

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Agriculture is the major sector of Nepalese economic. Agriculture in Nepal has long been based on subsistence farming, particularly in the hilly regions where peasants drive their farms on fragmented plots of land cultivated in difficult conditions. Over 80 percent of population is involved in agriculture, which constitutes 41 percent of GDP (MOF,2015).The seasonal nature of farming leads to widespread underemployment, but programs to grow cash crops and encourage cottage industries have had some success over the years. Nepal as a democratic country, glorifies with its diversity in land, language, cultures, customs and people. It is renowned in the world for ' Mt. Everest' is the highest peak of the world. Nepal ranks in the second position for the water resources in the world after Brazil. Nepal is the one of the land locked country which lying between China and India.

In the study area of Nepal, coffee plantation was started from Aapchour VDC, of Gulmi district in Lumbini zone, of western Nepal by Hira giri in 1994 A.D. He bought the seed of coffee from , some other neighbor also started to plant coffee in their Kitchen garden for their own use. The coffee cultivation for commercial purpose took place in larger scale since 2033 King Birendra also visited as an official visit to Aapchour in 2043. So, it is a recent crop for the Nepalese farmer and is the only one first example of crop and technology for them which was started to cultivate by the farmer themselves without any organized initiation with plan and spread in other districts too.

The total area of Nepal is 1,47,181 sq.km. with a population of 2,64,94,504 on an average annual growth rate 1.35 percent, female accounted 1,36,45,493 (48.49 Percent) and male for the remaining 1,28,49,041 (51.51 Percent). Nepal occupies 68 percent (100,083 sq.km.) in hilly region is formed by mahabharat range soaring up to 4,877m and 17 percent (25,021 sq. km.) In Terai region and remaining 15 percent (22,077 sq. km.) is Himalayan region covered by snow throughout the year with solitary precipices, rock and

glorious peaks. Nepal is located in between the latitude 26.22° N. to 30.27° North and longitude 80.4° East to 88.12° East and elevation range from 90 meters to 8848 meters. The average length being 885 km East to West and average breadth is about 193 km. North to South. Being a small landlocked country, it's border with is China in the North and India in the south , East and West. (CBS 2011)

In Nepalese agriculture sector, the crops are divided into four board categories. They are cereal crops, cash crops, pulse crops and horticulture. The main cereal crops cultivated in Nepal are paddy, maize, wheat, millet and so on. cash crops cultivated in Nepal are coffee, tea, jute, sugracane, tobacco, mustard, etc. The main pulse crops cultivated in Nepal are lentil, pea, bean , black gram, grass gram, horse gram etc. Horticultures cultivated in Nepal are apple, mango, orange, lemon, banana, jackfruit etc. Nepal is one of the poorest and underdevelopment countries in the world. Agriculture is the backbone of Nepalese economy.(MAOC 2013)

The first knowledge and use of coffee is not certainly known. It s seems to be discovered by mere accident. The development of the world coffee industry resulted from the horticulture skill of Dutch who moved the plant from Yemen to Batavia and then to Amsterdam where they were successful in producing an abundance of seeds to distribute to their colonies. Different religious mainly catholic mission and colonial administrators and merchants later played an important role in distributing coffee seeds and technologies throughout the world .Nepal from traditional subsistence food crops to commercial and agro-based industrial crops which will help the nation to modernize and support earnings.

For the development of coffee and it's export, the District Co-operative office, Gulmi has stabilized the coffee refinement industry and has encourage the farmers for getting training and seeds. It is also exporting coffee to the abroad purchasing from farmers and refining in it's own industry. Huller grander, roster, pulping, switching, mashing and packaging machines have been installed in this cooperative. Interested exporters can also get coffee through this cooperative. It's cultivation is being expanded day per day because of the various services from Governmental authorities as well as from the private sector.(DAO, 2071)

Some efforts have been made to improve agriculture sector for many years. There are two major branches of agriculture production i.e. main crops and cash crops. Because of different geographical reason, soils and climate conditions in Nepal, no single pattern of agriculture activities is suitable. In the hilly region and higher mountain area, cultivated land for production is limited. In the mid- hilly region, crops like buck wheat, maize, millet as well as oil seeds, potato, cardamom, ginger, tea and coffee can be produced. So, specific cash crops should be developed on the basis of geographical climate.

Finally, There are two types of coffee international trade. (Arabica and Robusta) only Arabica plants are planted in Nepal and also Arabica is highly quality and most preferable coffee in the world. The Arabica coffee is highly demand in the international situation. But supply is limited in our country labor and capital intensive technique, so limited coffee production in Nepal. In Nepal, the coffee production management is less federal instability. Coffee is consumed as easily, but it is not highly demand like tea in Nepal. Coffee and tea are similar in rural because lack of knowledge about coffee. Coffee is highly demand in winter season.

1.2 Statement of the problem

Nepal is one of the less developed country. Because over the 80 percent people are engaged on the agriculture but various farmers constraint in the field of agriculture sector. Traditional and subsistence farming system of the coffee is one the exportable cash crops and sources of foreign currency crop and also government of revenue (NTCDB,2071).

There are various problems like as lack of knowledge, capital and equipment which are facing by farmers. Market problem and fluctuation of price is another aspect. Due to these problems the production of coffee could not grow expected level. Though farmers produce coffee but they are deprived in determination price. They are compelled to sell their product at minimum price. There is gap between the level of price of coffee comparison in between international market price and what the Nepalese farmer get.

Coffee farming has been a new experience for traditional and ignorant farmers. On the other hand, most farmers have no knowledge about the farming of coffee production and Government and other agencies have paid no kin interest in providing basic infrastructure on coffee farming practically. Lack of knowledge and training was seen as the main problem in the coffee farming. There may be problem in identifying proper technology and proper use to fertilizer. Lack of irrigation facilities, marketing and transportation system, efficient manpower may be the problems in coffee farming. Poverty is the main problem of the coffee development program, because farmers have varieties of coffee, which have less productive capacity and suffer from disease and insects due to lack of sufficient fund because the people far from village. The main problem is the sell of product market is limited, qualitative plants are not available and there are not local customer consumption for coffee. However, the above facts describe the statement of the problem. The study has attempt to answer the following questions ,

- What is the present condition of coffee grower of the selected area?
- What is the marketing system in the study area?
- How the supporting institutions working for the coffee growers in the study area?

1.3 Objectives of the study

The general objective of this study concerned with production and marketing of coffee in Arbeni Community of Gulmi district.

Where the specific objectives of are as follows:

1. To analyze coffee production in the study area,
2. To study the present marketing system of coffee in Arbeni VDC Gulmi, and
3. To identify the problems and prospects of the coffee farming.

1.4 Significance of the study

Agriculture is the main part of the occupation. It plays the dominant role in the economic development in Nepal. The significance of the sector accounts much for food requirement, raw-materials for agro-based industries export. Besides other food grains and other commercial crops, coffee is large quantity traditionally because of its economic significance. So, it is essential to analyze its production process and on the basis of the finding what steps will be taken effectively to increase its productivity and encourage profitability. So, how to analyze its production mechanism and finding what steps will be taken effectively to increase the coffee production. The study will be helpful in analyzing coffee production in Arbani VDC, Gulmi district. The study who are interested to know about the coffee production, for effect on farmers recent situation and marketing in the study area of the coffee product.

The Findings of the study may be investor, marketing agent of the coffee production maker and implementers as well as change agent of coffee, role of the policy maker and production sector. The study may also be useful present employment situation particularly in the study area.

1.5 Limitations of the study

The limitation of this study is given as follows:

1. The main constraint are time factors as well as finance, due to which large sample has not been included to study area.
2. The study is only related with the coffee farming and its marketing system of the sample area
3. Coffee cultivation is different parts of the country, Arbani VDC of Gulmi District has been taken for study. So, the selected area may not recant the situation of the whole economy.
4. The study will be only small sample and limited data include.

1.6 Organization of the study area

This study has been organized into following six chapter:

The first chapter is related to general background of the study, statement of the problems, objective of the study, significant of the study, limitation of the study and organization of the study. Review of literature in coffee production sectors is the main contain of the second chapter. The third chapter is related with research methodology, selected of the study area, Research design, Nature and source of Data collection, Universe and sampled population data Observation, Interview, and Data Analysis method. The fourth chapter presents the related with coffee production trend analysis. Coffee production trend in Nepal, Gulmi, export and import situation, sale of coffee, it's price are covered in this chapter. There is profitability of coffee production plantation stage, growing stage, and fruiting stage costs, revenue generation and revenue-cost analysis in the fourth chapter. The main objective of the study, prospects and problem of coffee production is included in the fifth chapter. Market problem, diseases, insects and pests, technical knowledge, financial problems are the main problem in the study area. It is also includes future prospects of coffee production and finally the thesis is concluded in sixth chapter. It contains summary, conclusion and recommendation of the study.

CHAPTER: TWO

REVIEW OF LITERATURE

In the concept of Nepal some student and institutions have prepared research concerning coffee production cultivation and marketing .coffee which is originated in Ethiopia in now growth in over eighty countries and today the second most important as a source of income generation for producer and employers. Theoretical and Empirical studies are available in the field of world coffee sector.

2.1 Theoretical Literature

2.1.1 International Context

According to coffee history legend and Arabian shepherded named kaldi found his goats dancing justly around a dark green leafed sharub with bright red cheerios in the southern tip of the Arabian peninsula, Kaldi soon determined that it was the bright red cheerios on the shrub that were causing the popular euphoria and ico after trying the cheerios himself, he learned of their power effect. The stimulating effect was then exploited by monks at a local monastery to stay awake during extended hours of prayer and distributed to other monasteries around the world coffee was born.(international coffee organization Ico 2015.)

Kung and Poerck (1968), mentioned that present status of coffee production and trade in Africa ,North and central America, south America Asia Oceania ,Australia and Antilles. According to this survey coffee is produce on same 3 to 4 million farm units in the world. All of the countries analyzed, more than half-grow coffee exclusively on small holding and in many others small and medium size coffee orchard predominate. coffee is thus of considerable importance to small holders in the tropics. Only it is rarely a cash crop needed for the subsistence of farmers. coffee has contributed substantially much more then coca or any other. crop in the tropic to raise the standard of living of millions of people, particularly in Africa. This study has also pointed out that most of the

coffee growing countries this crop been established has been hundreds of thousands of hectares without the guidance of research work. This survey also shows only very few countries are giving serious consideration to research and experimental work and that is about one third of countries, no coffee work of any kind is in progress.

Varangis (1989) Conducted important survey in which the study concludes that coffee, tea and coca are grown in almost every tropical and subtropical country along the most important export crops of developing countries an economic model of the world coffee market has been developed and analyzed in different aspect of the world coffee production trade and consumption. while explaining the consumption behavior of coffee, it states that coffee, tea and coca are non-competing commodities in the market of developed countries.

Food and Agriculture organization (1997), states the coffee is the second most valuable commodity in international trade, surpassed only by petroleum its products in spite of its high economic important to many nations, production methods are still primitive in many others, it is still considered a forest plant, efforts being made to create artificially an environment similar to that prevailing in it's native habits in others it is grown without any aliment in association with banana, cocoa, rubber and various fruit trees or even annual food crops. It is only in a few regions that coffee is grown intensively as an orchard crop according to modern technique to secure the highest economic production per hectare of a high-quality product. This study has presents two types coffee: Arabica and Robusta. excels are not so important from the economic point of view as well as world trade perceptions. Arabica coffee is more than Robusta.

Weitz (1978) has explained the characteristics of agriculture in LDCs for the vast number of families whose members contribute to the agriculture work. Agriculture is not merely and occupation or a source of income but it is way of life. so any change in farming system not only by the innovation of technological change, it is also necessary to change natural and economic condition, attitude, values and abilities.

world consumption of coffee is projected to increase by 0.4 percent annually from 6.7 million tons (111 million bags) in 1998-2000 to 6.9 million tons (117 million bags) in 2010.

Gyawali,(2003) Covers that the overall coffee production and assess in foreign market during the study period has been trend and it has equally decreased by during that after the establishment of Nepal Tea and Coffee development board , price problem of coffee growers have solved. coffee farming has helped to create the employment opportunity for brokers labors for picking grading drying ,crying some supported institutions have engaged in coffee production, in her study area. Modern technology fertilizer chemical equipment are lacking in her study area.

Varanghis (2008) States a profile of coffee sector, like crop area and yield ,production and export ,quality and processing commercialization described some policy and issues and exchange rate policy were the main policies and issues in the survey. The reports, has taken two main recommendation:(i) coffee washing station should be established in order to improved the quality and marketability of the coffee beans.(ii) a policy of real producer price increase should be adopted to avoid the prospective decline in coffee production. This report has concerned that recommendation. The study concluded that, however coffee growing in the domination Republic has been characterized by low yields and production and export over the last ten years or so: ,if the current policies affecting the coffee sub-sectors continue, it is very likely that coffee production and exports would be decline.

In 2010, global coffee net-exports is projected to reach 5.5 million tons (92 million bags).Latin America and the Caribbean ,with and export of 2.9 million tons (48 million bags),is exported region „although there will be a decline in the net exports of 0.5 percent annually. by contrast , in Africa there will be a net export increases at a rate of 1.6 percent annually, reaching 1.0 million tons (17 million bags) and accounting for a 18 percent share of global exports. In Asia, export availabilities are expected to grown to 1.5 million tons (24 million bags) in 2010.

International coffee organization, 2014/2015, in its publication the international coffee organization on estimated global coffee production in

2014/115 at 141.9 million 60 kg bags, down 33 percent from the previous season.

The inter-governmental body said in monthly update that it was confident that the current crop year , 2014/15. will end in significant deficit of at least 8 million bags.

2.1.2 National Context

NTCDB, In Nepal as well as Gulmi District suitable climate available for coffee. After 1975 AD coffee production becomes planned and systematic in Nepal. In 1984 AD. His majesty king Birendra visit aanpachaur VDC Gulmi district and ordered government to developed that sector. Then after sometime government established "Coffee Development Center"(CDC) in Aanpachaur VDC, Gulmi in 1985 AD. which was run under the ministry of agriculture. The coffee production, so ministry in National Tea and Coffee Development Board .

Bhandari, (1993) In his study describes problem of coffee cultivation as technical knowledge and training technical Bhandari supports, insect and disease control leadership development ,transportation, marketing and availability of land. the main theme of his study is that the physical condition is suitable for future extension of coffee cultivation in Gulmi. similarly, the increasing demand is national and international market indicates the bright future of coffee cultivation in Nepal, but coffee cultivation is facing several problem arising in the field of coffee farming.

Specific year 2012) NTCDB

The recent statistical reports of National Tea and Coffee Development Board (NTCDB), 2011/2012 shows that the total area of tea plantation is 18149 hectares and the total tea production is 1,83,09,982 kg . Based on this statistic of tea plantation area, the approximate number of workers can calculated using the established norm of (west Bengal, India) at the rate of 2.5 workers per hectare of plantation i.e. (18149 X2.5), which makes around 45,373 workers.

Acharya (1991) States that coffee is relatively a new crop though it's cultivation first time was done in the early fifteen however commercial

farming was started in 1977. so, there were very limited literature and studies in this field. The general introduction about coffee cultivation and processing technique was found explaining. This book stressed on reducing import of coffee and increase in quality with qualitative production so that self sufficient goal will be achieved and it could be developed as export commodity.

Katuwal et. at.(1998) attempted to outline the research needs in variety development, production, processing and marketing of coffee in Nepal as an export commodity. This article also was concerned of specilization in one of two, forms of production namely organic or inorganic made of coffee. The organic made of production would be costly per unit of coffee produced but could compensated by the higher price.

Amgai (1997), Stated that while analyzing overall socio-economic, progress due to the lack of technical knowledge, and adequated extension services. Nowadays, consumers are serious for their feeding habit and health. The protection of coffee form the use of insecticides which is demanding in international market, so the price of organic coffee do not affect to the consumers due to the availability of organic coffee. The organic coffee is helpful for human health. so, it is needed to extend coffee farming in the form of organic coffee in Nepal.

Bajracharya and Pathak (2001) States that the coffee for technical support, financial and input supply, market and policy support. Nepal mainly exports coffee to Japan and Holland. Additional benefit can be generated form inter cropping of coffee with compared to maize and wheat. It will virtually eliminate unemployment situation and may generated some additional employment opportunities too.

Gyawali (2003) , Covers that the overall coffee production and assess in foreign market during the study period has been trend and it has equally decreased by during that period. she also found that after the establishment of Nepal Tea and coffee growers have solved. Coffee farming has helped to create the employment opportunity. It creates the employment opportunity for brokers labours for picking grading drying, carrying. some supported institutions have engaged in coffee production, in her study area. modern technology, fertilizer chemical equipments are lacking in her study area.

Thapa, (2006) Indicates that the topography and climate of Nepal is suitable for orthodox tea production and the demand of tea is increasing day by day in tea world market. However, there are a lot of challenges in tea production which are related to government manufacturing and marketing. It concludes that should be commitment for tea development of Nepal.

Shrestha (2008) States that coffee is a "non alcoholic" beverage. The cultivation of coffee is done in tropical and sub-tropical climates. Nepal imports coffee dust and roasted bees to an average value of more than 3 million every year mainly from India. At present coffee production could be a major means of increasing income of farmers by utilization their fallow, marginal forest land for coffee production.

NTCDB (2010), The annual production of coffee in 2003/4 is 108 Mt and productivity per hectare is 116.75 kg. At least in 2009/10 the annual production reached in 417 Mt and it 2008/9 productivity reached in 218.15 kg per hectare while shows that annually production and productivity of coffee are increasing. The Nepalese coffee production trend is positively increasing which shows farmers are interested to coffee farming and they produced organic coffee which is most demanded in the American and European country.

Regmi (2012) States that coffee is the world's most widely traded tropical agriculture commodity, accounting for exports worth an estimated us dollar 15.4 billion in 2009/10,when some,93.4 million bags shipped some 70 countries produce coffee organization are responsible for over 97 percent of world output. In 2010 total coffee sector employment was estimate at about 26 million people in 52 producing country.

The recent statistical report of national Tea and coffee Development Board 2071/72 shows that the total area of tea plantation is 18149 hectares and total tea production is 1,83,09,82 kg. Based on this statistic of tea plantation area, the approximate number of workers can be calculated using the established norm of (west Being , India) at the rate of 205 workers per hectare of plantation i.e. (18149 x2.5),which makes around 43,373 workers. (NTCDB ,2071/72)

The Kathmandu Post: March 31,2015

The Kathmandu post publication an article about coffee production in Nepali producers have been striving for a bitter slice of the action with improved packing, processing and marketing of their products. Traders said that sales had been growing as more Nepali's were drinking coffee.

Royal Himalaya, Royal Everest, Highland, Himalayan Java Annapurna organic morning fresh Lalitpur organic coffee, Johnny Gurkha Blend coffee and Jalap Gold are some of the domestic coffee brands sold in the market

A few years ago only foreign tourist used to buy Nepali coffee but lately the number of Nepali coffee drinkers has lots up ,said Ram Sharan phuyal, operation manager of Himalayan Java. A 300 while a 450 gm packet cost Rs 800. Although the consumption of coffee has not risen. According to the Nepal Tea and Coffee Development Board (NTCDB) output sirlanka to 366 tons in the last fiscal year from 418 tons in the previous year.

The National Tea and Coffee Development Board (NTCDB) Of Nepal will provide subside to coffee growers in order to boost production. The support aims at increasing coffee production and growing demand in both domestic and international market stated NTCDB executive director Raman pathak compared to the demand of 2500-3000 tonns a year, the current production stands at just 500 tonns. According to NTCDB, farmers planting at least 10000 sampling would be considered for the 50 percent grant supper

2.2 Empirical Literature

2.2.1 International Context:

September 2015, ico.org world coffee exports amounted to 8.87 million bags in September 2015; compared with 9.40 million bags in September 2014. Exports in coffee year 2014/15 have fallen by 3.1 to 110.75 million bags in the coffee year. In the twelve month ending September 2015, exports of Arabica totaled 68.40 million bags compared to 64.70 million bags last year whereas Robusta exports amounted to 42.35 million bags compared to 44.53 million bags

2.2.2 National context

Acharya , (1991) in his books states that coffee is relatively a recent crop though its cultivation for the first time was done in the early fifteen however, commercial farming was stalled in 1977. so, there are very limited literature and studies in this field. The general introduction about coffee cultivation, farming and processing technique is found explaining in "coffee khettee" written by Lekh Nath Acharya and in "coffee khettee Ek parichary" by Bed kumar shrestha . Analyzing with different aspects of coffee cultivation and processing method, these both booklets stress on production so that self sufficiency goal will be achieved and it can be developed as export commodity. so, these works stress on the systematic and planned coffee cultivation in possible areas to fulfill domestic demand and quality production. Bed Kumar shrestha also suggest that NECCO should purchase only parchment coffee through coffee processing committees, so that it's quality will meet the international standard. He has also stated coffee cultivation as profitable business for the rural farmers.

Bhandari, (1993) , in his dissertation describes problems of coffee cultivation as; technical support, insect and disease control leadership development, transportation, marketing and availability of land. The main theme of his study is that the physical condition is suitable for future of coffee cultivation in Nepal , but coffee cultivation is facing several problems at present. He further pointed to the relative sector to reduce the problems arising in the field of coffee farming.

Khanal (1997) ,in his thesis states that coffee production would be beneficial not only for income generation, but also saving foreign currency and to create employment. The study has shown that the coffee production has gradually been decreasing for the last few years because the irrigation facility for coffee production delivered first, but most of the farmers diverted their land from cash crops production for easy and fast cropping system.

Ghimire (2001),also carried out a research work to analyze the profitability of coffee using the benefit cost ratio. He has chosen Gulmi district as study area and used primary as well as secondary data so show that coffee is relatively profitable than cereal crops. In the mid-hilly region of Nepal, maize, millet and wheat are grown traditionally from which people can't get benefit. He

emphasized on the intercropping with coffee from which double revenue could be generated. He has used the cost benefit analysis of coffee farming taking the estimated life period of coffee (35 years). Then using the NPV criterion, he has proved that the coffee farming is a most profitable occupation in the study area as well as mid- hilly region of western part of Nepal. He further stated that major support services need to the coffee growers were the training ,credit extension services, sampling, agricultural inputs, etc. Though some agencies were providing support services to the farming area, only 28.6% people were unable to get any help from them. It was just because of their low level of education. In that study, problems connected with coffee growers were identified as; lack of knowledge and training, technical support, leadership development credit, supply of compost. He has also given some suggestion to remove these problem and analyzed the future prospects.

Gyawaly (2003),in her research work covers that the overall coffee production assess in foreign market during the study period has been trend it has equally decreased by during that period. She also found that after the establishment of Nepal Tea and Coffee Development Board, price problem of coffee growers have solved. Coffee farming has helped to create employment opportunity. Modern technology, fertilizer chemical equipment are lacking in her study area.

Shrestha (2005), in his thesis concludes that the coffee growers are still optimistic about future better prospect of coffee farming and he advised the people of the study area to grow coffee plants by providing incentives such as giving the economical, technological and other necessary supports by the government, and other private NGOs, ISOTOs.

Pathak (1997), has use only secondary data and the data were analyzed into descriptive and analytical way. The research states that coffee production is beneficial for income generating, saving foreign currency and to create employment opportunities. He recommendation that the government should provide some strategy to improve the field of coffee production.

Three year interim plan (2007-2010);

The three year interim plan (2007-2010) came with the focused of transforming subsistence based farming into commercial one and conserving, protecting and utilizing agricultural biodiversities via development and dissemination of environmentally friendly technologies. This revealed that this plane has apparently given significance to the organic production of high value crops. Realizing the potentiality and emerging role of coffee on the national income and improving farmers income this plan has included the coffee, among other 22 valuable commodities, as a priority commodity and fixed target of 685 MT from the base year of 360 MT. The Three year plan emphasized mid hill area for the promotion of coffee production.

Facebook.com(FNCCI), The Federation of Nepalese chambers of commerce and industry (FNCCI) is an umbrella Organization of the Nepalese private sector it was established in 1965 with aim of promoting business and industry while protecting the rights and interests of business and industrial communities FNCCI has been playing a key role in promoting business and industry in the country. It provides inter alla, information, advisory, consultative, promotional and government and organize training workshop/seminar on a regular basis.

Nepal trade fair .com (FNCCI) Nepal fair has been created by Federation of Nepalese chambers of commerce and Industry (FNCCI) by collecting the information through It's district chambers, association and then the organize the listing into the subject based categories and sub-categories.

Agriculture perspective plan (APP), The APP (2014/15) is long term strategic policy for accelerating agricultural transforming subsistence based agriculture into commercial one by street nothing the production pockets, reducing poverty by providing the employment opportunities and promoting the involvement of agricultural one of the prioritized output of APP emphasizes paradigm shift from subsistence oriented farming to market oriented farming through a land use system based upon sound ecological principles and conductively agriculture policies and strategies have paved the way for the promotion of coffee as high value and exportable commodity

2.3 Research Gap

Some of the researchers are optimistic about better prospects of coffee farming. Most of them state that the profitability of coffee production is higher than other food crops. They state that coffee growers are totally out of important facilities. Researchers state that modern technology, fertilizer and equipment are lacking in the study area. Most of these studies only focused on coffee cultivation. No specific study has been done on coffee production and

The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge which is required to make study marketing since 2003 in the study area. So this study can provide to find out the realities of above unstudied topic of the study area. This study also focused coffee and marketing system and production socio-economic life of the coffee growers in the study area. Useful and purposive. There has been cultivation rather than coffee production and marketing system in Nepal. Most of the studies have focused on the importance and cost benefit analysis of coffee production. No specific study has been done so far on coffee production and its impact in the study area. Therefore, the study justifies the present work.

This study intends to seek whether modern technology, fertilizer and equipment are still lacking in the study area, creating opportunities for economically disadvantaged producers, whether the coffee farming is developing the skills of producers and creating opportunities for trading their produce. Also, whether the coffee farming ensures that producers are working in a healthy and safe place.

Lots of books and articles published related to coffee cultivation and marketing. These researches have been conducted on coffee

CHAPTER THREE

Research Methodology

3.1 Study Area

particularly, in Nepal Coffee development program was started from Gulmi district and now it has been expanded over 39 districts within the country. Nepal is one of the agriculture countries, coffee is a very important as cash crops. The cash crops play a significant role on the economic life of Nepal. It is not limited to the country but also export to international market. In view of physical condition of Arbeni VDC of Gulmi district the popular chose the study area pertaining to it's easy accessibility and well established coffee Production system. so, this site serves good site to accomplish the objective of the study.

3.2 Research Design

The research has attempted to analyze the effect of coffee production on local farmers on the basis of the specific objective of this research. Research design is the framework for controlling the collection of data. Designing provides a picture to the entire research has been designed to fulfill the objective set in the first chapter of this study. It has been intended to analyze the coffee production and it's marketing in the study area. For this the unit of information was households and type of collection exploration and descriptive research design have been adopted to analyze and interpret the qualitative and quantitative data collected from the concerned field.

3.3 Nature And Source Of Data Collection

The study is based on both primary and secondary type of data collection technique. The secondary data were collected from published and unpublished articles, office progress reports, DDC profile, research work, etc. and primary data was collected through structure qualitative. The nature of data collection was both in qualitative type.

3.4 Data Collection Method

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

3.4.1 Household Survey

It will be concluded that acquire more information about population characteristics i.e. age, sex, composition, religion, martial status etc. through questionnaire, one respondent of a household will be selected for the study purpose. The study will be concerned mainly based on secondary data, primary data will be collected through structured questionnaire with closed as well as open type form . One respondent from each household will be taken for this purpose. The key information were selected from different level at the community as coffee farmers , coffee entrepreneurs elite group, district co-operative coffee and district agriculture development officer with discussion and interview semi structure questionnair had been prepared for key information.

3.4.2 Observations

This technique has been applied to collect required information that are difficult to obtain from the structured questionnaire such as their living standard , social status and perception of the community etc.

3.5 Sampling population

This community consists of Arbeni VDCs. The sampled respondents were chosen from 180 households those who are directly involved in coffee farming. Out of those who are directly involved in coffee farming out of those only 10 percent households were selected for the study. The respondents of the study was taken 10 respondent from each VDCs by purposive sampling method.

3.6 Method of Data Analysis and Interpretation

The data collection from secondary source will be tabulated, and presented in the tables, pie-chart bar-diagram, statistical measurement percentage ratio etc. The published and unpublished data will be analyzed.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 profile of study Area

Gulmi district is a part of western development region of Lumbini zone. The average east west length of this district is 40 km and the north south breadth is 30 km. It is closely located to kaligandaki River. It is 27°65' N to 28°27' N latitude and 83°10' E to 83°35' longitude. The total area of this district is 1245 sq. km. There are 79 VDCs in Gulmi District and Arbeni (the study area) is one of the historical places for coffee farming. It is situated in the north eastern part of the district. The distance from district headquarter is approximately 20 Koss and it is about 27 koss from Gulmi Tamghas (BS 2065/66)

The climate of the study area is subtropical in nature. The average temperature is 14° c to 29° c and average annual rain fall is 2000 mm to 3000 mm. The VDC has situated on the attitude of 520 meters from sea level. The main casts of the study area are Brahmin, Chhetri, Magar, Kami, Damai, and Sarki. The major occupation of the people of study area is agriculture which comprises of coffee farming, vegetable production, food grain crops production like paddy, Maize, Wheat, Millet etc. Some people of the study area engaged in service sectors of either Nepal or abroad also and some are engaged in trade 65 % people of the study area have achieved short and long term business oriented training and 45% people have achieved the skill-oriented training. (VDC Report 2069)

4.1.1 Location and Accessibility

The community is located in the west of Harmichaur VDC, the district headquarter 125 km. far from passes through this community to the west. The basis infrastructure development of the community has fulfilled with the facilities i.e. telephone, post office, electricity, health center, cable, television etc. Mirmi, Deurali Satibeni Thulachaura and sanachaura are the main market

place of the community . The community has three service centers of government (Agriculture, Health and

Livestack) which are located in each VDC. The women rotating micro credit system also found in each of both VDCs. Three coffee producer farmers group one coffee entrepreneurs association also found in the community. About 85 percent of the people are involved in agriculture and livestock and other 10 percent engaged in various sectors business, services, foreign, employment etc. VDC profile , 2072

Health condition of the study area was not found serious. Some waterborne disease, fever, common cold and cough, worms etc are the common diseases of the community.

4.1.2 Natural Resources

The community has some natural resources like forest and watre resource. 43 hectare of the community covers forest under which 13 heactare pasture grassland including both of Harmichaur and Deurali vDC. The irrigation system is normal. There is a Ambat irrigation scheme which covers 50 percent heacter area Arbeni VDCs 1,2,3,4,.....9 wards. A main source of drinking water is dabumkhani hill but some of the small water spring are available for irrigation and drinking purpose. (VDC Profile, 2070)

4.2 Socio-Economic Characteristics of the Respondents

This part of the study presents the distribution of respondent socio-economic characteristics such as age, sex, occupation, martial status, family structure and size etc. Which are presented below erspectively.

4.2.1 Age structure

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

Table 4.1 Age Structure Of the Respondents

Age group	No.of Respondent	percentage	Remarks
Up to 25(young age)	5	20	From 18-25
26-49 (Middle age)	12	65	From 26-48
50+ (old age)	3	15	From 50-59
Total	20	100	—

Field survey, 2071

The table shows that age groups of the respondent ranged from 18 years to 59 years . Majority (65 percent) were of the middle , 20 percent of young and 15 percent of respondent fall under the old age , The facts indicate that middle aged farmer groups are involved in coffee growing activities as following by 20 percent young aged and old age are only 15 percent

4.2.2 Population Distribute by sex

The total population of the study area (sampled population) is 290 out of total population of the study area, males are 49.31 [ercent and female are 50.69 percentage

Table 4.2 population Distribute by sex

Sex	No.of Population	Perce nt
Male	143	49.31
Female	147	50.69
Total	290	100.00

Field survey, 2015

Table 4.2 shows female population is higher (50.69 Percent) than the male population (49.31 Percent) in the study area.

4.2.3 Educational status

Education is the most important part of main kind to adopt the new technology or innovation. Coffee cultivation is a new crops for Nepal. Introduction the new crop in this area should have relation with the education level of farmers. The following table and figure shows the educational level of the respondent of the study area.

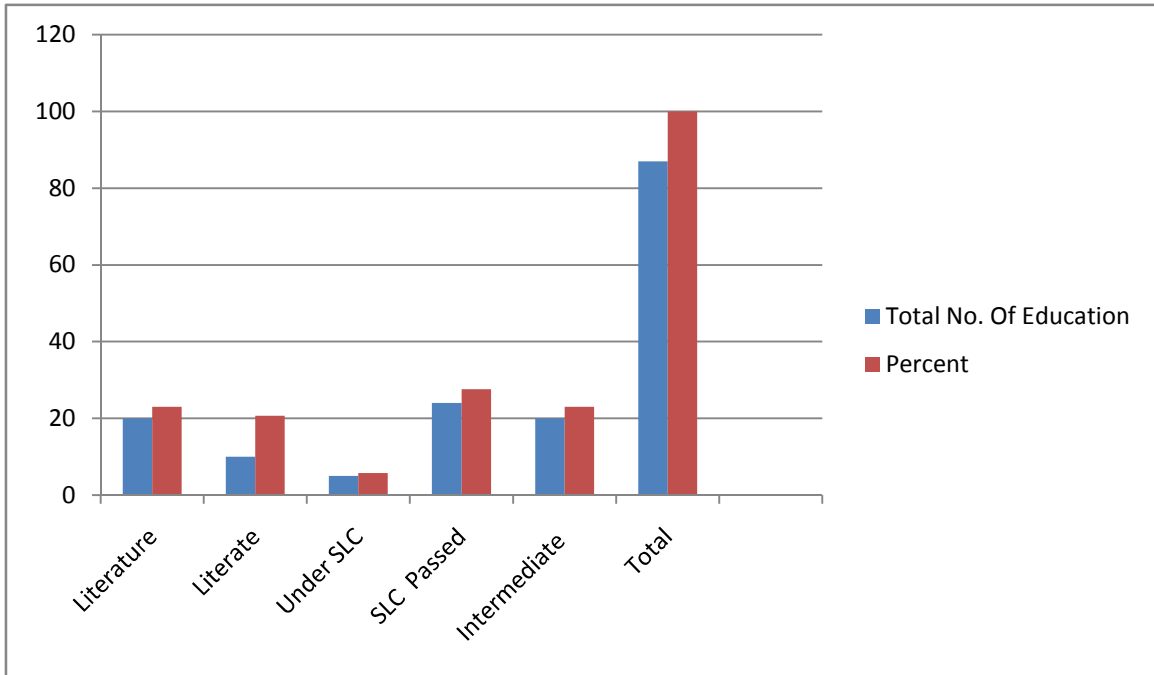
Table 4.3 Education Status

Level Of Education	Total No. Of Education	Percent
Literature	20	22.99
Literate	10	20.69
Under SLC	5	5.75
SLC Passed	24	27.59
Intermediate	20	22.98
Total	87	100.00

Field Survey, 2013

Table 4.1

Education Status



4.2.4 Occupation Structure

Nepal is an agriculture country and most of the depend upon this sector. Most of the people in study area are involved in the agriculture occupation implies the income pattern of the people. This study also aattempts to find out the present occupational status of respondent, that is described below.

Table 4.4
Occupation structure of the Respondent

Occupation of Respondent	No. of population	Percentage
Agriculture	115	83.95
Business Trade	5	3.65
Others	17	12.40
Total	137	100.00

Field survey, 2015

The table 4.4 shows that the 83.95 percent of the respondents were involved in agriculture follows by 3.65 percent each are involved in business trade and 12.40 percent were involved in others in the study area in arbeni VDC.

4.3. Support Service Institution

Support services play a vital role for the development of agriculture sector because the farmers who are in the hilly region being poor as well as ignorant to use modern technology, therefore they can increase their production and improve their economic condition without these services.

There are many agencies who are involved for the development of coffee in Nepal. They are as follows.

- Nepal Tea and Coffee Development Board (NTCDB)
- Ministry of Industry, Commerce and supplies, Export promotion committee
- Department of Agriculture Coffee Development Section.
- Nepal coffee producers Association (NCPA)
- Swiss Association for International Cooperation.

- Trade Promotion Center (TPC)
- Agro Enterprise Center/FNCCI.
- Farmer to Farmer Project of Win rock International, USAID/N.
- Helvetia Nepal.

Among the various support institutions, District agriculture Development Office, Agriculture Development Bank, Agriculture input Corporate, Coffee Development Centre are directly involved in providing support services on the coffee farming activities in the study area. These are the district level support institutions, besides these, some other support institutions are also established far from the study area to support the farmers. They are: Tea and Coffee Development Board Kathmandu, Coffee Development Board, Regional Office Gulmi and Coffee Development Branch Kiritpur: But most of the coffee growers do not deal with these institutions due to ignorant of it as well as being located far from the study area.

The farmers need such support services for appropriate coffee farming. The major support services needed to coffee growers are the training, credit, extension services, saplings, agricultural inputs etc. The situations about these services in the study area are described in detail as below.

4.4 Coffee production Trend in Nepal

Coffee is promising crop of Nepal due to availability of soil with fragile nature and appropriate climate conditions in the mid-hills. The coffee production has been started commercially in Nepal in 2032 BS. Now, it has spread to 39 districts, which have started coffee farming in commercial point of view. In fiscal year 2051/52, the total coffee production was 12.95 metric ton. In fiscal year 2053/54, the plantation area increased to 220.30 hectare and 29.20 metric ton coffee was produced. The plantation area and coffee production quantity increased gradually. Then in the fiscal year 2071/72, the plantation area reached to 1752 hectares and 502 metric tons coffee has been produced during the year. Following Table's shows as a clear picture of coffee production and plantation of different year

Table 4.5**Coffee production and plantation on Different year's**

Fiscal Year	Coffee Plantation area (Hectares)	Production (In M.T.)
2051/52	135.7	12.95, dry cherry
2052/53	220.3	29.20, dry cherry
2053/54	259.0	37.35, dry cherry
2054/55	272.2	55.90, dry cherry
2055/56	277.1	44.50, dry cherry
2056/57	314.3	72.40, dry cherry
2057/58	424	88.70, dry charry
2058/59	596	139.20 " "
2059/60	764	187.50 " "
2060/61	952	217.50 " "
2061/62	1078	250.00 " "
2062/63	1285	391.00 " "
2063/64	1396	270, dry parchment
2064/65	1450	265, " "
2065/66	1531	334, " "
2066/67	1630	429, " "
2067/68	1752	502, " "
2068/69	1760	523, " "
2069/70	1750	457, " "

NTCDB, Nepal

The figure of coffee production given in Table 1.4 indicated that there is significant increase in coffee production as we as area covered to coffee production, we obtained a 128 percent of annual growth rate i coffee production. This trend shows the coffee producers attraction in coffee farming. respecting the interest of people on coffee and favorable climates conditions for cultivation, Ministry of agriculture decided to launch coffee development program in the country. The government provided technical and financial support to coffee growers. It's cultivation has gradually spread to about 40 district of mid- hills of Nepal. Gulmi, palpa, Lalitpur ,syangja , Kaski, sindhupalchok , Kavre are some district known for coffee production. Followinf

tables shows the details of district wise area covered and coffee production quantity for the fiscal year 2069/70

4.5 Production trend of coffee in the study area of last five years

Production trend of coffee, was not smoothly increasing, it is fluctuation because there were so many reasons behind to decrease or increase coffee production. Sometimes plan problem, sometimes pesticides and technicians, mentioned problems but all things combination is better at the same time period, the production increases whose trend is shown below during last five year

Production trend of coffee in the study area during last five year's

Table 4.6

Years	Production (in quintal)	Percent
2067	360	12.25
2068	500	17.00
2069	630	21.43
2070	750	25.52
2071	700	23.80
Total	2940	100.00

Field survey, 2015

Figure 4.6 shows that the highest production of coffee was in (2070 B.S.) and 2068 B.S. the production decrease due to lack of sampling quality, pesticides, technical advice, irrigation, climate change and disease.

4.6 District Area of Coffee Production

Major objective of the study report is the coffee production in Gulmi District. This district is well known for the production of quality coffee. This district is climatically very much favorable location for coffee production and has good potentiality for specialty organic coffee production. Production area belongs to an altitude above 1000 meters from sea level.

Gulmi District is birth place of coffee. Coffee cultivation started from 1995 BS in Aanpchaur VDC of gulmi district. At the beginning, people planted coffee not for commercial purpose but for their desire of pleasure. The farmer of other VDCs than started to plant coffee trees. After that, ADB/N, some NGOs and INGOs provided loan and other facilities for coffee growers then it was spread to other VDCs of Gulmi district also.

Table 4.7

Coffee Production and plantation Area for Fiscal Year 2070/71

S. No.	Districts	Total area (Hectares)	Green Bean Production (MT)
1.	Palpa	188	22.7
2.	Gulmi	112	45.2
3.	Arghakhachi	76	23.5
4.	Syangja	230	48.4
5.	Kaski	95	24.6
6.	Parbat	45	9.5
7.	Lamjung	149	15.00
8.	Gorkha	95	5.5
9.	Baglung	42	14.7
10.	Tanahu	52	4
11.	Mayagadi	12	2
12.	Sankhuwashava	18	3.00
13.	Ilam	45	15.00
14.	Rasuwa	32	1.00
15.	Panchthar	33	7.00
16.	Lalitpur	115	47.8
17.	Sindhupalchok	87	17.3
18.	Kavrepalanchok	130	35.00
19.	Nuwakkot	79	30.5
20.	Dhading	35	6.5
21.	Makawanpur	25	4.00
22.	Othrs Districts	47	19.3
Total		1752	401.5

NTCDB, Nepal

In Nepal there are great potentiality for coffee cultivation, in hilly area, because of to suitable climate, topography, soil structure, relative humidity,

temperature and rainfall. In 2070/711 the plantation area reached around 1752 hector and production reached 401.5 Mt.

4.7 Production Cost of Coffee Farming

The principle objective of this study is to evaluate profitability of coffee farming in Arbeni community as well as mid-hilly region of western part of Nepal. So the sample income-expenditure analysis has been done for calculating profitability. For this purpose, it is necessary to calculate cost of production and revenue generated by coffee production as well as to make comparison with other traditional crops, the calculating of cost and revenue has virtually not been carried out by the coffee growers. first of all, cost of production on coffee farming has been estimated reports given by experienced coffee growers and estimated reports (data) have been checked by Coffee Development Center (CDC), Arbeni Gulmi as far as possible. The respondent were asked to report each item of cost for each stage on coffee farming and it has tried to calculate accurate cost of production as far as possible by calculating average production cost of per ropani. The number of coffee plants for one Ropani was also found out by reports of experienced coffee growers, that is 90 trees per Ropani in average in the study area. Production cost consists of the labour input cost and other inputs (Capital) cost in different stage of coffee production, in the study area, all the farmers (coffee growers) have their own land ,hence cost of land has not been included. Because this study aims to evaluate the profitability of coffee farming in the study area as well as mid-hilly region of western part of Nepal ,In comparison to other traditional crops (food grain) which are grown by the farmers on their own land. The cost of production on coffee farming for each item as well as each stage is mentioned below respectively.

4.7.1 Planting Stage cost

The planting stage cost implies the total cost of coffee farming which is needed for first year of coffee cultivation. The total cost of planting stage has been divided in to two parts which is labour input cost and other input cost. The other input cost is known as capital input cost. However, some capital cost may be changed into the labour cost in the study area such as cost of nursery for

preparing sapling and compost them. But to measure calculating clearly, these are also included into the column of other inputs.

The other cost item is known as cost of transplanting and transportation of saplings. However, the transportation charge of saplings in the study area is seemed to be insignificant as most of the coffee growers prepare saplings themselves and even they can bring the saplings from other neighboring nursery. The other inputs (capital cost) include the price/cost of saplings, compost tools and equipment and other.

The following table shows the planting stage cost on coffee farming in the study area. In planting stage, the total cost is estimated about 14400 per ropani in the study area, out of which labour cost covers about 49.13 percent and other inputs covers 50.87 percent. Details of planting stage cost in the study area has been given in the Table (4.1)

Table 4.8
Estimated planting stage cost on coffee farming

Items	Cost (Rs.)	Percentage
1. Labour Cost	5600	49.13
a. Field digging	2000	
b. pit-filling	1400	
c. Irrigation	1000	
d. others	700	
2. Others (Capital) cost	5800	50.87
a. Saplings	1200	
b. Compost	2400	
c. Tools and equipment	1500	
d. Others	700	
Total cost (A+B)	11400	100.00

Source: Field Survey, 2070

4.7.2 Growing Stage Cost

The growing stage cost, these items are included in growing stage cost which the respondent reported according to their experienced. It is not only difficult to obtain all annual cost of this stage from coffee growers (sampled farmers), but also time limited to do this task. Thus present researcher has calculated growing stage cost data based on the questionnaire and collected only all time

wise cost of second year (initial year of growing stage) and third year (last year of this stage) of coffee farming as a whole. By this method, the total cost of this stage was calculated. The total labour cost of second year is estimated to be Rs3520 and third year to be Rs 3800. The labour cost and other capital cost represent 58.34 percent and 41.66 percent of the total growing stage cost respectively. The details of growing stage cost have been given in the table(4.13)

Table 4.9

Estimated Production cost in Growing Stage

Item	Second Year	Third Year	Total Cost (Rs.)	Percentage
A. Labour cost	2020	2250	4270	58.34
a. Monuring & Irrigation	1450	1600		
b. Weeding & Fencing	420	550		
c. Others	150	100		
B. Others input	1500	1550	3050	41.66
a. Compost	1200	1150		
b. Tools & equipment	200	150		
c. Others	100	250		
	3520	3800	7320	100.00

Field survey,

4.7.3 Fruiting Stage Cost

Most of the coffee growers in the study area reported that the coffee farming provides coffee beans from fourth years of its plantation if the growers perform activities systematically. On an average, coffee farming provides coffee beans until 35 years of its plantation. Some of the coffee growers in the study area reported that coffee plant provides beans for second year of plantations and some trees aged about 50 to 55 years but the aged trees provide beans in fewer amounts. Since the average life of coffee plant is estimated to be 35 years, the total cost of this period, i.e. fourth years to thirty- five years, is

calculated as a cost of fruiting stage. It is vary tedious task to report all annual cost of this stage for coffee growers, hence convenience on data collection, only all time-wise cost of fourth year (starting year of fruiting stage),fifteen year (maximum fruiting stage), and thirty-fifth year (final year of fruiting stage) were obtained from respondents and on the basis of their reports, annual costs of remaining year has been calculated. This calculation is essential for the purpose of benefit-cost analysis. The total annual cost of 4 th year, 15th year and 35th year are Rs. 1950, Rs. 2800., and Rs.1800. respectively. Similarly, the total annual capital cost of 4th year, 15th year, and 35th year are Rs.1600.,Rs.2000 and Rs. 1800.respectively. The total cost as a whole of this stage is Rs. 11,950 out of which labour cost covers 54.81 percent and capital cost covers about45.19 percent.

Table 4.10
Production Cost in Fruiting Stage

Cost					
Item	Initial Stage	Maximum Fruiting Stage	Final stage	Total	percentage
A. Labor Cost	1950	2800	1800	6550	54.81
a. Manuring, Spraying & Irrigation	1150	1700	1200		
b. Weeding & Fencing	550	600	400		
c. Others	250	500	200		
B. Others Inputs	1600	2000	1800	5400	45.19
a. compost	1200	1900	1000		
b. Tools & Equipment	250	50	600		
c. Others	250	50	200		
C. Total Cost	3550	4800	3600	11950	100.00

Field survey,2071

4.8 Coffee production in Gulmi District

Major objective of the study report is the coffee production in Gulmi district. This district is well known for the production of quality coffee. This district is climatically very much favorable location for coffee production and has good potentially for specialty organic coffee production. Production area belongs to an altitude above 1000 meters from sea level. Total production of coffee at Gulmi district is about 90 metric tons.

Gulmi district is birth place of coffee. Coffee cultivation started 1995 BS in Aanpchaaur VDC of Gulmi district. At the beginning, people planted only two or three coffee plants. Later on it was started commercially after the ADB/N and NECCO provided technical supports and loan to coffee growers un 2032 BS. At that time, coffee was planed in aanpchaaur VDC only. The farmers of others VDCs then started to plant coffee trees. After that, ADB/N, some NGOs and INGOs provided loan and other facilities for coffee growers then it was spread to others VDCs of Gulmi district also.

In 2044 BS, King Birendra and Queen Aishwarya visited Aanpchaaur VDCs to observe office farming. Then, farmers of the area were encouraged in coffee cultivation. Now, The farmers of 26 VDCs have started the coffee production in commercial way. The etails of commercial coffee production pocket areas of Gulmi have been given in Appendix III.

4.8.1 Production and pattern of crops

The main crop of Nepal is Paddy, but in the study area out of the total production, the production of maize covers 26.26 percent followed by Paddy 24.16 percent ,millet 16.66 percent , Wheat 26.26 percent and 6066 percent others.

Production and pattern of crops

Table 4.11

Crop varieties	Production in muri	Percentage
Paddy	290	24.16
Maize	315	26.26
Millet	200	16.66
Wheat	315	26.26
Others	80	6.66
Total	1200	100.00

Field survey 2071

4.8.2 Utilization and wastage of coffee

The large scale production of coffee is produced with commercial point of view. In the beginning all of the coffee growers started coffee farming at a small scale only for self-consumption. Later on it has been started to grow commercially. Now a long with the palce of time , the purpos of coffee production has been changed and main purpose of it in the study area is receive better returns by selling it. The other used of coffee are to distribute as gift and processing make dust for self-consumption also in traditional method.

□

Utilization and wastage of coffee

Table:4.12

S.N	Used of Coffee	Quantity (kg)	Percentage
1.	Self consumption(dust)	90	5.94
2.	Distribution as gift	65	4.29
3.	Wastage(damage)	120	7.93
4.	Sale	1240	81.84
	Total	1240	100.00

Field survey ,2071

Table 4.12 The total production of coffee 1240 kg, the large amount of coffee 81.84percent was sold. Similarly about 7.93 percent was damage due to various diseases fungal and so on 5.94 percent was self consumed, 4.29 percent was distributed as gift.

4.9 Marketing of coffee

Agriculture production beyond producer's requirement necessitates the availability of efficient marketing system. Something happens to the coffee production and efficient marketing system gives incentive to the coffee growers to increase their production. Thus marketing system plays a vital role to develop the coffee production sector also ,but there is not sufficient marketing facility near the study area. Similarly most of the coffee growers do not have practiced about marketing system. Most of the coffee growers are not interested to sell their production at market by them selves. Thus very few of the coffee growers are compelled to the middle man or contractor at low price. In the study area 39.13 percent of the sampled coffee growers have sold their products to the traders at market and about 60.86 percent have sold their products to the traders at their home in the year 2015. AD.

Table: 4.13 Sale of the coffee production

Description	Frequency	Percentage	Price
Sold to the traders market	18	39.14	85
Sold to the traders at home	28	60.86	80
Total	46	100.00	165

Field Survey ,2015

4.9.1 Marketing Channel

The coffee grower sell their product to the middle man as well as coffee entrepreneurs at the minimum rate of price which was determined by the middleman at the study area. After collecting the products from the study area the middleman sell the purchasing amount or coffee beans to the district cooperative office. The district cooperative office determines the maximum and minimum rate to sell and purchases the products every year.

There are two type of price standard of selling and purchasing coffee products in the study area. If a coffee grower directly sell the products to the Districts cooperative Office he gets the full rate of his product but if he sell his products to middleman at his home gets only Rs. 70 and if he sells his coffee products to District Cooperative Office directly gets determined price or he gets Rs. 80 per kg. District Cooperative Office collects the all amount of coffee product around a year, it exports collected products after categorizing the quality of coffee beans through Nepal Chamber of Commerce and Trade Promotion Center.

4.9.2 Middleman

Middleman refers in this study who purchases the coffee beans from the growers and sells the collected amount to the District Cooperative office. The middleman in the study area is a coffee entrepreneur as well as mediator who is an authorized person from the District Cooperative Office for the marketing of the coffee.

The main traders of the study area are, District co-operative Gulmi, Coffee producer Association, madan Pokhra palpa, Coffee and Tea company Milligram. A large part of production was delivered by District co-operative Gulmi and exported in Japan, German, USA, Netherland, Korea, UK, Switzerland.

4.9.3 Processing of coffee

In the processing side there is need for research on the wet processing technology of coffee which involves used steps as developing, fermenting, washing etc. The dry menthol currently used does not ferment the beans to remove the mucilage and leads to an inferior tested and as such fetches lower price in the international market. The announcement of procurement price of parchment coffee by NTCB is a welcome step to encourage the shift to wet processing.

This is no processing industry has been established in the study area yet for coffee processing. Some coffee growers who have nursery also are applying the traditional method of coffee processing or make dust by grind stone. The main purpose of coffee processing in the study area is for distribution as gift and self consumption. Out of the total sampled household 12 household have used the method (traditional method) of coffee processing of above mentioned the quantity was about 90 kg in the field observation. It is found that there is no coffee consumption habit among the coffee growers as a tea substitution because they use already tea, even they use coffee only welcome for guest

4.9.4 Price of coffee

The term 'price' may be defined as the value receive in received in exchange of goods and services and distinguished form money which is only a median of exchange. However, the value of an article is itself and abstract concept and depends upon it's marginal utility (sadhv and singh,1996). Price policy helps the farmer/ coffee growers in deciding where to coffee produce, how to produce coffee and how much to be coffee produce. The reasonable price of production gives the incentives to the coffee growers and price of the coffee is based on the established of marketing network . In the earlier period there was not proper price in the field of coffee production sector. Farmers had faced the situation of darkness as, price failure and price domination. They were exchanged their production with salt by the same amount due to lack of channels intensive.

Nowadays, the problem of minimum price determination solved after establishment of national Tea and Coffee Development Board Nepal 2060 AD. The minimum price determination is given in the following table

Table 4.14 Minimum price Determination by NTCDB

Fiscal Year	Maximum Price Rs	Minimum Price Rs
2061/62	90	25
2062/63	80	30
2063/64	70	27
2064/65	80	30
2065/66	70	30
2066/67	70	30
2067/68	75	35
2068/69	90	27
2069/70	80	35
2070/71	90	30

National Tea and Coffee Development Board (NTCDB) 2071, Kathmandu.

The table 4.14 shows that in 2061/62 maximum price of coffee Rs. 95 and minimum price is 25. At that time price of coffee is satisfactory. In 063/64 maximum and minimum price decreases i.e. Rs 70 and Rs. 27 respectively. This is probably because of the problem of market, political instability and lack of modern technology. Fiscal year 070/71 the maximum price of coffee is Rs. 30 kg. Which shows that the price of coffee is decreasing slowly. This is because low demand of Nepalese organic coffee in international market as well as national market.

4.10 Benefit-Cost Analysis of Coffee Farming

The income-expenditure analysis of coffee farming is presented for overall life period of coffee farming. The benefit- cost analysis is used for evaluation and it helps the planning authority in making correct investment decision to achieve optimum resource allocation by maximizing the difference between the present value of income and expenditure of benefit -cost . The benefit- cost concerned includes not only direct pecuniary costs and benefits but also externalities, meaning external effects not traded in markets. These

include external cost and benefits. And it is also consists of total social cost and total social benefits. But this study aims to evaluate the profitability of coffee farming in the study area, hence this study does not include total social costs and total social benefits as well as external costs and benefits but includes only the internal costs(labor cost and capital costs on its production) and internal benefits from only coffee production per Ropani of land. Coffee farming is long term process. So, it is necessary to evaluation the profitability on coffee production on the basis of net present value (NPV) criterion. Therefore, the appraisal rules for project evaluation require discounting of future. To apply net present value criterion, it becomes essential to discount future benefits and costs of coffee farming.

On the basic of under-mentioned rules and the annual costs and benefits on the coffee farming for its overall life period(for period of 35 years,), the benefit-cost analysis is shown below considering 10 percent discount rate

Table 4.15

Benefit-Cost Analysis on Coffee Farming

Year	Total Benefit	Total cost	Net Benefit	PV of Benefit	PV of cost	PV of Net Benefit	B/c Ratio
1	0	9500	-9500	0	8850.30	-8850.30	
2	0	2050	-2050	0	1875.22	-1875.22	
3	0	2050	-2050	0	1685.06	-1685.06	
4	900	2050	-2050	950.50	2145.30	-1194.8	
5	2500	2195	305	2801.60	1960.09	841.51	
6	4550	2350	2200	4395.04	1722.10	2672.94	
7	6000	2475	3525	5820.85	1692.70	4128.15	
8	9500	2615	6885	6830.95	1550.19	5280.76	
9	11000	2855	8145	7545.50	1731.67	5813.83	
10	13050	2890	10160	7940.70	1610.51	6330.19	
11	16000	3035	12965	8610.30	1495.34	7114.96	
12	22500	3095	19405	8790.70	1386.10	7404.6	
13	33000	4120	28880	9145.52	1283.68	7861.84	
14	32500	4260	28240	9310.60	1195.31	8115.29	
15	35000	4300	30700	9245.86	1096.80	8149.06	
16	35000	4130	30870	8805.10	1045.60	7759.5	
17	35000	4450	30550	7810.70	1025.66	6785.04	
18	35000	4330	30670	7250.90	995.73	6255.17	
19	35000	4500	30500	6340.30	925.30	5415	
20	35000	4545	30455	5020.70	850.32	4170.38	
21	35000	3860	31140	4545.20	765.50	3779.7	
22	35000	3810	31190	4210.80	670.20	3540.6	
23	35000	3740	31260	4065.10	685.40	3379.7	
24	35000	3670	31330	3860.02	543.20	3316.82	
25	32650	3600	29050	3691.84	494.63	3258.21	
26	27755	3530	24225	3260.75	433.17	2827.58	
27	28000	3460	24540	2520.45	410.51	2109.94	
28	28050	3385	24665	1985.20	395.20	1589.99	
29	22200	3340	18860	1652.53	290.21	1362.32	
30	22650	3225	19425	1403.70	245.32	1158.38	
31	17800	3125	14675	1075.20	205.71	869.49	
32	13075	3105	9970	980.60	196.60	784	
33	11400	3040	8360	793.06	170.90	622.16	
34	7690	2950	4740	550.30	155.84	394.46	
35	6000	2800	3200	175.50	112.60	62.9	
Tota	7,18,770	1,22,435	5,95,454	1,91,886.07	41,627.97	1,09,549.	4.60

Field survey 2071

Note:

From the Table, it is found that the present value of benefit and cost are Rs.1,91,886.07 is greater than that of present value costs, i.e. 41,627.97. As a result, the ratio of present value of benefits to present value of costs is greater than 1 that is 4.60. The net income at ten percent discount rate comes as 1,09,549 per Ropani (115 trees). during the 35 years life period of coffee farming. Thus, the coffee farming is provided to be a profitable occupation in the study area in hilly region of Nepal.

4.11 Extension Services and Training

Technology plays a basic role in marketing agriculture production possible. Improved agricultural technology plays an important role for agriculture development. But most of the farmers in the hilly region are unknown about it as they have low level of education. Thus, to improve the agriculture, technology needs to play a vital role in any production enterprise.

The extension services should be provided to the farmers at farm level. In the study area, the technical-support is being managed through J.T. /J.T. A. of ADO/CDC Gulmi. Extension workers should be skilled to handle the problem of farmers .So, according to the coffee growers of the study area, it is neither sufficient nor efficient. Most of the coffee growers of the study area reported that they cannot get the extension service in time as they need. In the study area only 28.57 percent sampled households reported that they are getting help from the technician of ADO/CDC office and about 71.43 percent were unable to get any help from them. It is shown in the following table.

Table 4.16

Extension Services Provided by J.T/J.T.A

Respondent	Frequency of HHs	Percentage
Yes	8	28.57
No	20	71.43
Total	28	100.00

Field Survey,2015

4.12 Demand for Coffee

Nepal's hills area suited for coffee growing and more farmers are turning to the crops attracted by the rates that exporters pay. Farmers are very excited about coffee farming but most of them lack information regarding the process and benefit of coffee farming. Driven by surging demand especially in traditionally tea-drinking countries such as India and Pakistan, the Nepalese coffee farming industry is booming. In a country with deep poverty and political instability, coffee is one of the few industries beyond tourism that are thriving. Maize, millet and coffee are all grown in steep, hilly areas but coffee production earns more than other crops. Neither heavy rain nor dry weather makes any difference to coffee plants, but cause problems for maize and millet.

One advantage for Nepal, still a minor player in the global coffee market but one with big ambitions, is the very hilly terrain that makes farming so many other crops so hard. Nepal's coffee is regarded as specialty coffee in the international market due to the climate and topography. More than 65 percent of Nepalese coffee is exported to South Korea, Japan, UK, USA, and other Asian and European countries. Even in the recession-hit west, coffee consumption has risen in recent years. Globalization and rising incomes, combined with marketing drives, would propel coffee drinking in countries such as China and India where coffee is not part of traditional culture. India, which like China shares trade links with Nepal, has a long tradition of coffee houses and coffee growing. Although an American drinks 45 times more coffee a year than an Indian, local demand has reportedly doubled in the last decade as levels of affluence have risen and a cafe culture has grown. With the current demand and incredible rise in prices, the motivation is there for farmers to re-plant. The growing conditions are conducive to organic practices, another positive factor. So, even though the news from many of the world's coffee producers is not so good, with many sectors reporting lower production due to poor weather, it's good to know there are still acres of land waiting for coffee to be planted. It won't help much in the short run but in the long run, Nepal should be a strong player in the coffee producing world. Coffee production in the country will play a vital role in the economic life of Nepal.

4..13 Cost and Revenue Generated from coffee production

Too much difficult for the coffee growers to report all the annual production of whole life of coffee farming. They grow coffee to generate revenue for the fulfillment of immediate expenditure and save it for future welfare. To estimate the profitability of coffee farming, it is necessary to estimate the cost of production and the revenue generated during its life time. The respondent were asked to report only the annual production of there time period such as production of first year, maximum production year, and production of final year. Almost all the coffee growers reported that the coffee tree beings to generate revenue during the fourth year of plantation if they farm systematically and carefully. Total cost of production during the whole life of coffee farming has been estimated. The estimated total cost production is Rs. 1,68,013 which comprises the labor cost of Rs. 72,043 and the capital cost of Rs. 58,360 The total production estimate is 7,795 kg per Ropani and its total price is Rs. ,10,19,500. Details of labor capital cost, total cost, production quantity and the total price of the coffee have been given in the Table 4.15

Table 4.17

Cost and Revenue Generated from Coffee Farming

Year/stage	Labor cost (in Rs.)	Capital cost (in Rs.)	Total cost	Production (in kg)	Value (in Rs.)
1. Planting stage	4,850	5,300	10,150	-	-
1. Growing stage	4,400	2,300	6,700	-	-
2nd Year	2,125	1,650	3,775	-	-
3rd Year	2,150	1,500	3,650	-	-
3. Fruiting stage	75,095	53,685	1,28,780	7,300.50	7,30,050
4th year	2050	1700	3750	20	2000
5th year	1950	1675	3625	26	2600
6th year	2400	2260	4660	32	3200
7th year	2485	1650	4135	58	5800
8th year	2755	1625	4360	85	8500
9th year	2630	1900	4530	105	10500
10th year	2310	1950	4260	119	11900
11th year	2785	1645	4430	210	21000
12th year	2800	1870	4670	275	27500
13th year	2025	1550	3575	290	29000
14th year	1800	1575	3375	320	32000
15th year	2200	1700	3950	345	34500
16th year	2350	2085	4435	395	39500
17th year	1980	1890	3870	425	72500
18th year	1522	1585	3107	425	72500
19th year	2040	2090	4130	425	72500
20th year	2075	2075	4150	425	72500
21th year	2950	1950	4900	425	72500
22th year	2745	1865	4610	425	72500
23th year	1880	1760	3640	425	72500
24th year	2515	1855	4370	425	72500
25th year	2565	2055	4620	370	37000
26th year	2470	1850	4320	315	31500
27th year	2025	1840	3865	258	25800
28th year	2260	2050	4310	262	26200
29th year	2345	1820	4165	225	22500
30th year	2225	1950	4175	190	19000
31th year	1760	1525	3285	150	15000
32th year	2358	1785	4143	125	12500
33th year	2023	1780	3803	85	8500
34th year	1865	1775	3640	70	7000
35th year	1900	1675	3575	65	6500
Total	72,043	58,360	1,68,013	7,795	10,19,500

Field survey 2071

4.14 Problems And Diseases Of Coffee Production

4.14.1 Problems of coffee production

Respondent in sample households were asked about the problems in coffee production. They reported different problem faced by them. Majority of the respondent reported the 'market' ' insect 'and 'disease' are the serious common problems in the study area. The problem are categorized into two parts as general problems and problem of diseases and insects.

4.14.2 General Problems

The coffee industry has been growing fast, there are several problem. The government and other agency have not been able to provide basic infrastructure on the coffee farming. If there are any, they are limited in document They have never come into effect .Whatever the success is there, it is all due to hard labor of private sectors.

The main problem is market, we do not sustainable markets. It is the second largest trading item beside petroleum product in the international economy, it's price remains fluctuated all the times. But the small farmers growing coffee in Nepal cannot complete in such market.

Lack of knowledge and training , while introducing the new crops to the farmers, basic knowledge and training most be provided by government. Due to the scarcity of technical knowledge, all the cropping patterns are traditional in nature. Land preparation and layout , nursery established, re-plantation, use of fertilizer or compost and pesticide etc. are the area that farmers should to trained and counseled. It is come to know from field survey that majority of farmers are planting coffee without selection and proper treatment of seedbed. They used wild saplings for re-plantation.

Table:4.18

Problem Connected With Coffee Growers

S. No.	Problem	No. of Households	Percentage
1	Development of leadership	38	73.23
2	Knowledge and training	42	81.25
3	Technical Support	36	70.00
4	Diseases, Insect & Pests	29	62.77
5	Instrument	25	47.40
6	Supply of Labor	19	41.20
7	Supply of composts	17	23.55
8	Irrigation	16	19.78
9	Transportation	11	9.88
10	Fertilizer	7	4.20
11	Improved Saplings	4	2.30

Field survey

Table 4.1 shows the lack of knowledge and training was seen the main problem in coffee cultivation which was reported by 73.23 percent of the total sample households for developing coffee farming technical support and subsidy. This type of problem was reported by 81.25 percent sampled household. So, there are serious problem of technical support and subsidy on the coffee cultivation. At percent there is not any trained field worker in the study area.

Technical support is the important tool for coffee growers. Coffee growers are technically suffering to know how to do coffee cultivation. At present, there is no any trained field worker in the study area. According to the field survey, 36 household out of 70 household are getting some technical advices and guideline from CDC office and agriculture development office in the study area.

There is also serious problem for coffee cultivation. Almost all farmers are The rest of the households are unknown about the technical support. The problem

of supply of labor was reported by 41.20 percent, irrigation 19.78, transportation 9.88, percent, fertilizer 4.20 percent, and improved saplings were reported 2.30 percent in the study area. . The rest of the household

are unknown about the technical support. The problem of supply of labor was reported by 41.20 percent, irrigation 19.78, transportation 9.88, percent, fertilizer 4.20 percent, and improved saplings were reported 2.30 percent in the study area. being discourage from coffee farming due to the helpless in controlling harmful disease and insects. The problem of insect and diseases control was reported by 62.77 percent of the sampled households. It is needed good amount of capital for introducing scientific methods, fertilizer , skilled labors, transportation etc. The real farmers are behinds the curtains of the facilities have local varieties of coffee which has less productive capacity and suffer from, disease and pests due to lack of sufficient money.

The majority of the farmers express that they have to face problems like marketing of their products, uncertainty in monsoon, Lack of proper technical knowledge ,inadequate loan facility, processing technique, control of diseases, pests, unavailability inputs, lack of improve seed, transportation and communication and ignorant about cost return scheme. Furthermore, they also face administrative problems such as price flexibility and influence in pricing by imported coffee, rate of interest in bank and financial institutions.

4.14.3 Source and Problems of Coffee Saplings

Some experienced coffee growers who are nursery owner also reported that to achieve better production from coffee farming, the plantation of improved saplings is essential. But in the study area, most of the coffee growers use to prepare the coffee sapling from local nurseries and few were provided the coffee saplings by the coffee development board center gulmi and it is also producing coffee sapling in large amount in coffee area. Although some coffee growers reported that there is some problem for coffee sapling but most of the coffee growers reported that there is no problem it.

Table 4.19

Source of coffee saplings

Sources	No. of Households	Percent
Self Prepared	32	44.52
Loan nursery	17	30.25
Coffee Development Center	9	25.23
Total	58	100.00

Field survey

Table 4.2 shows the sources of coffee sapling in the study area, 32 households(44.52 percent) Self prepared the coffee saplings in own nursery, there are 17 households (30.25 percent), and 9 households(25.23 percent) brought local nursery and coffee Development Center respectively.

CHAPTER FIVE

FINDING, CONCLUSION AND RECOMMENDATIONS

5.1 Major Finding of the summary

About the S was found socio-economic life of the study area, the situation was found satisfactory. The economically active respondent aged between 26-48 years were about 65 percent of sampled respondents. The average coffee farmers belongs to middle class with 6-10 Ropanies of land. All the coffee farmers are literate and they are satisfied with their traditional way of life.

The coffee growers of the study area have faced about so many problems connected with coffee cultivation such as lack of proper training, lack of proper training, lack of technical support, lack of leadership development, lack of nursery preparation management, lack of monitoring and evaluation, lack of agricultural credit, disease and insects problems, inadequate irrigation facility and storage and processing facilities etc. There are so many serious problems in coffee farming. So, that almost farmers of the study area are being discouraged.

Out of the total production, the large quantity of coffee or about 81.84 percentage is sold, and 5.94 percentage is self-consumption. It is because there is no coffee growers.

The major marketing agencies of the study area are District Cooperative Gulmi, coffee company milligram and Nepal coffee producer Association Madan pokhara, palpa, mirmi. Most of the coffee growers in the study area used to sael their products sold to traders at market which was about 39.14 percent. No processing and storage facilities have been established the study area yet. However some coffee growers were found to be applying traditional instrument such as roster and stone grander to make coffee dust. Now the minimum price determined by the NTCDB is 85 in the study area and they are selling it at the same rate. Coffee farming has helped to create the employment also in the study area. The labour cost of picking grading drying and stroage

have excluded as coffee growers of the study area used to sell their product at their home to the middleman.

Some support institutions have engaged in coffee production in the study area, but the coffee growers reported that the available support services are neither sufficient nor effective. According to the farmers of the study area, modern inputs such as chemicals, tools and equipment etc. are not available adequately in time and at reasonable price. The Agriculture Development Bank has been established to provide institutional credits to the farmers but most of them are not using such credit due to lack of administrative efficiency as well as ignorant about it. District cooperative office has been providing aid to produce coffee sapling. Support services of horticulture section are necessary for coffee farming but no horticulture section has been established yet near the study area.

The coffee growers of the study area have reported about so many problems connected with them such as lack of knowledge and training, lack of technical support, lack of leadership development, problems etc. Gulmi had high coffee cultivation land in fiscal year 2071/72 but its total production of coffee was less than palpa. This was found that majority 5 percent were under the middle age 20 percent more the young age 15 percent were the old age farmer group are involved in coffee growing activities. The coffee growers of the study area had faced so many problems connected with the coffee cultivation. The common problems of the coffee growers were lack of training, lack of technical support, lack of nursery preparation and management lack of agriculture credit, diseases and insect, irrigation etc.

5.2 Conclusion

Gulmi is the place of coffee in Nepal and has tremendous potential organic coffee cultivation has been found significant in the study area. The education level of the respondents was found satisfactory. All the respondent of the study area are literate and majority of them are from the Brahmin cast group. Out of the total production, the large quantity of coffee 81.84 percent was sold, and 5.94 was self consumed. It is because there is no coffee consumption habit among the coffee growers.

Although the coffee growers of the study area have been facing many problems, they are still optimistic about better prospects of coffee farming.

Moreover, being a highly potential area, the establishment of modern processing factory will accelerate the production speed with the development of better ad marketing areas. with the acceleration of coffee production ,the problem of unemployment, disguised unemployment will be solved and the flow of migration from hilly region to Tarai will be checked to some extent as the coffee production is labor intensive to the farmers, hence the coverage area of coffee orchard will be increased, which will help to maintain environment balance by checking the landslide soil erosion, floods air pollution etc. Thus people of the study area should be advised to grown coffee plants in their farms by providing incentives such as giving the economical, technological and others necessary supports by the government.

5.3 Recommendations

Coffee is one of the most important cash crops. Due to it's development , farmer's income earning can be increased to a greater extent more then this , it can be major source to earn foreign currency by exporting it to the other countries and even for the domestic consumption, It is not necessary to import coffee. For the development of coffee, some of the important things are still to be developed, which are given below.

In regards to the climate, production capacity of crops and quality, till now it has not been studied about in which area variety of coffee is benefical. The subject that are still to be studied are the preparation of compost, protection of the plants, shelter of the trees, fencing, irrigation and processing for the further study after establishing co-ordination among National Coffee development Board, Nepal Agricultural Research Council (NARC) and Agricultural Development , long term policy has to be made and should be implementer. After doing this , the contact can be developed with the foreign coffee research centre.the farmer who plant coffee and prepare coffee saplings should be trained. To increase their inspiration and experienced, study and research tour in the area like southern India and Sir- Lanka has to be managed.

From the healthy and qualitative tree, the coffee bean should be selected prepared in the nursery and produced the coffee saplings. Unser the technical supervision of farm and Agricultural Development Office as well as Coffee

Development Centre, the standard saplings should be prepared even if the nursery to the way of producing and selling the coffee samplings randomly.

The district level and village level coffee production group should help by giving technical, economic, physical and others helps. They are the real organization of field workers. For the international consumption and to export in the foreign country, to make green beans from dry cherry coffee and to produce better coffee dust, processing centre has to be established as per requirement in the study area. The machine should be distributed in low price to make green beans, to roast coffee beans (roaster) and prepared coffee dust, by the agro -tolls factory. To improve the quality , the process of making cheery coffee storage and a processing method should be improved.

The way of production, processing, marketing management and way of talking , it should be advertised through newspaper, pamphlet, slide, radio, television etc. By celebrating coffee year managing coffee fair and outing in main places the coffee dust can be sold.

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