in Nepal.

CHAPTER-TWO

LITERATURE REVIEW

This chapter deals with the review of literature. It is divided into theoretical and empirical part with international and national context. Livestock farming now it is grown in many countries and it is also important source of income generation and employers. Some theoretical and empirical studies are available in the field of world livestock farming, dairy cooperatives, cost of production, quality of milk, marketing system of dairy product, problems and prospect of dairy farming and so on. Some students and institutions have prepared research concerning livestock farming and dairy cooperatives, and marketing some of them are reviewed here:

2.1 Theoretical Review

FAO in its publication states that milk is the only farm product which can provide a day to day income, but it must be collected every day, except perhaps during the dry season. The farmer should be encouraged to produce milk and to become milk minded by providing a market for his production. A farmer will become accustomed to receiving a certain amount of cash every day. Once he possesses money, the milk producer will certainly look for means of spending it to improve his standard of living, thus encouraging a local trade for various commodities for his family or foods and daily equipment. When a number of farmers in the same village begin doing the same thing, this will have a considerable impact on the social and economic development of the community as a whole. This has been shown on many occasions where the opening of a milk plant with regular daily collection and payment has improved the standard of living not only of the farmers but also of other people living in the area (FAO, 1972).

USAD in its publications states that about cooperatives principles, it is often supplemented with the seven principles adopted by the International Cooperative Alliance. Just what is the economic impact of the cooperative business structure on the State's economy and upon rural communities in particular? Having some measure of the value shows that cooperative is an excellent tool in promoting rural economic growth and leadership development.

ICA 7 Co-operatives Principles

-) Voluntary and open membership
-) Democratic member control
-) Member's economic participation
-) Autonomy and independence
-) Education, training and information
-) Cooperation among cooperatives
-) Concern for community

With in these principles dairy cooperatives play vital role to the economics development of a country (USAD, 2003).

Acharya in his article concluded that dairy cooperatives playing catalyst role in eliminating malpractices and bringing transparency in transportation by enhancing the faith of the members of the impact of dairy to their member farmer are multifarious some of them are: milk production and processing, reducing cost of milk animals employment generation, empowering rural women and social change in rural area.

The dairy cooperatives initially have been formed to break the unholy exploitative connection between the middle men and private trader involve in the trading of milk with the producers. The cooperatives helps to ensured remunerative price to the dairy farmer for their product and also helped to stabilization of market price of milk over a reasonable time period it also help to manage the economic problems of the farmer in cheap interest rate and concerns of the consumer well. It also helps them to face the number of problems it also check the business diversification and help to farmer to make skilled and competent manpower (Acharya, 2005).

MOF in its publication Economic survey focus on cooperatives and states that as per the policy to protect and develop cooperative system in Nepal and provide impetus to economic and social development efforts, through cooperatives, various activities are being carried out to enhance the efficiency of cooperatives by giving continuity to the cooperatives registration process while ensuring their quality and quantity. Audio-visual programs for the awareness rising on cooperatives have been produced and

disseminated. Meetings of the coordination committee for invitation of proposal for opening cooperative shops in all districts was held and document like various guidelines, by-laws, and other materials for the promotion of cooperatives have also been prepared. In the last fiscal 668 farmer groups were corporatized, while in first eight months of this fiscal year, such number has reached to 325. In order to enhance the efficiency of cooperatives movement and the managerial aspect of cooperatives through skilled workers or trainers, 12425 individuals associated with cooperatives and officials were trained in the first eight months of the current fiscal year. According to estimates, in the current fiscal year total milk production from cows and buffaloes is estimated to record a rise of 4.00 percent (excluding Yak and Nak) totaling 1,445,000 MT. Of the total figure, 413,000 MT of expected from cows, while 1,031,000 MT is from the buffaloes (MOF, 2009).

Uotila and Dhanapala in their articles focus on developing countries in Asia and the Pacific Region, the dairy cooperative has been recognized as an important means of organizing the supply of agricultural inputs, processing and marketing agricultural produce and providing agricultural credit, among other related activities. It has proved to be a strong economic institution and a vehicle for improving the condition of the impoverished rural population. Cooperatives provide farmers with an organizational arrangement at the grassroots level to assist them in planning, decision-making and implementing schemes that involve them and their families and that are designed to raise their socio-economic standards.

The common need of milk producers is to obtain a fair price for their milk and this is fulfilled through collective marketing. Milk is considered to be one of the most sensitive agricultural commodities, requiring special and timely care, and this can be provided conveniently as well through the collective operation of cooperative dairy societies. Apart from the collection and marketing of milk, other services, such as dairy inputs, extension services, veterinary health care, artificial-insemination services, provision of animal feed, fodder seed, planting material, fertilizers and credit, and training and education, can also be provided through cooperatives. These would act as business associations owned and operated by members for their entire benefit. Many countries are attempting to increase livestock and especially milk production by assisting small-scale farmers, since they are the most numerous and

poorest of the population, and very often also landless. Such a policy has a social as well as a commercial purpose since while it provides rural employment, more cash income and diversification away from traditional crop production (by-products), it also enhances the utilization of potential family labour. The farmer cooperative system has proved to be an effective vehicle for livestock development in general and for dairy development in particular in rural areas (Uotila and Dhanapala, 2013).

Biesh “Biju” in his article states that Past initiatives for the cooperative movement in Nepal have not shown much impact on the overall food self-sufficiency, agricultural commercialization, and socio-economic transformation of the nation. A scientific farmer cooperative movement that empowers farmers, commercializes agriculture, enhances food security, transforms socio-economic conditions, and contributes to rural development in Nepal is necessary. A renewed and revitalized cooperative movement should be all inclusive, fully managed at the grassroots level, and must have strong governmental support in terms of cooperative formation and safeguarding. Appropriate educational, research, and extension support programs are essential for a successful cooperative movement. Farmers’ income and quality of life must be the yardstick of success of the cooperative movement in Nepal (Biesh “Biju”, 2013 January 27).

DDC in its bulletin write about; the principal organization for dairy development in Nepal has been the Dairy Development Corporation (DDC) established under the Corporation Act in 1969. Most milk-producing farmers are small landholders who have been organized to form producers' associations, which channel milk to DDC-run cooling centers. Today in 37 district there are 800 milk producers associations (MPAs) assisting approximately 1500000 farmers in supplying 70000000 liters milk to the DDC from which the imports of milk from India has been totally closed. 63 milk cold stores are conducted by Central Corporation and 66 cold stores are established by cooperatives. 9 MPPs have been structured to function as cooperatives through the initiative of the DDC, which has legally recognized them as being operated by farmer members. Under the new Cooperative Act, passed in 1992, the National Cooperative Development Board has been established to strengthen the cooperative movement in the country (DDC Bulletin, 2013).

NDDDB in its article emphasizes that, in order to coordinate private and public sector dairy development, the National Dairy Development Board (NDDDB) has recently been constituted. The board will initiate intensive training of MPA farmers and committee members at the field level so that they fully understand their rights, obligations and management discipline. A progressive transfer of MPA to cooperatives will be encouraged through necessary activities coordinated by the NDDDB, which will facilitate the participation of individual milk-producing farmers in the ownership of milk-processing plants. Flourished dairy sector is capable of supplying adequate locally produced high quality milk and milk products through effective marketing measures.

Dairying in Nepal is a major source of cash income of the majority of Nepali rural farmers. It also contributes about 6 percent of the total Gross Domestic Product (GDP). NDDDB shares dairy development activities in Nepal with Department of Livestock Services and Dairy Development Corporation in the government sector and with the private dairy industries.

NDDDB takes initiative on behalf of milk producers', cooperatives, public and private dairies, NGOs and social institution with regard to their demand on study, research, training, entrepreneurship development, consumer awareness, as well as environment and technical component in dairy sector. Since its establishment, NDDDB has been providing decision-makers a broader understanding on the issues of policy matters on dairy development at the national level (NDDDB, 2013)

2.3 Empirical Review

Gautam in her thesis evaluates that economic impact of the DDP on the economic status of the farmers of Dhikurpokhari VDC. The main objectives of her study are: to compute the cost of production of milk in Dhikurpokhari VDC and compare it with current market price and to find the main problems faced by the farmers. In her study, she finds that the average cost of production of milk including the implicitly cost (service cost) is Rs. 20.11 per liter where the current market price of milk is Rs. 15.72. This difference shows the farmers are incurring loss of Rs. 4.39 per liter. This implies that the economic status of the farmers is not improved (satisfactory). Gautam found so many problems like fodder, veterinary; credit facilities, pasture land, low price of

milk etc. are in dairy farming. To solve these problems, researcher states that the DDP has to establish its own industry for supplying feed, training to farmers, low interest should charged milk price should increase (Gautam, 2000).

Sharma in his research tries to; compare the cost of production of milk, income comparison of farmers between before and after establishment of DDP, to find economic impact of DDP on farmers and to find problems and measures to solve problem Sharma in a research. In the study, the researcher finds the average price of milk per liter is Rs. 18.5 but before the establishment DDP in this VDC, the price of milk per liter was Rs. 5.2. Thus, the DDP is helping the milk producers to increase the production of milk. The price of milk is increased by 355.7 percent. A sampled farmer earns Rs. 3697.37 per month from other sources where as a farmer's monthly income from milk production is Rs. 3087.3 in average. The average cost of production per liter is Rs. 6.16 where as the average selling price of milk per liter is Rs. 18.5. Thus, farmer gets net benefits equals to 12.34. After establishment of DDP, it increases production of milk, farmer's money and real income, employment etc.

The researcher finds that the farmers are facing many problems such as veterinary services, loan, grains, straw pastured land etc. These problems can be solved through the joint efforts of the government, DDC, cooperatives, Agriculture Department office and the farmers (Sharma, 2001).

Kharel in his thesis concerned with dairy farming of Sikkim, in India. The main objectives of his study are to find socio-economic condition of farmers, trend of milk collection and marketing and to find the problems and suggest necessary measures for overcoming them in Sikkim. In his study after the establishment of SMU in Sikkim the number of milk collection and milk selling farmer is gradually increasing. There also increased the number of cross breed cows which increase the amount of milk product and level of income of the farmers in the study area. The researcher found the several problems in dairy farming such as problems in credit facilities, veterinary, insurance, fodder, price of milk, improved breed, quality diet etc. After establishment of SMU there government also take step to establish the milk collection center &MPCS and other infrastructure and facilities each and every corner of the state. Which help the farmer reduce the cost of production, level of milk production and income of the farmers? (Kharel, 2005)

According to Sharma in his research, the keeping livestock is gradually increasing after the establishment of the DDC in Pumdibhumdi VDC. DDP is moving forward to research in its goal. As a result of DDP activities have affected the economic life of their farmer of this village positively. Production of milk, farmer's money income and real income, employment etc. has been increasing and the livestock keeping is going in commercialization (Sharma, 2007).

Sharma in his research found that before the establishment of MPC's and BMPCU the amount of milk collection is 7295 liters but out of this amount they sold only 2160 liters on an average Rs 14/Ltr. They were earned but after the establishment of the MPC'S and BMPCU the rate of milk production is gradually increasing. In average the sampled households spending RS 2107.90 per month on his/her are milking cattle and produce 209.52 Ltr milk. Out of 209.52 Ltr they only sell 122.75 Ltr from which the cost of milk is 14.52 and they sell it in 27 Rs/Ltr so they earn more than before MPC's & BMPCU. From the establishment of MPC's & BMPCU the amount of milk production employment income of the farmer is in increasing trend and the cost of production and transportation also getting low. It also helps to solve the problem of farmer minimization of the risk and uncertainties of livestock farming so it brings the positive effect in the research area (Sharma, 2008).

Paudel in his thesis states that Cooperatives are often blamed for inefficiency. Though there are sinning examples of successful and vibrant cooperatives yet. A large number continuous to face criticism not only from their own member but also from others segments of society. There are various regions which are attributed to the weakness of cooperatives. Lacks of information, inadequate management competency, and role of poor public relation. Small number of livestock farming is in process in NMCS. But now a days it is gradually increasing, it is because the increasing knowledge and the calculation of profit and loss of farming after the cooperation (Paudel, 2010)

Paudel in his thesis sates that in the initial stage of establishment of SMPC the amount of collection of milk is small but in the recent year the amount of milk collection is increased, more and more farmers are engaged on dairy farming in the study area. Dairy farmers have been taken various facilities from the SMPC. Diary milk selling, training, field visit and subsidization of lone etc. are the major facilities of SMPC. The activities of SMPC is affected the economic life of the farmers of study area after

establishment SMPC the production of milk farmers income, employment level etc. are increased and the livestock keeping is going toward its commercialization, minimization of Risk and uncertainties of livestock farming (Paudel, 2012).

2.4 Gap in the Literature

A lot of literatures have been reviewed related to the dairy cooperatives either of global overview or of Nepalese context in the time of this study. Literatures of different countries give the different conclusions about dairy cooperatives in particular areas. Different literatures have been given different conclusions related to the dairy cooperatives.

According to the literatures reviewed, studies are based on so many topics done in different part of Nepal. Particularly, what this study aims to investigate is not found. Some are likely to be nearer but are not related with the ethics of the present study. Those are either in varied title or not in the little depth.

On the other hand, the study about **Socio-Economic Impact of AMPCS in Syangja District** no one has attempted on this. So it is relevant in present context.

CHAPTER-THREE

RESEARCH METHODOLOGY

3.1 Research Design

A descriptive cum explorative research design had been applied to analyze the socio-economic impact of Dairy cooperatives local livelihood of AMPCS of Syangja District, Nepal. The descriptive research helps to describe the present socio-economic condition of milk produce farmers. The explorative research design can help to explore some problems related with dairy farming.

3.2 Nature and Sources of Data

The study is based on both primary and secondary sources of data. The secondary data were collected from published and unpublished materials and articles, office progress reports, DDC profile, research work. The nature of data was both in qualitative and quantitative.

3.3 Universe and Sampled Population

This study consists to Setidovan Chilaunebasand Phaparthum VDC of Syangja district. There are 250 households who are directly involved in dairy farming. Out of those, 70 households were chosen for sample by using simple random sampling method.

Table No 3.1

Tabulation of Sampled Population from the Universe

S.N.	Name of VDC	Ward No.	Total No. of Member Household	No. of Sample Household
1	Setidobhan VDC	1 to 9	138	38
2	Chalaunebas VDC	1,2,3 5,6	69	19
3	Phaparthum VDC	7,8,9	43	13

Source: Field Survey, 2013

3.4 Data Collection Method

Different types of data collection techniques were applied to collect the relevant data and required information some of the major techniques are described below.

3.4.1 Household Survey

It was conducted to acquire more information about population characteristics i.e. age, sex composition, marital status, caste ethnicity, religion, occupation, educational status etc. through this technique one respondent of a household was selected for the study purpose.

3.4.2 Observation

The observation technique has been applied to collect the required information that are difficult to obtain from the structured questionnaire.

3.4.3 Interview

Both Structured and unstructured questionnaire were used for data collection. The primary data were collected through structured questionnaire with closed as well as open type of form. One respondent from each household was taken for this purpose. Semi-structured questionnaire was prepared for the key informant's interview. The key informants were selected for different level of the livestock farmers, dairy cooperatives, elite groups, District co-operative officer and District Agriculture Development office with discussion and interview.

3.5 Data Analysis Method

The collected data and information for respondents were coded and tabulated. After the tabulation, data were analyzed and interpreted along with the statistical measures such as frequency, percentage ratio, average and sample. In order to make it fairer of the study, further grouping, sub-grouping and classification of data was done. Generally, the data are of qualitative nature; however; quantification of some data also has been done.

CHAPTER-FOUR

HISTORY OF COOPERATIVE MOVEMENT IN NEPAL

4.1 Introduction

Modern co-operatives began in Nepal in 1954 when a Department of Co-operatives (DOC) was established within the Ministry of Agriculture to promote and assist development of co-operatives. The first co-operatives formed in Nepal were co-operative credit societies with unlimited liability created in the Chitwan district as part of a flood relief and resettlement programme. They had to be provisionally registered under an Executive Order of HMG and were legally recognized after the first Co-operative Societies Act of 1959 was enacted. The history of co-operatives in Nepal is closely related to Government's initiatives to use co-operatives as part of its development programmes. Therefore, the development of co-operatives will be described in eight phases corresponding to eight plan periods.

During the First Five-Year-Plan (1956/7-1960/1) Government embarked on an ambitious programme to organize 4,500 agricultural multipurpose co-operatives. During the Second Three-Year-Plan (1962/63-1964/1965) a Land Reform Act came into force in 1964 including a compulsory savings scheme, according to which farmers had to save a portion of their crop. During the Third Five-Year Plan (1965/66-1969/1970) the total number of co-operatives reached 1,489 operating in 56 out of 75 districts. During the Fourth Five-Year Plan (1970/71-1974/75) a massive reorganization programme launched already in 1969 was pursued, placing emphasis on the quality rather than on the quantity of co-operatives. Under the Fifth Five-Year Plan (1975/76-1979/80) a massive Co-operative Expansion Programme was launched, the "Sajha Programme".

During the Sixth Five-Year Plan (1980/81-1984/85) an "Intensive Sajha Programme" was launched in 1981 focusing more on and made more responsive to the needs and problems of small farmers. During the Seventh Five-Year Plan (1985/86-1989/90) efforts were made to reshape the co-operative movement.

It appears that until 1990 most cooperative ventures were limited to credit and finance and were controlled by the government. The Cooperative Act of 1992 provided

freedom for the farmers themselves to organize and establish cooperative societies. As of 2004, it is reported that a total of 7,598 cooperatives exist in Nepal, and of the total 2,979 were multipurpose cooperatives, 2,345 credit unions, 1,410 milk producer cooperatives, 154 consumer cooperatives, and 710 other types of cooperatives (Mali, 2005). It is reported that consumer cooperatives are failing mainly due to the opening of department stores nationwide. Cooperatives are also found in the areas of dairy production, transportation, vegetable production, coffee and tea production, wood carving, furniture, the cottage industry, carpet industry and ginger production.

4.2 Present Status of Cooperative in Nepal

At present context, there are 3500000 shareholders of cooperative. There are 24000 primary cooperative, 15 central cooperative organizations and national cooperative bank in the country. At national level, more than 200000 people are engaged, out of which 80% are working on voluntary basis. Today we have Agriculture cooperative central committee, Bee cooperative central committee, Vegetable and fruits cooperative central committee, Sugar cooperative committee, Coffee cooperative central committee, Dairy cooperative central committee, Seed cooperative central committee, Medicinal plants central committee at national level. Including all, a total of 10 agriculture related cooperative central committees are present (NCFN, 2007).

4.3 Benefits Obtained from Cooperative Movement in Nepal

Through farmer cooperatives, important agricultural developmental objectives such as enhancing agricultural production, adding value to agricultural produce, enhancing marketing of agricultural commodities, and developing technologies and practices related to agricultural production can be achieved. Farmers will derive income from multiple sources including production and marketing co-ops, value-added commodities, and trade. Trade profits will go directly to the farming communities rather than to a few intermediaries in the cities. The bargaining power of farmers will increase and they can get good market as well as good price for their products. Moreover, because of low market margin, consumers will get the products at lower price and hence efficient mobilization of product will be done. Due to the decentralized grassroots level of production, marketing, and processing of agro-commodities in the cooperative mode of nation building, farmers and the rural

population will feel that villages and rural areas are as good as cities for living. This will help to stop rural to urban migration. Governmental subsidies and support systems will directly help rural communities and the rural infrastructural development. People will generate income through various sources including farmer cooperatives, employment at farmer cooperatives, and other agricultural production activities. Through the formation of farmer cooperatives across the nation, farmers, ethnic groups, women, rural youth, and the suppressed classes will feel that they are part of nation building and are sharing in the fruits of economic growth. It will bring them a sense of pride and dignity. Similarly, to cope with the natural misfortune like drought, flood, landslides etc and search alternatives for them, collective effort through cooperative is necessary in our context. The average landholding of a farmer in Nepal is less than 1ha, by collective farming, mass production in commercial scale is possible for the commodity desired. The ultimate benefit is food security for the farmers and good income through agriculture.

4.4 Problems in Cooperatives in Nepal

Although the benefits that could be obtained from cooperatives are numerous, yet the development of cooperatives is not satisfactory in Nepal. Government has declared cooperative as one of the three pillars of Nepalese economy and interim constitution has focused on same, but practically, implementation as per the declaration is weak and the speed of development need to be accelerated but yet it is not done. Even though governmental agencies, international institutions, Non-Governmental Organizations, and other stakeholders have put some effort into the cooperative movement in Nepal, the results are far from satisfactory. There is no remarkable progress in major cereal crops production. About 1760 dairy cooperative are established primarily but both liquid and powdered milk needs to be imported. The reasons behind the unsatisfactory development of cooperatives in Nepal could possibly be the following;

-) Most profitable cooperatives are urban-based, and except for finance, credit, and dairy cooperatives, the rural sector has not felt the presence of the cooperative movement in the country.

-) Cooperative movements have to strive for the inclusion of women, dalits, poor people, and other oppressed classes of society. Lack of inclusion of every sector for the cooperative movement is a cause for its unsuccess.
-) Lack of clarity about mission, national vision and adequate monitoring on the part of government with respect to cooperative movement
-) Lack of managerial skills and professionalism, sound planning and implementation
-) Lack of working capital, appropriate research, extension and education about cooperative movement
-) Lack of technological support and development
-) Lack of creditability.

4.5 Promotion of Cooperatives

To lend full support to the cooperative movement, governmental agencies must be able to provide full research support for farmer cooperatives on various issues including agriculture and food, plants and plant products, biotechnology, business, natural resources conservation, engineering, animals, processing, pest management, cropping systems, and economics. Building partnerships, strategic planning, record keeping, accountability, and policy dialogues are other areas where appropriate venues at the central, regional, and local levels for farmer cooperatives must be ensured. Initiatives should be taken for scientific land reform and land policies formulation. Land reform policies should be formulated considering the economies of scale, land productivity, land use types, and geography. Special attention should be given to Scientific land policies are critical for the overall agricultural development of the country. In Nepal, immediate the implementation of land reform policies. A farmer cooperative will not be successful without having land rights.

Appropriate governmental policies and programs, rules and regulations, credit availability, insurance policies, and governmental support systems should be in place for a successful farmer cooperative movement.

Past initiatives for the cooperative movement in Nepal have not shown much impact on the overall food self-sufficiency, agricultural commercialization, and socio-economic transformation of the nation. A scientific farmer cooperative movement that empowers farmers, commercializes agriculture, enhances food security, transforms socio-economic conditions, and contributes to rural development in Nepal is necessary. A renewed and revitalized cooperative movement should be all inclusive, fully managed at the grassroots level, and must have strong governmental support in terms of cooperative formation and safeguarding. Appropriate educational, research, and extension support programs are essential for a successful cooperative movement. Farmers' income and quality of life must be the yardstick of success of the cooperative movement in Nepal.

CHAPTER-FIVE

DATA PRESENTATION AND ANALYSIS

This chapter is based on the presentation discussion and analysis of the results of the study area. It is divided into two parts. The first part deals an overview of the study area and the second part is concerned with the present status of milk production and impact of livestock on local livelihood. This is directly related with field survey and observation of the research work.

5.1 An Overview of the Study Area

Syangja district is one of hilly districts of western development region of Nepal. It lies north to Kaski, south to Palpa, east to Tanahun and west to Gulmi and Parbat. It is situated between 27⁰52' to 28⁰13' north latitude and 83⁰26' to 84⁰46' east longitude. The total area of this district is 1036.87 sq. Km. Politically it is divided in three constituencies, 13 Ilakas, sixty VDCS and two municipalities. District headquarter is Putalibazar which is 20 Km far from the study area. The climate of the district is subtropical with an altitude range of 400m to 3000m above the sea level. The average temperature of the average temperature of the district is 17⁰C where as maximum temperature is 35⁰C and minimum temperature is 5⁰C (DDC Profile, 2010).

5.1.1 Population and Socio-Economic Condition

The total population of the district is 3, 17,320 people. Among them 155815 and 161505 are male and female respectively. Population increment (2028-2058 in 30 years) 25.5 percent and literate population is 70 percent (VDC Profile, 2010).

More than 40 major castes live in the district. Brahmin, Gharti, Gurung and Magar are the major castes comprising 48.2 percent first two and 22.5 percent latter. Others are Kami, Damai, Sarki, Kumal, Newar etc. Ethnic composition of the district is Bramin 35.0 Chhetri 13.2, Magar 15.5, Gurung 7.0, Newar 2.5, Kami 6.8, Damai 5.5, Sarki 4.5, Kumal 3.4 and others 6.6 Percent. Subsistence farming is the prime occupation of the people. Syangja is famous for producing orange, ginger and coffee. Considerable people are in out of country for employment.

5.1.2 Land use Pattern

Land use pattern indicates different kind of field that may be cultivated or uncultivated. The data taken from the survey field to get information on the types of land are shown below.

Table No 5.1
Types of Land

S.N.	Land Type	Area (in Ha.)	Percentage
1.	Pakho (upland)	74043.65	60.06
2.	Khet (low land)	10626.60	8.50
Total Cultivated Land		84670.25	68.57
3.	Government	236.77	0.18
4.	Forestry	32144.66	25.72
5.	Pasture	6886.18	5.57
Total		124941.97	100.00

Source: Annual Report 2013, DAO, Syangja

The table No. 5.1 indicates the total land of the district is 124942 hectares where agricultural land is 3412 (27.47%), unproductive land 51569 (41.4%), government land (unspecified) 237 Hectares (0.2%), forest land 32145 (25.7%) Pasture land 68869 (5.50%) and others none specified.

5.1.3 The Study Area of AMPCS

Setidovan is one of the VDC of Syangja district. This VDC is bordered with Putalibazar municipality and Fedikhola VDC to the east, Banghe Fadke and Bhatkhola VDCs to the north, Bangsing and Bicharichutara VDCs to the west and Chilaunebas and Faparthum VDCs to the south. The climatic condition of this area is subtropical with an altitude range of 600m to 1700 m above the sea level. Maximum temperature of the area is 30°C and minimum is 8°C. The mean rainfall of the study area is 2100 mm around a year.

5.1.3.1 Location and Accessibility

The study area is located in east of Bangsing VDC, the district headquarter is 20 Km far from this place. Pokhara-Jugle-Karkineta road passes through this VDC to the west. The basic infrastructure development of the VDC has fulfilled with the facilities i.e. telephone, post office, electricity, health center cable television etc. Jugle, Setidovan, Rangethati Chilaunebhati and Nagdanda are main market place of the VDC. Agriculture and health service centers of government are located in this VDC. It is only one milk cooperatives in this VDC.

According to District Co-operatives Office of Syangja district announced that there are eight milk cooperatives, AMPCU is one of them. About 80 Percent of the people are involved in agriculture and livestock and other 20 percent engaged in various sectors (business, services, foreign employment etc.) for their subsistence of life (VDC Profile, 2010).

Health condition of the study area was not found so serious. Some water borne diseases, fever, common cold and cough, worms, TB etc. are the common diseases of the community.

5.1.3.2 Natural Resources

Setidovan, Chilaunebas, and Phaparthum VDC have some natural resources like forests, mines and water resources. 87.4 hectares of this area covers forest under which 21 hectares pasture grassland. The irrigation system is very poor. A main source of irrigation is Aandaikhola, drinking water is Nisti Khola Jabi khola and jharkhola but some of the small water springs are available for irrigation and drinking purpose. Though there are more feasible sites for mines but lack of proper research these are under the surface of the land (VDC Profile, 2010).

5.1.3.3 Land Resource

Land is one of the most exploitative natural resource. Agriculture and livestock are the main features of the people of Setidovan, Chilaunebas, and Phaparthum VDC. Total cultivated land of the VDC is 814.5 hectares where 250.3 hectares lowland (Khet) and 564.22 hectares (Bari) upland(VDC Profile2010).

5.1.3.4 Forestry

Forest is become one of the major sources of fuel, fodder and construction materials for the community only 87.4 hectares has been handed over to the consumer groups. Remaining part of the forest is also conserved by the community consumer group preparing for handover process of the forest to the community consumer groups. There are two forestry consumer's groups in the AMPCS area named Gahata forestry consumer's group, Lahuke forest community group. There are other forest resources in public sector but individual forests are also available in there.

5.1.3.5 Settlement Pattern

The community of AMPCS is semi scattered type where the people of various caste and ethnic groups are living there. Most of the houses are one two storied and closed to each other especially in the Brahmin, Chhetri, Gurung and Magar caste groups. The structures of houses are made up of mud, stones and wood roofed with tin and black stone and some houses are cemented. Every household has a cow/buffalo shed to keep their livestock. The main places of the AMPCS are Chilaunebas Jharkhola Bhati Maduwa Khapaltari OhiyaGoganpani Jugle, Lakuri, Baraha Rangathati, Ranguwa, Nisti, Setidovan Nibuwaboa etc. The dominant castes groups of the community are Brahmin and Chhetri.

5.2 Socio-economic Characteristics of the Respondents

This part of the study presents the distribution of respondent's socio-economic characteristics such as age, sex, occupation, education, marital status, family structure and size etc. which are presented below respectively.

5.2.1 Age Structure

Nepal is an agro-based society. Labor contribution is an important part of the country. So, age structure of the population plays a significant role in the agricultural production. Here, age groups as respondents is categorized into three group young age, middle age and those who are older than 50 years, grouped under old age. The table 5.2 shows the age structure of the respondents which is presented below.

Table No. 5.2
Age Structure of the Respondents

Age Group	Male	Female	Total	Percentage
0-14	6	6	12	17.14
15-59	16	22	38	54.29
60 & above	12	8	20	28.57
Total	34	36	70	100.00

Source: Field Survey, 2013

The table No. 5.2 shows that the age groups of the respondents ranged from 15 years to 59 years. Majority (54.29%) were of the middle, 17.14 percent of young and 28.57 percent of the respondents fall under the old age. These facts indicate that middle aged farmer groups are involved in dairy farming activities as followed by 17.14 percent of young aged and old aged are only 28.57 percent.

The table indicates the total population of the study area (sampled population) is 70 out of the total population of the study area. Males are 34 (48.56 percent) and females are 36 (51.44 Percent). Female population is higher (51.44) than the male population (48.56 Percent) in the study area.

5.2.2 Educational Aspect

Education is the most important part of mankind to adopt the new technology or innovation. Introducing the new crop in this area should have relation with the educational level of farmers. The following table and figure shows the educational level of respondents of the study area. It seems that all the respondents are educated. Similarly SLC passed were 20 percent, under SLC 32.85 percent, literate were 28.57 percent and the highest level of educational is IA which accounts only 18.58 percent in the study area. It indicates that practiced by the literate group population is very small. The educational status of the respondent is given below in the table and figure.

Table No. 5.3

Educational Level of Respondents

Level of Education		Total No. of Respondents	Percentage	Remarks
Literate	Brahmin-3	20	28.57	Under 5 class
	Chhetri – 7			
	Others- 10			
Under SLC	Brahmin-4	23	32.85	5 to 10 class
	Chhetri – 6			
	Others- 13			
SLC Passed	Brahmin-7	14	20	
	Chhetri – 3			
	Others- 6			
Intermediate and above	Brahmin-6	13	18.58	
	Chhetri – 5			
	Others- 2			
Total		70	100.00	

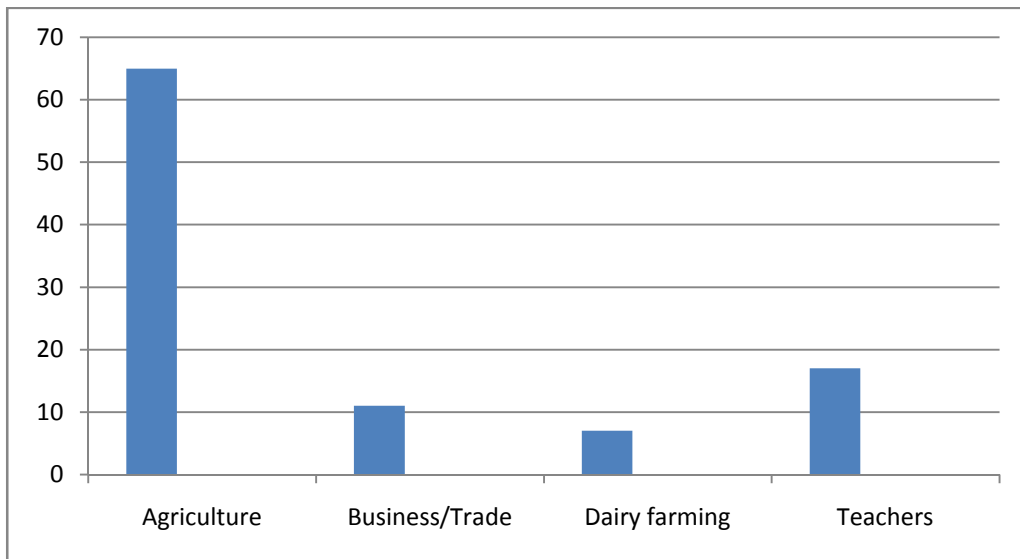
Source: Field Survey, 2013

The table No. 5.3 shows that Brahmins are highly educated than others. The highest percent of respondent were under SLC 28.57 percent are literate and 32.85 percent are under SLC 18.58 percent of respondent were found to be of Intermediate level.

5.2.3 Occupational Structure

Nepal is agro-based society. Most of the people are directly and indirectly involved in agriculture. This study also attempts to find out the present occupational status of respondents that is described below:

Figure No. 5.1
Occupational Structure of Respondents



Source: Field Survey, 2013

The Figure No. 5.1 shows that the 65 percent of the respondents were involved in agriculture in business\Trade, 11 percent are involved, 17 percent were involved in teaching and only 7 percent were involved in livestock farming activities out of the total respondents in the study area of AMPCS.

5.2.4 Family Structure

Family structure plays an important role in various aspects of households as well as agriculture field activities. The burdens of living together in a big family: nuclear family is popular now a day. But the family structure also determines extend of land fragmentation of a family. Here, the structure of the family type is tabulated below:

Table No. 5.4
Family Structure of the Respondents

Types of Family	No. of Household	Percentage
Nuclear	45	64.28
Joint	25	35.72
Total	70	100.00

Source: Field Survey, 2013

Table No. 5.4 indicates that majority of the population is living as nuclear type. Out of the total households, 45 households i.e. 64.28 percent of the households were of Nuclear and 25 households (35.72 percent) were joint family.

5.2.5 Marital Status

Marital status of people also has some relation to adopt the new technology. Out of the total respondents, married respondents found higher than the unmarried. The following table shows the marital status of the respondents in the study area.

Table No. 5.5
Marital Status of the Respondents

Marital Status	Number	Percentage
Unmarried	13	18.57
Married	49	70.00
Widow	8	11.43

Source: Field Survey, 2013

The table No. 5.5 shows that 70% respondents were married out of the total respondents. 18.57% of the respondents were unmarried and only 11.43 % of the respondents were widow in the study area.

5.2.6 Access to Basic Socio-Economic Service in the Study Area

Access to basic socio-economic is also major indicators of economic development. Researcher easily predicates that the necessity of people on the basis of their access to basic socio-economic service is inevitable. So there is highly correlation between economic development and access to socio economic service. Now a days, government sectors, NGOs, INGOs as well as private sector have been investing on socio economic service. Information of access to basic socio economic service to local people is presented below.

Table No. 5.6

Level of Access to Basic Socio-Economic Service

Access of Socio-economical Services	Yes	%	No	%
Educational Institution	70	100		
Health Post/Hospital	70	100		
Toilet/garbage Management	70	100		
Drinking Water	70	100		
Electricity Service	70	100		
Telephone Service	70	100		
Transportation Service			70	100
Market			70	100
Financial Institution			70	100
Irrigation Facilities			70	100
Maternal Child Care Organization			70	100
Agricultural Development Institution			70	100

Source: Field Survey, 2013

The table No. 5.6 shows the 12 indicator of socio economic service, 8 indicators are 100 percent access of people and 6 indicators are 100 percent lack for people. The table and researcher find, the study area there is 100 percent lack of irrigation facilities. So researcher concluded rest of them has accessed the above services.

5.2.7 Land Holding by Sampled Household

The land holding by the livestock farmer into the study area is divided into three parts khet in which irrigation is available and paddy wheat maize etc crops are mainly produce in it, bari, it is dry land in which kodo potato jau etc are mainly produce and pakho is a sloped land in which is mainly used to produce grass. This is shown into the following table.

Table No 5.7
Land Holding by Sampled Household

S.N.	Types of Land	Area (Hectors)	%	Average Land holding (Hectors)
1	Khet	30.6169	46.21	0.4374
2	Bari	20.175	30.45	0.288
3	Pakho	15.4641	23.34	0.221
Total	Total	66.256	100.00	0.9464

Source: Field Survey, 2013

The above table 5.7 shows the land holding by the sampled. The share of khat to total land is 36.21 percent. It shows that 46.21% land is utilized as khet. The share of Bari and Pakho are 30.45 and 33.34 percent respectively. The average land holding of sampled household is 0.9464 hectors.

5.2.8. Crops Production by Sampled Household.

The table below represents the annual crops production by sampled household.

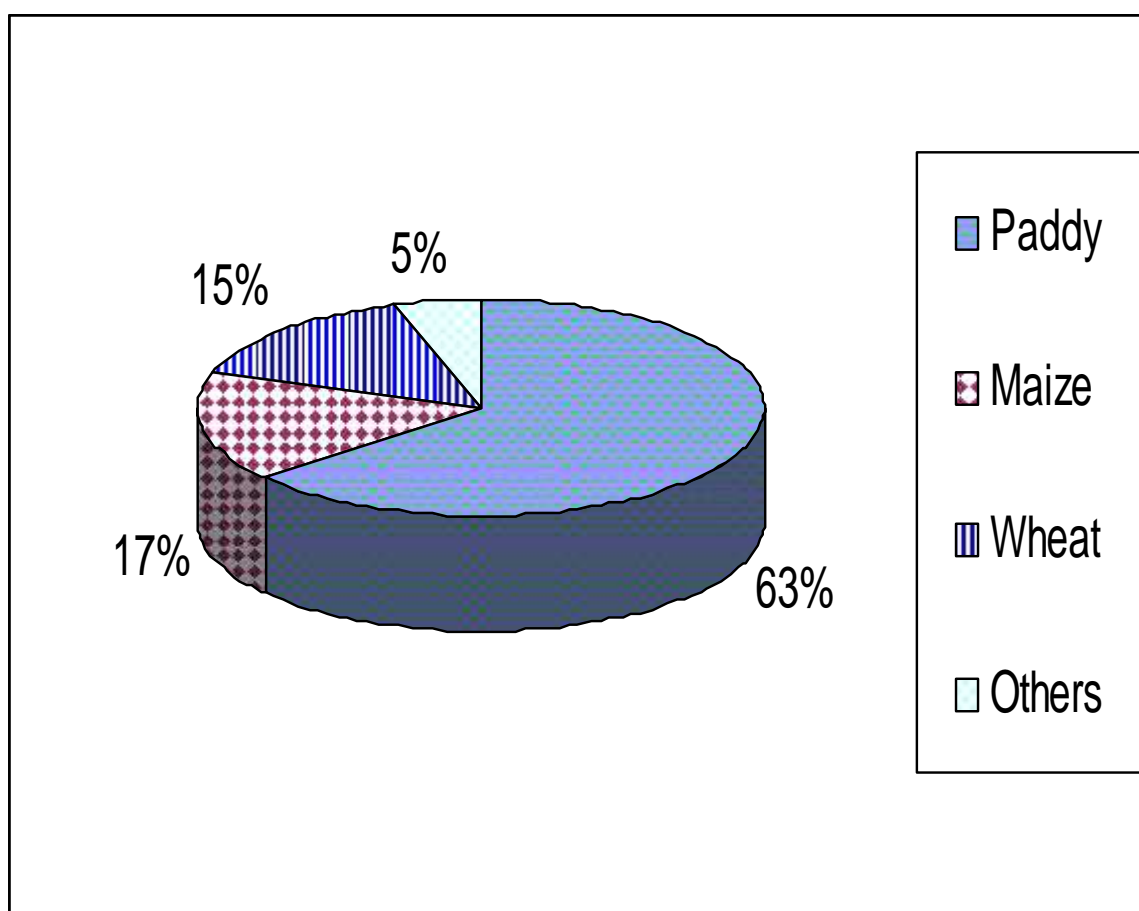
Table No: 5.8
Crops Production by Sampled Household

S.N.	Types of Land	Production (Quintals)	%	Average Production (Quintals)
1	Paddy	887	63.68	14.31
2	Maize	232	16.65	3.74
3	Wheat	204	14.64	3.29
4	Others	70	5.03	1.13
	Total	1393	100.00	22.47

Source: Field Survey, 2013

The above table No. 5.8 shows the total crops production by the sampled household. The share of paddy production is higher than other crops. The annual paddy production is 887 quintals which is 63.68 percent of total crops production. The production of maize, wheat and others are 16.65, 14.64 and 5.03 respectively. The average crops production of sampled household is 22.47 (i.e. 14.31 + 3.74 +3.29+1.13) quintals. This may be shown as below in pie-chart:

Figure No. 5.2
Crops Production by Sampled Household



Source: Based on Table No. 5.8

5.2.9 Other Sources of Income

The members of sampled households are engaged in various occupations such as service, business, wage earning, livestock, other (fruit) and some members are students, housewife and dependent. Students, housewife and dependent members are

not directly involved in economic activities. So, they are excluded from this study. The other sources of income except crop production are shown in the table below.

Table No 5.9
Other Sources of Income of Sampled Household

S.N.	Sources	No. of Engagement	Annual Income	%
1	Service	23	50,75,460	49.63
2	Business	9	17,76,000	17.37
3	Wage earners	6	2,19,000,	2.14
4	Livestock	14	26,57,000	25.98
5	Others (fruit)	6	5,00,000	4.88
6	Student/housewife	8	-	-
7	Dependent	4	-	-
8	Total	70	10227460	100.00

Source: Field Survey, 2013

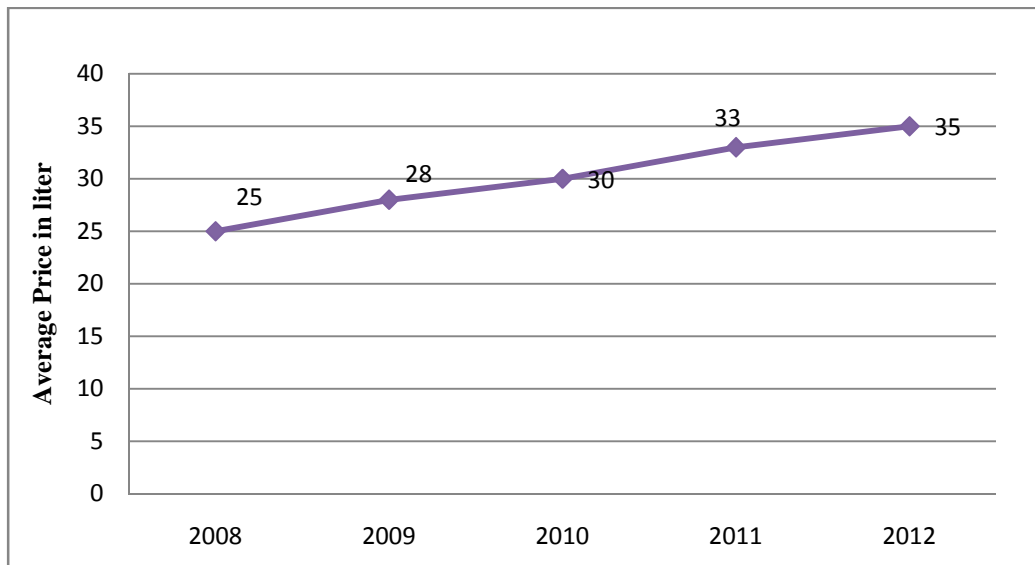
The above table 5.9 shows that 44 persons are engaged in service and they earn the highest income (i.e. 49.63 percent). The researcher includes the foreign employment in the service sector. 132 people are engaged in livestock farming and they earn only 25.98 percent income. The share of business, wage and others are 17.37, 2.14 and 4.88 percent respectively. Out of 368, 159 are students and housewife and 13 are dependent.

5.3 Average Price Trends of Milk

Price is determined by production. If price is high the producer produces more otherwise, the producer can't encourage. Hence the researcher presents five years' trend of average price which is below.

Figure No. 5.3

Average Price Trend of Milk During Five Years



Source: Field Survey, 2013

The figure No. 5.3 shows that, in 2008 the price of milk 25 and at same period level of production is lowest. When price was 28, the production increases in 2009, the production increases, the price also increase, the price was 35per liter. The price is high among the five year period the level of production and demand did not decline in average manner.

5.4 Factors Initiatives of Livestock Farming

There are various factors initiatives of farming from which most important factors are given bellow:

Table No. 5.10
Factors Initiatives of Livestock Farming

Responses	Households	Percentage
Own Self	10	20
Demonstration Effect	40	80
Total	50	100

Source: Field Survey, 2013

The table No. 5.10 shows information about the Livestock farming activities. It indicates that 80 percent households had done livestock farming as a profession influenced by demonstration effect and 20 percent by own inspiration. The researcher concluded that livestock farming is influenced by demonstration effect.

5.5 Production Pattern of Livestock Farming

Agricultural production has a great role not only in developing countries but also in developed countries. Regarding Nepal, various types of agricultural goods are produced. Ginger also belongs the same category production of ginger is influenced by the the family members which is shown in the following table.

Table No. 5.11

Production Pattern of Livestock Farming by Households Members, 2013

Family Size	Production of Milk			Total
	Less Than 5 Liter	5 to 10 Liters	Greater Than 10 Liters	
Less than 5	6	11	3	20
5-7	4	19	9	32
Greater than 7	2	7	9	18
Total	12	37	21	70

Source: Field Survey, 2013

The table No. 5.11 shows out of 24 families with size less then 5, 6 households produced below 5 liters and 11 householders produce 5 to 10 liters and left 3 hh produce grater then 10 liters. Similarly in 5-7 family size 4, 19, 9 house holders produce less than 5 liters, 5to 10 liters, and above 10 liters respectively. In greater then 7 family size 2, 7, 9 hh produce less than 5 liters, 5to 10 liters, and above 10 liters. In the study the family size 5-7 contribution of milk production is high then others.

5.6 Main Purpose of Livestock

Livestock farming is an important field of agriculture. This is mainly used in our daily meal. In the study area the main purpose of livestock farming are: to produce milk, to produce meat, to use farming, to produce Gobar gas and to use organic fertilizer.

Table No. 5.12

Main Purpose of Livestock Farming

Purpose	Households	Percentage
Self Consumption	13	18.57
Commercial	57	81.43

Source: Field survey, 2013

The table No. 5.12 shows that 10% of farmers produce ginger for self consumption and 90% of farmers produce for commercial purposes, because they take it as main source of income.

5.7 Saving and Investment of Milk Producers

There is positive relationship between income and saving. It is said that saving is positive function of income i.e. $S=f(y)$, where S= saving, F=function, y= income. If the income is high, saving also high and vice versa. Each household save 1 Lakh yearly from milk selling.

Table No 5.13

Saving from Livestock Farming by Their Production

Production in Liters	Saving	Percent
Less than 1	7	14
1-2	25	50
Greater than 2	18	36
Total	50	100

Source: Field Survey, 2013

The table No. 5.13 shows, saving from livestock farming which is based on their production. Who produces less save less and who produces high save high but this

table shows that middle households or producers save more 25 (50 percent and other save 50 percent (18+7).

Drawing the assumption of classical economist, “A rational person does not hold money idle.” According to them, money is demanded just for transaction. So people does not hold money with them on the basis of classical assumption, we can say that people invest their saving in different sector. The main source of investment of the people is income from livestock farming, job and other sectors and from bank and landlord. The investing sector of the study area is as below.

Table No. 5.14
Sector Wise Investment of Income of Livestock Farming

Investing Sector	No of Households	Percentage
Land/Housing	16	22.86
Educational Sector	35	50.00
Agriculture Sector	10	14.28
Ornaments	4	5.72
Social Ceremony	3	4.28
Missing System(Not Surplus)	2	2.86
Total	70	100.00

Source: Field Survey, 2013

The table No. 5.14 shows information regarding investing sector of livestock farming who have succeeded to save income from dairy product selling. The people are aware because they invest their children education in 50 percent, other 50 percent other so many sectors. According to them (study area’s people) education is the first step of the development. So they invest that sector.

5.8 Impact of Livestock Farming on Local Livelihood

The impact of dairy co-operatives is positive in Setidovan VDC. The impact of Livestock farming in their livelihood can be known through different kind of indicators. Indicator, measures the people’s status. Educational conditions, health status, economic conditions and living standards of the peoples are some indicators

which help to measure their status. In Setidovan VDC people are modernized by the dairy farming. Before the livestock farming their life status was low, now their life status shows after livestock farming certainly (high). The researcher group discussion each area about their own income and categorized the level of present households.

Table No. 5.15
Impact of Dairy Co-operatives Before and After

Socio-economic Indicators	No. of Households					
	Before Dairy Co-operatives			After Dairy Co-operatives		
	Low	Moderate	High	Low	Moderate	High
Income	70	00	00	00	40	30
Health	50	20	00	00	65	5
Education	20	50	00	00	25	45
Entertainment	25	45	00	00	35	35
Drinking Water	00	70	00	00	00	70
Level of Food	50	20	00	00	45	25
Housing Condition	55	15	00	00	40	30
Land	30	40	00	00	60	10
Clothes	45	25	00	00	30	40
Cattle	20	50	00	00	34	36
Local Road	55	15	00	5	55	10
Electricity/Solar	45	25	00	00	00	70
Poultry farming	70	00	00	00	50	20
Other facilities	45	25	00	00	50	20

Source: Field Survey, 2013

The table No. 5.15 depicts information regarding impact indicator of livestock farming with dairy co-operatives. It shows the living standards of people heavily changed after livestock farming. Before dairy co-operatives, the income of people of the study area was very low but co-after co-operative income rise from low to moderate due to income obtained from sell of dairy product. In the field of health sector, before co-operative 50 household's health situation was very worse and 20 household's health condition was moderate but after co-operative 65 household health condition is changed in moderate level and 5 household's health condition is changed into high level, due good economic condition and their investment in health. In the field of education, the situation of the education was 20 and 50 low and moderate type respectively before co-operative but after co-operative, the educational level of

livestock farmer's is increased and reached 25 household into moderate and 45 into high level due to good investment in education which indicates that income from dairy product is good. In the field of entertainment before ginger farming 25 household were low level 45 were moderate level but after ginger farming all of the households were found 35 and 35 in moderate and high level due to increased income. The level of drinking water was moderate of all the households before co-operative but after co-operatives all of them had been found in high level. Dairy farming with co-operatives has given good impact in field of level of food also. Before co-operative 50 households' level of food was low and 20 households were in moderate whereas it was found 45 moderate and 25 were high after co-operative. Similarly condition of housing was also improved. 40 households have moderate type of houses and 30 have high after co-operative whereas condition 55 were in low and 15 were in moderate before dairy co-operative. Livestock farming has also shown positive impact on land they own. Before co-operative 30 households had low and 40 had moderate land but later it was found 60 families had moderate and 10 families had high land. co-operative has not only positive impact in above mentioned indicators but also in clothing, cattle and buffalo, local roads, Solar/electricity, poultry farming and so many other facilities too. Most of these indicators had been changed into moderate level. In field of solar/electricity all the households had achieved high level whereas it was moderate formerly due to positive impact in income level.

5.9 Trend of Milk Collection and Marketing System

5.9.1 Trend of Milk Collection

Marketing system and pricing of milk as well as testing of milk play a vital role in the development of dairy farming in the study area. If the milk collation center is not far and price of milk is good enough, farmer will be inspired to sell milk. To show the trend of milk collection and marketing system is the first objective of researcher.

Milk is collected by various cooperatives which are engaged in AMPC. The collection center collects the raw milk and sent it to the AMPC by labors as well as jeep. The trend of milk collection by various members' cooperatives of AMPC and payment to them is shown in the table below:

Table No. 5.16**Trend of Milk Collection**

S.N.	Year	2008/2009		2009/2010		2010/2011		2011/2012		2012/2013	
	Month	Milk collection	Payment	Milk collection	Payment	Milk collection	Payment	Milk collection	Payment	Milk collection	Payment
1	January	31841	796025	32651	914228	35137	1054110	39820	1314060	42584	1490440
2	February	29233	730825	30743	860805	34789	1043670	38976	1286208	39763	1391705
3	March	28849	721225	30043	841204	34581	1037430	38986	1286538	40512	1417920
4	April	28792	719800	29741	832748	35287	1058610	39879	1316007	42857	1499995
5	May	27940	698500	28993	811804	34871	1046130	40132	1324356	42983	1504405
6	June	28953	723825	29887	836836	39431	1182930	43571	1437843	44872	1570520
7	July	34258	856450	35014	980392	41517	1245510	43985	1451505	45893	1606255
8	August	35163	879075	36900	1033200	42583	1277490	44959	1483647	49833	1744155
9	September	34721	868025	36228	1014384	40893	1226790	42798	1412334	48590	1700650
10	October	33819	845475	35689	999292	39926	1197780	42127	1390191	47692	1669220
11	November	32478	811950	35327	989156	38956	1168680	41887	1382271	45250	153750
12	December	32191	804775	34829	975212	38765	1162950	40285	1329405	45083	1577905
13	Total	378238	9455950	396045	11089260	456736	13702080	497345	16412385	535912	18756920

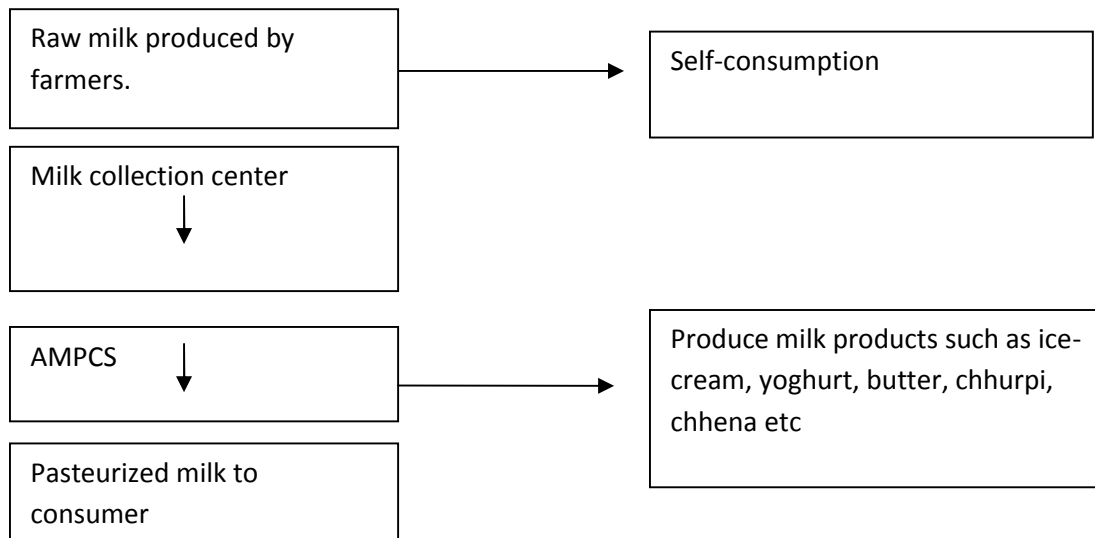
Source: AMPCS Annual report, 2013

The above table 5.16 shows the trend of milk collection and payment to the cooperative by AMPCS in different years. Above table shows the increasing and decreasing trends of milk collection. The milk collection depends upon the number of milking cattle, feed, season, breed of animals etc. In the recent period, the collection of milk is increased. In July August September October the trend of milk collection is higher than others because the number of milking cattle and plenty of green grass is available in these months, in dry and cold sessions the milk collection rate is low then others months because the number of milking cattle and the availability of green grass is low. So the trend of milk collection in the August is greater and lowest in the March than other months.

5.9.2 Marketing Channel of Milk

Cooperative society is the backbone for marketing channel of milk. Basically, farmers of the study area produce raw milk, some of which is kept to households consumption and some of which is sold to the cooperative. After establishment of AMPCS farmer sale their milk to the cooperative not the open market. Generally, the evening milk is kept for home consumption. The milk for home consumption goes to make skimmed milk, ghee, and drinking milk. From the farmers, the raw milk goes to the AMPCS by laborers and jeep and process It in AMPCS. Certain amount of milk is sold to the consumers and certain amount of milk is used to produce milk products such as ice-cream, yoghurt, butter, ghee, khuwa, chhurpi, lassi, panir, chhena, pustakari etc. The AMPCS sales milk and milk products not only syangja but also other parts of the country. The flow chain of milk for the market component is shown in below flow chart.

5.9.3 Flow of Milk Form Farmer to Consumers



5.9.4 About Livestock Farming

Syangja is regarded as the developed district in the field of farming and livestock and the level of education. It supplement to the income of rural people in Syangja. Cows, buffaloes, goats, pigs, etc. are the main livestock Syangja. People have been keeping the livestock from the ancient period but history of commercialization of livestock is very short. In the study area, commercialization of livestock farming does not go back to more than three decades before only 57 sampled households are kept livestock for commercial basis. Farmers are kept livestock for the purpose of milk, meat and use farming. The financial sources of livestock farming are cooperatives, bank, self-saving, villagers, calf etc. Livestock farming plays a vital role to uplift the economic condition of farmers in the study area. According to farmers, the study area is suitable for livestock farming. By them, livestock farming has various indirect benefit such as use of house wastage, gave nutritional food, employment, biogas, entertainment, environmental balance, dung etc.

5.10 Purposes of Livestock Farming

The main purposes of livestock farming in the study area are: to produces milk, to produce meat, to use for farming. The researcher found that multiple response on the

purposes of livestock farming. The responses are shown in the table below:

Table No. 5.17

Purposes of Livestock Farming.

S.N.	Purpose	Response of HH.	Proportion
1	Milk production	70	100.00
2	Agriculture	70	100.00
3	Milk, meat and agriculture	23	32.85

Source: Field Survey, 2013.

The above table 5.17 shows that all respondents have given response on milk and agriculture. Only 23 households have kept livestock for milk, agriculture and meat purpose. Farmer kept goats for the purpose of meat and oxen have kept for farming. All respondents are belonged to Brahmin, so they have not kept pigs and chickens.

5.11 Financial Sources of Livestock Farming

In the study area, the researcher has found that different financial sources for the livestock farming. Like dairy cooperatives, banks, self-saving, villagers, and calf. But it is observed that peoples of the study area mostly prefer dairy cooperatives for loan even though they all have charged the subsidized interest rate. After the field survey, it is known that the cooperatives refund their loan from the farmer not in cash but by dairy milk. The researcher has found that there are multiple responses about the sources of livestock farming. The financial sources of livestock farming can be presented in table below:

Table No. 5.18

Financial Source of Livestock Farming

S.N.	Source	No. of Sample HH	Percentage	Average Interest
1	Loan from Cooperatives	26	37.14	13
2	Loan from Banks	6	8.57	18
3	From self- savings	16	22.86	-
4	Loan from villagers	6	8.57	24
5	From calves	-	-	-
6	From Cooperatives & saving	11	15.71	-
7	Cooperatives and Banks	5	7.143	15.5
o S	Total	70	100.00	-

Source: Field Survey, 2013

Note:-Absance/ Nill of indicated group is denoted by (-).

The above table 5.18 shows that out of 70 sampled farmers, 26 (37.24 percent) farmers are getting loan from the cooperatives, 16 (22.86 percent) farmers from self-saving. The share of cooperatives as well as savings is 11 (15.71 percent). 6 farmers are getting loan from banks. About 6 (8.57 percent) each farmers take loan from villagers and cooperatives and banks. The numbers of farmers who get loan from cooperatives are higher than others source. It is because cooperatives provide loan in subsidized rate than banks and villagers with in easily. The average rate of interest of cooperatives, banks and villagers are 13, 18, and 24 respectively. The interest rate from villagers is higher than others. The share of calves to livestock farming is nil.

5.12 Types of Livestock Kept by Sample Household

Farmers are keeping different types of livestock for the purposes of milk, meat and farming in the study area. Buffaloes, cows, goats, oxen, male-buffalo, calf etc are the

domesticated livestock in the study area. Almost all the farmers have kept buffaloes. The population of livestock is presented in the table below:

Table No. 5.19
Types of Livestock Kept by Sampled Household

S.N.	Categories	Local	Improved	Total
1	Buffaloes	137	66	203
a	Milking buffaloes	103	53	156
b	Non milking buffaloes	34	13	47
2	Cows	7	39	46
a	Milking cows	3	33	36
b	Non-milking cows	4	6	10
3	Cow-calf	3	17	20
4	Buffalo-calf	34	23	57
5	Ox/bull	50	3	53
6	Goats	79	19	98
	Total	317	160	477

Source: Field Survey, 2013.

Table 5.19 shows the total No. of animals kept by the sampled households is 475. The total No. of buffaloes is 203 where the No. of local buffaloes is 137 and improved buffalo is 66. Out of 203, 156 are milking buffaloes which are 103 local and 53 improved. Likewise, the total No. of cow is 46 where the No. of local cows is only 7 and improved is 39. In the study area, the No. of milking cows is 36 The No. of buffalo-calf, cow-calf, ox and goats are 57, 20, 53 and 98 respectively.

The above table shows that the No. of milking animals is larger than non-milking. The No. of local buffaloes is larger than the No. of improved one and the No. of improved cows is larger than the No. of local ones. The average No. of livestock per households is above 6. The total No. of milking cattle is 203. For the milking animal, a household sends 12 hours. If one person is engaged, he/she should work or 12 hours if 2 or 3 persons are engaged then they should work for 6 or 4 hours respectively.

5.13 Monthly Expenditure on Feed for Milking Cattle

The term cost may be defined as the value received in exchange of goods and services excluding profit and distinguished from money which is only medium of exchange. However the value of an article is itself an abstract concept and depends upon the marginal utility price policy helps the farmer/producers where to produce, how much to produce. Every producer should bear the cost producing goods and services. So, producing milk and its products farmers should invest some thing at first, which determines the level of profit.

The major sources of feed for milking cattle are green grass, straw, food grains, choker, salt, medicine are others crop residues like rice straw, wheat strew, maize Stover etc. are used for fodder. Green fodder contains various nutritional elements that are highly necessary to maintain animal health and production. Green fodder also increases the production of milk. Food grain is important feeding material for milking animals in the study area. Green fodder and green grass is easily found in the summer season. During production period, farmers have to different types of activities by investing time, money and labor as its cost. So, animals' monthly money spent on feed or milking cattle is shown in the table below:

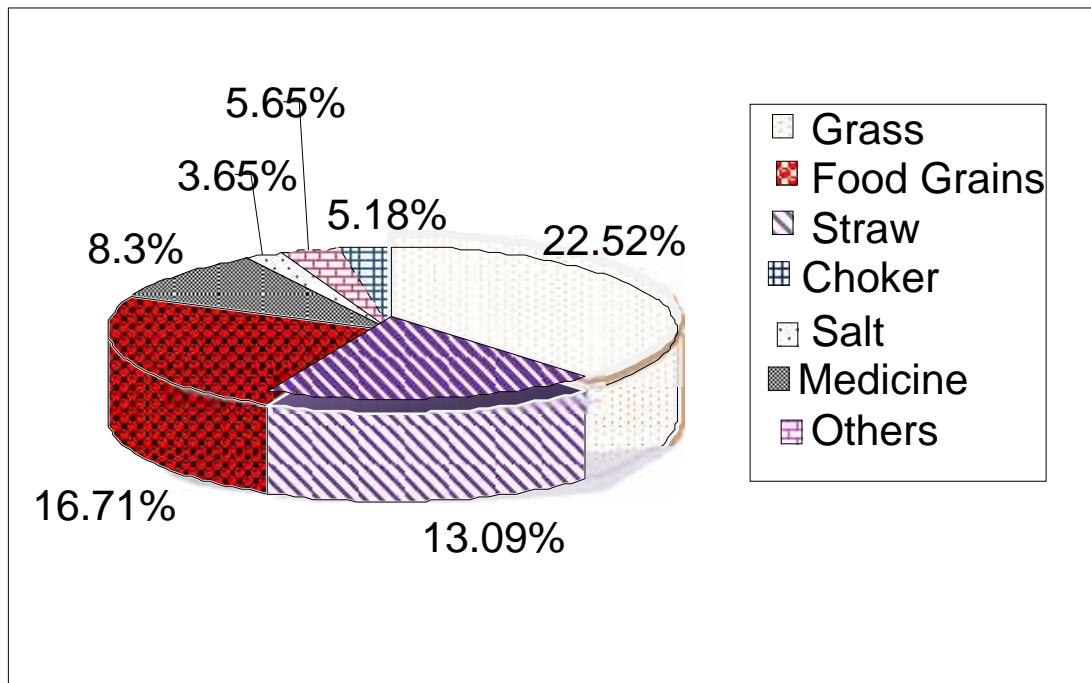
Table No. 5.20
Monthly Expenditure on Feed for Milking Animals (in Rs.)

S.N.	Items	Expenditure	%
1	Grass	145626	32.52
2	Food grains	103398	23.09
3	Straw	74828	16.71
4	Choker	45139	10.08
5	Slat	16345	3.65
6	Medicine	37168	8.3
7	Others	25300	5.65
	Total	447804	100.00

Source: Field Survey, 2013

The table 5.20 shows the monthly money spent on feed for milking cattle. Farmers are spent Rs. 145626 (32.52 percent) for green grass which is the greatest share on feed. Straw is the second important material with 16.71 percent. Similarly, farmers are spent money on food grains, choker, salt, medicine and others are 23.09, 10.08, 3.65, 8.3, 5.65 percent respectively. A monthly average expenditure on one milking cattle is Rs. $447804 \div 203 = 2205.93$, In other words, a households, in average is spent Rs. 2205.93 per month on his milking cattle. Cooperatives are provided free medicine to the insurgence cattle. This expenditure can be shown by below pie chart.

Figure No. 5.4



Sources: Based on the Table 4.21

5.14 Number of Insured Cattle

In the study area, the insurance programmed is going on very slowly. This programmed is provided by the cooperative with help of District Livestock Development Office, Syangja. Farmers are engaged this programmed to minimize the risk. The cooperatives charge percent premiums for each animal on the basis of buying price. No. of insured animals are shown in the table below:

Table No 5.21
No. of Insurance Cattle

S.N.	Categories	No. of Animals		Total Premium Charge (Rs.)	Per cattle Purchasing Average Cost(In Rs)	
		Local	Crossed		local	Crossed
1	Buffalo	-	31	74,400	40,000	60,000
2	Cow	-	12	36,000	10,000	85,000
	Total	-	43	91,800	-	-

Source: Field Survey, 2013.

The table 5.21 shows that 31 buffaloes and 12 cows are insured. The total premium is 74,400 and cows are 36,000. Cooperatives are provided various facilities to the insured animal such as veterinary, seed of grass, training to the farmers, regularly milk selling etc.

5.15 Monthly Milk Production, Consumption and Sale (Before and After)

Before establishment of AMPCS, the level of production and sale of milk is very low and the level of consumption is very high in the study area. Only 26 sampled household sale milk to the open market. Except 26 households, others are consumed the milk. But after the establishment of AMPCS, the no. of milk sellers is increased. The level of production and sale of milk also increases but the level of self-consumption is decreased. Nowadays, all farmers sale milk to the cooperatives. No need of open market. The monthly milk production, consumption and sale are shown in the table below:

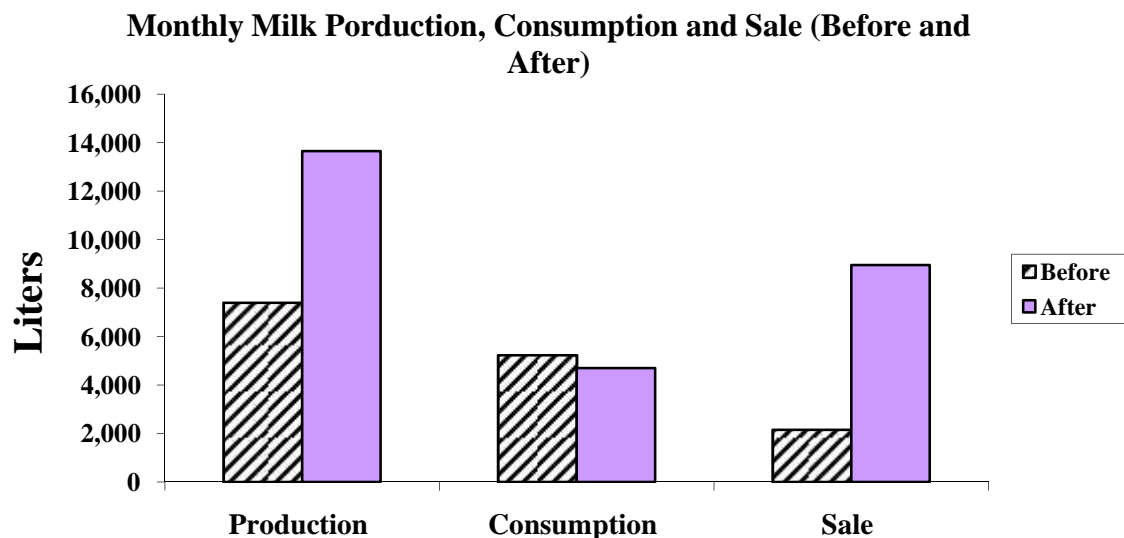
Table No. 5.22
Monthly Milk Production, Consumption and Sale (Before and After)

Categories	Before	Average	After	Average
Production (liter)	6,385	91.21	13650	195
Consumption (liter)	4,239	60.56	4,695	67.07
Sale (liter)	2146	30.66	8,955	127.93

Source: Field Survey, 2013.

The table 5.22 shows the level of production, consumption and sale before and after the establishment of AMPCS. Before establishment of AMPCS, the level of production, consumption and sale is 6,385, 4,239 and 2,146 and after 13,650, 4695, 8,955 respectively. The average level of production before cooperatives, production, consumption and sale is 91.21, 60.56 and 30.66 and the average level of production after cooperatives is 195, 67.07, and 127.93. This data shows that before the establishment of MPC the level of milk consumption is higher than the level of milk sale but after the establishment of MPC the level of milk sale is higher than milk consumption. This data shows that the level of sale is higher than the level of milk consumption. The average milk production per household is 195 liter. The average lactation period of milking cattle is 8 months. The average milk consumption and sale is 67.07 and 127.93 liter per household. Thus, the table no. 4.23 shows that the AMPCS play vital role to increase the level of milk production and sale.

Figure No 5.5



Sources: Based on The Table 5.23

5.15.1 Monthly Income from Milk and Milk Products

Farmers have earned income from milk and milk products. The total monthly income from milk and milk products is shown in the table

Table No. 5.23
Income from Milk and Milk Products

From	Income (Rs.)	Average per HH
Selling milk	4,77,750	6,825
Selling milk products (ghee)	1,05,000	1,500
Total	5,82,750	8,325

Source: Field Survey, 2013

Form the table 5.23 income from selling milk is more than the income from milk products (ghee). Sampled households sell more milk than the consumption. So, the share of income from selling milk is more than the selling from milk products.

In the family most of the children and the old members of the family need milk to drink for their better health. Milk is used for other domestic purpose for making butter, cured, yoghurt etc. The table shows that the income from selling milk is Rs. 5,82,750 and the income from selling milk products (ghee) is only 1,05,000. People in the study area have sold raw milk to the AMPCS. The average price of liter standard milk (8 SNF & 5 Fat) is Rs. 35. But before establishment of AMPCS, it was only Rs. 14 per liter. The average monthly income from selling milk is 3612.34 per household. The average income from selling milk products is 1500. The average transportation cost from collection center to the AMPCS is Rs. 5 per liter.

5.15.2 Utilization of Income Earned from Dairy Cooperatives

The income earned from dairy cooperatives is utilized on various sectors. The sampled households have given multiple responses about the utilization of dairy income. The income is not only spent on domestic expenses but also other sectors such as saving, building house, buying land etc. The multiple responses are shown the table below:

Table No. 5.24

Multiple Responses to Utilization of Income Earned from Dairy Cooperatives

S.N.	Items	Response	Proportion %
1	Domestic expenses	70	100.00
2	Saving	70	100.00
3	Education	55	78.57
4	Health	54	77.14
5	Building house	20	28.6
6	Buying land	2	2.9
7	Others	2	2
8	Luxury	-	-

Source: Field Survey, 2013.

The above table 4.24 shows the multiple responses about the utilization of dairy income. According to the table, all farmers (70) are given response to domestic expenses and saving. All farmers are utilized the dairy in come on domestic expenditure. There is compulsory saving by farmers to the AMPCS. So, all farmers are compulsorily saved the certain amount of dairy income. The response on education, health, building house, buying land and others are 55, 54, 20, 2 and 2 respectively. No amount of income goes to the luxury. Above table shows the income from dairy is mainly spent on basic needs of household.

5.16 Problems and Measures of Dairy Cooperatives in AMPCS

Farmers in the study area have given multiple responses about the problems and prospects of dairy cooperative in AMPCS in Syangja. There are various problems and prospects of dairy cooperatives in AMPCS in Syangja.

5.16.1 Problems of Dairy Cooperatives in AMPCS

In the study area, there are various problems faced by the dairy farmers. Sampled farmers have given multiple responses about the problems of dairy cooperatives. The problems are shown in the table below:

Table No. 5.25
Multiple Responses to Problem of AMPCS by Sample HH

S.N.	Problems	Multiple Response by HH	Proportion %
1	Low price of milk	70	100.00
2	High production cost	34	48.57
3	Problem on transportation	35	50
4	Lack of facilitated loan	45	64.29
5	Lack of prize and penalties policy	15	21.43
6	Lack of monitoring and evaluation	43	61.43
7	Frequent strike	42	60
8	Lack of incentives to farmer	56	85.71
9	Lack of cooperative education	45	64.29

Source: Field Survey, 2013

Nepal is an agricultural county. Livestock keeping is an integral part of the Nepalese agriculture. In livestock keeping, the share of milk and milk products is high. Dairy cooperatives are facing various problems. Likewise dairy cooperatives in Syangja are also facing such kinds of problems. The table 4.25 shows the multiple responses of problem faced by sampled households in the study area.

In the study area, 70 or all sampled farmers have faced the problem of low price of milk. 34 farmers have given response of the high cost of production of milk. In the remote area, the average cost of milk production is very high frequent strike is the major problem of dairy farmers. Study area is hilly and remote. So, the farmers are facing the problem of transportation. The average transportation cost from farmers to AMPCS is around Rs. 5 per liter which is very high. Likewise the response about lack of cooperative education, lack of facilitated loan, lack of regular monitoring and evaluation and lack of incentives to farmers is 45, 45, 43, 45 and 56 respectively. Others negligible responses by sampled households are lack of grass and feed, problems in veterinary services, lack of selling centre, lack of prize and penalties policy of government, dominant of personnel etc. AMPCS provide free veterinary services to the insured cattle. Farmers easily take veterinary services from District Livestock Office as well as Livestock Health Post. So,

to develop the livestock keeping and milk production, the problems mentioned above should be solved. Farmers should be given different training to develop this sector.

5.17 Prospect of Dairy Cooperatives in AMPCS

In AMPCS, there are not only problems in dairy cooperative but also prospects too. According to the farmers, there are various prospects of dairy cooperative. The prospects of dairy cooperatives are as follows:

1. To produce more milk and milk products

There is a prospect to produce more milk and milk products through the cooperatives. When farmers are engaged in cooperatives, it minimizes the risks and problems of livestock farming. So more and more farmers are engaged in this occupation which increases the production level of milk and milk products. 55 households have given response to it.

2. To increase the level of income

After engagement of dairy cooperatives, there is a prospect to increase the level of income of the dairy farmers. It helps to increase the professional milk producers then increases the level of income. When the level of income of farmers increases, it also uplifts the economic status of them. It also helps to reduce the poverty. 42 households have given response to it.

3. To reduce the cost of production and transportation

When the farmers are engaged in cooperatives, it reduces the average cost of milk production and transportation. If the No. of farmers increases the average cost of production will decrease. It is because the farmers have got the feed in low price and easily got veterinary services. It also helps to reduce the transportation cost of a liter of milk. The response towards this prospect is 56.

4. To increase employment

After establishment of AMPCS, it increases the level of employment directly and indirectly. People in the study area are engaged in the professional milk production which reduces the unemployment level. It discourages the foreign employment. Out of 70 households, only 65 households have response to this.

5. To capture national milk market

By the sampled households, there is prospect to capture the national milk market to produce more milk and milk products. For this, the government should develop Syangja as a pocket area for milk production. More and more farmers will be engaged in this sector. Only 38 household are supported this point.

6. To expand cooperative feeling

Another prospect of dairy cooperatives in Syangja is to expand the cooperative feeling. When the concept to cooperative is strong, the farmers are able to solve their greater and greater problems themselves. Farmers are able to produce more goods and service in more low cost. It has responded by 42 households.

7. To develop dairy farming as a main occupation

By the cooperatives, farmers are able to minimize their risks and problems. When more and more farmers are engaged in dairy farming, it becomes the main occupation in the study area. For this, the government should be announced as "Livestock keeping areas". Only 52 households have response toward this point.

CHAPTER-SIX

SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATIONS

This study has analyzed the impact of AMPCS on the economic status of the milk producers who are engaged in AMPCS. This study is prepared on the basis of both primary as well as secondary data. Primary data are gathered from the field survey questionnaire and the secondary data are from various publications such as District Profile, Office records etc. Out of 250 member households, 70 households are taken as sample. Collected data have been analyzed and interpreted in descriptive ways. Major findings, conclusion and recommendations are presented in below:

6.1 Summary

In the hilly region of western part of Nepal as well as the study area, where the climate condition is favorable, the livestock farming could be a major source of income to enhance the level of income of the farmers of such areas. Unfortunately, livestock farmers have not been able to gain reasonable returns from the production. Various factors may have contributed to this situation.

This study has made few attempts to evaluate the profitability of dairy production comparatively with the prevailing food grain crops like maize, paddy, wheat, millet and to find out the problems and solutions despite its limitations. The main objectives of the study regarding livestock farming are as follows.

-) To examine the trend of milk collection and marketing system of Aandhikhola milk production co-operatives AMPCS.
-) To examine the socio economic impact of AMPCS on its member.
-) To identify the problem and prospect of the member of AMPCS measures to overcome them.

This study was based on primary data collected member of AMPCS at Setidovan Chilaunebas, and Phaparthum VDC's, which is located with Western hilly region. After

finding the total number of livestock farmers, the purposive sampling method was applied to select reliable and representative sample of the population of 70 households.

6.2 Findings

The major findings of the study are as follows:

The total family members of sampled households are 250, which of them 64.28% are with nuclear family and 35.72% are with joint family. Out of 250 no one is illiterate. The average land holding per household is only 0.9464 hectares. Likewise, the average crops production per household is 22.47 Quintile. Other sources of income apart from crops production of sampled households are services, business, wage earners, livestock and others (fruit). Out of 250 people, the No. of students/housewife and dependent people are 8 and 4 respectively who are not directly involved in economic activities.

- A. After establishment of AMPCS the researcher found that the trend of milk collection is increased year by year and the No. of professional milk sellers are also increase year by year.
- B. Farmers in the study area have kept livestock for the purposes of milk production, meat and farming. The main livestock in the study area are buffaloes, cows, goats, sheep, ox etc.
- C. The financial sources of livestock farming in the study area as loan from cooperatives, banks, self-savings, villagers etc. Farmers prefer cooperatives than Banks and villagers because cooperatives provide the subsidized rate of loan. The interest rate from villagers is higher than other sources.
- D. Sampled households have kept 477 livestock which has buffaloes, cows, goats are major one. The No. of buffaloes is larger than cows in the study areas. The no. of milking cattle is larger than that of non-milking cattle.
- E. The total No. of milking cattle is 192 which have the share of buffaloes and cows are 156 and 36 respectively. Out of 192, only 43 milking animals are insurance.

The No. of local buffaloes is larger than the No. of improved ones and the No. of improved cows is larger than the No. of local ones. For the milking animals, a sampled households in the study area spends 12 hours, if 2 or 3 persons are engaged then they should work for 6 or 4 hours respectively. No one sampled households have kept laborer for livestock farming.

- F. A sampled household, in average spend on per cattle is Rs. 2205.93 per month on his/her milking cattle to produce 195 liters of milk. Out of 195 liter, farmers sell only 127.93 liters milk and 67.07 liters of milk is consumed by themselves. Thus, the average cost of production of per liter milk is Rs. 10.86 ($2205.93 / 203$). The average transportation cost from collection center to AMPCS is Rs. 5. So, the total average cost of per liter milk is Rs. 15.86 ($10.86 + 5$). The average selling price per liter milk is Rs. 35. Therefore, the farmers earn net Rs. 19.14 per liter of milk. The average monthly income from selling milk products (ghee) is Rs. 1500 per household.
- G. Before establishment of AMPCS, farmers produced only 6385 liters of milk. Out of this amount, they sold only 2146 liters on average Rs.14 per liter. They consumed more milk than sell. Only 26 households used to sell milk to open market. The spent more time to sell milk to open market.
- H. Farmers utilize the income earned from the AMPCS on domestic expenses, saving, education, health, buying land, building house etc.
- I. Farmers in the Syangja are facing so many problems on dairy farming as well as AMPCS. Some major problems are: low price of milk, high production cost, milk holiday, problem of transportation, lack of facilitated loan, lack of cooperative education, no incentives to farmers, lack of grass, fodder, veterinary services etc.
- J. There are so many prospects of AMPCS in Syangja. According to the farmers, the major prospects of AMPCS in Syangja are: production more milk and milk products, incensement of the level of income, reduction of the cost of production

and transportation incensement of the employment level, capturing the national milk market, expansion of cooperative feeling, development of dairy farming as a main occupation etc.

- K. After establishment of AMPCS, the level of milk production, employment, income of farmers has increased. It helps to reduce the problems of dairy farming in the study area. So, the AMPCS has positive impact on the economic status of the framers in that area. The AMPCS provide the various facilities to the dairy farmers. The main facilities are to provide subsidized loan, daily milk collection, monthly saving, veterinary services, insurance programmed, training and field visit, bread, grass and fodder etc,

6.2 Conclusion

Livestock farming is one of the important sources of earning cash income. Livestock farming and agriculture are closely related. Livestock keeping, specially milking livestock keeping provides manure for agriculture on one hand and milk and milk products are beneficial for our health on the other. In Syangja, people have been keeping livestock from the ancient period but history of commercialization of livestock is very short. Very few farmers who are near to the city have sold milk to the open market. The price of per liter milk was very low at that time. For making commercialization and respective occupation, AMPCS is established and it started to milk collection.

In the initial stage of establishment of AMPCS, the amount of collection of milk is small but in the recent year the amount of milk collection is increased. More and more farmers are engaged on dairy farming in the study area. Dairy farmers have been taken various facilities from the AMPCS. Subsidization of loan, daily milk selling, training and field visit etc. are the major facilities of AMPCS. The activities of AMPCS have affected the economic life of the farmers of Syangja. After establishment of AMPCS, the production of milk, farmers' income level, employment level etc. are increased and the livestock keeping is going towards its commercialization. It also helps to reduce the cost to production and transportation, minimization of risks and uncertainties of livestock farming.

Various problems are facing by the farmers as well as AMPCS in the study area. The main problems are: low price of milk, high production cost, milk holiday, problems of transportation, lack of facilitated loan, lack of cooperative education etc. There are also so many prospects in dairy farming and AMPCS. Some major prospects are production of more milk and milk products, incensement of the level of income, reduction of cost through cooperative, development of dairy farming as main occupation etc. If the cooperative feeling is strong, the farmers will be able to solve their greater and greater problems themselves.

6.3 Recommendations

Agriculture and livestock farming are closely related to each other. Making livestock keeping is a better profession that gives direct benefit such as milk and milk products to farmers on one hand and it provide indirect benefit such as dung (fertilizer) for cultivation on the other. For the commercialization and respective occupation, farmers in the study area should be cooperated. Farmers should be encouraged by government for milking livestock keeping. On the basis of this study, following recommendations have been put forth for consideration.

) Need for Association of Milk producers Cooperatives (MPC)

An active association of Livestock farmers is a felt need in Syangja district. The function of MPC should be to identify the problems arising in the milk producer farmers at local level association to appraise it of the real situation of livestock farming at the local level.

Implications

In order to operate the AMPCS at different levels, 5 to 10 percent of income from the livestock farming should deposited in a help fund by the farmers besides these the farmer representatives from the local level should themselves manage a membership fund fee fixed annually on the basis of common consensus among producers, furthermore support from government is essential for the effective functioning of AMPCS.

) **Necessity of Livestock Based Industries**

Livestock farming is increasing every year in Syangja district. Few farmers are involve in this sector partially from their crops production for the purpose of meeting daily necessities like soap, salt, cloth, spices etc. Through increasing the knowledge about livestock farming and livestock based industry not only based on milk product.

Implications

Therefore, it is essential to set up different type of cottage and small scale Milk based industries and large scale industries in Nepal. There may be some of the industries which can be established in order to achieve the above objectives.

) **Need for Financial Institutions**

Implications

Financial institution are establish its helps the capital formation. But in Nepal financial institution are city oriented, thus institution are not village remote place oriented so remote villagers not reach access in the financial institution. Financial institution can help for milk producer farmers by providing loan.

1. For the expansion of AMPCS, the government should be changed of cooperative act regularly and should be concession of tax on establishment Most of the farmers in the study area are facing the problem of subsidized loan.
 - 1) To solve this problem, the government or AMPCS should provide loan to the farmers easily, cheaply and sufficiently.
 - 2) Most of the farmers in the study area are facing the problem of transportation facilities. To solve this problem, the AMPCS should help to buy the vehicle instead of distribute the bonus to the share holders.
 - 3) AMPCS to should be encourage AMPCS member to saving into cooperative to solve their further economic problems.

) **Need for Better Market System**

Implications

1. The cold storage facilities in each AMPCS producing farmers are must urgent marketing of through consumer cooperative and government regulated the market is necessary to reduce uncertainty to damage of their product. If market system is better the local level's marketers and farmers are benefitted and they also aware of price mechanism.
2. To raise the economic status of milk producers, to encourage them for producing more milk and to reduce the import of powder milk from abroad, the price of milk should be increased.

) **Need for Training to increase the livestock occupation and Other Facilities**

Implications

- a. To make the livestock farming as scientific, commercialized and respective occupation, various types of training and field visit should be given to the farmers by government and AMPCS. By providing trainings to the new farmer they would have to know about the so many benefits about livestock farming and direct impact on cash crop and their production which helps to engage the farmers in this sector. So training provide lots of information about possibility of market, to manage their farming, pesticide new seeds and other problems
- b. Veterinary doctors should available in large number of providing advice regarding modern farming methods and professional education to the farmers. There also available of appropriate medicine and lab in the study area.
- c. Farmers should be encouraged to keep improved animals to increase the high level of production and there also provide appropriate insurance policy to increase the amount of livestock.

- d. To develop dairy farming as a main occupation of the farmers of Syangja, The government should be announced Syangja as “Livestock Pocket Area.” And the government should act the livestock based quite police and subsidies to them.
- e. There should provide appropriate animal feed to the farmers. To solve the problem of grass and straw the seed of hybrid grass. There should be established the feed industries in the local level or there should be provide suitable advice how to make the hygienic feed in their local level to increase the production of milk.

APPENDIX

Dear Sir/Madam,

I am going to prepare a research entitled Socio Economic Impact AMPCS in Syangja District of Nepal. I would like to request the members of AMPCS to fill this questionnaire and support to me to complete my research paper.

I hope that your help will be a great success for me.

A. General Information

- a) Name:
- b) Age:
- c) Sex: Male/female
- d) Caste:
- e) No. of family:
- f) Village/Nagar:.....
- g) Ward No.

1) Details of your family members

S.N.	Name	Relation	Sex	Age	Education	Occupation
1						
2						
3						
4						
5						
6						
7						
8						

2) Please specify your crops production in your land

Other Sources	Member Engaged			Period of Engagement	Income Rate	Annual Income
	Male	Female	Children			
Service/Employee						
Business						
Labour Wage						
Livestock						
Others						

3) What are the other sources of income of your family except land?

- a.
- b.
- c.
- d.

B. About Livestock Farming

1) When did you start livestock farming on commercial basis? B. S.

Types of Land (Hector)				Crops production (Quintal)					Annual Cost	Cost /Benefit
Khet	Bari	Pakho	Total	Paddy	Wheat	Maize	Others	Total	Rs.	Rs.

2) What is the main purpose of keeping livestock?

- a) To produce milk
- b) To produce meat
- c) To use for farming
- d) Above all

- 3) What are the financial sources of keeping livestock?
- a) Credit from co-operatives b) Loan from bank
 c) From saving d) From calves
 e) Credit from villagers f) Others
- 4) Do you take loan for livestock farming? a) Yes b) No

If yes, specify

Purpose of Loan	Amount	Period	Institution/Individual

- 5) What is the rate of interest you pay on loan? - Percent /year
- 6) Number of animals including dairy animals:

S.N.	Categories	Animals			Annual Income	Buying Price
		Local	Cross	Total	Rs.	Rs.
1						
2						
3						
4						
5						
6						
7						
8						

- 7) How many hours do you devote in a day for milking livestock? Hours.
- 8) Do you employ any laborer for livestock? a) Yes b) No
 If yes, how much money do you pay laborer per day? Rs.....
- 9) How much money do you spend on feed for on milking cattle in a month?
- a) Grass Rs..... b) Grains Rs.
 c) Straw Rs..... d) Chocker Rs.
 e) Salt Rs..... f) Others Rs.
 g) Total Rs.

10) How much money do you spend on medicine for milking cattle in a year?

Rs.

11) Do you insurance your livestock? a) Yes b) No

If yes,

S.N.	Animals	Number	Premium (Rs.)
1.			
2.			
3.			

12) Is local environment suitable for dairy farming? a) Yes b) No

13) In your opinion, is there any indirect benefit of keeping livestock? If yes, what are they?

- a)
- b)
- c)
- d)
- e)

14) What is the milking period of milking cattle?

S.N.	Cow	Buffalo
1.	1 to 3 months	1 to 3 months
2.	3 to 6 months	3 to 6 months
3.	6 and above	6 and above

C. About Milk Cooperative: (Before and After)

1) When did you engage in milk cooperative? B.S.

2) How much milk do you produce every day?

a) Before (liters) :

b) After (litres) :

3) How much milk do you sell every day?

a) Before (litres) :

b) After (litres) :

4) Where do you sell your milk?

- a) Before Open market
 - b) After Open market
- 5) What is the selling price of a litre of standard milk?
- A. Before (Rs).....
 - B. After (Rs).....
- 6) How much the transportation cost of a litre of milk from collection centre to market ?
Rs.....
- 7) Monthly income from selling milk and milk products?

S. N.	From	Income (Rs.)
1.	Selling milk	
2.	Selling ghee	
3.	Other products of milk	

- 8) Where do you utilize the income earned from dairy farming?
- a) Domestic expenses
 - b) To buy land
 - c) Health
 - d) To build house
 - e) Education
 - f) Luxury
 - g) Saving
 - h) Others
- 9) What types of facilities do you take from dairy co-operatives ?
- a)
 - b)
 - c)
 - d)
 - e)

D. Problems, Prospects and suggestions

- 1) What are the main problems of milk cooperatives in Syangja ?
- a)
 - b)
 - c)
 - d)
 - e)

2) What are the prospects of milk cooperatives in Syangja?

- a)
- b)
- c)
- d)
- e)

3) What suggestions do you want to give to the government?

- a)
- b)
- c)
- d)
- e)

4) What is your further plan?

.....
.....
.....
.....
.....

5) Have you any saying remaining?

.....
.....
.....
.....
.....

Thank You

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