

# CHAPTER-I

## INTRODUCTION

### 1.1 Background of the Study

Organized dairy development activities in Nepal began in 1952 with the establishment of a Yak cheese factory in Langtang of Rasuwa district under Food and Agriculture Organization (FAO) assistance in 1953. In 1954, a Dairy Development Section was established under the Department of Agriculture (DoA) and also a small-scale milk processing plant was started in Tusal, a village of Kavre district. In 1955, a Dairy Development Commission was formed (Dhakal, 1999).

Livestock farming being a major component of Nepalese farming system is becoming one of the important occupations in the rural area of Nepal. It contributes 31% of agricultural gross domestic product. Among this 53% derived from hill, 38% from the Terai and 9% from the mountains (App, 1995). Livestock farming especially dairy farming contributions 70% in total AGDP. The major components of livestock GDP are milk products of Nepal.

In 2001, there were approx. 7 million cattle, 3.6 million buffalo, 0.9 million sheep, 6.5 million goats, 0.9 million pigs and 19.8 million poultry in Nepal (CBS 2011). Nepal has one of the highest livestock populations per capital and per unit of cultivable land of any country of Asia. Improved livestock accounts for only 8% of cattle, 21% of buffalo, 6% of sheep, 14% of goats, 14% of pigs and 50% of poultry. Livestock rearing represents an important part of the livelihood strategy of rural Nepalese household. It is presently undergoing phase from subsistence to commercial dairy farming in the various places of Nepal. Dairy farming

has been helping the farmer to earn cash income and at the same time they can get manure as by product and draft power for agricultural production. One of the other important aspects of dairy farming is to generate energy in household level for cooking and heating in terms of biogas, which is produced by decomposition of animal dung into airtight digester.

Nepal is a geographically beautiful and small country with an area of 147, 181 square kilometer and it is ecologically divided into three regions: mountain Hill and Terai. The mountainous region is covered with high snowcapped mountains.

Poverty remains deep and widespread in developing countries, and even rampant in some cases. Nepal being no exception is getting huge amount of foreign aid to meet the goal of poverty alleviation since the start of its planned development effort in 1956 in the name of infrastructure development. However, the achievements are far below the expected. Thus, the country remains one of the poorest countries in the world and the poorest outside Africa in term of per capita national income. Income based poverty is widespread in the country and exists in a wide variation depending on the rural urban divide, geography, gender and caste/ethnic groups. The poverty is more rampant, deeper and severe in rural areas and much worse in the mid-western and far western hills/mountains.

On the other hand, numerous people are involved in the production, processing and trading of dairy products and this provides employment opportunities for the local people. This is the potentiality of dairy farming but to make this industry as a major pillar which supports not only local people but also as a means to economic development, then the role of

dairy is necessary because it cover wide range of development services including but not limited to financial services.

## **1.2 Statement of the Problem**

In earlier days, when there were no organized dairies, demand for milk was fulfilled by raising cows/buffaloes by the people themselves or through the direct supply from the professional milk producers in this area. These producers used to go house by house and deliver the required quantity of milk to the households. Dahi (yoghurt) filled in clay containers were produced by some traditional dahi makers and milk-based sweets were prepared by traditional sweet makers. But after the advent of DDC, the scenario began to gradually change with the increasing supply of pasteurized milk and modern dairy products such as cheese, butter, ice cream etc. Many new dairy farming also started to emerge. Now, particularly in this area, the situation has changed because many farmers are united under cooperatives which involved in collecting and selling milk to the chilling centre. Besides, these farmers are facing loan facilities, vetenary facilities, traditional farming is not getting sufficient production of milk, pasture facilities in the study area.

In the study area dairy farmers are facing problems in the field of livestock development and animal health, and arranging and developing fodder and pasture. To sustain and improve the dairy processing industry in Nepal it must become competitive in terms of cost production and quality. Trained manpower should be available to the private sector; raw milk pricing should be based on the quality and fixed by a free market system with little intervention from the government. Extension Services should be backed up with more research and animals and product quality. Government policy should encourage the private sector to diversity the

products in collaboration with or in joint venture while the external partners from the developed countries to explore market using their brains name and diversity their products. Are people given training and skill development program before including in this industry how milk is processed? How many milk chillers does this district contain? Do these co-operatives prove themselves as true helper to the people? Are there any other constraints to milk producer besides marketing? Are people engaged in other activities besides milk producing? How many cattle's each household containing? What is your average monthly income from this field? Among two cow and buffalo which is more preferred? Besides milking these cattle are there any other benefits from them? What are the problems and prospects faced by this industry? Is there any government or industrial control on price of in which products? How is control on price implemented? Is quality standard of various products defined and enforced? How? Is there any licensing requirement for farmer and traders? If so for what motive? How much it cost? These are the questions that are to be answered during my study.

They had to visit shop to shop or home to home for sell. It was really time consuming and difficulties. After the establishment of many dairy centers nearby villages farmers have to visit only 0-1.5 km. for selling their milk. So the distance aspect of felling milk has been reduced more. Than farmer produces more milk by saving time and money for travel to sell milk. It has invested both in number of farmer and among of milk production in Kavre.

This studies aims find the answer of the following questions.

- What is the amount of status of milk production in the study area?

- What is the impact of dairy farming on education, food, and cloth in the study area people?

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

The general objective of this study is to examine the impact of dairy farming on socio-economic condition of the people. The specific objectives of this study are:

- i. To analyze the status of dairy farming and marketing strategy of dairy products.
- ii. To compare the impact of dairy farming in employment, income, occupation, food sufficient, education, and health.
- iii. To explore the problems and prospects of dairy farming in the study area.

### **1.4 Scope of the Study**

This study is concerned with the importance of dairy farmers of Kavre. Kavre is an assessable place of Nepal lacks in infrastructural development. It has been playing a vital role to uplift socio-economic condition. Although this study has not covered the entire part of area rather it may try to reflect the present stage of dairy farmers and volume of production. It also highlights the related problems and socio-economic condition of farmers of the study area. This study is purely a micro level study because no such study has been done in the past to cover the entire aspects. By the way the study tries to fulfill the gaps of knowledge about various aspects like production, marketing and socio-economic condition of farmer of Kavre. The study aims to present information about the socio-economic condition to the dairy co-operative and the contribution

of DDC to develop dairy farming. The study tries to find out the impact of dairy development of the general life of the farmers. Likewise, it presents the problem of dairy co-operative and recommends. For its sound developments this study provides guidelines to construct dairy development policies and plan for the policy makers.

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

Because of time and financial constraint this study is only limited in the Ugratara VDC. This study is based on sample information collected from the sample chilling centers and selected interviewers. Summary were drawn based on these information together with other information sources. So, it may not be actual for any particular situation of the study area and as well as for other parts this study doesn't take into account the byproducts of milk in detail.

### **1.6 Organization of the Study**

The organization of the study has been classified into five chapters. The titles of each of these chapters are as following:

#### Chapter I -Introduction

The first chapter includes various aspects of present study like Background of the study, statement of the problem, Objective of the study, Scope of the study, Limitations of the study and Organization of the study.

#### Chapter II- Review of Literature

This second chapter deals with the study of related books, journals, research works etc. which are already published and conducted. In this chapter study like Conceptual Review and Empirical Review are.

### Chapter III –Research Methodology

This chapter deals with the methods used in the research problem such as Conceptual Framework, Research Design, rationale for the selection of the study area, Nature and Sources of Data, Universe Sample and Sampling Procedure, Data Collection Techniques and Tools, Processing Techniques Presentation and Analysis and lastly definition of key terms.

### Chapter IV- Presentation and Analysis of Data

This fourth chapter introduces the main aspect and presentation of data with different statistical and financial tools and techniques with findings of the study.

### Chapter V- Summary, Conclusion and Recommendation

This fifth chapter deals with the summary of the whole thesis, its conclusion and recommendations for impact of dairy farming on socio-economic condition of people in the study area.

## **CHAPTER - II**

### **LITERATURE REVIEW**

Nepal is an agricultural country; many of its people reside in rural area of Nepal. Dairy farming has been a part of agriculture from thousands of years. Historically it has been done by our forefathers in small scale for household chores. New concept has been developed in our societies and people are taking part of its production. Hinterlands have been increasing day by day in village areas. Though, the large scale of milk is required, large scale of milk is only viable where dairy farming is required for production. Being agricultural country it is possible to conduct dairy farming in village areas of Nepal which may be milestone to uplift its people socio-economic condition. In present context, Nepal government has been investing its investment in agricultural sectors. So it would be means sustainable development of rural areas of Nepal. In dairy farming sectors different scholars have been casted their views have been mentioned in this case study.

#### **2.1 Conceptual Review**

The livestock sector is very complex with many crosscutting issues interrelationship with other sectors; it is a very important part of the agriculture sector and key role to play in the country's development and poverty reduction (ADB, 2001)

Policies and strategies to promote milk production in developing countries often don't address the key issues of small-scale milk collection and processing and these acts as a limiting success. For the growth and development of small-scale sector can be achieved through local level organization of small-scale productions into working groups and



associations or co-operatives. The main driving force to attract small holders into this supply cycle is to provide increased returns to stimulate production and encourage uptake of improved technologies (FAO, 2001)

Livestock provide over half of the value of global agricultural output and one third in developing countries. Rapid growth in demand for livestock products (LPs), in the developing countries, is viewed as a 'food revolution'. LPs are costly in relation to staple foods, so developing country consumption levels are still low, but increase with rising incomes. Pig and particularly poultry meat consumption are growing fastest. Growth in consumption is at the expense of increasing net imports of all LPs. Increased production, and higher self sufficiency would save foreign exchange. Livestock also contribute to rural livelihoods, employment and poverty relief. They serve as a hedge against risks. Some livestock have special roles in traditional culture. (Upton, 2004).

Dupire (1962) explains that the case of West Africa women receive cattle from their families either as gifts or through inheritance. The cattle belong to the woman in that they control milk, keep animals in case of divorce and bequeath them to their children.

Leonard, (1993) in his research shows that when a household has a lactating cow, they meet their own demand for milk products and afterward they sell milk if they have any surplus. Then even though milk sales provide a reasonable possibility for cash income, the household requirements for the milk products is given high priority.

Development planners' ignorance of the economic roles of women in pastoral societies indeed ignorance of pastoral socio-economic contributed to the relatively poor performance of "livestock projects" (Hurwitz and Jowkar, 1992).

Livestock provide over half of the value of global agriculture, output and one third in developing countries is viewed as a "Food Revaluation" (PPLPI, 2004).

Many developing countries are facing serious problems in meeting the rapidly growing water demands for domestic, industrial, irrigation, power, and other uses. The marginal cost of additional supplies is increasing, water quality is deteriorating, ecology and biodiversity problems are aggravating, and intersectoral conflicts are becoming more frequent. These issues are more difficult and often intractable in international river basins where riparian countries are unable to establish cooperative arrangements to plan and use the available water resources effectively. (Horwitz, 1995)

Upadhyae et al., (2000) reported that the milk holiday was coined in 1991 when the DDC could not buy all the milk offered and refers to days in the week when public or private dairy organization don't buy milk their regular supplies (Dairy farmers). Milk holidays are becoming an annual phenomenon in Nepal. The available evidence indicates that this is mainly a result of the incapability of the formal dairy organization to sell milk and milk products Milk holiday are largely a phenomenon of the flush season (September to March) during which the supply of milk is four times greater than in the lean season.

The Tenth Year Dairy Development Plan (Type DP) 1990-2000 progress that the DDC set its own price for milk based on commercial considerations, this has not yet materialized. Although the DDC has been responsible for formulating and executing pricing policy in practice it has to obtain government approval before implementing any price change.

According to Department of Livestock services under the ministry of Agriculture and co-operative of HMG/N aims of developing the livestock sector by diversification and commercialization as an income generating and prosperous farming. The objectives of DLS in dairy sector include increasing production of milk, assisting in quality improvement of milk, helping in market identification and management, encouraging livestock based industries and developing human resource in the sector. In Nepal, women are actively involved in livestock production. Fodder collection, grazing and milking are generally performed by both women and man, whereas activities like feed preparation, feeding, cleaning sheds and preparing milk products are women's domain (Acharya and Bennet, 1981).

The milk put on the market is generally adulterated. Enquiries show that adulteration by producers is much less when compared with that practiced by collections, distributors, etc. producers are however primarily responsible for the initial contamination of milk as they pay little or no attention to clean production or proper handling of the milk. The most common adulterants used are water and skimmed milk. The water added may be dirty and contaminated cane sugar and flour is also added to foil detection by lactometers or by the 'khoa' test. Similarly they have discussed about the co-operative marketing of milk. Almost all the milk societies and milk unions have been organized with the primary object of improving the quality of milk supplied to towns and cities (Mamoria and Joshi, 1968).

The National co-operative Development Board (NCDB) was constituted from the National co-operative Development Board Act, 1992. The Board's role is to promote and develop co-operatives. Developing

countries have been facing other major problems like economic impact of WTO agreement on the dairy sector (Budhathoki, 2007).

In Nepal, a nationwide network of Department of livestock services is working on improved buffalo production. External funding from the Asia Development Bank and the European Union has greatly strengthened its research and implementing activities (Rasali, 2000). In the conflict situation that is ongoing in Nepal, most of the external financial organization's and systems functioning in rural areas have been either destroyed or phased out. But the rural and community based saving and credit co-operatives and the dairy co-operatives are the only grass root institutions that are still functioning without much problem in the conflict areas. Co-operatives offer wide range of development services including but not limited to financial services. Following chapters will elaborate the contribution of co-operatives in providing access to micro finance services, dairy services consumer services and agricultural inputs and marketing services (Gullette, 2015)

Rural co-operative service provides research management, and educational assistance to co-operatives to strengthen economic position of farmers and other rural residents. The main motto is to work with co-operative leaders to improve organization, leadership, fixing prices identifying market, to guidance to further development (Ling, 1996).

Based on the successful experience in some pocket areas of the HKH (Hindu Kush Himalayan) smallholder dairy farming is an integral component of the mixed mountain farming systems. It should be possible to replicate such models and experiences in other degraded upland areas of the hills/mountains. While doing so, maximum participation of poor and marginal farmers should be ensured. Promotion of market oriented

smallholder dairy farming integrated with agro-forestry systems in upland hill/mountain area can improve the livelihood of small and marginal livestock development farmers along with the conservation of environment. However, there are several constraints/issues such as credit, animal health and insurance, market development and value additions. These constraints as policy issues should be addressed critically in order to explore the development potentials of order to explore the development potentials of small dairy enterprise. Initial facilitation for delivery of appropriate technological options such as agro-forestry-grassland systems, and linking to market opportunities in a small way could improve the living conditions of poor and marginal livestock dependent farmers. (Tulachan, 2002)

## **2.2 Empirical Review**

Budhathoki (2007) reported that according to agriculture perspective plan in the sector will rise from 2.9% to 5.5% by the end of the plan period. Dairy accounted for about two-last decades was about two-third off the livestock sectors. The average growth of milk production over the last decade was about 2.6% per year (Parham et al. 2003). In 1995-96 Nepal introduced agriculture-led economic growth and rural poverty alleviation by implementing the 20year APP which envisages researching and annual growth rate of 5.5%.

The demand for livestock in developing countries is predicated to double over the next 20 years due to human population growth, increasing urbanization and raising incomes more than 81% of the population of Nepal relies on the agriculture sector for employment has been sluggish and most importantly has failed to keep the place with population growth. Nevertheless, contrary to the relative decline of agriculture the livestock

production index has continuously been increasing over the last decades (FAO, 2003).

Dairy Development co-operation (DDC) "Annual Report of Fiscal year 2060/61 deals about the income and expenditure of DDC, its product, collection capacity, total milk collection, collection area etc. It has pointed out that DDC alone collected 57129 metric tons of milk through the network of 1,014 dairy producer's associations, (Dairy co-operatives). DDC has provided income generating opportunity for more than 1,50,000 family farmers.

Animal husbandry and dairy development plays a prominent role in the rural economy in supplementary the income of Rural household, particularly the landless and small and marginal farers. It also provides subsidiary occupation in semi-urban areas and more so for people living in hilly tribe and drought prone areas where tribe and drought prone areas where crop output may not sustain the family. Animal husbandry output constitutes about 24% at the country's agricultural output. Livestock includes domestic animal such as cattle, buffalo, sheep goats, horses, pigs etc. India's animal wealth is both large and varied (Suva, 2009)

The role of fodder out in household income generation, comparing the economics of fodder oat and wheat grain. The study found that the oat is very useful winter fodder and could help farmers to alleviate winter fodder scarcity feeding green oat in winter increased the milk production (Budhathoki and Updhyaya, 2007).

Buffalo has been an integral an integral part of livestock agriculture in Asia for over 5000 years producing draft power milk meat and hides. Even today this animal proved to be economically significant to small and landless rural poor (Nanda, 2003)

Livestock is an integral component of farming systems in Nepal; it contributes about 12.8% to the total national gross domestic product (GDP) and 31.5% to the agricultural GDP. It is estimated that the livestock share of agricultural GDP will reach 45% 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% and 24.7% respectively). At present, the total annual milk production of Nepal is just over one million tonnes (70% from buffalo and 30% 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%, and the population growth rate 2.9%. This gap is likely to increase in the future unless serious efforts are made to improve dairy production and marketing. In this chapter, we discuss the current characteristics of the dairy sector, its constraints, and opportunities for development. (Sharma and Banskota, 2005).

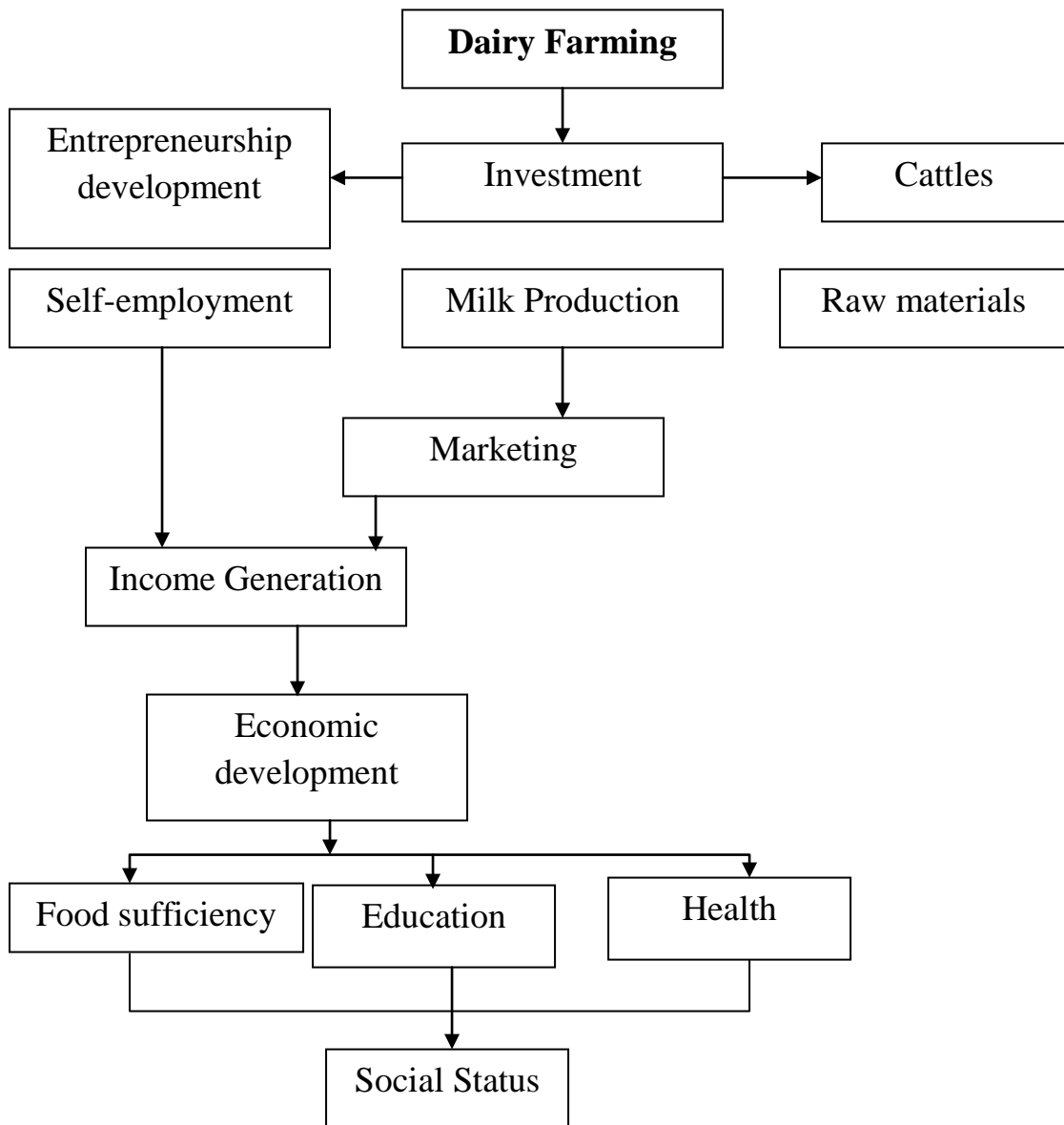
The above-mentioned literature is focused mainly on the development of dairy livestock, production economic status of dairy farmers and also about the problems of dairy co-operatives societies. It is the first attempt to study about the dairy farming through flow of dairy and this study is carried out to find out the current situation or the condition of above unstudied topic of the study area.

## CHAPTER - III

### METHODOLOGY

#### 3.1 Conceptual Framework

This study focuses to identify the impact of dairy farming on socio-economic condition of Ugratara VDC which lies in Kavre district. So this study.





This framework describes impact of dairy farming on socio-economic condition in of the people involved in dairy farming in Kavre district of Nepal. In this framework food sufficiency, education and health are considered as a transitional variable that effects human social status. Different researches have indicated the impacts of socio-economic factors on the participation dairy farming. Though it may seem that the individual's interest, skill, time, family structure and background are general factors that determine participation, these factors are not absolute in themselves to determine in dairy farming. Although an individual who involved in this business has to undergo though various factors which generate their income, when income generates, their socio-economic moves ahead into the positive direction such as change on education, change on health related behaviors, change into eating behaviors, and socio-economic dynamics. Above figure shows the relationship between variables, which has been taken into consideration in this study.

### **3.2 Research Design**

The present study focuses on the milk production and milk cooperatives and its effect on the economic life of the producers of the study area. The research design is based on descriptive as well as analytical. The data collections here are both qualitative and quantitative.

### **3.3 Rational for the Selection of the Study Area**

Kavre area has been purposively selected for this study. This type of study has not been carried in the study area as yes. This research area is accessible for the researcher because relatives and other people related to the researcher are there.

### **3.4 Nature and Source of Data**

Both qualitative and quantitative data has been used in the study. In addition, it includes both primary and secondary data. Primary data has been collected from dairy farmers, chilling center and observation. However, secondary data has been obtained from chilling center, dairy cooperative different journals, books, reports, newspaper, Central Bureau of Statistics (CBS), District Development Committee (DDC) etc.

### **3.5 Universe, Sample and Sampling Procedure**

There are altogether four dairy chilling center which is the universe of the study. Shree Krishna Dairy was purposively selected for the study because it is the largest chilling center in this area.

Again, in this area there are 8 cooperatives which are involved in collecting and selling milk to the chilling center. Among these cooperatives, two cooperative were selected purposively for this study.

There are altogether 115 dairy farmers in the study area, which is a universe of the study. Out of 115 farmers, 50 farmers were selected randomly for the purposive study.

### **3.6 Data Collection Techniques and Tools**

Both qualitative and qualitative data has been used in this study. These data has been collected from both primary and secondary sources. For the collection of these data collection procedure has been used. Here both primary and secondary data collection procedure has been adopted for this study has been defined below.

### **3.6.1 Household Survey**

The information was collected from informal interview with the members of milk cooperatives staff of milk collection center, chilling center. Informal interview was taken from 50 household dairy farmers in the Ugratara VDC. Information related to the role played by dairy cooperatives by improving the social economic condition of rural farmers was collected by this method. The questionnaire forms were filled up by the researcher interviewing with household heads. In the absence of household head, another senior person present at the home was taken as the respondent. (See Annex-1)

### **3.6.2 Key Informant Interviews**

Semi-Structured Questionnaire for the farmers was used to get detailed information about dairy cooperatives and its role in daily development and as well as the rural poor families. This information was used to collect the primary data through interview of selected farmers. Education, number of dairy animals, milk production, income from dairy farming, utilization of the income earned between farmers who are involved in dairy cooperatives and beyond the cooperatives as well as.(See annex – II).

### **3.6.3 Observation**

Observation approach was also conducted in the study area to observe the real scenario of the local life which helped the research to understand the socio- economic gap prevailing in the study areas. By this observation researcher was tried to trace the real activities problem of co-operative of the study area. Researcher observed condition of Hyzone, physical

condition, related activities and other activities in the selected household.(See annex – III).

#### **3.5.4 Focus Group Discussion**

Focus group was discussion among and between two groups consisting 6/6 members. In this discussion, researcher was discussed about the problem and prospect, difficulties, socio-economic and educational attainment after and before involving in dairy farming. (See annex – IV).

#### **3.7 Data Processing Technique**

All collected information was screened, generalized and managed to fulfill the objectives of the study. During data processing time required data was selected from the collected mass data, selected data was generalized in meaningful way according to objectives of the study and statistical calculation was done to draw the summary report of statistical data. Theoretical information was also screened and managed in a meaningful way.

#### **3.8 Presentation and Analysis**

Collected required information has been presented in maps, tables and diagrams. Qualitative information has been presented and analyzed systematically. Presented tables and diagrams have been analyzed with the help of different sources of information. Mutual summary has been drawn from presented information to fulfill required objectives of the study.

## CHAPTER – IV

### DATA PRESENTATION AND ANALYSIS

In this chapter, the collected data regarding the objectives is analyzed. Studying dairy farming and its impact on socio-economic condition is the main subject of this study. For that it analyzes the socio economic characteristics of the respondents, status of dairy farming and marketing strategy of dairy products, impact of dairy farming in employment, income, occupation, food sufficiency, education and health, to explore the problem and prospects of dairy farming in the study area of people living in the study area.

#### 4.1 Socio Economic Status of the Respondents

##### 4.1.1 Religious

More or less, religion plays important role in socio-economic peripheral. Hindu religion is stricter than Buddhism and Christina to its norms and values. So, in this study religion that are adopted by the respondents and their families are also analyzed and observed.

**Table 4.1: Distribution of Respondents by Religion**

<b>Castes</b>	<b>No.</b>	<b>Percentage</b>
Hindu	46	92.00
Buddhist	0	0
Christian	4	8.00
Muslim	0	-
Total	50	100

Source: Field Survey, 2015.

Above table shows the respondent's religion where 92% were Hindus and 8% were Christian. Among them Hindus are in highly majority whereas Christians were in minority with 8 percent. Similarly, in the study area other caste people like Muslim, Buddhist was not found among sample households.

By this data it can be said that Nepal is a country where 80 percent of the total people are Hindus (CBS, 2011).

#### 4.1.2 Sex

Sex is one of the most important factors behind an individual's involvement in dairy farming. In this study, the respondents' gender groups are classified as male and female which is presented as:

**Table 4.2: Distribution of Respondents by Sex**

Sex	No.	%
Male	47	94
Female	3	6
Total	50	100

Source: Field Survey, 2015.

Above table and figure shows sex composition of the respondents. Data shows 94% of the respondents were male and 6% are female respondents in this study. Majority of the respondents are male. Dairy farming is challenging job which needs lot of money, time and labour. Although being a challenging job three women's were found to be taking part in this profession which can be taken as positive step in the social empowerment.

### 4.1.3 Age

Age is one of the most important factors behind the involvement of any income generation activities. In this study, 11 respondents were of 15-30 years of age. Similarly, 29, 6 and 4 respondents were of 30-45, 45-60 and above 60 years of age groups respectively.

**Table 4.3: Distribution of Respondents by Age**

Age Group	No.	%
0-15	0	0
15-30	11	22
30-45	29	58
45-60	6	12
60+	4	8
Total	50	100

Source: Field Survey, 2015

Above table shows the age composition of the respondents. Data shows that 22% were between 15-30 years and 58% were between age group 30-45. In the same way, 12% were between age group 45-60 years age group and only 8% were between age group 60 above years. It shows that majority of the respondents are between age group 30 to 45 and minority of age group are 60 and above.

### 4.1.4 Family Size

The types of the family also determine the income generating programme. There are mainly two types of the families in the study area. One is nuclear family which includes husband, wife and their unmarried children and another is joint family which includes husband, wife, their

married and unmarried children and other relatives living in the household who take their meal in the same kitchen.

**Table 4.4: Distribution of Respondents by Their Family Size**

<b>Family size</b>	<b>No. of Households</b>	<b>Percent</b>
Up to 4 members	13	26
4-6 members	25	50
6 and above members	12	24
Total	50	100

Source: Field Survey, 2015.

Above table shows the respondents by family size. Data show that 26% respondents consist up to 4 family members, 50 % respondents were 4-6 family members, and 24% respondents consist of 6 and above family members. High respondents were regarded 4 to 6 numbers of family members. By this data it can be said that most of the respondents were believe in nuclear family structure. Many of today's Nepalese families are becoming more flexible in terms of family style. They feel comfortable in nuclear family rather than joint family.

#### **4.1.5 Marital Status**

Marriage changes roles and responsibilities of the human beings. Person's duties increase from marriage and it makes them matured in the decision making. Marriage is a system that provides opportunity to engage in each other life to a family life. Marital status makes difference in their status, because after marriage women change their status from the status of daughter to daughter's-in-law which really increases their responsibility regarding the income generation programme.



**Table 4.5: Distribution of Respondents by Marital Status**

<b>Marital status</b>	<b>No.</b>	<b>%</b>
Married	50	100
Unmarried	0	0
Total	50	100

*Source: Field Survey, 2014.*

Above table indicates the marital status of the respondents who mainly owns dairy farming. It shows that all the respondents in the study sample were married. By this data it can be concluded that single person were not daring to take part in this business.

## **4.2 Status of Dairy Farming and Marketing Strategy**

### **4.2.1 Status of Cattle**

Numbers of cattle determine the dairy size and its production. In the study area most of the people were engaged in harvesting milk through cow and buffalo. The detail information has been given herewith:

**Table 4.6: Number of Cattle**

<b>Cattles</b>	<b>No.</b>	<b>%</b>
Buffalo	66	18.23
Cow	123	33.98
Goat	136	37.57
Ox	28	7.73
Pig	9	2.49
Total	296	100.00

*Source: Field Survey, 2015. Multiple Choice Question*

Above table shows the picture of cattle they behold. By this table it can be proved that the farmers prefer to farm goat. In the study above 37.57 percent proportion of goat, 33.98 percent proportion of cow, 18.23 percent proportion of buffaloes, 7.73 percent proportion of ox and 2.49 percent proportion of pig. This data shows that cow and buffaloes are in first and second priority of milk giving animal.

#### 4.2.2 Milk Production Cattle

**Table 4.7: Number of Milk Producing Cattle**

<b>Cattles</b>	<b>No.</b>	<b>%</b>
Buffalo	49	39.52
Cow	75	60.48
Total	124	100.00

Source: Field Survey, 2015.

Above table shows the picture of milk producing cattle respectively. By this table it can be realize that the farmers prefer to farm cow. In the study above 39.52 percent availability of buffalo and 60.68 percent availability of cow is shown respectively.

By this data it can be calculated that cow was found to be popular in this area where as buffalo is also popular for milk producing in this area. During an informal interview, farmers prepared cow than buffalo due to low consumption of feeding materials and high productivity.

### 4.2.3 Sources of Fodder Collection

**Table 4.8: Sources of Fodder Collection for Cattle**

<b>Education</b>	<b>No.</b>	<b>%</b>
National forest	11	10.78
Own land	50	49.02
Land lease	7	6.86
Total	102	100.00

Source: Field Survey, 2015.

Above table shows the fodder collection sources. Data shows that 10.78% respondents were collecting from national forest, 49.02% respondents were collecting from their own land. In the same way 6.86 percent respondents were collecting fodder from the land they had taken in lease for certain time duration. This study was conducted within 50 respondents but respondents consulting their own land also consulted national forest and lease land too. Most of the respondents who were professionally devoted in this farming also found that they were adopting all the fodder collecting sources such as national forest, own land and lease land too.

### 4.2.4 Fodder Needed Per day

**Table 4.9: Fodder Needed Per Day**

<b>Household No.</b>	<b>Bhari Needed Per Day</b>	<b>Percent</b>
5	2	11.76
14	4	23.53
13	5	29.41
18	6	35.29
50	17	100.00

Source: Field Survey, 2015.

Above table shows the amount of feeding materials to the cattle farmers behold. Data shows that 18 households were using daily 6 bhari of fodder to their animals as they were professional milkman whereas 18 households were using 5 bhari of fodder, 14 households were feeding 4 bhari of grass and 5 households were consuming 2 bhari of grass to their animals.

#### 4.2.5 Investment in Dairy Farming

**Table 4.10: Investment in Dairy Farming**

<b>Amount (in lakhs)</b>	<b>No.</b>	<b>Percent</b>
1-2 lakhs	12	24
2-3 lakhs	14	28
3-4 lakhs	9	18
4-5 lakhs	8	16
5 and above lakhs	7	14
Total	50	100

Source: Field Survey, 2015.

Above table shows the invested amount in dairy farming. Data shows that majority of the respondents i.e. 28 percent invested 2-3 lakhs in dairy farming where as 24%, 28%, 16% and 14% respondents invested 1-2 lakhs, 3-4 lakhs, 4-5 lakhs and 5 and above lakhs respectively.

#### 4.2.6 Investment

**Table 4.11: Investment**

<b>Investment Details</b>	<b>No.</b>	<b>Percent</b>
Shed	34	32.08
Cow	22	20.75
Buffalo	33	31.13
Grass	17	16.04
Total	106	100.00

Source: Field Survey, 2015.

Above table shows the multiple sectors such as shed, cow, buffalo and grass. Data shows that majority of the respondents i.e. 32.08 percent respondents invested in shed, 20.75 and 31.13 percent respondents were invested in cow and buffalo. Similarly 16.04 percent respondents invested their amount on Grass and fodder.

#### 4.2.7 Source of Investment

**Table No. 4.12: Source of Investment**

<b>Source of Investment</b>	<b>No of Household</b>	<b>Percent</b>
Saving	31	36.47
Bank	15	17.65
Cooperation	18	21.18
Friend/Relatives	21	24.71
Total	85	100.00

Source: Field Survey, 2015.

\* Multiple Response question

Above table shows that the amount invested in different fields by the respondents. Data shows that majority of the respondents i.e. 36.47 percent respondents invested their savings where as 17.65 percent

respondents invested from bank loan, 21.18 percent respondents invested cooperative's money where as 24.71 percent respondents invested taking load from friends and relatives. By this data it can be said that only 36.47 percent respondents were mobilize their freezing money where as other people were taking risk in milk production.

#### 4.2.8 Milk Production Per Day

**Table No. 4.13: Milk Production Per Day**

<b>Milk Production Per day</b>	<b>No of Household</b>	<b>Percent</b>
0-5 Ltr.	0	0
5-10 liter	9	18
10-15 liter	7	14
15-20 Liter	12	24
20-25 Liter	22	44
Total	50	100

Source: Field Survey, 2015.

Above table shows the multiple quantity of milk they produce. Data shows that majority of the respondents i.e. 44 percent respondents were producing 20-25 liters milk per day. Similarly 24 percent, 14 percent and 18 percent respondents were producing 15-20 liters, 10-15 liters and 5-10 liters milk per day respectively.

The respondents are inhabitants of Ugratara VDC of Kabhre district, as Kabhre district is known as milk producing district of Nepal. The milk they produce is also supplied to the capital city Kathmandu of Nepal.

#### 4.2.9 Utilization of Production

**Table 4.14 Utilization of Production**

<b>Utilization of Production</b>	<b>No of Household</b>	<b>Percent</b>
Home consumption	17	25
For Sale	51	75
Total	68	100

Source: Field Survey, 2015.

\* Multiple Response question

Above table shows the purpose of milk production. Data shows that majority of the respondents i.e. 75 percent respondents were producing milk for selling purpose. Similarly 25 percent, respondents were producing milk for home consumption. By this data it can be said that Out of 50 respondents 33 respondents were producing milk for selling purpose whereas 17 respondents were producing their milk for both purpose.

#### 4.2.10 Supply of Production

**Table 4.15: Supply of Production**

<b>Utilization of Production</b>	<b>No of Household</b>	<b>Percent</b>
Collection Center	48	77.42
Individual Home Supply	14	22.58
Total	62	100

Source: Field Survey, 2015.

\* Multiple Response question

Above table shows the supply of milk production. Data shows that majority of the respondents i.e. 77.42 percent respondents were selling their milk on milk collection center. Similarly 22.58 percent respondents were selling their milk individually. By this data it can be said that 22.58 percent respondents were selling their milk on their customer's home,

which is familiar in Nepalese agrarian's society. Most of the people in the villages produces their cash crops and sells their production in hinterlands.

### 4.3 Socio-Economic Impact of Dairy Farming

Since last decade Kabhre district is regarded as commercial dairy farming spot. Urgatara VDC lies in Kabhra district and is famous for milk production. People of this place are involved in milk cultivation. The followings tables shows the clear vision about milk cultivation and its impact on different subheadings such as employment, income, occupation, food sufficient, education and health.

#### 4.3.1 Change in Occupational Status

**Table No. 4.16: Family Occupation Before and After Involving Dairy Farming**

<b>Family Occupation</b>	<b>No. of Household Before</b>	<b>Percent</b>	<b>No. of Household After</b>	<b>Percent</b>
Agriculture	47	94	38	43.18
Business	0	0	37	42.05
Labour	1	2	0	0.00
Job	2	4	13	14.77
<b>Total</b>	<b>50</b>	<b>100</b>	<b>88</b>	<b>100.00</b>

Source: Field Survey, 2015.

\* Multiple Response question

Above table shows that the Occupational status of the respondents. By this data, it can be clearly said that there will be significance different on their social life. Data shows that before involving this business most of the respondents i.e. 94 percent were involved in agricultural works whereas after investing in dairy farming only 38 household with 43.18



percent respondents were taking part in agriculture. Similarly, before investing in dairy farming no one was involved in business whereas after investing in dairy farming 42.05 percent were involved in business. In the same way, before investing dairy farming 2 percent respondent were involved in labour/wage profession whereas after investing in milk farming no one was involved in wage/labour. Likewise, 4 percent respondents were involved in job starting dairy farming but after investing in dairy farming 14.77 percent respondents were involved in job. By this data it can be seen positive impact on their livelihood.

#### 4.3.2 Change in Food Sufficiency

**Table No. 4.17: Food Sufficiency Before and After Involving Dairy Farming**

<b>Food Sufficiency</b>	<b>No. of Household Before</b>	<b>Percent</b>	<b>No. of Household After</b>	<b>Percent</b>
Below 3 months	43	86	12	24
3-6 months	7	14	37	74
6-9 months	0	0	1	2
9-12 months	0	0	0	0
Surplus	0	0	0	0
Total	50	100	50	100

Source: Field Survey, 2015.

Above table shows that the food sufficiency of the respondents before and after involving in dairy farming. Data shows that before involving this business most of the respondents i.e. 86 percent were sufficient food for below 3 months whereas after investing in dairy farming food sufficiency decreases from 86 percent to 24 percent. Similarly, before

investing in dairy farming 14 respondents were sufficiency food for 3-6 months but after involved in this business food sufficiency rate increases 14 percent to 74 percent which can be seen with bare eye. Before involving this business no one has to sufficient food for 6-9 months whereas after investing in dairy farming 2 percent were sufficient food for 6-9 months.

### 4.3.3 Change in Educational Enrollment

**Table 4.18: Educational Enrollment Before and After Dairy Farming**

<b>Educational Enrollment in Education</b>	<b>No</b>	<b>Percent</b>
Before involvement in Occupation	80	44.94
After involvement on Occupation	98	55.06
Total	178	100

Source: Field Survey, 2015.

Above table shows that their children's enrollment in education. It can be seen that before involvement in this occupation out of 50 households only 80 children were enrolling in education whereas after involving in this farming 55.06 percent respondents took part in school level education.

By this data it can be said that economic problem is one of the most barriers in educational attainment. Doubtlessly one should perceive that without proper economic condition sound education is impossible.

#### 4.3.4 Change in Educational Institution

**Table No. 19: Change in Educational Institution**

<b>Place of Education</b>	<b>Before</b>	<b>Percent</b>	<b>After</b>	<b>Percent</b>
Government	31	62	1	2
Private	19	38	39	78
Out of place	0	0	10	20
Total	50	100	50	100

Source: Field Survey, 2015.

Above table shows that the place of respondents children's educational enrollment. Data shows that 62 percent respondents were sending their children in governmental schools but after involving the Dairy farming only 2 percent respondents are attaining governmental schools. After the occupation, 78 percent respondents are sending their children in private boarding schools and 20 percent respondents are sending their children out of their dwelling place.

Obviously it is clear that there is positive impact of dairy farming as they prefer private boarding schools for their children. Most of the dairy farmers said that they started to send their children in private boarding schools in Kathmandu. From this information it can be said that dairy farming is helping them positively and their educational condition is uplifting.

#### 4.3.5 Change in Treatment

**Table No. 4.20: Place of Health Treatment Before and After Dairy Farming**

<b>Place of Treatment</b>	<b>Before</b>	<b>Percent</b>	<b>After</b>	<b>Percent</b>
Dhami/Jhakri	29	58	2	4
Hospital	21	42	48	96
Total	50	100	50	100

Source: Field Survey, 2015.

Above table shows the place of respondent's children's health treatment destination. Data shows that 58 percent respondents were consulting Dhami and Jhakri before involving dairy farming but after involving the Dairy farming only 4 percent respondents are consulting Dhami/Jhakri for their health treatment. After the occupation, 96 percent respondents preferred hospital for their health checkup which can be taken as significance different on their life style regarding health treatment. This issue was taken into consideration and was discussed in focus group discussion. In the focus group discussion, the respondents said that they started to go to hospital on their sickness. Before involving in this dairy farming they were facing money problem. Due to this problem they were heading towards traditional health treatment.

## 4.4 Problems and Prospects

### 4.4.1 Problem of Commercial Dairy Farming

**Table No. 4.21: Problems of Commercial Dairy farming**

<b>Problems of commercial farming</b>	<b>No.</b>	<b>Percent</b>
Economic	23	25.56
Political	10	11.11
Market	33	36.67
Inadequate grass land	8	8.89
Purchase cattle	14	15.56
Food Problem	2	2.22
Total	90	100.00

Source: Field Survey, 2015.

Above table shows the problem of dairy farming in the study area. According to the data 25.56 percent respondents had economic problem for dairy farming. In this way, 11.11%, 36.67%, 8.89%, 15.56%, 2.22% had political, market, inadequate grassland, purchase cattle and food problem as dairy farming problem respectively.

The respondents who were facing economic problem were also facing political, market, inadequate grassland, purchase cattle and food problems too. Though the problems facing by the farmers were fundamental problems, it should also be addressed by government level. In the focus group discussion respondents talked about political instability which is worse one for them. Road blocked, strike, donation to political parties, load shedding, lack of medicine were the main problem addressed by the respondent. Adequate grass land and grass is inevitable for them but

neither government nor INGO's or NOGs were favoring them. But in the name of different campaigning they were facing various problems which directly hampering on their business.

#### **4.4.2 Prospects of Commercial Dairy Farming in the Study Area**

Above analysis shows that there is great opportunity of dairy farming in the study area. Nepal government has also declared to provide subsidy in milk export to India. Some of the prospects are mention as follows;

- i. Market is available: Huge market is near to the study area and there are facilities of road. So, market and transportation is easy. People from different parts come here the settle on the prospects of income generating opportunities, getting job, attaining good and higher education, most of the people reside here and those people need milk and milk related products. The dairy farming is in the verge of flourishing in Kabhre district due to its location and market availability.
- ii. Facilities of collection center: There is collection center in village so there is no problem of collecting milk. Collection centers have to increases their chilling devices for the large amount to hold it. Government should grant load shedding free zone for this area. On the absence of electricity milk may go bad. Daily supply can be done from Kabhre to densely populated area such as Kahtmandu, Pokhara, Birgunj, Dharan where large amount of milk comes from India and other foreign countries.
- iii. Government as well as non-governmental sectors such as cooperatives, banks also support milk farming in the study area. Government of Nepal should provide large amount of money to

uplift cow farm. Government can send young farmers from the Kavre district to take especial training which helps them to manage dairy farming in higher level.

- iv. Because, milk is inevitable for children to boost up their mental and physical development, each and every person in doing farming should take care on its making proves. They should take care of its development so that each child could get milk every day.
- v. Demand of milk and milk related productions are increasing in Nepalese market. Due to the high immigration towards foreign labour market, there is lack of manpower to cultivate milk though the people in villages are started to buy milk. Though the demand of milk is everywhere.
- vi. It is becoming the main income source which eliminate poverty from the village. In the group discussion most of the respondents were reported that farming is the backbone of the nation. Dairy farming is one aspect of farming which leads nation towards its independent position.

#### **4.4.3 Problems of Commercial Dairy Farming in the Study Area**

There are various problems in dairy farming in study area which are as follows;

- i. There is no plain land in the study area so it is impossible to use tractor grazing animals. Kabhre district is hilly region, settlement of land is sloppy, so it is difficult to graze animal. In focus group discussion participants replied that fertilizers do no work because it does not remain constant, it slips and slides with rain water. Ploughing fields, transportation problem are due to problematic sloppy land.

- ii. In the focus group discussion, most of the respondents complained that government of Nepal is not supporting them at all. Ideas are not sufficient in dairy farming in the study area. Government should conduct training especially for dairy farmers to produce more milk, which helps them to uplift their socio-economic condition too.
- iii. There is lack of proper feeding materials. Feeding materials need to import from terai region. Due to the strike, blocked, indicating systems in transportation are the barriers to fetching feeding materials. In this group discussion they also said that in rainy season they had grass and fodder problem.
- iv. There is problem of capable doctor and medicine in the village to overcome the diseases that mostly suffer animals. Group members in group discussion also complained that Capable doctors do not want to stay in remote areas although there is no quality treatment and medicine. According to them, government should make and implement rules and regulation addressing this task.
- v. Laborare not available in the village. One of the respondents said that young generation does not want to stay in Nepal because there is no security. Most of the young generations are in foreign employment which leads to shortage of human resource to mobilize them as a labour.
- vi. Political instability is also playing negative role in Nepalese society. On the behalf of politics, criminals are also taken as gentle person. Honest and laborious person do not want to stay in Nepal. There is no stable government; it changes many times within one year. Political instability is one of the negative factors hampering Dairy Farming.



- vii. Due to the lack of money many farmers are cultivating dairy farming in traditional sheds. There is problem of hygienic sheds; also there is no proper lightening and ventilating facility for animals. Unventilated shed are playing unhygienic environment to the animals. Sick cow or buffalo also gives contaminated milk which is not for better health.

## CHAPTER V

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

This study is carried out in the Ugratara VDC of Kavre district was an attempt to examine the socio economic condition of the farmers. This research paper is carried out under descriptive as well as analytical research design. Primary as well as secondary data have been used in this study. Primary data have been collected through household survey questionnaire, key informant interview, observation and focus group discussion. In the same way, secondary information has been used through unpublished documents, articles, websites propounded by different scholars in different time and venue. Out of 150 respondents, the researcher has selected 50 respondents by using random sampling method. Analysis has been made by selecting 50 respondents by using purposive sampling method. Socio-demographic factors such as age, sex, marital status, number of cattle in this study. Economic factors such as family investment and investment participation, sources of fodder collection, needed fodder, investment in dairy farming, and invested details source of investment are analyzed.

Farmers have considered milk farming as their main source as they were involved in dairy farming professionally. Their milk delivers into capital city of Nepal through collection center. Dairy farming is positively impacting on their family. This study focuses on impact of dairy farming in employment, income, occupation, food sufficiency, education and health, to explore the problem and prospects of dairy farming in the study area of people living in the study area which seems positive aspect on them; they have started to go to hospital to their health checkups, they

started to send their children to private boarding schools for education, and they started kill hunger by purchasing from market.

In Nepal, there is no problem of market especially for milk, because there is high demand of milk. Most of the people started to stay in urban areas, though agrarian society being empty. To turn this challenge government should make policy and implement its rules and regulations. It should invest its money and mind in dairy farming, it would be the backbone of the nation.

## **5.2 Conclusion**

Obviously, in the study area dairy farming has positive impact on their life as the farmers have changed their thinking. We can see their practical steps; they started to checkup their health on health posts rather than shamans, their children have started to go to school, they changed their daily basis life as they started to think positively. It has increased the income levels of the people, consequently have created self-employment, thus to some extent their status too. Self-confidence, improved status and respect from family members, relatives and neighbors are some of the major positive achievement gained by the dairy farming. Respondents have able to distribute loan among and between friends and relatives. So, it is financially viable, it has affected positively in socio-economic aspect of the dairy farmers and other too. The long-term vision of dairy farming in their socio-economic development can improve farmers' life. Commercialization of dairy farming qualitatively and competitively developing the dairy sector for contributing employment generation and poverty reduction with the participation of government, cooperative and private sector of making good quality milk and dairy products may play vital role to the socio-economic development of the people involved in Dairy Farming in the study area.

In the study area, geographical setting, political instability, internal and external barriers of society, traditional norms and values which are the problems that dairy farmers have to face as a daily basis. Though to overcome such facets dairy farmers and government have to discover new ways of managing animal and milk production to achieve the goals. Dairy farming profession has turned itself an prosperous job as it has enabled rural people's access in social as well as economical betterment which has obviously lead them towards educational, societal and political achievement. It is noteworthy achievement of dairy farming in the study area that most of the respondents have started to think about traditional norms and values about its validity and they are questioning to it. Dairy farmers in the study area are taking dairy farming as a means of betterment of their life but codes and conducts of this country happening on daily making frazing to the farmers of this area.

### **5.3 Recommendations**

Based on the conclusions derived from the findings of the study, opinions of respondents and key informants, observation and experienced gained by the researcher following recommendations are as follows:

- In the summer season it was difficult to feed cattle green fodder, though District Agriculture Office has to assist farmers in grass plantation. Though farmers would be able to feed their cattle green grass in summer season too.
- Dairy farming has positive impact on respondents' socio-economic status though Banking institutions should promote the people to involve in this sector.

- Dairy farmers are facing market competition though Dairy Development Committee of Nepal should provide technical support.
- In the study area farmers are facing doctors scarcity though Veteneary service should be provided by District Vetenary Office. Though the respondents will be benefitted treatment facility to their cattle.
- Farmers in the study are facing capital problem though Government of Nepal should be provided loan on 0% interest. Though the farmers will be encouraged to invest on Dairy Farming. This will help to promote farmers daily lives, students will be benefitted with better education.
- Traditional dairy farming system can be change into modern while one person from one farm house will be taken required training for dairy farming. For that, Dairy Development Corporation should be provided training on free of cost.

### **5.3.1 Recommendation for Further Research**

For further study, it has been suggested that if study is done in this topic the appropriate and its appropriateness would be for further study.

- In this study, the impact of dairy farming has been conduct. Furthermore, it would be better to entail the study on "Dairy Farming, Its Marketing and Challenges".
- Another research on "Government Cooperation in Dairy Farming" in the same area can be conducted.

## REFERENCES

- Acharya, M. and Bennett, L. (1981). *The State of Women in Nepal*, Vol-II part, 9, CEDA, T.U. Kirtipur.
- ADB (2001). *ADB Annual Report 2001*. Kathmandu: Asian Development Bank.
- CBS (2011). *Population Census 2011, National Report*, Kathmandu: UNFPA.
- Dhakal K.H, (1999). *Development of Dairy Farming, A Case Study of Gitanagar VDC*. Central Development, Tribhuvan University.
- Dupire, A.K. (1962). *Organic Farming for Sustainable Agriculture*, New Delhi: Ashila Offset Printers.
- FAO, (2001). *Production Year Book*. Rome: Food and Agriculture Organization of the United Nations.
- Gullette, Michael L. (2015) "CECL Implementation Challenges: The Life of Loan Concept." *American Bankers Association*. 1-11.
- Horowitz, Michael M. (1995). "Dams, Cows, and Vulnerable People: Anthropological Contributions to Sustainable Development" *The Pakistan Development Review*. 34 : 4 Part I, 481–508.
- Horowitz, Michael M., and Jowkar, Forouz (1992). *Pastoral Women and Change in Africa, the Middle East, and Central Asia. A Report from the "Gender Relations of Pastoral and Agropastoral Production" Project for UNIFEM and UNDP*. New York: Institute for Development Anthropology.
- Leonard, D. K. (1993). "Structural Reform of the Veterinary profession in Africa." *The New Institutional Economy, Development and Change*, 24. 227-67.

- Ling, J.C. (1996). *Nitrate Pollution of Underground Water, Ilaryana, Ilaryana Farming.*, CCSIIAU, Ilisar, India.
- Ling, P.P. and Ruzhitsky, V.N. (1996). Machine Vision Techniques for Measuring the Canopy of Tomato Seedling. *Journal of Agricultural Engineering Research*, Volume 65, 85-95.
- Mamoria, C. B. and Joshi, Raman Lal. (1968). *Principles and Practice of Marketing in India*. New Delhi: Kitab Mahal.
- Nanda, A.S. (2003). *Experiences with urea-molasses multnutrient blocks in buffalo production and reproduction in smallholder dairy farming, Punjab, India*. Department of Animal Reproduction, Gynaecology & Obstetrics, Punjab Agricultural University, Ludhiana, India.
- Organization/ICIMOD Budhathoki, M., (2007). "*Dairy Co-operative and Rural Development, A Case Study of Banepa: Kavre District*". Padma Kanya Campus, Kathmandu.
- Prasad, M. (2003). A Paper Presented in the "*Program on Development of Rural Financing Institution and Co-operation*" Kathmandu: Bhatbhateni, Nepal.
- Pro-Poor Livestock Policy Initiative (PPLPI) (2004). *Pro-Poor Livestock Policy Initiative: A Living from Livestock - Research Report*.
- Rasali S.B., (1990). *Present Status of Indigenous Buffalo Genetic Resources in the Western Hills of Nepal*. An Unpublished Master Degree Thesis, CEDECEN, T.U.
- Sharma, Bikash and Banskota, Kamal (2005). *Smallholder Dairy Farming in Nepal: Characteristics, Constraints, and Development*

*Opportunities.* Kathmandu: Centre for Resources and Environmental Studies (CREST).

Suva, Samabula (2009). *Investment Opportunitites in the Dairy Industry in Fiji Islands.* Fiji : Fiiji Islands Trade & Investment Bureau

Tulachan P.M. and Neupane, A. (2002) *Livestock in Mixed Farming Systems of the Hindu Kush Himalayas: Trends and Sustainability.* Kathmandu: Food and Agriculture

Upadhayay, R. P. (2007). *Prospect of Eco-Religious Tourism in ChiwanValley: Problems and Challenges,* Nepalese Journal of Development and Rural Studies Vol. 4. No.2, Central Development of Rural Development.

Upton, Martin. (2004). *The Role of Livestock in Econoic Development and Poverty Reduction.* Rome: Pro-Poor Livestock Policy Iintiative



## ANNEX I

### QUESTIONNAIRE

#### 1. Detail of Information

Name of respondent:..... Cast:.....

VDC:..... Ward No: .....

Religions:.....

#### 2. Family Information

No. of Population

- i. Up to 4 members
- ii. 4-6 members
- iii. 6 and above

Age Structure

- i. (0-15) years
- ii. (15-30) years
- iii. (30-45) years
- iv. (45-60) years
- v. 60+ years

#### 3. No of cattle's

S.N.	Cattles	No.
I	Buffaloes	
Ii	Cows	
Iii	Goat	
Iv	Ox	
V	Pig	

4. No of cattle's which produces milk

S.N.	Cattles	No.
I	Buffaloes	
ii	Cows	

5. From where have you collect foddors?

Cattles	No.
Community Forest	
National Forest	
Own land	
Private land(lease)	

6. How much amount is needed per day?

- i. 2 packets
- ii. 4 packets
- iii. 5 packets
- iii. 6 packets

7. Additional feeding materials

Per cattle per day

Cattles	Per day
Buffaloes	
Cows	

8. How much invested:

Below lakh

- i. (1-2) lakh
- ii. (2-32) lakh
- iii. (3-4) lakh
- iv. (4-5) lakh
- v. 5 lakh

9. Detail of investment

- i. Shed
- ii. Cow
- iii. Buffalo
- iv. Grass

10. Source of investment

- i. Saving
- ii. Bank
- iii. Co-operation
- iv. Friend/relation

11. Milk production per day

i. 0-5 liters

ii. 5-10 liters

iii. 10-15 liters

iii. 15-20 liters

v. 20-25 liters

12. Utilization of production

i. Home consumption

ii. For sale

13. Where do they sale?

i. collection Centre

ii. Individual home supply

14. Family Occupation

Engage in sector	before	after
Agriculture		
Business		
Labour		
Job		

15. No. of employ

Engage in sector	before	after
Agriculture		
Business		
Labour		
Job		

16. No. of Income

Engage in sector	before	after
Agriculture		
Business		
Labour		
Job		

### 17. Food Sufficiency

Months	Before	No.	After	No.
Below 3 months				
(3-6) months				
(6-9) months				
(9-1) months				
Surplus				

### 18. Education

No. of enrollment	Before	No.	After	No.

### 19. Place of Education

Institute	Before	After
Government		
Private		
Out of place		

### 20. Where do they go for treatment for health?

Place	Before	After
Dhami		
Jhakri		
Hospital		

### 21. What are the problems of commercial farming?

- |                                   |                          |
|-----------------------------------|--------------------------|
| i. Economic Problem               | ii. Political Problem    |
| iii. Market Problem               | iv. Inadequate grassland |
| v. Purchase cattle (cow, buffalo) | vi. Food Problem         |

22. What are prospect?

.....

.....

.....

.....

23. What can be done to overcome the problem?

.....

.....

.....

.....

.....

.....

## ANNEX II

### Guidelines for Focus group discussion

1. Where did you go to treatment before involving dairy farming?

.....

2. Where do you go to treatment after involving dairy farming?

.....

3. Is there any change in your children's schools after involving dairy farming?

.....

4. What are the problems of dairy farming in your area?

.....

5. What are the prospects of dairy farming in your area?

.....

6. Is it increasing on feeding condition after and before Dairy farming?

.....

7. What can be done to overcome the problem?

.....

## ANNEX III

### Observation Checklist

1. Consumption of Milk.

.....  
.....

2. Devotion towards dairy farming.

.....  
.....

3. Respondents health related behavior after involving on diary occupation.

.....  
.....

4. Sufficiency on food supply.

.....  
.....

5. Problem faced by the farmers on dairy occupation.

.....  
.....

6. Possible prospects on dairy farming.

.....  
.....

7. Increment of investment of money on education by the respondents.

.....  
.....

8. Condition of machines used by dairy.

.....  
.....

9. Availability of technicians and road facility to collect and deliver milk and milk related stuffs.

.....  
.....

**IMPACT OF DAIRY FARMING ON SOCIO-ECONOMIC  
CONDITION OF PEOPLE :**

**A Case Study of Ugratara, VDC Kavre, Nepal**

**A Thesis Submitted to  
The Central Department of Rural Development,  
Tribhuvan University,  
In partial fulfillment of the requirements for the  
Degree of the Master of Arts (M. A.)  
in  
Rural Development**

**By  
DIPA RAUT  
Central Department of Rural Development  
Tribhuvan University,  
TU. Reg no: 6-1-274-48-2001  
Exam Role No: 282315  
August, 2016**