

# CHAPTER-I

## INTRODUCTION

### 1.1 Background of the Study

Co-operatives are voluntarily business associations formed by people of limited means through the contribution of equal share capital. Co-operative is a business of persons with limited means, equal interest of socio-economic development, sense of all for each and each for all and same community establish an autonomous association of voluntaries with limited means as share capital to safeguard their needs and interest is called co-operative. The international co-operative alliance defined in 1995, "co-operative as an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprises". It has been developed by a group of "Rochdale pioneers" and established in 1844 in Great Britain in the name of "Rochdale Equitable Pioneers Society". In Nepal, first co-operative was established in Chitwan district in the name of Bakhan co-operative on 20 Chaitra 2013, B.S.

Co-operative plays an important role to push up the living standard of rural people by providing different economic and social opportunities. There are various types of co-operatives, which are formed according to the necessities of members. Nepal's interim constitution 2063, accepted that co-operative as an integral pillar among three (public, private and co-operative) of economic development of Nepal. So, having with different purpose different types of co-operatives are establishing as mushrooming in the raining season. Co-operative of Nepal established and developed after the failure of SAJHA. Co-operatives of Nepal are establishing under the "Co-operative Act 1992 A.D."

A dairy co-operative is a business institution which is controlled by dairy farmers, who are the members of organization with equal share capital and produced milk for own co-operative. Dairying activities started since 1952 in Nepal, by the help of FAO. Nepalese farmers formed a co-operative for effective milk business in Tusal village of Kabhre district in 1981, with the encouragement of Dairy Development committee (DDC) named Milk Producers Associations (MPAs). Since that period of time till now 1764 dairy co-operatives are running smoothly with share capital of Rs 1649

billion, more than 10 lakh population are engaged on it under the dairy development policy 2064 (MoF, 2070).

To minimize the problem of dairy farmers, it helps through improving instrumental upgrading, supplying cattle feed and fodder, and improving management capacity of farmers. These co-operatives help poor and small farmers for milk production, income generation, creation of employment, mobilizing rural resources, and upgrading the members' knowledge of entrepreneurship, leadership, way to unite and ideas of solving problems as well as technical aid. It encourages farmers on empowering and fulfill their needs among group and helps to catch the access to more assets. Co-operative is a socio-economic system it can fulfill peoples' needs through using local limited means and resources. Co-operative is very useful instrument for rural development of Nepal. It creates employment, generate income, marketing of farmers milk, supplying inputs and output of production, it encourage to commercialized farmers to get more profits, and we feeling among members. So socio-economic development of rural Nepal is possible through dairy co-operative.

Nepal is a country where nearly 83 percent people are living in rural areas (CBS, 2011) with subsistence agriculture as main occupation. Rural area of Nepal is the synonyms of agriculture and poverty. Nepalese agriculture system consists livestock farming and crops farming. But both are subsistence farming. So it is urgently necessary to separate and commercialization of livestock farming from the traditional crop farming. Farmers are used livestock not only for milk but also for other purpose like for labor (Bullock), production, manure production, religious purpose, meat and using the dung for bio-gas and bio-mass energy production. Livestock farming support to supply of meat, milk and its allied product which is very necessary for humankind till birthing time to old age.

Major dairying animals in Nepal are buffalos and cows. Goat and yak milk also use to make cheese. Dairy farming has potentialities all over the Nepal. According to economic survey 2070, now Nepalese farmers have 72,74,545 no. of cows and 52,42,288 no. of buffalos, among them 10,25,667 cows and 13,17,120 buffalos are milking. The total production of milk was 16,81,000 metric ton. The contribution of cow is 4,92,377 metric ton (29.3%) where as remaining 11,88,716 metric ton was contributed by buffalos (70.7%). Likewise the share of meat production (buffalo and

its calves) was 59.3 percent(1,75,145 metric ton) in total production. The government of Nepal provided loan for livestock through 202 co-operatives to the 24,506 farmers an amount equal to Rs1.55 billion. Among the loan 45 percent spend on buffalo farming. Nepal government subsidizes 28,299 livestock's insurance of 70 thousand households (MoF, 2070).

In Nepal dairy co-operative have both opportunities and problems. Dairy sector is playing a crucial role not only reducing imports but also creating employment and generating income to fulfill daily necessity of rural households. So government of Nepal realized rural development is possible through livestock farming. So government is supporting continuously to livestock farming by various way like bank loan, livestock insurance, training, technical support, infrastructure development, seminar, marketing of milk and encourage for the community livestock farming. Dairy development Corporation (DDC) the government agency for supporting dairy co-operatives and farmers by marketing of farmers' milk and helps to pull urban money to the rural village.

Although having the above opportunities dairy sector in Nepal is victim from many problems like small holder are suffering from import of cheap powder milk from abroad, lack of monitoring and subsidy from government and non governments to DDC, increasing the rate of animal feeds, management of barren cattle, marketing and processing of milk and its by product and low rate of return. So it is critical to promote smallholder dairy farming.

## **1.2 Statement of the Problem**

The practices of dairy farming in Nepal have been long period. It was started with crop production system for compost and self consumption. Bio-diversity and diversity of geographical locations of country, lead livestock farming is only favorable occupation for rural people. The availability of pasture land in hilly region and maximum production of crop and its by product in tarai region, diversity of climate, disguised employment into crop production and unemployment lead to livestock farming. The livestock farming is basic factor of dairy production. It is an integral part of agriculture. Dairy farming is becoming an important tool for rural development. Now a day co-operatives are supporting and encouraging to farmers and becoming a bridge to

pull urban money to village, to create employment, to utilize local resources. Every rural household of Nepali keep animal for their compost. Livestock farming is a component of agriculture and eco-friendly and source of nutrients food, source of alternative energy, i.e. bio-gas and bio-mass, source of raw materials for food processing factories and liquid food for human. Dairy farming in Nepal is not separated from crop production. Cattle are keeping for the purpose of crop production since land are being cultivated. It led to subsistence agriculture in Nepal. Most of the Nepalese farmers are traditional and lack of dairying knowledge, they do not care of the production cost and selling price of their product. They pose little knowledge on medicine and health care of livestock, shed management, improved seed, marketing of their product, easy loan facility, farm management etc. Output of this sector is very low because of dirty competition among farmer, exploitation of middlemen and excessive investment of resources including human powers, lack of supporting from INGOs, low rate of profits, increasing the rate of cattle's food and fodder, lack of improved and qualitative seed, A.I. lead depression to farmers towards the occupation.

Milk is sensitive agriculture product. It is necessary to manage on time otherwise it will destroy. Expensive and advance tools and equipment are needs to manage it properly. A single farmer cannot pay for these tools and equipment. So, farmers insist to create such dairy co-operatives to protect their common interests. Dairy co-operative have has such instruments to protect farmer's milk collection in the co-operative. Co-operative managed farmer's milk by chilling centre and marketing.

Dairy producers' co-operative can be an instrument to socio-economic development of rural Nepal. It is necessary to examine in depth of the functioning of dairy producers' co-operative so as to identify the problems. This present study is only one attempt in this direction with NDPCL Kathar VDC of Chitwan as a model of dairy producer's co-operative organizations. This study also focus the condition of dairy farming, farmers' socio-economic condition and problems related to dairy farmers and working pattern of the co-operative and other management system of co-operative. Lack of adequate supports of government dairy co-operatives are not working satisfactorily. On the back drops of their basic problem this study tries to address some research questions.

1. What is overall performance of NDPCL in terms of production and marketing?
2. What types of prospects and problems faced by dairy producers' co-operatives and dairy farmers?

### **1.3 Objectives of the Study**

The main objective of the study is to find out the role of dairy co-operative in rural development in Kathar VDC of Chitwan district. However the specific objectives are,

- To analyze the socio-economic condition of the dairy farmers of study area.
- To analyze dairy production and income earning from it at household level.
- To examine the functions and performance of NDPCL.
- To examine the problems and prospects of NDPCL.

### **1.4 Significance of the Study**

Nepal is predominantly rural with 83 percent population living in the rural area and most of them are engaged in agriculture and livestock farming subsistence. The economic survey 2070, shows that the contribution of agriculture sector is 34.3 percent on National GDP. Dairy co-operative is important for the country like Nepal where the geographical situation helps for livestock farming. Milk is being a tool of cash income for rural farmers which they can use as running money. Rural farmers felt that an organization or co-operative was a good way to work together. It creates employment; invest on training, education, health care, technical knowledge of livestock for their members. The members of dairy co-operative felt secured. It also leads them to make unity in the society of 'we' feeling among members.

Co-operative had significantly contributed to the mobilization and distribution of financial capital by creating employment and income generation opportunities for both their members and non members. It also helped to reduce inequality and exclusion in the society by enabling those willing to join co-operative to generate income. Now a day co-operative becoming the preferred instruments for mediating people's approach to means of production that they utilize to participate in business activities.

Nepalese economy is based on agriculture. Dairy farming is integral component of

livestock farming. Majority of the house hold of this area are engaging in dairy farming, but the level of poor and marginal farmers are in miserable condition. The co-operative plays vital role for the improvement of the socio economic condition of the people.

This study is concerned with the dairy co-operative and its' role and impact in the socio-economic development of rural Nepal. It concerns on income generation, employment creation, and socio economic impact in rural farmers. It also highlights the related problems and socio- economic, situation of farmers of the Kathar VDC of Chitwan district. The aim of the study is to present information about the economic and social condition of dairy farmers and NDPC. Also, the study will try to bring out the effect of dairy co-operative on general life of the farmers. It will present the income pattern from dairy and situation of livestock keeping for the sustainable development of dairying sector. This study will provide guideline to construct dairy and allied production policy and plan for the policy maker, rural farmers regarding related topics.

### **1.5 Limitations of the Study**

This study is conducted only with limited objectives for the partial fulfillment of masters' degree in rural development considering with the time and budget limitation. This study covered only one co-operative named "Nandinimilk producers' co-operative" and dairy farmers related to the NDPC of Kathar VDC of Chitwan. So the research is limited to a particular VDC of Chitwan. The findings and conclusions of this research may not be generalized equally to the other parts of the country due to study is based upon retrospective information. This study has some limitations which are as follows:

- ) This study focuses only one dairy co-operative.
- ) Limited tools are used for financial analysis of the members of dairy co-operative.
- ) Prediction will not be greater accuracy due to study is based upon past period of time.

## **1.6 Organization of the Study**

The first chapter includes general background, statement of the problem, objectives of the study, significance of the study, limitations of the study and organization of the study. Chapter second includes review of the literature. This chapter deals with the theoretical and empirical literature. Chapter three consist research Methodology. This chapter deals with research design, rational of the selection of the study area, nature and source of data collection, sampling procedure, data collection tools and technique and data analysis. Chapter four consist introduction of study area with including physical location, geographical as well demographic features, and socio-economic condition of farmers. This chapter also deals with analysis and presentation of data. And lastly Chapter five consist summary, conclusion and suggestions of the study.

## **CHAPTER-II**

### **LITERATURE REVIEW**

Literature review is one of the main parts of the research work. For this research work, literature review will be done the theoretical review and empirical review onco-operative and dairyco-operative, which are related to the research topic. For the empirical review different research works, books, journals, reports, articles, plans and policies, other published and unpublished documents, thesis and dissertation, andrelated to the subject will reviewed.

#### **2.1 Theoretical Review**

##### **2.1.1 Concept of Co-operative**

Co-operative was founded from Latin world "co-operai" where co' means together and "operai' means working together with another or others. Working together for member is the initial concept of co-operative. The co-operative is a member centered business (Poudel, 2012). In 1995, the international co-operative Alliance (ICA), the apex organization that represents co-operative worldwide, defined co-operatives as an autonomous association on persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprises"(ICA,1950).

Co-operatives are organizations for mutual benefit, where members own control and benefit from the co-operational output. The objectives is first and for most serve members' interests, rather than that of capital invested and to adopt democratic control for socio-economic output to make distinction between co-operatives and other forms of business. Co-operatives are based around the concept of self-help self-responsibility and self organization. Co-operative is community based business. The basic characteristics of co-operative that differentiate it from other types of business are its principle, values and norms (Bharadwaj, 2012).

A co-operative is an autonomous association of persons who voluntarily cooperate for their mutual, social, economic, and cultural benefit. Co-operatives include non-profit community organizations and businesses that are owned and managed by the people



who use its services (a consumer co-operative) or by the people who work there (a worker co-operative) or by the people who live there (a housing co-operative). Cooperation dates back as far as human beings have been organizing for mutual benefit. Tribes were organized as co-operative structures, allocating jobs and resources among each other, only trading with the external communities.

Co-operatives are established under following principles.

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

In agriculture, farmers' co-operative is important and present in Nepal. Basically there are following types of farmers' co-operatives in Nepal (Mishra, 2011).

A dairy co-operative business is owned operated, and controlled by the dairy farmers who benefit from its services. Members finance the co-operative and share in profits it earns in proportion to the volume of milk they market through the c co-operative (USDA, 2007).

### **2.1.2 Values and Principles of Co-operative**

Self help, self responsibility democracy, equality, equity, solidarity, honesty, openness, social responsibility and caring for other are the important values of co-operative.

The Rochdale principles are a set of ideals for the operation of co-operatives. They were first set out by the Rochdale society of Equitable Pioneers in Rochdale, England, in 1844, and have formed the basis for the principles on which co-operatives around the world operate to this day. The implementations of the Rochdale principles are a focus of study in co-operative economics. The original Rachdale principles were official adopted by the International co-operative Alliance (ICA).The Rochdale principles of co-operative according to the 1996 ICA revision are as below:

- 1 Voluntary and open membership
- 2 Democratic member control
- 3 Member economic participation
- 4 Autonomy and independence
- 5 Education, training and information
- 6 Cooperation among co-operatives
- 7 Concern for community (ICA,1996).

### **2.1.3 Objectives of Co-operatives**

- J To create conducive environment for the establishment of member base co-operative societies based on membership following co-operative principles and values to fulfill the needs of their members.
- J To collect small and scattered amounts of resources from the member at local level to create an economic force and to invest those resources for their own economic, social and cultural development.
- J To promote Co-operative system as a means of economic, social and cultural development of the marginalized people living in the country.
- J A Co-operative system will be developed as a means of transforming the traditional mode of agricultural and non-agricultural production into commercial production in rural level.
- J To motivate stakeholders to operate co-operative movement based on the co-operative rules, regulations and principles.
- J Co-operative society's union's federations are used as the effective local institutional mechanism to achieve the national goal of "poverty alleviation."

### **2.1.4 Historical Development of Dairy Co-operative**

The dairy co-operatives in the U.S.A. was began in the early 1800s. The Associations that might be called co-operatives were started shortly after the beginning of the nineteenth century. Although these organizations were not properly qualified as co-operatives under modern co-operative but it had distinct character of co-operative. To obtain standardized quality, uniformity of grade, and large quantities of dairy products required co-operative movement among dairymen was the promotional effort that was made by manufactures of creamery equipment to interest farmers in co-

operative associations.

It was reported that, the first US co-operative was creamery built at Goshen, Connecticut, in 1810. In 1841 Wisconsin farmers around Rock Lake, Jefferson County made their cheese collectively at the home of farm. Pickett.

In 1851, the so-called 'American system' of associated manufactures of cheese was evolved at Rome. In 1856, a butter factory was established at Compel Hall, Orange County; New York. The early cheese rings of the Jura Mountain of Europe where the Swiss and French peasants made their well-known cheese collective. Cheese, butter plants and creameries proved popular and successful. Dairy farmers set examples of co-operative activities and had established more than 400 co-operative dairy processing plants by 1867. These were organized as local co-operatives, but in 1913 representatives of cheese factories in Sheboygan County, Wisconsin organized the first federation of cheese factories. The organization of County creamery association in northwestern Wisconsin and in Minnesota later federated into an interstate union in 1921.

Among the producers of fluid milk for city consumption purposes where there main types of co-operative efforts

1. Co-operative retail distribution started around 1822.
2. Co-operative whole seller distribution of milk started in 1899
3. Collective bargaining between farmers and private distributors began in 1909.

The first important attempt by dairy farmers at bargaining for higher milk price was in Chicago market. The milk shippers central union the Northwest (1887-1891) proposed to monopolize milk suppliers. Dairy co-operative saw the need to become more politically active. Dairy co-operatives across the U.S. organized the National Milk Producers Federation in 191 (Cropp and Graf, 2001).

The Nepalese co-operative concept is the form of Guthi, Parma, Dhikuri, Dharmabhakari etc has been used from a very beginning in Nepalese societies. Characteristics of these historical social institutions are almost resembled with primary form of co-operatives. For the institutional development of such societies, the

then government aimed to adopt co-operative system as a means for economic social and cultural development of the people as well as an appropriate and effective tool for rural development. The then government established the Department of Co-operative under the Ministry of planning, development and agriculture in 1953 A.D. The modern co-operative movement initiated from Rapti Valley (Chitwan District) as a part of flood relief and resettlement program. At the first time 13 credit co-operative societies established in 2013 B.S. were provisionally registered under the executive order of the then government which got legal recognition after the enactment of Co-operative Societies Act 2016 B.S. The first Co-operative Societies Act was revised several times and it was replaced by the Sajha Societies Act in 2041 B.S. After the restoration of multiparty democracy the Sajha Societies Act was replaced again by the Co-operative Act 1992. The Department of Co-operative has provided the authority for registration and regulations of co-operative societies/unions/federations under the Acts (GoN/Co-operative Department, n.d.).

Co-operatives are based on the values of self –help, self-responsibility, democracy and equality. In the tradition of their founders co-operative members believe in the ethical values of honesty, openness, social responsibility and caring for others. Such legal entities have a range of unique social characters. Membership is open, meaning that anyone who satisfies certain non discriminatory conditions may join. Economic benefits are distributed proportionally according to each member's level of participation in the co-operative, for instance by a dividend on sales or purchases, rather than divided according to capital invested. Co-operative may be generally classified as either consumer co-operative or producer co-operatives. Co-operatives are closely related to collectives, which differ only in that profitmaking or economic stability is placed secondary to adherence to social-justice principles (Poudel,2008).

History of dairy co-operatives dates back in Tusal Village of Kavre district. However, the dairy co-operatives were become effective only December 1981, when DDC initiated the milk producer's oriented program by encouraging the farmers to form their own Milk producers' Associations (MPAs) along the lines of co-operative principles, the MPAs operated under the by-laws prepared by DDC. The MPAs had no Formal legal status and they operated as single purpose primary co-operatives with milk trade and support to milk production as their main activities. In order to enable the

MPAs with the formal legal identity and to make them more autonomous, DDC took initiation to convert these MPAs into milk producers' co-operative society (MPCS) in February, 1989. For this, it encouraged and facilitated to register these MPAs in the co-operative office of government of Nepal (GoN). The co-operative act, 1992 of the government governs these MPCs. Like the MPAs, majority of MPCSs also operates as single purpose primary co-operatives. The main function of these MPCSs is to collect milk from the farmers (both the members as well as non-members), test it for quality, transport it for selling to the nearest milk chilling canters/milk processing plants of DDC and/or private dairies; receive payments for the milk from them; and distribute the payment to the individual milk supplier farmers. Apart from milk collection business some of the MPCSs have also started the operation of milk chilling vats; and milk processing for producing various dairy products. The dairy co-operative in Nepal has adopted a Three-tier system of which the MPCSs are the first tier primary level co-operatives. In the second tier MPCSs in different districts have formed district level District Milk Producers' co-operative Unions (DMPCUs), which are registered under co-operative Act as district level bodies. Presently, there are 62 DMPCUs in different districts (mainly in Terai and mid-hills) and their main objectives are to deliver programs designed to support the increased production and processing of milk and milk products and to contribute to the financial and social upliftment of the rural milk producers. In the third tier, the MPCSs and DMPCUs have formed central Dairy Co-operative Association Limited Nepal (CDCAN). CDCAN is registered as their central level co-operative organization. Established in 1993, CDCAN is a national level tertiary organization of all the milk producers' co-operatives at primary and secondary levels. CDCAN aims to bring increased economic benefits to milk producers and to contribute to make the country self-reliant in clean and high-quality milk and related products. It also implements policy advocacy activities at the central level to represent the interest of member organizations. Currently 62 DMPCUs and 1747 MPCS are affiliated to CDCAN (FAO, 2010).

DDC has been collecting cow, buffalo Chauri milk from 34 districts. Milk was collected through the farmers owned, Milk producers co-operatives societies (MPCS). Its present milk collection network has spread from Panchthar in the east to Surkhet in the West. Hetauda milk supply scheme also supported KMSS and BMSS by supplying excess milk above their local requirement. Biratnagar milk supply scheme

manufactures skimmed milk powder from its excess milk and milk excess from other supply schemes. DDC has been playing a special role in contributing to uplift the economic status of rural farmers. Thus dairy farming has been recognized as an effective tool for poverty alleviation. In the Fiscal Year 2062/2063/2006) DDC purchased about (approx.) 1, 50000 liters of milk per day from farmers. With GON announcement of the policy of privatizing DDC in early 1990. Private sector grew at faster rate. The private sector involvement is mostly in Katmandu valley where large private dairies are located. Its significant growth was seen only after the implementation and approved of "Ten Year Dairy Development Plan" by GON in 1990 for the poverty reduction. Likewise, the dairy farmers in many districts have organized themselves in milk producers' co-operatives and milk producers associations. These associations collect the milk from individual farmers and supply it to nearby chilling centre or processing plant. Some these co-operatives have also started processing and marketing of milk from their own initiatives. In order to coordinate private and public-sector dairy development, the national dairy Development Board (NDDDB) has been constituted. These 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 MPASs to co-operative 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. The quantitative development of Milk producer co-operatives (MPCs) has been going through the local effort normally and by the way out strategy some producer co-operatives are established but the qualitative level of existing producer co-operative is very critical because of poor marginal skill, political intervention on decision making and poor planning process. Furthermore, no more master plan as well business plan (Parajuli, 2011).

### **2.1.5 Role of Co-operatives in Rural Development**

Different types of rural co-operative are in practice among the rural communities of Nepal. Some of them were non economy oriented but some were profit oriented.

Parma: is the practice of sharing labor. It is exchange of labor for labor. The system does not involve monetary transaction.

Dharma Bhakari: is a system of revolving deposited food grain. The farmer members deposit their share of good grain. The needy member can borrow from the deposit. A trustee manages the deposit.

Dhikuri: is a system of revolving deposit fund. The members deposit fixed amount to create fund. The needy members bid for the fund. The highest bidder gets the fund. He will return the borrowed money at fixed time. The profit is shared by all the members. This system of Dhukuri is very popular among the thakalies of western Nepal.

Guthi: It is a community formed to work together. A family guthi is formed by the family members. Similar guthies were formed to take care of temples, water spouts and for religious ceremonies. The system is popular in Newari community of Nepal (Ghimire, et al., 2011).

Co-operative is community business. Co-operative in Nepalese rural context can potentially support breaking down the vicious cycle of poverty. Co-operative mean for income, social, and perception based poverty reduction. Upcoming challenges are result of weak legal institutional arrangements with weak monitoring. A rupee in co-operative means different from a rupee in commercial bank from poverty reduction perspective. Government should be sincere regarding the sum of money in co-operatives and also the value of services in most trust worthy and easiest way in those areas where private areas don't feel comfortable. Co-operative movement also meant poverty reduction before tragedy of collapse down, it is better we manage co-operative in principle and norms. This the most important challenge in turning co-operative towards poverty reduction sector. A lot can be expected from ethical and domestically institutionalized co-operatives in rural Nepal (Bharadwaj, 2012).

While farmers' co-operatives of various types play a useful role in promoting rural development. Dairy co-operative have special attributes that make them particularly suitable. Among these they can facilitate the development of remote rural economics, thus upgrading the standard of living of the poor. The main constraint that milk producers seek to overcome by acting collectively is the marketing of their product the need to be assured of a secure market is a real one. It can be met by dairy farmers co-operatively establishing their own collection system and milk treatment facility in order to cover their perishable primary products with longer keeping quality for

marketing purpose.

In developing countries in Asia and Pacific Region the dairy co-operative has been recognized as an important means of organizing the supply of agriculture inputs, processing and marketing agricultural produce and providing agricultural credit, among other related activities. It has proved to be a strong economic institution and vehicle for improving the condition of the impoverished rural population. Co-operatives provide farmers with an organizational arrangement at the grass roots level to assist them in planning decision making and implementing schemes that involve them and their families and that area designed 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 co-operative 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 materials, fertilizers and credit and training and education, can also be providing through co-operatives. These would act as business associations owned operated by members for their entire benefit (Votila and Dhanapala, n.d.)

## **2.2 Review of Empirical Studies**

In this context the articles, journals, and previous studies and works on the relative topics will reviewed.

The co-operative is one of the major approaches among several approach of increasing saving and economic development. The co-operative approach has following major features (Upreti, 2004)

- (i) Development of collective spirit.
- (ii) Based on mutual help.
- (iii) Growth in income and employment.
- (iv) Increase in decision capacity.
- (v) Far from government intervention
- (vi) Helper in social development.



(vii) Way of reducing the effect of poverty.

Dairy co-operatives are found everywhere in both developed and developing countries. In developing countries, it is one of the income sources of their rural economy whereas in developed countries it takes as a sustainable business. These countries face different types of problems. Developing countries focus on increase in production volume of milk and milk product, and developed countries do on enhancement of milk product, brand, and merger of dairy co-operatives. Dairy co-operatives have been getting various opportunities as well as facing different challenges. They are going to formulate different types of strategic planning to cope with these challenges and to get success. Strategic plans of dairy co-operatives in developing countries are, generally to increase production volume of buffalo milk, bring about the internal improvement in co-operative societies, reduce cost of production, provide quality service to consumer through skill, trained and educated manpower, and e-commerce. Strategic plan of developed countries is quite different from that of developing countries. Their strategic plans are to merge different dairy co-operative societies / institutions into a dairy co-operative, and compete in the global market with quality of products (Karki, 2005).

The study done by NONJABULISESIMELANE in Swaziland, he found, Co-operatives play a positive role in production and marketing activities of smallholder dairy farmers although certain developments such as provision of support programs has need to take place in order for them to make more significant contribution. Co-operatives members produced and sell higher quantities of milk (19.3 percent higher and 24.5 percent higher respectively), which is mainly attributed to provision of technical inputs. Co-operatives also provides farmers with a reliable market, although price paid is lower (35 percent lower) compared to that of independent farmers in the same areas. Low income is compensated by the fact that co-operatives members incur lower transaction costs indicated by the lower transaction cost per unit of output, adequate access to market information through frequent visits of extension officers and regular trainings, as a lower percentage of losses incurred compared to independent farmers. Results of the study confirm the hypothesis that co-operatives members perform better incur lower transaction cost than independent farmers. Results of the regression model indicate that distance, access to market information,

milk output and co-operative participation significantly influence the quantity of marketable milk, and hence contribute to lower transaction costs although they sell their milk at a lower price. Nevertheless, the fixed price effects render co-operative farmers not susceptible to price fluctuation risk that independent farmers are faced with because of their volatile price (Simelane, 2011).

The milk producer co-operative societies (MPCSs) have become one of the major actors in the present day dairy sector of Nepal by being a strong channel between the rural milk producers and the milk processing industries. However, majority of the present MPCSs is found to be operating in a condition of disarray. The available information shows that the MPCSs have not been able to generate enough capital bases for providing real support to their member milk producers except acting as an agent between the milk producers and the milk processing industries. Presently, the dairy co-operatives in Nepal are playing a limited role of collection and selling of raw milk to either DDC or private dairies. Neither the DDC nor other related institutions have taken any initiation to regularly monitor the performance of the MPCSs and suggest measures to make them more professional and commercially oriented. Similarly, NCDB has not been effective in promoting and providing technical support for MPCSs except for providing some occasional financial support to CDCAN when requested. DDC is engaged in commercial activities of collecting milk from rural areas, processing. It is engaged in milk and milk products and distributing them to urban consumers. It is also the leading agency of fixing the price of milk and milk products. The main problem facing DDC is the shortage of good quality raw milk whereas demand for its milk and milk products in the urban areas is increasing. In an effort to fulfilling the increasing demand for milk and milk products, DDC has expanded its milk collection network in distant rural areas. However, DDC is not engaged in executing neither milk production programs by providing technical as well as financial supports to the rural milk producers nor milk quality improvement programs in its milk shed areas. Its activities are limited only to milk collection.

Although the NDDB is mandated for overall dairy development activities, it has not been able to fulfill its mandate due to some major problems regarding composition of its EC, financial constraints and weak staff position. As the Minister of MoAC is the chairperson of the EC, difficulties have been experienced to conduct the EC meetings

due to the frequent changes of Government/Ministers resulting in difficulties to give continuity of NDDDB's activities. Secondly, the Board is financially constrained. The government contribution to the Board is very less which is not enough even for the salary of staff. For the current fiscal year (2009/2010) the Board received NRs. 4 million from the government of which NRs. 3.5 million is allocated for staff salary and only NRs. 0.5 million is allocated for program implementation. Finally, a weak staff position of the NDDDB has been another serious problem. Presently, the Board has one politically appointed ED, and 5 officer level supporting staff including two Second Class Technical Officers (one M.Sc. Dairy Technology and one B.V. Sc.) one third Class Technical Officer (B. V. Sc.), one Second Class Administration Officer and one Third Class Administration Officer. There is only one assistant level technical staff and 5 assistant level administration staff. Other include lower level drivers, office assistants etc. Thus, the actual technical working force is comprised of 4 persons. In order to be in a position to assume the responsibilities according to its mandate, its service departments should be adequately staffed with highly professional technical manpower for which its staff members must be recruited with the provision of adequate incentives. But the government regulations regarding salary and incentives did not allow any kind of allowances and incentives, except prescribed by the GoN. Consequently, the Board is lacking competent technical manpower. It is technically too weak and unable to discharge its duties effectively. The mandate given to NDDDB also overlaps with the functions of DLS with regard to finding remedies to problems relating to livestock development and animal health sector for dairy development and making arrangements for fodder and pasture resources.

Because these are the areas of DLS and it is carrying out these activities since a long time even before the establishment of NDDDB. Moreover, NDDDB also is mandated by Act to formulate and recommend pricing policy to the government whereas the Dairy Development Policy has adopted the free market policy of price of milk and milk products. But in practice, being the leading government institution, the DDC is the main actor in fixing the raw milk price. Price of milk has remained a sensitive issue among the producer farmers and the buyers (i.e., DDC and the private dairies) due to which marketing of milk has occasionally been constrained.

The milk producers seek to overcome this problem through their collective

action because to be assured of a secure market is their real need. The DDC's raw milk pricing is mainly based on the negotiations with the rural milk producers. The same system applies in case of pricing of raw milk by the private dairies. However, the private dairies pay some additional price so as to remain in competition for milk collection. Although the private dairies also follow the same price for the processed milk as fixed by DDC, DDC and private dairies set their own price for other milk products. Thus, the pricing of milk and milk products is characterized by conflicting Act and Policy; absence of established pricing mechanism in terms of basis of pricing and pricing intervals; and involvement of many actors, but without any clarity on their roles (FAO, 2010).

Dairy co-operative is a very popular business not only in developing countries but also in developed countries like the USA, Germany etc. Developed countries produce cow milk and developing countries like India produce buffalo milk. These countries are producing different types of dairy products like cheese, ghee, whey product, cream, solid milk, milk powder etc. Developed countries focus on qualities of product but developing countries often focus on quantities/volume of production. Before launching the concept of WTO, economic liberalization, open market most of the problems of dairy co-operatives/industries have been faced same types of problems. After introduction of WTO, its impact has shown differently. Most of the dairy co-operatives of developing countries have been suffering from global competition. They can not compete with the developed countries. In India, most of the dairy co-operative have used Ananda pattern of organization structure. This pattern facilitates to operate dairy co-operative successfully. Developing countries have been given emphasis on internal improvement such as improvement in management, increase in production volume, improvement in quality of product. Developed countries have been giving emphasis on the enhancement of dairy product and market expansion. So, strategic planning of developing countries are, generally, to increase production volume of buffalo milk, to bring about the internal improvement in co-operative societies, to reduce cost of production, and to provide quality service to consumer through skill, trained and educated manpower, e-commerce. Strategic planning of developed countries is quite different from the strategic plan of developing countries. Their strategic planning is to merge different dairy co-operative societies/institutions into a dairy co-operative, and to compete in the global market with quality of products

(Karki,2005).

For more than 5 decades, dairying has developed in Nepal in absence of a comprehensive policy document. However, Dairy Development Policy, 2064 (2008), approved by GoN, is now the guiding policy for overall development of the dairy sector. The policy is prepared in accordance to the spirit of Agriculture Perspective Plan (APP, 1995-2015); National Agriculture Policy, 2061; National Milk Marketing and Strategy Study, 2001; and Agriculture Business Promotion Policy, 2063. Being based on these documents, all the aspects relating to dairy development in them have been incorporated in the policy. The long-term vision of the policy is to qualitatively contribute to national economic development by commercially, qualitatively and competitively developing the dairy sector for contributing employment generation and poverty reduction with the participation of government, co-operative and private sector and extending the efforts and programs of making good quality milk and dairy products easily available to the consumers as a complementary to each other. The policy aims at increasing milk production and productivity; extending milk collection, transportation arrangement and processing industries; substituting import and promoting export of the dairy products; developing milk and dairy products; making milk and dairy products easily available to the consumers through quality improvement and regulation (FAO,2010).

Livestock is an integral component of farming systems in Nepal; it contributes about 12.8 percent to the total national gross domestic product (GDP) and 31.5 percent to the agricultural GDP. It is estimated that the livestock share of agricultural GDP will reach 45 percent by the end of 20 years of the Agricultural Perspective Plan (APP) programme, that is by fiscal year 2014/15. The major components of livestock GDP are milk and milk products from buffalo and cattle (32.7 percent and 24.7 percent respectively). At present, the total annual milk production of Nepal is just over one million tonnes (70 percent from buffalo and 30 percent from cattle). Based on this figure, the per capita milk consumption over the country is about 48 l/year or approximately 130 ml per day. The average growth rate of milk production from 1985 to 1995 was 2.4 percent, and the population growth rate 2.9 percent. This gap is likely to increase in the future unless serious efforts are made to improve dairy production and marketing (Sharma and Baskota,2013).

In Nepal, where ninety percent of the population depend on agriculture for their livelihood, the country as a whole has had a food deficit for the last 26 years, mainly due to subsistence farming, small and fragmented land holding size, low agriculture input and productivity, uneconomical farming units, and lack of decentralized grassroots-based agricultural developmental policies and programs. Widespread poverty, malnutrition, political instability, resource degradation, and a serious food deficit have become major national problems. Agricultural policies and actions for raising farmers' living standards, achieving food security, and enhancing the natural resource base are urgently needed. Farmers need to begin thinking as a group and take unified action in order to achieve these overarching developmental goals and to sustain their livelihood and agriculture. Farmer co-operatives which are formed by the farmers, governed by the farmers, and run by the farmers in a democratic fashion are an ideal mechanism to increase agricultural production and farm income, enhance agricultural sustainability and food self-sufficiency, while promoting Nepal's socio-economic development. Through co-operatives, farmers are empowered and economic growth is stimulated. Appropriate governmental policies, programs, rules/regulations, and support systems are essential for the success of farmer co-operatives (Poudel, 2007).

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 centres. Today there are 600 milk producers associations (MPAs) assisting approximately 60000 farmers in supplying milk to the DDC. Twenty MPAs have been structured to function as co-operatives through the initiative of the DDC, which has legally recognized them as being operated by farmer members. Under the new Co-operative Act, passed in 1992, the National Co-operative Development Board has been established to strengthen the co-operative movement in the country. In order to coordinate private - and public-sector dairy development, the National Dairy Development Board (NDDB) 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 MPAs to co-operatives will be encouraged through necessary activities coordinated by the NDDB,

which will facilitate the participation of individual milk-producing farmers in the ownership of milk-processing plants (Uotila and Dhanapala, n.d.).

Singh and Pundir (2005) in their article have talked about the salient characteristics of the dairy sector in the south Asian countries and also analyzed the strength, knowledge and socio-economic status of the dairy farmers in adoption of Singh and Tulachan (2005) describes that dairy farming is an integral part of mountain agriculture, small holders comprising majority of mountain farmers are accustomed to rear some animals as an essential component of the farming system. Among the various basic needs the animals fulfill, milk is the most important for family. Dairy animals are the best mean to convert local vegetative biomass into useful product and work and the high value bio-diversity in to the products of still higher value such as dairy products fondly consumed by masses. That is why dairy animals have been occupying predominant place in mountain region. A dairy farm to be economically successful must look in to the some of the basic indicators. This indicator further guides a dairy farmer to take remedial steps towards improving the situation of her/him dairy unit. The journal paper attempts to highlight performance indicator related to the small holder dairy farms dominating the mountain areas. Age at first calving, lactation length, lactation yield, calving interval, and service period are the important traits associated with dairy farm. Reduction in the age at first calving and dry period leads to an increase in lactation weakness, opportunities and threats of some selected Asian countries like India, Bangladesh, Nepal, Pakistan and Sri-Lanka. But their concentration was mainly focused on Indian's AMUL as a boon for small holders. They further write about the challenges and opportunities for small livestock holders under the new world trade regime, where they stated that the dairyproducts under the new trade regime poses new export opportunities for the dairy industry in south Asian countries. But the government role should direct co-ordinate and regulates the activities of various organizations engaged in dairy development. To establish and main a level development of dairy industry. Playing field for all stake holders and to create and maintain a level playing field for all stake holders and to create and maintain congenial socio-economic, institutional and political environment for small holder development through appropriate policies and programs to achieve the sustainable and equitable (Adhikari, 2012).

Co-operative Movement has been recognized as an effective instrument for the economic development of the rural masses and for improvement in the socioeconomic condition of the underprivileged. Co-operative movement plays a pivotal role in safeguarding interests of the vulnerable people engaged in various economic and social activities. In developing countries, it is one of the income sources of their rural economy whereas in developed countries it takes as a sustainable business. Co-operatives have entered into all spheres of socio-economic activities viz. production, marketing, credit & banking, processing, sales, dairying, storage, housing, farming, fishing, etc. Need for development of suitable manpower for various activities related to dairying was realized since the early years of organized dairying in India. Dairy co-operatives have been getting various opportunities as well as facing different challenges. The dairy co-operative movement has not only improved the lives of the people here but has made significant contribution to the economy of the State itself. This is a success of not only the people of India and Maharashtra but also of the co-operative movement itself, and helped standardize practices. The price of milk was based on fat content. Each village co-operative society was part of a statewide co-operative structure and controlled its own activities through its elected members. Village societies had formed a district-level union. Societies had representation on the boards of directors of the district union of co-operatives. The various district level unions had federated themselves into a state level apex federation, and the chairmen of the district unions were directors on the board of the federation. The objectives of the federation were to market the products of member unions, ensure an assured outlet for milk and a fair return to producers, and an adequate return to the member-unions through development of their processing and product manufacturing facilities. The federation's marketing policies were of prime concern to unions (Shankar, 2010).

Bijesh Mishra suggests for the development of co-operatives on the basis of past performance of co-operatives; Past initiatives for the co-operative 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 co-operative 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 co-operative movement should be all inclusive, fully managed at the grassroots level, and must



have strong governmental support in terms of co-operative formation and safeguarding. Appropriate educational, research, and extension support programs are essential for a successful co-operative movement. Farmers' income and quality of life must be the yardstick of success of the co-operative movement in Nepal (Mishra, 2013).

The co-operatives model was effective in providing financial and social services for the community people living in the hills. This model has, therefore, a role to play in poverty reduction and development in remote hill areas. Therefore, the government programmes and/or I/NGOs should continue to promote the poverty-focused co-operatives model to improve access of financial services to the poor in the remote hill areas. Co-operatives have direct and indirect impacts on socio-economic development by promoting and supporting entrepreneurial development, creating productive employment, raising incomes and helping to reduce poverty while enhancing social inclusion, social protection and community-building. Whilst co-operatives directly benefit their members, they also offer positive externalities for the rest of society, and have a transformational impact on the economy. Some of the specific ways co-operatives contribute to development goals.

Although co-operatives, especially the self-promoted ones, had relatively great outreach, they had problems in reaching the ultra poor in their working areas. Their membership being voluntary, those who were aware and literate joined the programme and the poor were left behind. They had no special programme that emphasized motivating the poor to join them. Similarly, the existing products and services were not affordable for the poor community people. Therefore, co-operatives should address these problems by developing strategies that would motivate the poor people to join them. Co-operatives should receive training and technical assistance either from their own resources or through support of their promoters to increase their institutional capacity ([withagriculture.wordpress.com/tag/economic-implication-of-co-operative-movement-in-nepalese-agriculture/](http://withagriculture.wordpress.com/tag/economic-implication-of-co-operative-movement-in-nepalese-agriculture/))

Discussion on the contribution of co-operatives to poverty reduction in Africa has quite often been based on their potential role rather than the actual impact, partly due to the dearth of empirical studies since the early 1990s. This paper provides evidence on the contribution of co-operatives to poverty reduction in Africa. Accordingly, it

demonstrates that co-operatives have significantly contributed to the mobilization and distribution of financial capital; created employment and income-generating opportunities; constituted a forum for education and training; and set up solidarity schemes to cater for unexpected expenses related to illness, social welfare, death and other socio-economic problems (Wanyama, et al., 2008).

DDC report (2005) shows that dairying has been recognized as an important tool for development and poverty reduction and is today accorded the status of thrust area by the government DDC, an undertaking of HMG's of Nepal has made significant contribution in bridging the gap between urban consumers and the rural milk producers. It has provided its value services to the farmers at their door step. Sizable increase in milk in best possible ways and in recent times, massive diversification of dairy products has not only benefited the urban consumer but has helped in the economic development of the rural mass milk producer (Adhikari, 2012).

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design**

The descriptive research design has been followed to compare, describe and present the subject matter related to dairy producers co-operative. The case study method was used to assess the past performance, current status and situation of the dairy co-operative in the study area. The study assessed how the dairy was helped to uplift the livelihood of dairy farmers. This study tried to analyze the status of farmers and their socio economic condition as well as how dairy was helping them to uplift their living standard, i.e. income employment, marketing and supply of dairy equipment.

#### **3.2 Nature and Sources of Data**

The study was conducted by using both primary as well as secondary data.

Primary data was collect through questionnaire survey, field visit and observation. The sources of primary data are sample respondents, key informant interviews and field observations. Whereas secondary data was collected through

- ) Annual reports and other records of NDPCL
- ) Publication of co-operative central department association etc., CBS, economic survey, District development committees, co-operative organizations, DDC, district co-operative office, and reports of VDC.
- ) Published and unpublished previous studies
- ) Related books journal and newspaper

#### **3.3 Rationale of the Selection of the Study Area**

Chitwan is one of the highly potential districts for dairy farming and it is rapidly urbanizing too. There are two big municipalities and semi municipalities' cities. The population of Chitwan is increasing day by day. The district is situated in the heart of country and has good transportation facilities. It is an industrial and business centre of the country. The big dairy product industry is running in Bharatpur-1 in the name of

“Chitwan Milk Mill” by successful entrepreneurial group in joint-venture with DDC and tech support from Amul India.

There is no problem of dairy products marketing. Dairy farming has been playing crucial role to improve socioeconomic condition of the rural people of the district through income from dairy product. Dairy business is the source of income, employment for literate and non literate population. Milk and allied product of it is Source of proteins food, Source of fertilizer, raw materials of dairy industry, spiritual feelings, reducing import of dairy related foods items etc. The geographical situation of study is very much favorable for dairy industry because KatharVDC is near Mahindra highway, rural activities of peoples'; agriculture (crops production) is main occupation on the villagers. Dairy co-operative is one of the main sources of income in the rural area of Chitwan district. This district is pioneer in milk production of Nepal.

This study tried to examine the impact of dairy farming as well as co-operative to change the socio-economic condition of the farmer living standards in the study area.

### **3.4 Population and Sampling Procedure**

In Chitwan there are 144 dairy co-operatives and in KatharVDC, there are 6 dairy co-operatives running (Co-operative Training and Division Office Bharatpur, 2070). So it is not possible to take all the co-operatives for the research work. Therefore, only one dairy co-operative was selected by using purposive method. The dairy co-operative named Nandini Dairy Producer's Co-operative Ltd. Among 211 share members of this co-operative only 56 HHs (26.54%) were selected on the basis of simple random sampling method.

### **3.5 DataCollection Tools and Technique**

During the process of intensive case study, the researcher collected information through primary as well as secondary data. The information include positive effects of dairy farming in their livelihood, the socio economic changes through co-operative and dairying, help of socio-economic development by co-operative and the problem faced by the dairy farmers and the view on dairy co-operative were discussed in

detail.

For the primary data collection following tools were used,

- ) **Household survey (HHs):**Every sampled HHs of milk producer farmer was served by preparing the structured questionnaire and inquiries were taken with house hold members
- ) **Key informant interview:**Formal and informal interviews were conduct in the study area. The interview was directed different dimension of dairy farming. The key informants of this study were president and manager of the co-operative, veterinary technician.
- ) **Observation and field visit:**The management and operation of dairy co-operative, collection of chilling centers were observed. From the farmer's side, their livestock keeping system, shed management, feeding technique, quality of animals feeding technique were observed during field visit.

### **3.6 Data Analysis**

The collected data was checked for the completeness, and then data was analyzed by using descriptive statistics method. Analyzed data was interpreted in terms of percentage and frequency. Tables graph, diagrams were used according to situation of requirement of the study; some statistical calculation as well as mathematics was used.

## CHAPTER-IV

### ANALYSIS AND INTERPRETATION FIELD SURVEY DATA

#### 4.1 Introduction of the Study Area

Chitwan district lies in the centre of the country. Mahindra highway linked this district from Mechi to Mahakali. This district is becoming a centre for migration from all over the country. The population growth rate is more than 5 percent (CBS Nepal, 2068). This district has two municipalities and 36 Village Developmental Committees (VDC). KatharVDC is one of the VDC among 36VDCs. It is situated east of the district headquarter Bharatpur, away around 24 KM and 3 Km south from the Mahindra highway, ad spread over 17.64 sq.km, rounded like protozoa it lies 201 – 2011 m height from sea level, it is the combination of Chure and inner-Terai. The village lies in the Coordinates: 27.58° North and 84.61° East.



This VDC is surrounded by BhandaraVDC from east, Kumroj and khairahani from west, Khairani and BirendranagarVDC from North and Raptiriver from south. This is a habitat of mixed ethnicity with different language, Culture and Caste. Rapti River is both opportunity and threats of this VDC and other VDCs of east Chitwan. The land is covered by jungle, River bank (Bagar) and two small rivers also This VDC is very

fertile for Crop production and livestock keeping and due to its closeness to the highway it is good for marketing of dairy product. River bank is being the place for animal feed and fodder i.e. Straw, Grass, kharr, bush, grazing.

Demographic situation leads the development of that area. Like other parts of Chitwan, there are also more migrants from mountainous regions than the natives (Tharu and Madheshi). The population composition of the village is balance on its land and productivity. Population density of the VDC being 571persq.km, the description of population ward-wise is shown as below:

**Table No. 4.1: Demographic Features of Study Area**

Ward No.	House hold	Population description			Homeless population		
		Male	Female	Total	Male	Female	Total
1	157	359	460	819	82	0	82
2	71	160	188	348	40	0	40
3	462	973	1123	2096	173	4	177
4	142	303	333	636	53	6	59
5	212	449	537	986	65	0	65
6	219	449	543	992	92	3	95
s7	175	375	443	818	64	5	69
8	274	628	740	1368	109	12	121
9	331	723	897	1620	170	22	199
<b>Total</b>	<b>2043</b>	<b>4419</b>	<b>5264</b>	<b>9683</b>	<b>855</b>	<b>52</b>	<b>907</b>

Source:KatharVDC, 2067/068.

There is no uniformity of population distribution among 9 wards. Ward no. 3 is highly dense and Ward no.2 is the least dense ward. The study found that 907 people are homeless in this VDC. There are 2043 households in the study area; female population is higher than that of male population. The total population of VDC is 10590 of 2043 households and non household.

There are 7 primary,one higher secondary and 2 boarding school. According to VDC, 78.23 percent population is literate all over the VDC.There are 4 community forests, 6 dairy co-operatives including NDPCL.

## 4.2 Socio –Economic Condition of the Sample Households

Socio- economic factor is the measuring rod of prosperity of human. This is the indicator of development of a country. So the sound socio-economic condition of people helps to development of social institutions. NDPCL is a kind of social, economic institution. Educated society, vocational education, Morales people, active age group's people are needed to participate in institutional work. It Include social status, age group, educational status, income, expenditure, occupation etc.

The co-operative have been providing equal chance to join NDPCL to all caste and ethnicity group. The percentage of the shareholder members are majority from Brahmin-Chhetri than other ethnic group being the larger numbered representative. There is no any discrimination of any kind. Equal participation of gender is necessary for development of every social group.

### 4.2.1 Age Wise Distribution of Sample Households

Age plays important role in socio-economic development. The productive age (15-59) leads uplifting the social life by generating employment and increasing income. The dependence age group (0-14 and 60 and above) is not fruitful economically but morally they are inspiration of society. The population status of the study area is as below shown in table.

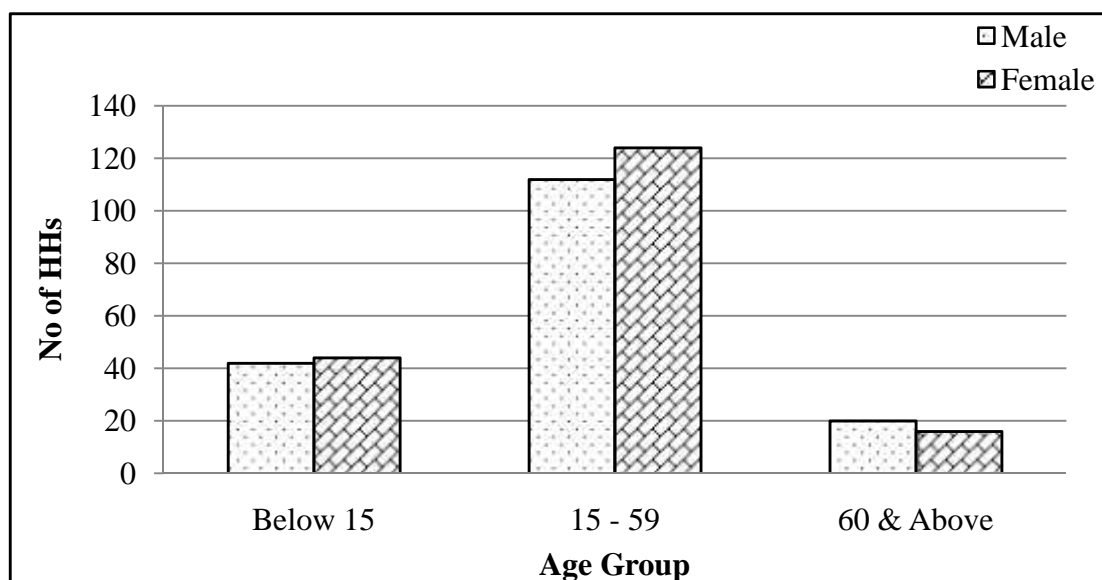
**Table No. 4.2: Age and gender distribution of sample households**

Age Group	Male		Female		Total	
	No	%	No	%	No	%
Below 15	42	11.73	44	12.29	86	24.03
15–59	112	31.28	124	34.64	236	65.92
60 & Above	20	5.59	16	4.46	36	10.05
<b>Total</b>	174	<b>48.60</b>	184	<b>51.38</b>	<b>358</b>	<b>100.00</b>

Source: Field Survey, 2014



**Figure No. 4.1: Age and gender distribution of sample household**



Source: Table No. 4.2

Considering the 358 family members of 56 HHs, 48.6 percent are male and 51.4 percent are female. 64.02 percent populations are productive age group, among them 31.28 percent are male and 34.64 percent are female. Regarding the dependence age group the percentage of 60 and above is 10.55 percent and 24.43 percent of population is below 15 yrs.

#### **4.2.2 Educational Status of the Sample Households**

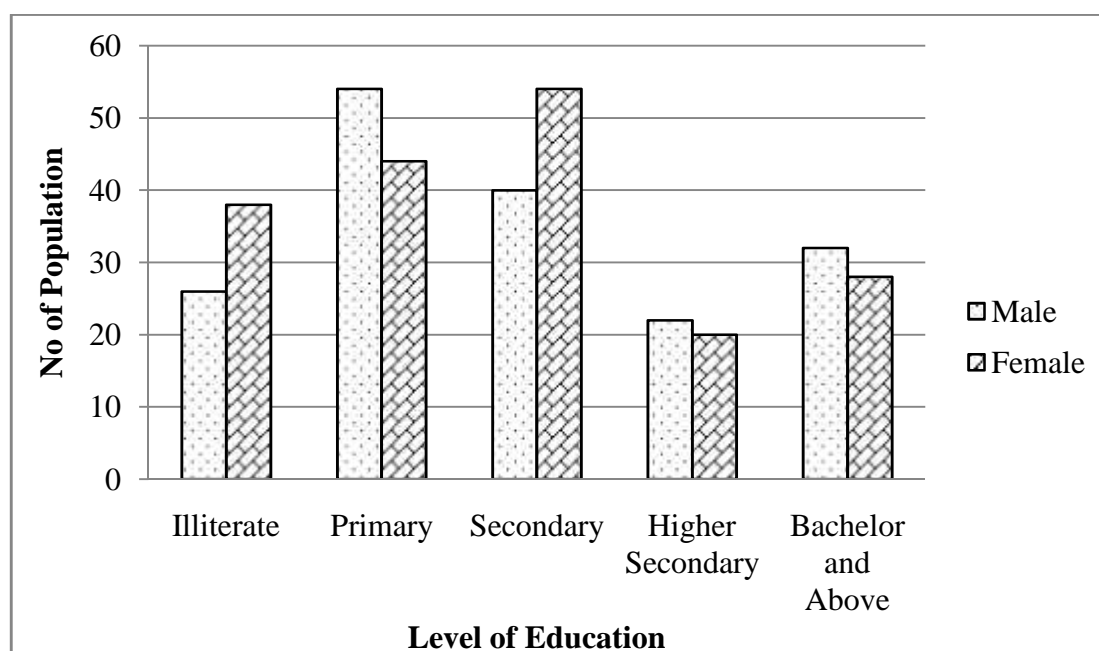
Educational status affects other aspects of socio-economic life of the people. It is the measuring rod of development of people and civilization of a society. Education is the light of human beings. Education can change the world. Education helps to betterment of people. It creates employment and generates income which reduces the poverty. The educational status of the study area is as below shown in below table:

**Table No. 4.3: Educational status of the sample household**

Educational Status	Male		Female		Total	
	No.	%	No.	%	No.	%
Illiterate	26	7.26	38	10.61	64	17.88
Primary	54	15.08	44	12.30	98	27.37
Secondary	40	11.13	54	15.13	94	26.26
Higher Secondary	22	6.15	20	5.59	42	11.73
Bachelor and Above	32	8.93	28	7.82	60	16.76
<b>Total</b>	<b>174</b>	<b>48.60</b>	<b>184</b>	<b>51.40</b>	<b>358</b>	<b>100.00</b>

Source: Field Survey, 2014.

**Figure No. 4.2: Educational status of the sample household**



Source: Table No. 4.3

The table and graph shows that 17.88 percent population are illiterate among them male illiterate are 7.26 percent and female are 10.61 percent. The percent of primary educated population is 27.37 percent and 26.26 percent of population has secondary level education. Likewise, 11.73 percent populations are educated by higher secondary level and remaining 16.76 percent population are educated by bachelor and above level.

### 4.2.3 Occupational Background of the Sample Households

Occupations are the source of income. In the study area, people generate income from different occupational sectors. Mostly 52.51 percent HHs are depends on agriculture sector out of which 20.68 percent and 31.83 percent are male and female. In the study area 26.26 percent are students, service holders are 8.38 percent, foreign employer are 4.47 percent, business sector covered only 1.68 percent and others include 6.70 percent.

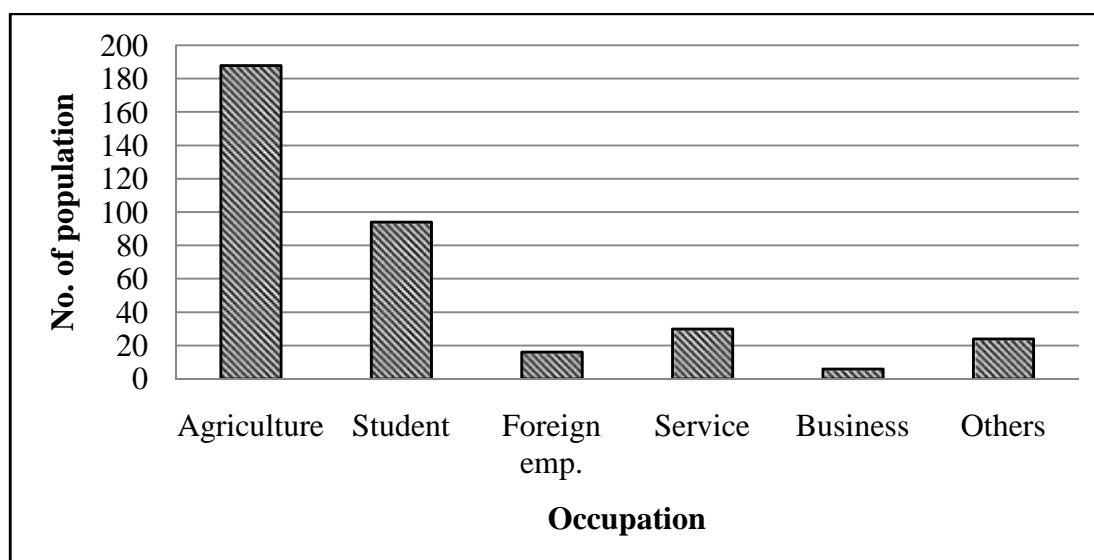
As like as the whole nation agriculture is the domain sector of employment in the study area. For the poverty reduction, it is necessary to link the agriculture to the other sector of the economy.

**Table No. 4.4: Occupational background of the sample population**

Occupation	Male		Female		Total	
	No.	%	No.	%	No.	%
Agriculture	74	20.68	114	31.83	188	52.51
Student	43	12.02	51	14.24	94	26.26
Foreign emp.	16	4.47	-	-	16	4.47
Service	26	7.26	4	1.12	30	8.38
Business	6	1.68	-	-	6	1.68
Others	9	2.51	15	4.184	24	6.70
<b>Total</b>	<b>174</b>	<b>48.60</b>	<b>184</b>	<b>51.40</b>	<b>358</b>	<b>100.00</b>

Source: Field Survey, 2014

**Figure No. 4.3: Occupational background of the sample population**



Source: Table No. 4.4

#### 4.2.4 Income Status of Sample Households

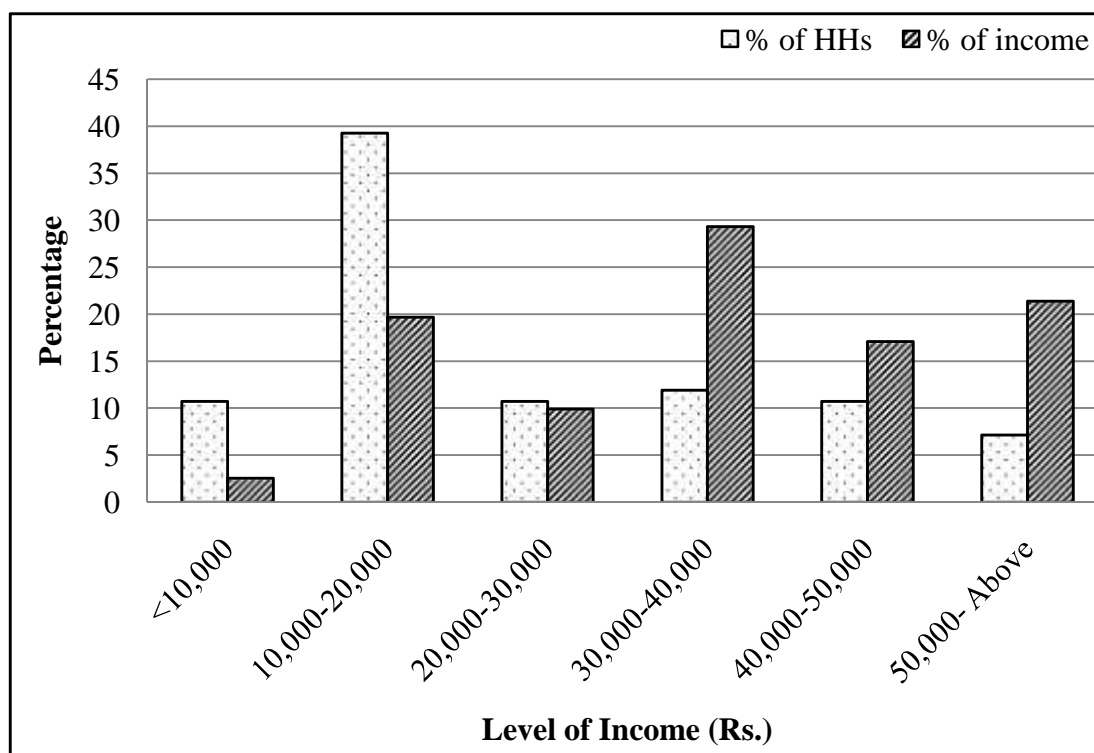
Income determines the economic status. It helps to enhance the living standard of the people. In the study income of households is divided into 6 groups on the basis of amount earnings in thousand per month. The income includes dairy and other sectors also.

**Table No. 4.5: Income status of sample households per month**

Income Size(thousand)	HHS No.	% of HHs	Total Income	% of Income	Average Income
<10	6	10.72	42,000	2.57	7000
10-20	22	39.28	3,22,000	19.68	14,636
20-30	6	10.71	1,62,000	9.91	27,000
30-40	12	11.93	4,80,000	29.34	40,000
40-50	6	10.71	2,80,000	17.11	46,000
50- Above	4	7.14	3,50,000	21.39	87,500
<b>Total</b>	<b>56</b>	<b>100.00</b>	<b>16,36,000</b>	<b>100.00</b>	

Source: Field Survey, 2014

**Figure No. 4.4: Income status of sample households per month**



Source: Table No. 4.5

The income group who earn below Rs 10000 per month is 10.72 percent households. It is 2.57 percent of total income. 39.28 percent of HHs earns 10 to 20 thousand per month; it is 19.68 percent of total income. Likewise 10.71 percent HHs earns 20 to 30 thousand per month is 9.91 percent of total income. The highest income group earns 30 to 40 thousand per month (11.93 percent HHs) earns 29.34 percent of total income. The group of earning per month 40 to 50 thousand, 10.71 percent HHs earns 17.11 percent income of total income. Lastly 7.14 percent HHs earns 21.39 percent income of total income.

#### **4.2.5 Land holding Pattern of Sample HHs**

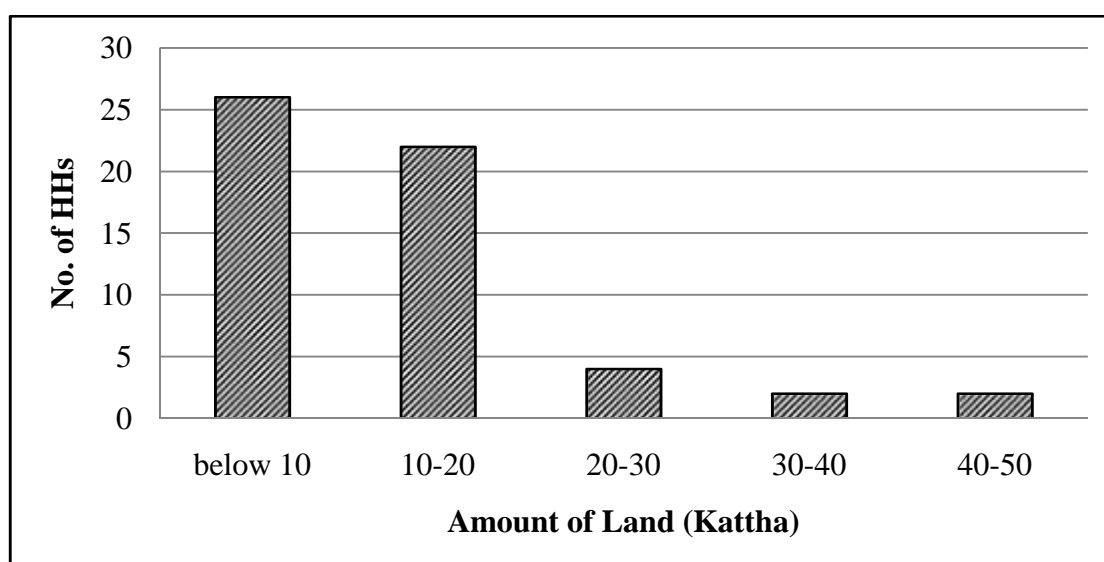
Land is the major factors of production. Land determines the livestock farming, because land supplied the feed and fodder for livestock. Land is very important for dairy production. The distribution of land holding size of study area is shown in the table below. In the study, HHs' land holding pattern is divided into 5 criteria according to land size i.e. 0 to 10 kattha, 10 to 20 kattha, 20 to 30 kattha, 30 to 40 kattha and 40 to 50 kattha.

**Table No. 4.6: LandHolding Pattern of sample HHs**

Land Holding Pattern (in Kattha)	Number of HHs	%	Total Land	Average land
<10	26	46.43	172	6.61
10-20	22	39.28	334	15.19
20-30	4	7.15	88	22.00
30-40	2	3.57	80	40.00
40-50	2	3.57	100	50.0
<b>Total</b>	<b>56</b>	<b>100</b>	<b>774</b>	<b>13.82</b>

Source: Field Survey, 2014

**Figure No. 4.5: Land Holding Pattern of sample HHs**



Source: Table No. 4.6

The above table shows that 46.43 percent of HHs has only 22.22 percent of total land on 6.61 kattha on average which is less than 10 Kattha per HHs. 39.28 percent population covered 43.15 percent land of the total land with having 15.19 kattha on average. 7.15 percent HHs has land between 20-30 kattha with average 22 kattha. 3.57 percent HHs have land between 30-40 kattha and 40-50 kattha with an average 40 kattha and 50 kattha.

#### 4.2.5.1 Leased Land Holding Pattern of the Sample HHs

In the study area some farmers have leased hold land for their dairy farming which is shown in table below as,

**TableNo. 4.7: Leased land holding pattern of the sample HHs**

Land Size(kattha)	No. of HHs	Total Land (kattha)	Average Land (kattha)
<10	4	39	9.75
10-20	0	0	0
Above 20	2	59	29.5
<b>Total</b>	<b>6</b>	<b>98</b>	<b>16.34</b>

Source: Field Survey, 2014

Above table shows that only 6 no. of HHs are leased land holder out of which 4 no, of HHs has average leased land with average and 2 no. of HHs have average 29.5 kattha leased land.

#### 4.2.6 AvailableCattle in HHs

In the study 14.29 percent HHs having 32.73 percent cattle, 28.57 percent HHs have 21.83 percent cattle 25 percent keeping only 12.73 percent cattle, this group having only 2 animals in average, we can say that they are subsistential farmers. Likewise 28.57 percent farmers have 21.81 percent of total cattle they have 3 animals in average. At last 32.14 percent HHs having32.73 percent cattle these groups have 4 animals in average. In the study area there are 14.29 percent professional dairy farmers who have 9 animals in average.

**Table No. 4.8: Availablecattlein sampleHHs**

No. of HHs	% of HHs	No. of Cattle	% of cattle
8	14.29	72	32.73
14	25.00	28	12.73
16	28.57	48	21.81
18	32.14	72	32.73
<b>Total 56</b>	<b>100.00</b>	<b>220</b>	<b>100.00</b>

Source: Field Survey, 2014

#### 4.2.6.1 Types of Cattle Kept by Sample HHs

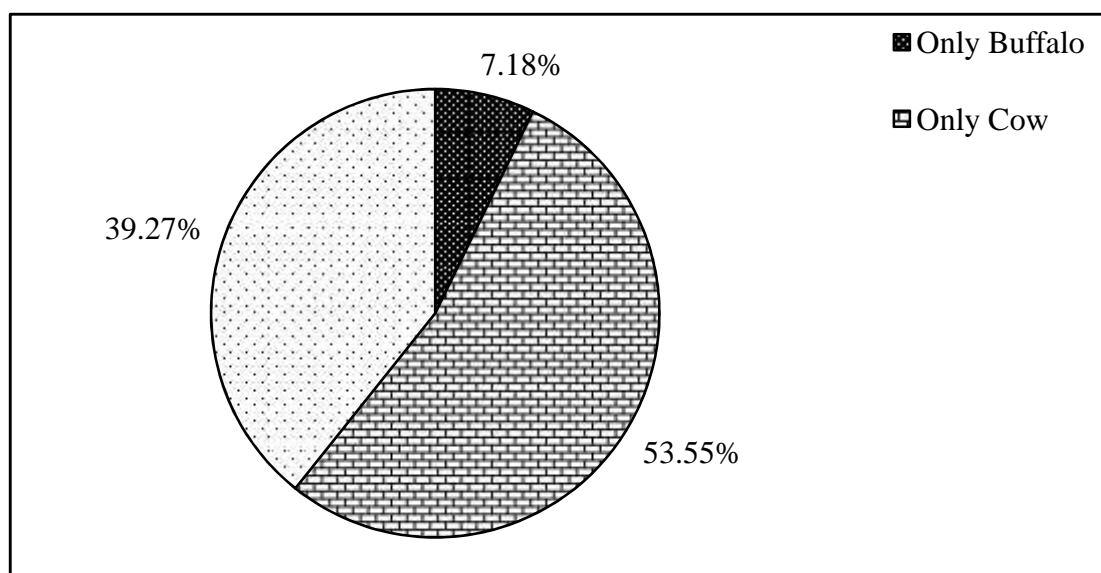
The farmers choose their milking animal cow and buffalos. 56 HHs have different milking animals according to their convenience. Farmer keeps only buffalo, only cow and keeps both cow and buffalo as dairying animals. On the sample HHs, 7.18 households keep only buffalos for dairy product, 53.55 percent HHs keep cows and 39.27 percent HHs keeps both cow and buffalo for their milk and by product. Most of the dairy farmers want to keep cows because of the high milk production as compared to the buffalo. In the sample HHs, there are 220 animals out of which 170 are cow and 50 are buffalo, shown in the table below.

**Table No.4.9: Types of Cattle kept by sampleHHs**

Type of Animal	No.of HHs	%
Only Buffalo	4	7.18
Only Cow	30	53.55
Both Cow and Buffalo	22	39.27
<b>Total</b>	<b>56</b>	<b>100</b>

Source: Field Survey, 2014

**Figure No. 4.6: Livestock Pattern of the Sample HHs**



Source: Table No. 4.9



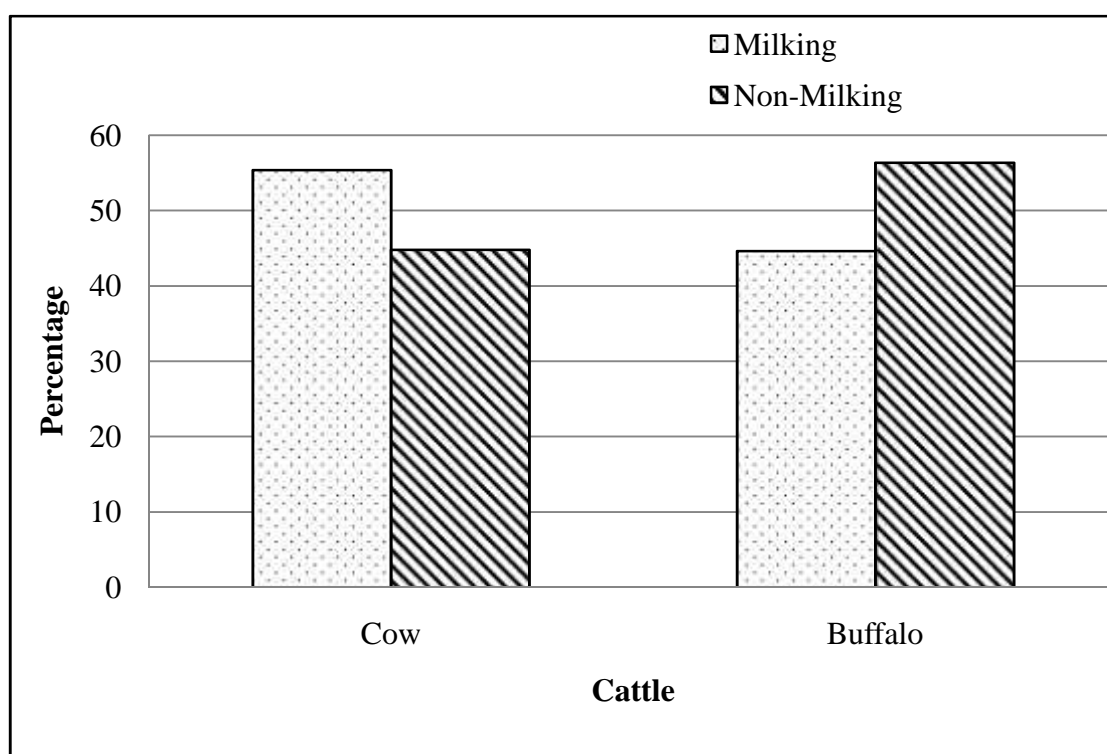
#### 4.2.6.2 Milking and Non Milking Animals of the Sample HHs

**Table No.4.10: Milking and non milking Animals of the sample HHs**

Type of Animals	Milking		Non-Milking	
	No.	%	No.	%
Cow	94	55.39	76	44.77
Buffalo	22	44.61	28	56.33
<b>Total</b>	<b>116</b>	<b>100</b>	<b>104</b>	<b>100</b>

Source: Field Survey, 2014

**Figure No. 4.7: Milking and non milking Animals of the sample HHs**



Source: Table No. 4.10

The above table and figure shows that the out of total 220 dairy animal 94 cows and 22 buffaloes are milking where as 76 cow and 28 buffaloes are non-milking.

### 4.3 Dairy Production and Income Earning From Dairy Product

#### 4.3.1 Daily Milk Production and Income from Milk

Milk is essential for human being since their birth. Every sample HH produce little more milk for both HH and commercial purpose and earn somehow which used for HH expense, education, health and other purpose of house.

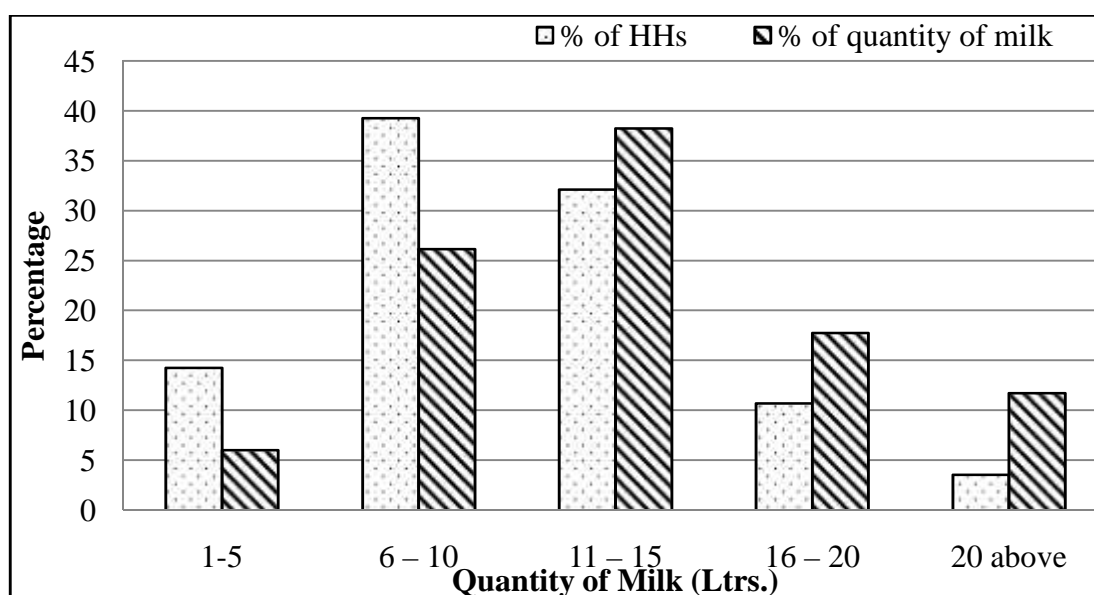
Milk producer HHs is divided into 5 categories according to production quantity like 1 to 5, 6 to 10, 11 to 15, 16 to 20, above 20 ltr per day. In this study, 14.29 percent HHs produced only 6.04 percent of total milk on average 4.50 ltr (per HHs) which is less than 5 liters per day. 39.29 percent HHs produce 26.71 percent of total milk per day. Likewise other 32.14 percent HHs produce 38.26 percent of total milk. 10.71 percent HHs produced 17.79 percent of total milk. At finally 3.57 percent HHs produce 11.74 percent of total production of milk per day. The total milk production is 596 liters per day of 56 HHs among this, HHs self consumption is 19.97 percent of milk. The selling percent of milk is remaining after self consumption i.e. 80.03 percent which equals to amount Rs.16,695 per day. They earned Rs. 20,860 by milk including self consumption and selling per day on average rate of Rs.35 per liter on the date of January 2014. Milk production pattern of survey HHs is shown in the below table.

**Table No.4.11: Daily Milk Production Pattern of sample Household**

<b>Milk Production in Liter</b>	<b>Number of HHs</b>	<b>% of HHs</b>	<b>Quantity of milk (ltr.)</b>	<b>% of quantity of milk</b>	<b>Average Milk Production</b>
1 - 5	8	14.29	36	6.04	4.50
6 – 10	22	39.29	156	26.17	7.09
11 – 15	18	32.14	228	38.26	12.66
16 – 20	6	10.71	106	17.79	17.67
20 above	2	3.57	70	11.74	35.00
<b>Total</b>	<b>56</b>	<b>100.00</b>	<b>596</b>	<b>100.00</b>	

Source: Field Survey, 2014

**Figure No. 4.8: Milk production and income from milk**



Source: Table No. 4.11

#### 4.3.2 Byproduct income from cattle of the sample HHs

Dairy farming generally concern for production of milk and its product only. But farmers can generate income from byproduct like cattle dung, ghee, mohi, paneer, calves, and selling of barren buffalo and its calf for meat. Only 6 HHs sell dung out of 56 HHs on Rs 1, 24,000.00 the percentage of selling dung is low. The average income from dung is Rs 20,666 per HHs among 6. Only 3 households sell heifer on Rs 1, 00,000.00. Only one house sell buffalo male calve on Rs 33,000.00. 4 of HHs sell ghee an amount equal to Rs.5600.00 on average Rs. 1,400.00 among them. Income from byproduct is shown below table.

**Table No. 4.12: Byproduct income from cattle of the sample HHs**

Byproducts	Number of household	Annual Income in Rs.
Dung	6	1,24,000.00
Heifer	3	1,00,000.00
Buffalo male calve	1	33,000.00
Ghee	4	5,600.00
<b>Total</b>	<b>14</b>	<b>2,62,600.00</b>

Source: Field Survey, 2014

#### 4.4 Function and Performance of NDPCL

##### 4.4.1 Trend of Membership on NDPCL

The history of livestock farming is very long, but it took an occupation after the establishment of NDPCL in this area. Dairy (livestock) farming is integral part of agriculture, so every people of rural, must have cattle for self consumption of milk and compost for crop production. But institutional business starts after establishment of dairy co-operative named NDPCL. There in the research area new and old farmers are involving into NDPCL. The involvement period of farmers in NDPCL, is increasing every year.

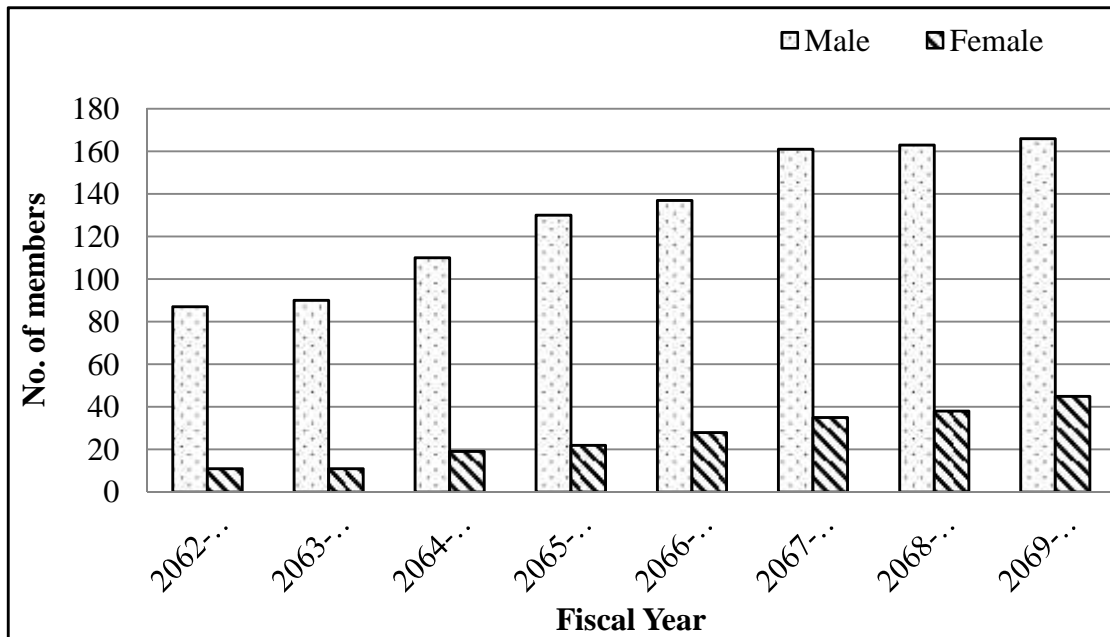
NDPCL passed more than 17 yrs of its establishment. Farmers' attraction towards to be a share member as well as general share member of this institution is increasing. The trend of membership of NDPCL is shown on the table below.

**TableNo.4.13: Trends of Share Members**

Fiscal year	Sex		Total
	Male	Female	
2062-2063	87	11	98
2063-2064	90	11	101
2064-2065	110	19	129
2065-2066	130	22	152
2066-2067	137	28	165
2067-2068	161	35	196
2068-2069	163	38	201
2069-2070	166	45	211
<b>Total</b>	<b>166</b>	<b>45</b>	<b>211</b>

Source: Annual report of NDPCL, 2070

**Figure No. 4.9: Trends of Share Members**



Source: Table No. 4.13

Initially, it was established by 25 members as founder members. The table shows that the no. of members are increasing year by year. In the year 2062/ 63 there were only 98 members and it doubled in the year 2067/68. The no. of male members increased by nearly double and the no. of female members increased by forth from the year 2062/63 to year 2069/70.

#### 4.4.2 Involvement Period of Households into NDPCL

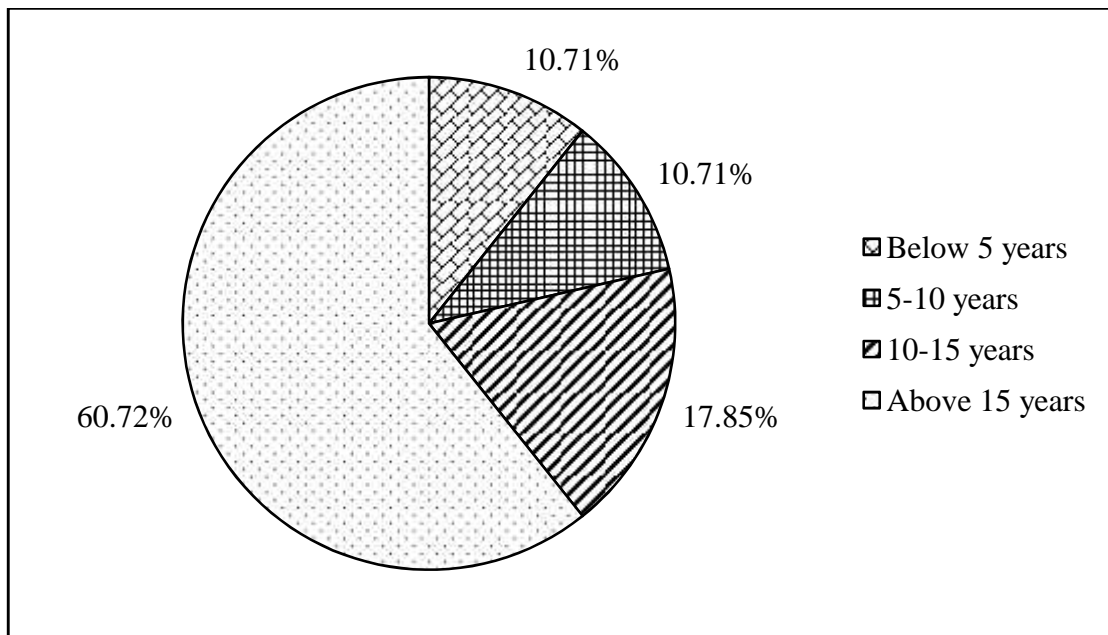
The history of NDPCL is more than 17 years. It passes through many ups and downs. Starting from the 25 founder members now it reaches to the 211 share members. The involvement of members of HHs is shown in the below table.

**Table No.4.14: Period of Involvement of Household in NDPCL**

Period of Involvement	No. of HHs	%
Below 5 years	6	10.71
5-10 years	6	10.71
10-15 years	10	17.85
Above 15 years	34	60.71
<b>Total</b>	<b>56</b>	<b>100</b>

Source: Annual report of NDPCL, 2070

**Figure No. 4.10: Period of Involvement of Household in NDPCL**



Source: Table No. 4.14

The study found that 60.71 percent farmers were engaged since more than 15 years. Then 17.85 percent farmer engaged from 10 to 15 years from establishment and 10.71 percent farmer engaged from less than 5 years.

#### **4.4.3 Ethnic Participation in NDPCL**

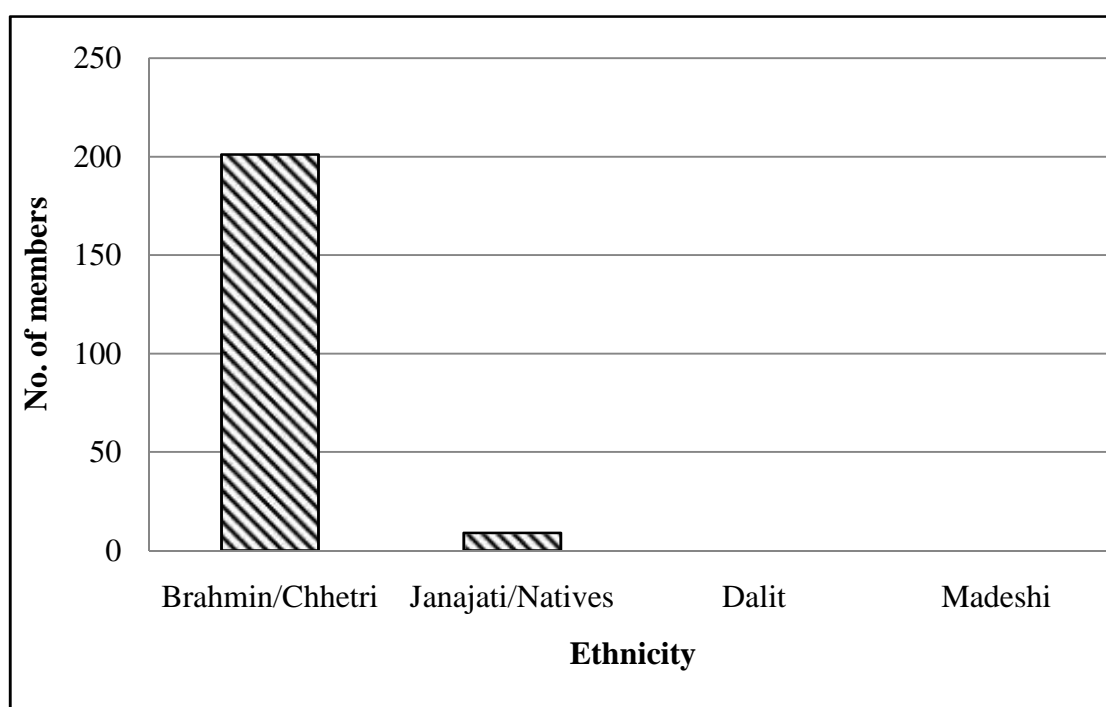
Co-operative is a community institution. A community consist different cast and ethnicity. It is necessary to participate them to upgrade their socio-economic condition. In the study area there is the ethnicity of Tharu, Newar, Tamang, Magar etc. and Dalit and Chhetri-Brahmin. The community is composite of different tribes and ethnicity with having this the population of Chhetri-Brahmin has high majority so, the participation on NDPCL also majority of Chhetri-Brahmin. The participation of social group is shown in the table below.

**Table No.4.15: Ethnicity wise Participation in Co-operative**

<b>Ethnicity</b>	<b>Number</b>	<b>%</b>
Brahmin/Chhetri	201	95.74
Janajati/Natives	9	4.26
Dalit	0	0.00
Madeshi	0	0.00
<b>Total</b>	<b>211</b>	<b>100.00</b>

Source: Annual Report of NDPCL, 2070

**Figure No. 4.11: Ethnicity wise Participation in Co-operative**



Source: Table No. 4.15

The co-operative have been providing equal chance to join NDPCL to all caste and ethnicity group. The percentage of the shareholder members are majority from Brahmin-Chhetri than other ethnic group being the larger numbered representative. There is no any discrimination of any kind. Equal participation of gender is necessary for development of every social group.

#### 4.4.4 Gender Wise Participation into NDPCL

Gender's participation on social institutions plays a role to sustain long time. In NDPCL, women's participation is low because of her nature, i.e. no interest of expose out from house and male dominated society of Nepalese culture. In this co-operative women's participation is only 21.33 percent while men's participation shows 79.67 percent of the study's co-operative.

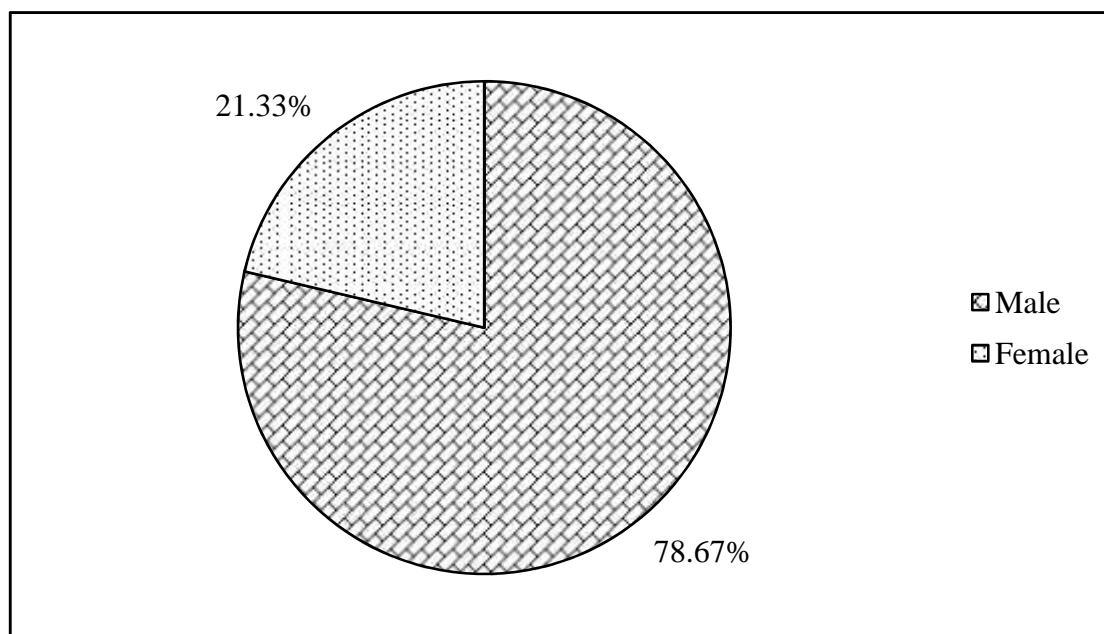
The trend of male and female participation on co-operative is shown by table.

**Table No. 4.16: Gender-wise Participation in the NDPCL**

Gender	No, of member	%
Male	166	78.67
Female	45	21.33
<b>Total</b>	<b>211</b>	<b>100</b>

Source: Annual report of NDPCL, 2070

**Figure No. 4.12: Gender-wise Participation in the NDPCL**



Source: Table No. 4.16



#### 4.4.5 Participation in the Executive Committee

211 members have equal right to be a member of executive committee in governing body of NDPCL. There are altogether 11 members including chairperson into the executive committee of NDPCL. Among them, 10 members are from Brahmin/Chhetri and one woman from Janajati, altogether four members are female out of 11.

**Table No. 4.17: Ethnic Participation on Executive Committee by Gender**

Ethnicity	Male		Female	
	No.	%	No.	%
Brahmin/Chhetri	7	63.64	3	27.27
Janajati	-	-	1	9.09
Madeshi	-	-	-	-
Dalit	-	-	-	-
<b>Total</b>	<b>7</b>	<b>63.64</b>	<b>4</b>	<b>36.36</b>

Source: Annual report of NDPCL, 2070

The table shows the participation of women in executive committee is 36.36 percent and male participants are 63.64 percent. The Janajati representative is 9.09 percent where the participation of dalit and Madeshi is null.

#### 4.4.6 Objectives of NDPCL

Main objective of NDPCL is to betterment of rural farmers who are concerns to it. The objective and general functions of NDPCL are as follows;

1. To the access of marketing of milk which are produced and collection of individual farmers
2. To get appropriate (high) price of milk
3. To supply qualitative feed and fodder, improved and hybrid seed, cattle medicine etc.
4. To improve the management
5. To enhance socio-economic condition of the members.

#### **4.4.7 General Functions of NDPCL**

According to rule principle and motto of the co-operatives, it provides such kind of facilities to its members both share holder as well as non-share holder members.

1. Marketing of dairy and allied products
2. Training of Livestock
3. Improvised seed distribution
4. Shed Management Program
5. Feed and fodder
6. Livestock credit on 6 percent interest
7. Observation tour
8. Chilling Center
9. Approaches to DMPC, NDMP and other related institutions.
10. Implementations of PACT program me.
11. Relation of banks and loaning program for farmers.
12. Bargaining for fair price of milk with big dairy industries like DDC, Sujal, Bhaktapur dairy, Nepal Dairy, etc.

It has its own chilling centre of capacity 6,600 litres vat, milk analyzer machine, Generator and 6 permanent staff. Own building with meeting hall, store, own shed for chilling center etc shows the prosperity of the co-operative.

#### **4.4.8 Share Distribution of NDPCL**

The main source for management of the co-operative is share capital of NDPCL. The objective of the share policy is to make the co-operative economically sound and make member responsible towards the institution. The member should participate in development of NDPCL. In the beginning or establishment, NDPCL have 25 shareholders on 2050 B.S. They purchased 5 shares on Rs.100 per share. The total capital of Rs.12,500. They established it in Parsa Bazar of east Chitwan to provide facilities and supply agricultural inputs for small and marginal farmers. Then in B.S 2053 it shifted to Shanti Bazar of Kathar V.D.C. ward no 4 to increase its share holders member as well as large field for service. Then increased members by 15 and share members reached 40 and share capital of 20000. Now a days it is running with 211 shareholders' Rs. 510000 and other non shareholders. Now it serves

350householdincluding nonshareholders.

Being a dairy co-operative focuses to facilitate on dairy instruments, improved shed, improved breed, feed and fodder farm management, livestock care, bargaining for milk price are in priority of NDPCL.

#### **4.4.9 Services and Support by NDPCL to its Members**

For the economic-social progress of its members, co-operative have done directly affected and indirectly so many works but all works are not possible to include here. So some of them are include here. Co-operative has been providing such programs since its establishment are as follows,

- Compensation: The co-operative provides 50 percent compensations for the member whose dairying animal dead.
- Co-operative provides bonus of profit every year in general meeting. Co-operative provide per liter one rupee at every Dashain as providence fund for member who sell milk here.
- Co-operative sells dairying inputs on credit for its members on fair price.
- Co-operative sells milk for its members on cheap price then other customer.
- Co-operative provides loan facilities from banking institutions, co-operative being deposit itself for buying high milking animals. It suggests own members to be professional farmer and always suggest improved seed and animals.
- It linked with other institutions like district milk producer union, central milk producer union, and line agencies, NGOs/INGOs for the betterment of co-operative.
- Co-operative managed the farmer's observation and educational tour and travel yearly.
- Co-operative have voluntary saving and credit scheme among members.
- Co-operative encourage for animal insurance. And it starts with the help of pact program.
- Co-operative encourage to farmers to plantation of grass tree and managed the seed for milking live stocking based on grass rather than feed, Dana, Chokkar.
- PACT program servicing on farmers shed management, health care of animals high bread supply.

- Co-operative improved own chilling center with the help of Community animal development project, purchased milk analyzer with the help of District animal service office (DLSO) and vat subsidy from Sitaram Gokul Milks Limited.
- From the help of PACT it maintained and improved 27 shed of farmers and purchased and distributed 25 chaff cutters machines to farmers.
- The co-operative gives extra payment Rs. 1.75 per liter on FAT and SNF.
- Co-operative provides to farmers Rs. 40000. For live stocking loan on nominal interest.

#### **4.5 Problems and Prospects of NDPCL**

Like different other sector, dairy co-operative have also immune problems and prospects. Problems of an institution is the prospects because after solving the problems it lead to prospects of institution so any entrepreneur do not afraid to problems. For the profits and prospects of the institution, entrepreneur search the way of solving the problems to increase the profits and sustain in future. The problems and prospects of co-operative discuss below on the basis of study of NDPCL.

##### **4.5.1 Problems of NDPCL**

In the dairy co-operative of everywhere there arise some problems likewise NDPCL facing some problems which are as follows,

- Lack of professionalism: In the study area dairy farming is dominated by non commercial farmers, it leads production cost of milk is generally higher. Commercial farmers keeping more animals are producing milk at lower cost than the subsistence farmer having less animal. So it is possible to reduce cost of production by improving management, better feeding, breeding and health care.
- Lack of regular monitoring and suggestion from government sector as well from as central and district dairy producer unions.
- Load shading: Electricity is an important factor for production. Load shading increasing the cost of production of animal feeding, processed milk and milk product.
- Lack of veterinary services: In the study area proper veterinary services and facilities are not easily available in time.
- Lack of knowledge of animal insurance: the government has giving 50

percentsubsidy for animal insurance but due to the lack of insurance knowledge farmers are not interested to animal insurance.

- Lack of product diversification: The co-operative sells its collected milk directly to dairy industriesSujal, Nepal dairy, DDC, Bhaktapur dairy.But there is no system of manufacturing dairy products like icecream, butter, paneer, yoghurt etc. It is most necessary to convert the collected milk into industrial product.
- Lack of new technology: The farmers are using traditional technology and equipments, so the production cost increases. On the other hand co-operative also lack of new technology and equipments.
- Lack of government subsidy: For thedevelopment of agriculture sector, government did not help to farmers by grant and subsidy. By the nature, itdepends on climate, labor intensive, perishable production so it is very risky profession. So other governments give high priority, subsidy and grant on agriculture except Nepal. We Nepali farmers bound to compete with Indian production which are getting subsidy from government to product so that the production cost of Indian agriculture goods is very low but Nepalese production cost is very high. If Nepalese government also gives subsidy on dairy farming, we can reduce the import dairy and its allied goods, and save the currency paying on dairy goods.

#### **4.5.2 Prospects ofNDPCL**

Facing above problems dairy sector has huge prospects to generating employment and income and help for reducing poverty of this area. The KatharVDC of Chitwan is useful for dairy farming purpose. Keeping livestock is integral work of traditional agriculture system.Some farmers keep cows and buffalos forself use of milk, meat, dung and draft. So livestock keeping is since long and they will continue to do in future for the purpose of crop production. It is the sign, that it is easy to increase the cattle for milk production and diversification of crop production to dairy farming or bring together. So this sector can be the backbone of socio-economic development by creating employment and generating income.For the more production of crop it is necessary of more compost, the demand of more dung increases more animalleads to more agriculture production and the residual of crop production is used as fodder of cattle it leads more milk production and creates professionalism on agriculture.

Now a day's youth entrepreneur are attractive on dairy farming due to possibility and probability rather than other sector. The Nandini Dairy Producers Co-operative is a well recognized co-operative in Chitwan. Its well management and necessary scientific and modern equipment shows the well prospects of dairy farming. NDPCL has own chilling vat, land, shed, Generators, milk analyzer machine and other basic instrument, and trying to buy vehicle also. Besides above mention some prospects of NDPCL are follows,

- Suitable climate condition, available of leased land for poor and marginal farmer, easy transport facility, easily available of technical manpower and attraction of youth helps for the betterment of dairy sector.
- Consumers trend of consciousness of nutritive food(milk) it also helps to create market.
- Verities of production like pannier, ice-cream, chocolate, butter, and different favors of sweets create its own market.
- Fastlygrowing population density population, urbanization, consumer consciousness of proteneous food help to create market so the co-operative can change milk into verities of production.
- Dairy farming is easy occupation to cash earning, every week or twice a month can get his money from selling of milk,so he can solve his daily problems.
- Saving and credit system will encourage to new comers into this sector. And it keeps sustainability of dairy farming.
- The governments' encouragement and insurance subsidy on dairy farming i.e. cattle insurance livestock heath care facilities, easy and cheap loan, information and education lack of alternative occupation easy marketing and easy supply of dairy inputs,suitable geographical situationmake this sector attractive and prospects in future.

## CHAPTER-V

### SUMMARY, FINDING, CONCLUSION AND SUGGESTION

#### 5.1 Summary and Major Findings

To fulfill the objectives of the study, required data were obtained from the field survey done on first week of January 2014. Among 211 shareholders of the NDPCL, 56 households were sampled randomly from the farmer's side and 2 were sampled purposively from the executive members.

The studied sample HHs found the participation on co-operative of Brahmin\Chherti was majority. Women participation was only 21.33 percent and male participation was 78.67 percent. The active population was 64.02 percent, and remaining 35.08 percent are dependent like old aged, students and children. There were 17.88 percent illiterate population, whereas 16.70 percent population were graduated and above. Among 358 total population 56 HHs, 52.51 percent population engaged on agriculture sector including dairy farming. 14.29 percent of the survey households are commercial farmers rest are subsistence and have one to three castles. 25 percent of HHs has only 2 cattle, 28 percent HHs have only 3 animals, and rest 32 percent HHs have 4 cattle. It shows there is most necessary to encouraging towards professionalism.

The findings of the study shows 10.71 percent HHs earns below ten thousand per month, 39.23 percent HHs earns 19.67 percent of total income, and it is 10 to 20 thousand per month. Seven percent HHs earns 50 thousands per month which is 21.34 percent of total income. -The dairy producers of 53 percent keeps cow for dairying animal, 7.1 HHs keeps only buffalo and 39 percent HHs keeps both animals. Similarly, 14.23 percent HHs produced milk below 5 liter day, 39.29 percent HHs produced 16.17 percent milk of total product and 3.57 percent HHs product above 50 liters milk per day it is 11.74 percent of total milk by commercial farmers.

Land holding pattern among farmers, more than 39 percent have 43 percent land of total land while 3.53 percent HHs covered 12.9 percent of total land.

According to farmers' view cows are easy to live up and long time milking than buffalo so they keep cows than buffalos. 14.23 percent HHs produced milk below 5 liter day, 39.29 percent HHs produced 16.17 percent milk of total product and 3.57

percent HHs produce above 50 liters milk per day it is 11.74 percent of total milk by commercial farmers.

Income from byproduct (dung, ghee, mohi, calves etc) is not remarkable because of self consumption. The production cost of dairying animals per day is Rs. 40.75 without adding the cost of straw and grass because farmers get it from their field themselves and they do not pay for it.

More than 88 percent farmers start dairy farming after establishment of NDPCL. They felt that this is the sustainable income source.

The co-operative initiated cattle insurance but the farmers are not interested to pay premium because of lack of insurance education and no confidence of returning premium after maturity. Only 4 HHs have paid the premium for cattle because insurance is compulsory for animal loan.

Women's participation on NDPCL is low level, only 21.33 percent women as share members and 36.23 percent as executive members. The co-operative gives one rupee for per liter milk as bonus on every Dashain. More than 88 percent farmers started dairy farming after establishment of NDPCL. They felt that this is the sustainable income source.

Although facing different problems by the NDPCL like professionalism, lack of appropriate policy and regular monitoring, load shedding, lack of veterinary service, inadequate food and fodder, lack of knowledge of product diversification, and influence of traditional values on livestock keeping dairy co-operative have many prospects to enhance the socio-economic condition and living standard of its members because it helps to provide employment opportunity for both literate and illiterate people.

## **5.2 Conclusion**

Based on the field study and survey of the different farmer individually found that dairy farming is an integral component of crop production. Farmer keeping livestock for both purposes: i) Crop production (Bio-gas and bio-mass, compost) ii) Dairy productions (selling milk).



Small farmers who keeps only one dairying animal he also join the dairy co-operative to grasp its benefits. But the levels of the poor and marginal farmers are in miserable condition on keeping dairying animals as well as socio-economic condition. The dairy co-operative helps to encouraging on livestock farming and active participation on dairy co-operative to enhance the socio-economic condition of the rural people by (i) Psychological encouragement of group behaviors (ii) Providing marketing facilities to the milk producers (iii) Supplying dairy equipments i.e. feed and fodder, animal health, medicines, high improved breed, trainings on shed management and general information on livestock transportation etc. (iv) Providing cash as seed money and facilities saving and credit among farmers.

The dairy co-operative improved rural livelihood, it is the main and easy source of cash income earning and creating employment as well as solving day to day problems of small farmers. Dairy farmers are benefited from dairy co-operative economically, psychologically and they feel safe into the co-operative. It brings unite the rural farmers themselves in group and they have feelings of ' we' together as a family members. Co-operative creates awareness and opportunities for production, leadership, business skills, approach to political as well as statesmen. Co-operative changes the quality and patterns of life and mode of living. It has been measured during field survey and observed myself. It has a lot of potentialities instead of having problems like lack of institutional facilities, veterinary facilities, animal health, insurance, low price of milk, high price of inputs, subsistence level of farming, lack of governmental subsidy, political situation. These problems can be solving the joint efforts of government and private sectors then this sector has a lot of capacities and it can means of poverty reduction.

### 5.3 Suggestions

Dairy co-operative plays an important role in rural development. Although, some problems are attached on it, and should be removed. Some suggestions have been made for the co-operative and it's members. These are listed as follows:

- Co-operative should encourage farmers to keep high breed animals and commercialization of dairy production
- Most the farmers keep fewer than three animals it is not remarkable on commercial dairy farming
- Supply of inputs should be accessible to all kinds of farmers in appropriate price
- Co-operative should run according to the norms of co-operative instead of trading corporate as buyer and seller of other goods, government supervision and monitoring should be made regularly.
- Members of the executive committee should be oriented to the institutions and should have knowledge and devotion to the co-operative.
- Till now dairy co-operatives are running by individual farmers keeping livestock separately according to their capacity and knowledge so they are getting low profit. If the members deep cattle commonly, the expense will be reduced and they will earn more profit.
- Dairy co-operative should provide training, livestock health care, income generating schemes, easy load facilities and technical and fiscal suggestions and help to its members.
- Co-operative always awards of quality of milk and appropriate price of milk.
- There is need of government support and monitoring regularly.
- Animal insurance system should be imposed through co-operatives.
- The price of buying, service charge expense of co-operative and selling price of milk should be transparent between members.
- The co-operative should have promotional dominated by male and Brahmin Chhetri community.
- The dairy co-operative should have credit and saving scheme for every members by rule.

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## ANNEX A

### Questionnaire for Milk Producer Co-operative

1. Name of co-operative: Address:
2. Date of Establishment:
3. Who is/are the founder(s):-
  - a. Farmers themselves
  - b. External Organizations (Non Governmental units)
  - c. Government Organizations
  - d. If others, (specify) \_\_\_\_\_
4. How many members are involved in your co-operative?

#### Members growth in last seven years and social category

Social Categories In Years	Year													
	2063		2064		2065		2066		2067		2068		2069	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Brahmin/Chhetri														
Janajati/Adibasi														
Madeshi														
Dalit														
Total														
Grand Total														

5. No of commercial farmers ..... & non commercial farmers..... traditional farmers

6. Gender and ethnic records of execution committees

Caste/Ethnicity	Male	Female
Bhramin/Chhetri		
Janajati/Adibasi		
Madhesi		
Dalit		
Total		

7. How much is the per share amount and share registration fee of the membership?

a. Share amount \_\_\_\_\_

b. Reg. Fee \_\_\_\_\_

8. Does your co-operative have saving policy or scheme for the member/Milk producers?

a) Yes                      b) No

If yes, how much is the saving per month?Rs. \_\_\_\_\_

9. Does your co-operative has extra milk collection center?

a) Yes                      b)No

If yes, who runs it?

a)Itself

b) Lease or contract

c) Others (specify).....

10. How much quantity of milk is collected daily in average?

.....

11. What is the supply mechanism of the quality of milk?

.....

12. Does your co-operative have chilling center?

a) Yes                      b) No

If yes, its capacity in liters.....

13. For how long has your co-operativeare running the chilling center and how was it installed for years with support of?

.....

14. Ownership of chilling vat?

.....







## ANNEXB

### Questionnaire for Dairy Farmers

1. General Information Form No.
- Name and address of respondent:.....
- VDC:..... Ward No.:.....
- Age:..... Caste/Ethnicity:.....
- Gender:..... Religion:.....

2. Age profile of sample households

Age group/Numbers	Below 15 years	15-59 years	60 above	Total
Male				
Female				

3. Educational status of sample households

Educational Status	Illiterate	Literate	Secondary	Higher secondary	College level or above
Male					
Female					

4. Occupational status of sample households

Main Occupation	Male	Female	Total No.	Fully employed	Semi-employed

5. How much is your monthly family income?
- a. <10,000                      b. 10,000-20,000                      c. 20,000-30,000  
d. 30,000-40,000                      e. 40,000-50,000                      f. >50,000
6. This is your family business or your choose?  
.....
7. Since how long have you been involved in dairy farming?  
.....
8. Why do you choose this occupation?  
.....
9. How many number of your family members are engaged in this occupation?  
.....
10. Land holding pattern of sample households

Land Holding(Kattha,Bigha)	Irrigated	Non-Irrigated	Remarks
Own			
Leased(Private)			
Lease(Institution/Community)			

11. Information about livestock

Animal Category	Productive Milking/Preg	Unproductive				Total
		Heifer	Female Calves	Male Calves	Barren	
Buffalo	Local					
	Cross-Breed					
	Improved					
Cow	Local					
	Cross-Breed					
	Improved					
Total						

12. Sole Income from Dairy farming (annual)

Items	Quantity(Ltr.)	Price (NRs.)	Amount
Milk	Buffalo		
	Cow		
Self Consumption (in Market Price)			



