

# CHAPTER-I

## INTRODUCTION

### 1.1. Background of the Study

Nepal is a country having 68 percent hills and fragile mountains where soil erosion is a big problem. The tea plant is native to China and was first cultivated about 2,00 B.C. The Japanese "discovered" it during the eighth century A.D., followed by the European during the seventeenth century, when the British quickly adopted this drink. Tea has played an important role in English culture, and can be seen in the popular British observance of afternoon tea, a light meal served at about 4:00 p.m., and high tea, which became a substitute for afternoon tea in the nineteenth century. Because China could not meet Britain's high demand for tea, Britain set up tea plantations and colonies in India to support this import. It was not until the twentieth century that America started drinking it iced, which is thought to have started at the St.Louise World's Fair in 1904.

Organic tea is grown and processed without pesticides or artificial fertilizers and it's also often Fair Trade. This means that you can reap the health benefits of organic tea knowing that small farms are being supported, workers on tea plantations are being treated fairly, and that both the workers and our environment are not exposed to the harmful chemicals used in conventional tea production. Small farmers are the major orthodox tea leaf producers and private tea estates cover a small share of its total production in Ilam. The major problems being faced by stakeholders of the Nepalese orthodox tea industry should be explored for better understanding of its development, prospects and potentials. Cost of production of organic green leaf was higher than that of conventionally produced green leaf. Labour cost in green leaf production covered a higher share in its total cost. Organic green leaf was paid higher than the conventional one. But some farmers were not satisfied from organic farming due to low production and time-consuming compost preparation. However, organic farming fetched a relatively higher net benefit to both farmers and tea estates during its life span. Due to the lack of knowledge relating to costing methods,

farmers were unable to calculate cost of production (COP) accurately and compelled to sell green tea leaves at the prices, even lesser than its production cost due to lack fixed method of fixing its factory buying price. This study had concentrated on exploring problems, prospects and potentials of Nepalese orthodox tea production and marketing. The study was based on both primary and secondary information. Financial analysis with sensitivity analysis and SWOT analysis of Nepalese orthodox tea production were done along with identification of marketing channel of green leaf as well as orthodox tea. Green leaf price, wage rate, and discounting rate among other factors determining net benefit of producing green leaf were considered for financial sensitivity analysis. Orthodox tea was mostly exported and a very small share of its production was sold in domestic market but its publicity in the world market was highly inadequate.

NITF(2010), reports tea cultivation in Nepal began in 1863 and the first factory was built in Ilam in 1878. Nepal Tea Development Corporation (NTDC) was established by the government in 1966. It was not until 1982 that its significance as an export earner was identified by the government with the designation of eastern districts(Jhapa,Ilam,Panchthar, Terhathum, and Dhankuta) a 'Tea Zone'. From then onwards, the government has been assisting tea growers and processors for its development. The industry began to be more organized and recognized as a potentially significant sector with the government promulgating Nepal Tea and Coffee Development Board Act in 1993 and setting up the Tea and Coffee Development Board. A National Tea Policy was introduced in 2000 to support the growth of the sector. The government adopted a privatization policy so that the private sector would become the engine of growth for the industry, envisaging that tea would be one of the major crops for poverty reduction in the rural and hill areas and become a significant export earner. Due to the varied weather conditions and soil composition, tea is grown in two areas, under significantly different agro climate regions, in the Terai and the hills. In the hills, orthodox/green(leaf) tea is produced for export while in the Terai regions the CTC tea is produced, mostly used for domestic consumption with some exported to India.

According to Kanchanjunga Tea Estate(2015), it is the first organic tea estate which was established in 1982, which is considered to be the pioneer of organic tea

farming in the country and is also the first certified tea garden in Nepal. The production areas is a regularly inspected by NASSA to ensure organic certification Organic tea farming can be done by both companies lead certified tea and community approach by INGO.

Williages(2004) has pointed that, the natural habitat of tea is the undergrowth of subtropical forest. Today tea is being cultivated between 42<sup>0</sup> N (Russia and 27<sup>0</sup> S Argentiniae) longitude, at altitudes ranging from 2200 high above sea level. Tea is a crop of wide adaptability and grows in a range of climate and soils in various parts of the world. The minimum annual precipitation considered necessary for the successful cultivation of the tea is 1,200mm, while the optimum ranges between 2,500 and 3,000mm precipitation should be evenly distributed throughout the year. An annual average temperature between 18-20 <sup>0</sup>C is generally considered as ideal foe tea bush. The soil should be deep, well drained and thoroughly aired, nutritious with low pH(4.5-5.5) extended drought period, water logging conditions and temperature below 120C are not favorable for the growth of tea.

Organic Tea farming can have various advantages, as cultivation is greatly favored by the agro-climate condition. It could be beneficial for income generation and creating employment opportunities in rural people and utilize the marginal land and establish greenery. The production and export of organic tea are an important part of Nepal's economy. It generates sustainable income for farmers, creates employment for rural women, promotes a balanced ecosystem and earns Nepal foreign currency.

Ilam district is called the queen of hill. It is the hilly district of Nepal. It is located in the eastern part of Nepal having the height of 300 meters to 3636 meters above the sea level. This district is very famous for cultivation of tea, cardamom, ginger, orange, potato, akabare chilly, amliso (broom plant) as cash crops including milk production and timber forest. All these productions have helped the people to generate high income and profit. This district is also very famous for tourism and eco- tourism. As many beautiful places exist here, many domestic and foreign tourists visit this place to have enjoyment and to get pleasure looking the panoramic views. Almost every part of eastern region of Nepal from mountainous regions to Terai regions including some places of West India could be seen from high hills of

this district. Sandakpur is the highest hill station for tourist which has the height of 3636 meters (DDC, Ilam, Profile, 2005).

Ilam district lies in the far eastern region of Nepal at the 26°7' to 27°1' north latitude and 87° to 98°15' east longitude. The altitude from the sea level rises from 300 to 3636 meters. Ilam is surrounded by Darjeeling district of west Bengal, India in the east, Dhankuta and Morang in the west, Panchatar in the north and Jhapa in the south. Annual mean rainfall varies from 80ml to 250ml in the monsoon season (DDC, 2011).

Beautiful panoramic landscapes, alpine climate and high productive agriculture system are the heritage of this district. From the hygienic point of view, this district is regarded as healthy place. There is high possibility of tourism development if promotion initiation program is effectively launched.

Different caste\ethnic peoples are living here in this district. Hinduism, Buddhism and Christianity are the main religion followed by these people. They are living here highly respecting each other's customs, rituals, festivals and religions. Each and every group of people has their own honorable identity in the society. They have very high level of social integration and social solidarity. They have always tried to minimize the social conflicts but the racial discrimination of so-called higher caste with the dalits are found discriminating them as lower and untouchable caste. The dalits are socially excluded but they are given equal chance to be participated in different social activities, political platforms, religious functions etc. There is high degree of socio economic co-operation and co-ordination among the people of each and every group and class. The families structures mostly are of joint type but nuclear type are also found in some families. Every people follow their own religious culture and rituals in their marriage inviting their neighbors of all castes, class and religions. The public health is satisfactory having access to hospitals and health-posts. They are very conscious in their sanitary habits. They are very conscious and aware in their family planning and child bearing process too. But the traditional practice and belief in superstitions are also found viz. tantric, dhama, jhankri etc. The males are more literate than females and males exercise more household decision making power than females. Women's participation process in

different social and developmental activities is increasing as many CBOs, NGOs, INGOs and other local government bodies are formulating and implementing their programs keeping these low ranked women in priority and targeted group.

Tea cultivation has become an integral part of agricultural system, cultivated mostly in eastern part of Nepal, especially in Ilam district since 1920B.S. It was first introduced by the then 'Bada-Hakim' Colonel Mr. Gaja Raj Singh Thapa. But now this cultivation is introduced and spread to the different part of Nepal. The scientific name of tea is *Camellia Sinensis*. It is one of the leading cash crops and also one of the agro- based and most labor oriented sector. On the other hand, it has reduced the problem of unemployment. It has helped to gain foreign currency through its export and also contributes in environment conservation. So it is one of the main income sources for uplifting the economic status of small farmers (Tea-A-Tea, 2065).

Tea can be planted even in sloppy areas as well. Despite of its evergreen beauty, it checks the soil erosion and landslides in hilly areas. Cash crops plantation in general and tea plantation in particular play a major role in increasing overall agriculture production and conserving the deteriorating environment. So the tea industry is of great socio-economic importance as it earn foreign currency by producing superior quality of tea in a large scale, provides great employment opportunity to the local people (Tea-A-Tea, 2065).

Nepal government has been anxious to agriculture development programs. In 2029 B.S. five districts viz. promote rural economy by giving high priority to tea plantation within various Ilam, Panchthar, Dhankuta, Tehrathum and Jhapa were declared as tea plantation areas. Government declared subsidy of 50percent reduction in the interest of loan and 90percent off in the land revenue. Such declaration inspired the small farmers to start tea plantation in large scale. Presently, at the national level, Nepal Tea and Coffee Development Board (NTCDB) is the government agency responsible for developing and promoting tea plantation in Nepal (Tea-A-Tea, 2066).

According to NTCDB, 663882 Kg. of tea is produced annually; Nepal is successful to export only about 69percent of total production as our country is still not able to penetrate international market of tea because it has to export its tea from the port of

Kolkata, through the suppliers of India. On the other hand, there is lack of identification of Nepal tea abroad as Indian merchants and factories take tea leaf from Nepal in cheap price and sell it with the trade mark of Darjeeling Tea, by which there is the problem of market promotion of Nepal tea which should be the matter of government concern (NTCDB, 2065).

The economic condition of the people of this district is satisfactory comparing to the people of other districts. People here are engaged not only in a single job or occupation but they are engaged in different other fields for income generation. Basically, they are engaged in agriculture. They are holding private land and these peoples are economically very strong. Landless peoples are enrolled in tea estates as an employee or doing some other domestic labor works and somehow managing their domestic economy. So the people are managing their income and expenditure in a balance way. The tea estate has helped in promoting the local bazaar and local market through tourism. Many domestic and foreign tourists visit this place to see the tea garden, stay in the local hotels and do shopping in the local bazaar. This has helped the local villagers to promote the local agricultural products and local made handicrafts.

## **1.2. Statement of Problem**

Tea plantation is an important cash crops in Nepal. It plays crucial roles in income generation, foreign exchange earning and employment generation both directly and indirectly. Since the market for tea is of an international one, trade liberalization is expected to have a substantial impact on this industry. Trade liberalisation and free import of tea, import of inferior quality of tea and re-export of it mixing with the traditional product have caused problems both in domestic and international markets. As a result of opening up of the market for tea, there exists competition among producers at the international level. Competitiveness has become the key to success. Those units who are having the cost of production above the average international price will find difficult to continue to operate. In the case of Kerala most of the units are in category. The disintegration of increasing number of peoples concern for the soil, crop and human health have made an important contribution towards the organic farming. Tea being is a cash crop with steady international

demand. With hilly Nepal's climate and terrain suitable for premium niche products in the world market, tea has a potential to benefit large segments of the rural population and lift them out of poverty and stagnation. No easy access to organic certification service is one of the drawbacks of organic tea farming in Nepal. There still lacks good domestic market for the organic tea product, although tea is being organically produced has good international markets. Government, INGOs, NGOs is involved in promoting cultivation, processing and marketing of organic tea yet remarkable success is far ahead.

According to GIZ(n.d.), the partnership was initially designed to cover a target group of 131 smallholder tea farmers' groups in the Sundarpani Tea Cooperatives(Fikkal, Ilam). The Gorkha Tea Estate and the smallholder tea farmers were provided with technical support in the areas of organic cultivation, such as soil conservation, nutrient content, composting, organic standards and certification process, pruning and record keeping. A group of 100 farmers was given a "Training of Trainers" in these areas and later these 100 farmers conducted 50 trainings for further farmers in total, the project gave basic training on organic tea production to approximately 1,000 people.

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

The general objective of the study was to assess and explore scope of organic tea farming of certified farmers of Gorkha Tea Estate Suryodaya Municipality Ward No.9 however precise objectives were;

- ) To identify the role of organic tea farming in local area.
- ) To study and identify the problems and ways to solve them for the development of tea of the study area.
- ) To study the income generating activities of farmer from organic tea farming.

#### **1.4. Significance of the study**

This study has mainly focused to find the income level of farmers and find out the income generating activities of farmers. It has also attempted to explore the overall situation of the people living around the Gorkha Tea garden. This study mainly tries to explore the employment opportunities generating by the tea cultivation, this study area, including the landslides, soil erosion, health condition, land encroachment, migration, infrastructures, tourism, assessment of other crop production rate after the tea plantation project started. Such problems are hidden and no researches are done to bring such problems to the surface. So this study may be helpful to policy makers and project holders to formulate the problems copying policies in the coming days before introducing/ implementing the project.

The local private firm is taking initiative towards the movement of organic tea farming in the proposed area. There have been effort made by INGOs, Cooperatives, tea factories and the tea farmer make their conventional farm to organic farms, but the conventional farmers are comparatively higher in number than that of the organic grower. If farmers are exercising the good practice and having scientific knowledge these practices can be replicated if they are having gaps, these gaps can be identified by the study and further recommendation can be made by the study. Beside role of different institutions, organizations, private firm, governmental organization and the farmer can be identified and studied.

This study explores gaps on knowledge and practices in organic tea farming in the propose areas exploration of the gap area were help to lessen the gap and promote organic tea farming. This research also made an effort to understand the relationship organic tea farming with its social ways contribution towards the area of rural development in the context of the study area. It significantly tries to shed light on gaps and provides an understanding of the different stakeholders to implement their strategies and programs for filling the gaps and development of the organic tea farming sector in the future. The study also focused on the gaps between the standard practice of the organic tea cultivation and the existing practice and also the knowledge.



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

Now-a-days most of the tea companies face server problems. So, many company owners and managers(employers) are reluctant to give actual information. Some company owners did not even give permission for data collection in their company estates. Therefore, the selection of sample for primary survey was a tedious task.

This study is also focused on the income generating activities of farmers, living around the Gorkha Valley tea garden, those household, were completely dependent on this Garden. And find out only the income generating activities of the farmers thus this study wasn't entered the other aspect of the farmers like cultural, religious, spiritual etc because this study has been done under the limited resources.

This study is mainly based only on the sample size of Gorkha Valley Tea garden ward no.9, So, it may not represent all the other similar estates, Gardens and may not be generalized. It wouldn't implement in other tea estate and garden.

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

This study is divided in to five different chapters. The first chapter deals with the introduction of the study The first chapter concerns with introduction of the study dealing with the statement to the problem, objectives, significance, limitation of the study, and operational definition of the micro credit. The second chapter deals with the review of literature. The third chapter deals with research methodology. The fourth chapter deals with the study area and the people. Finally summary, findings, conclusion and recommendations is in the fifth chapter.

## **CHAPTER-II**

### **REVIEW OF LITERATURE**

This chapter includes reviews of literature as organic tea farming in a worldwide context, organic tea farming practices and its importance, gaps in farming practice and knowledge and social issues in tea farming for making study stronger, support and justify.

#### **2.1 Scenario of Tea Plantation in Nepal**

Tea industry in Nepal is growing rapidly due to the active participation of the private sector. Now Nepal is self sufficient in CTC tea. There is a huge international market for both Orthodox and CTC tea. It is noteworthy to mention that most of the tea processors are interested to explore foreign markets because of the higher prices fetched by our teas compared to domestic and regional markets. Tea gives the highest return compared to any other crop cultivated by farmers. Tea industry is also a firm step towards empowering women as it generates good employment opportunities for women. More than 60% of the workers employed in the tea industry are women. Small farmers who grow their tea plant using farmyard manure and locally available botanical pesticides contribute to the major share of tea production, which we can call organic tea. There is high demand of organically produced tea in European markets. Unique Himalayan climate for tea production coupled with the considerable amount of fallow land available for cultivation could be used for the expansion of tea industry without disturbing the environment but rather preserving it. These indicate good future prospects of tea industry in Nepal. Nepal's yield per hectare is still lower than the major tea producing and exporting countries in the region, for example, India and Sri Lanka. Empirical evidences indicate that average Indian yield per ha was 1838 kg in 2056/57 BS whereas Nepal's yield during the same period was only 80% of that of Indian average. Similarly, Nepal's yield is only 71% of the other global tea industry leader-Kenya. Currently Nepal's tea yield per ha is 750 -1477 kg/ha made tea. Production potentiality of tea is 5000kg/ha made tea. Thus, there is still a lot of room for the improvement of productivity in yield as well as in quality (NTCDB, 2009).

Nepali tea industry owes its roots to the colonization of India by the East India Company. Numerous tea plantations around the hill station of Darjeeling were promoted by the British. Hybrids of tea bushes were introduced in several districts in Nepal - Ilam, Taplejung, Panchthar and Dhankuta within a few years after their introduction in Darjeeling and the first tea estates were established in 1863 in Ilam and Jhapa. But whereas the Darjeeling tea production soon emerged into a prosperous commercial industry, the Nepalese tea production remained low profile until the 1990s, unable to fulfill domestic demand. Decades earlier, in 1966, the Nepalese government had established the Nepal Tea Development Corporation. Initially, Nepalese tea leaves were sold to factories in Darjeeling. With time, the Darjeeling tea bushes had become old and along with internal changes in the industry it led to a deteriorating quality of the Indian tea. These conditions made the Nepalese tea leaves a valuable input for the Indian factories. During the last decade tea processing factories have been built and turned Nepalese tea production into a fully commercialized industry. Although, even today some farmers sell their tea to Indian factories as they get a better prices from across the border. In the early 1990's, large tea plantations run by the government mainly dominated the tea sector. Through reforms in 1993 the state owned National Tea Development Corporation was privatized. Its regulatory functions were handed over to the National Tea and Coffee Development Board under the Agricultural Ministry. To promote the industry further the government launched a new tea sector policy at the end of 2000. This policy seeks to ease access to credit and land for tea producers as well as building human capacity, (Ghimire, 2006)

The goal of this paper is to examine the general trends in Nepalese tea industry, in particular, the changes brought about by the privatization in the early 1990s. The following pages will examine the two distinct types of tea industry, Orthodox and CTC, look into Nepal's export performance and finally attempt to assess the impacts of liberalization on small farmers as well as commercial tea estates. (Neapltea, 2015).

## **2.2 Employment Opportunity**

The history of tea cultivation in Nepal starts with what was basically a Rana family/clan hobby. The Ilam tea gardens were started by the Ranas, influenced no doubt by its cultivation in Darjeeling in the hills of West Bengal, where British estate owners had established the precedent. Several decades after its start in Nepal, other farmers started it with a commercial intent. The government paid adequate attention only when the Nepal Tea Development Corporation was established. Initiated as 'a family business' in a single location for several years, the labor and technical personnel was at first limited in numbers. Even after its development for commercial reasons, around 40 percent of the output came from small farmers and expansion of the labour input at this level was provided mostly by the family members. Only the garden sector hires wage labour. (<http://www.nepaltea.com.np> July, 2015).

Specifically, in the Orthodox tea production districts the share of small farmers is over 70 percent. Therefore, the hiring of wage labor or 'pickers' in tea sector has different characteristics compared to other CTC tea producing large garden dominated farming systems. In the hill districts, 38,955 members of 7,791 households were dependent on tea cultivation (NTCDB 2009:8), whereas Warakaulle and other (2007) mentioned that 30,000 people are directly involved in the industry with a large percentage being rural women. Therefore, this industry has the potential to empower rural women through poverty alleviation and has become the focus of attention of many international organizations and many NGOs (Warakaulle et al, 2007:16). For a long time wage rates in the tea sector remained low compared to other sectors. The government eventually reformed the wage rates for the tea sector in 2008, after a month-long tea sector labour strike was settled following the fixing of the daily rate at NRs 95 (US \$ 1.27 approximately) for all types of garden labours. Both males and females working in same garden now received the same wage rate. However, in the small-holder farming sector the wage rate is not fixed but is usually higher than in the gardens. The field survey revealed that this was the result of irregular employment. It was also reported that the farm owner usually works together with wage laborers.

Besides green leaf plugging farmers are engaged in cattle rearing, farming of cash crops etc. tea garden helps them for such activities. Some Tea gardens also provide the tea term loan also.

## **2.2 Strategy for the Promotion of Nepalese Tea**

One of the major challenges is establishing firmly, the image/identity of Nepalese tea by pursuing brand promotion in international market. This entails identifying problems both at home and in the international market and resolving them in a timely and effective manner. It should be admitted that Nepal Tea is a little known commodity in the international export market. So far, Nepal has exported to a few countries and relatively in small quantities. However, there is huge market for our type tea.

Nepal tea has a promising future if promoted in a systematic and sustained manner. Awareness campaigns of Nepal tea across tea importing countries and Brand Promotion activities needs to be made to project and highlight our orthodox and CTC teas. This should be the prime focus of our marketing strategy. Market access initiative can be achieved through a sustained brand building of Nepalese handmade tea.

## **2.3 Organic Tea Farming in a Worldwide Context**

According to HDRA (1998), the International Federation of Organic Agriculture Movements (IFOAM) has produced a set of international organic standards, laid down by people from many countries. These give guidelines about what organic farming is and how it should be practiced on the farm. The recent increase in organic tea's popularity is part of an overall movement towards organic farming methods in general. Unregulated tea growers have been known to use raw sewage lines to irrigate their crops, as well as use banned pesticides such as DDT to control insect damage. While most tea companies do regulate themselves internally, only those who use farming methods such as crop rotation, inter planting and composting are likely to obtain organic tea certification by United States Department of Agriculture (USDA) standards legally organic soil must be free of synthetic fertilizer for at least three years. Certified organic teas can be found in virtually every country that grows

tea as a crop. The designation “organic tea” can be applied to white, red, green, oolong, black or any other tea variety. Many organic herbal tea blends contain other ingredients such as spices and flower which have also been grown organically.

The classification of tea as “organic” refers only to the farming and processing methods to produce it, not the tea’s specific type if, level of fermentation.

According to the handbook of FiBL/Naturland and SIPPO (2002), organically tea was first cultivated in 1986 in Sri Lanka. Since then it has become wide spread mostly in India and Sri Lanka. They further stated that the number of organic tea producer and the volume of organic tea traded on the world market have increased substantially over the last few years. This development can be explained by a number of factors. In the first place, tea farmers have become more aware of environmental problems (erosion, pesticides residues in tea plants) and the severe health hazards connected with intensive system of tea production.

FiBL (2005) describes that, the tea varieties that are cultivated are all hybrids of original tea plant *Thea sinensis* and *Thea assamica*. The result gleaned from the studies of conventional varieties can at least be used in part (e.g. as regards quality parameter and resistances properties). Until now, though, there have been no studies of varieties for the organic cultivation of tea. For this reason, only generalized recommendation can be offered. Organic cultivation of the tea requires varieties (clones) with broad-scope resistances, and the ability to thrive under shade tree (upright, dark green leaves). Organically cultivated tea was first produced in 1986 in Sri Lanka. Since then, it has become wide-spread mostly in India and Sri Lanka. Other production countries include China, Japan, Seychelles, Tanzania, Kenya, Malawi and Argentina. Organic cultivation no gem-manipulated varieties are allowed. Tea plants are propagated both generatively or vegetatively. Cultivation takes place under controlled condition in special beds over the spaces of 2-3 years. It is recommended to establish own nurseries in the garden in order to ensure a continuous supply of untreated and healthy plants.

The organic cropping has different variables that must be considered. First, productivity will decline heavily during the initial years which can later be increased gradually by the use of optimum organic inputs. Secondly, due to the productivity

decline and high labor requirements as well as the need for organic inputs, the cost of production increases. However, the price offered for organic in conversion is more than the conventional ones. After achieving organic certification, the full organic product can receive even higher prices. Similarly, the cost of certification also decreases and the productivity increases compared to the initial years of conversion. In conclusion, it can be said that though the conversion to organic in initial years is not profitable, and even might have to bear loss, gradually the losses are recovered and the business will become profitable in the long run.

Willer (2011) pointed that, the organic agriculture is rapidly growing in all parts of the world. From 2000 to 2009 the organically managed land area increased from nearly 15 million hectares to 37 million hectares of which roughly one third was located in developing countries.

FAO (2012) reports that, the demand for organic tea has increased in the past decade, when the notion of organic agriculture gained in popularity. India and China pioneered organic tea production, and they are the world leaders in production and exports of organic tea. In 2010 India produced 10 000 tones of organic black tea, while in 2009 China produced 67 500 tones of organic green tea and 3 000 tones of organic black tea to meet its domestic and export demands. The organic tea sector is expanding in other producing countries, although in smaller quantities, including 1 000 tones in Sri Lanka in 2010.

Karki et al (2011) have pointed that, the world-wide increasing demand for organic food and the creation of awareness on the environmental, economic and health benefits of organic production are important factors to motivate farmers to practice organic farming. Information on these benefits can be spread by governmental and non-governmental organizations as well as by development aid organizations from abroad. Since these traditional channels of information were not very successful in Nepal and other countries in the past, alternative information channels should be supported. One important message should be given by organic tea processors in Nepal who spread the information that they look for additional suppliers and offer long-term contracts for organic farmers. Another promising strategy is to engage successful organic farmers as multipliers and supporters in

training courses and workshops on organic farming practices. Farmers tend to have higher trust in experienced-based knowledge of other farmers than in information given by governmental agencies or professional buyers of their produce.

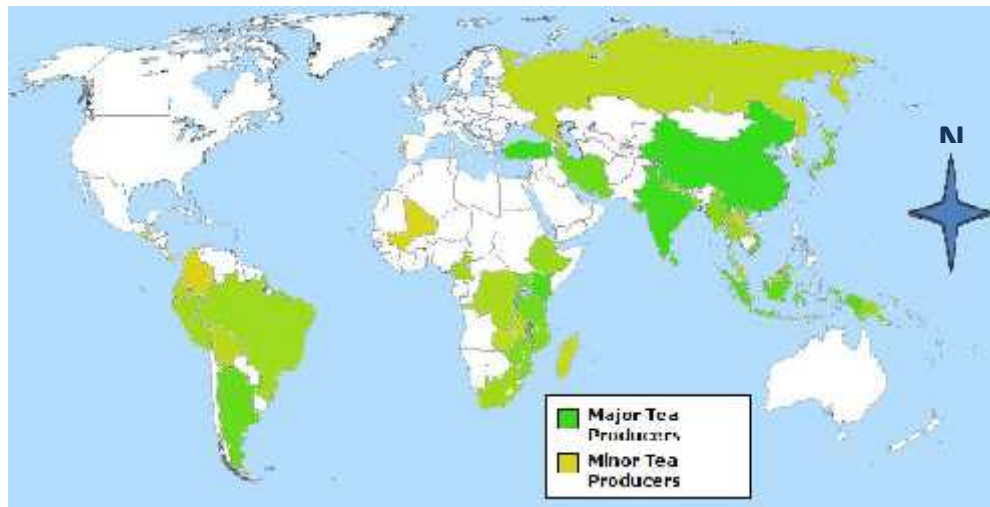
IFAD (2014) concludes that, the rapid growth in consumer demand for sustainable agricultural products represents an enormous opportunity for small-scale farmers and producers in developing countries. To help them seize this and other opportunities, IFAD funds a range of projects in rural areas. A growing number of projects support smallholder production of commodities that are certified under programmes such as Fair-trade, Organic, UTZ Certified and Rainforest Alliance. Research Institute for organic agriculture, FiBL (2005) further mentioned that the main places of production for organic tea are located in India, China and Sri Lanka (Ceylon). In India and Sri Lanka, Organic tea has been grown for more than 15 years. In China the first tea garden were converted to organic in 1990s.

Wise GEEK, (2015) has pointed that, many food products can legally be grown organic because they were grown and processed without the use of chemical pesticides or fertilizers. In the case of organic tea, an independent certification board verifies the tea plants were strictly grown in natural soil fertilized with the only organic additives. The use of chemical pesticides and fertilizer is already minimal in the tea industry, so it is not generally difficult to produce a legally organic tea.

(O) kuntze (family Theaceae) for almost 50 centuries, far long back in the first millennium BC; while according to a legend even before 2000 BC. The original home or 'the primary centre of origin' of tea was South-East Asia, at the point of intersection between the 290 N (latitude) and 980 E (longitude) near the source of the Irrawaddy River at the confluence of North-East India, North Burma, South-West China and Tibet provinces (Mondal et al., 2004). Tea thrives well within the latitude ranges between 450 N to 340 S, cutting across about 52 countries (Sana, 1989; Mondal et al., 2004). Assam is the largest producer (1850 kilograms per ha) of tea in India, which is 53% of the total production (Baruah et al., 2003). Tea cultivation is being practiced over centuries in indo-Burma mega-biodiversity hotspot of Assam and Dooars region of West Bengal.



Figure 1. World map of tea production regions



(Courtesy: FAOSTAT data, color-coded on a logarithmic scale)

The Chinese were the first to use tea as medicinal drink, later as beverage and now serving as morning drink for nearly 2/3 rd of the world population daily. About three billion kilograms of tea is produced and consumed yearly. The largest producers of tea are the People's Republic of China, India, Kenya, Sri Lanka, and Turkey (Figure 1 and 2). India was the top producer of tea for nearly a century, but was replaced by China as the top tea producer in the 21st century. While India is the largest consumer of tea worldwide, the per-capita consumption of tea in India remains a modest 750 grams per person every year. In 2004, world tea production was recorded at 3.21 million tons annually; while in 2008, world tea production was reached over 4.73 million tons. Tea is consumed as part of daily diet to reduce the risk of cardiovascular disease and cancer (Tsubono et. al., 2002). This has lead to the increase of about 6.2% of world tea production, from 3,146,000 metric ton in year 2003 to 3,342,000 metric tone in year 2004 (FAO, 2007). According to Food and Agriculture Organization (FAO) of the United Nations as of January 2010, there is a downfall of tea production in India from the year 2004 to 2008 as it is recorded at 928,000 tones (26%) to 805,180 tones (17%) per annum; while an increment is seen in the production of tea in China from 1,047,345 tons (25%) to 1,257,384 tons (27%) per annum (Figure-2). The investigation of this downfall of tea production in this region of India is now becoming a very important issue.

Tea is the most popular beverage consumed all over the world because of its refreshing effects and known benefits to human health due to its potential pharmacological properties such as antioxidative, antitumor and anticarcinogenic activities (Yamamoto et al., 1997). Tea is also a rich source of dietary metals such as manganese, zinc, iron, copper etc. Today, the relationship between tea and human health has become a subject of intensive studies throughout the world.

Organic farming is gradually replacing conventional farming due to increasing demand for organic food and growing environmental concerns (Hansen et al., 2001). The application of fertilizers to enhance soil fertility and crop productivity often negatively affects the biogeochemical cycle (Ma et al., 1990; Perrott et al., 1992; Steinshann et al., 2004). In the last few decades the rate of application of nitrogen, phosphorous and potassium (NPK) fertilizers in crop production is growing constantly (Adesmoyee and Kloepper, 2009). Conventional farming using chemical fertilizer often shows negative impact such as soil erosion, leaching and run-off of nutrients, loss of organic matter, pollution of natural water, impairment of environment quality, and evaporation of green house gases especially nitrogen (N), leading to environmental pollution and health hazards (Tilman, 1998; Tilman et al., 2002; Gyaneshwar et al., 2002; Kennedy et al., 2004, Diepening et al., 2006; Adesmoyee and Kloepper, 2009). Therefore, it is now crucial to find out alternative ways of fertilizer management in crop cultivation. Organic farming is able to increase the level of total nitrogen, nitrate and available phosphorus in soil and preventing nutrients leaching (Hansen, 2001). It has turned the focus of the farmers, scientists and policy makers to look at the integrated approach to nutrient management in order to make crop cultivation sustainable and less dependent on chemical fertilizers.

#### **2.4 Origin History of Tea**

A 19th-century Japanese painting depicting Shennong: Chinese legends credit Shennong with the invention of tea. Tea plants are native to East Asia, and probably originated in the borderlands of north Burma and southwest China.[27] Statistical cluster analysis, chromosome number, easy hybridization, and various types of intermediate hybrids and spontaneous polyploids indicate that likely

a single place of origin exists for *Camellia sinensis*, an area including the northern part of Burma, and Yunnan and Sichuan provinces of China. Tea drinking may have begun in the Yunnan region during the Shang Dynasty in China, when it was used for medicinal purposes. It is also believed that in Sichuan, "people began to boil tea leaves for consumption into a concentrated liquid without the addition of other leaves or herbs, thereby using tea as a bitter yet stimulating drink, rather than as a medicinal concoction."

Chinese legends attribute the invention of tea to Shennong in 2737 BC,[26] although evidence suggests that tea drinking may have been introduced from the southwest of China (Sichuan/Yunnan area). The earliest written records of tea come from China. The word *tú* appears in the *Shijing* and other ancient texts to signify a kind of "bitter vegetable" (and it is possible that it referred to a number of different plants such as sowthistle, chicory, or smartweed,[28] as well as tea.[14] In the *Chronicles of Huayang*, it was recorded that the Ba people in Sichuan presented *tu* to the Zhou king. The state of Ba and its neighbour Shu were later conquered by the Qin, and according to the 17th century scholar Gu Yanwu who wrote in *Ri Zhi Lu*: "It was after the Qin had taken Shu that they learned how to drink tea." [2] Another possible early reference to tea is found in a letter written by the Qin Dynasty general Liu Kun who requested that some "real tea" to be sent to him.

The earliest known physical evidence[30] of tea was discovered in 2016 in the mausoleum of Emperor Jing of Han in Xi'an, indicating that tea from the genus *Camellia* was drunk by Han Dynasty emperors as early as the 2nd century BC. The Han dynasty work "The Contract for a Youth", written by Wang Bao in 59 BC,[32] contains the first known reference to boiling tea. Among the tasks listed to be undertaken by the youth, the contract states that "he shall boil tea and fill the utensils" and "he shall buy tea at Wuyang". The first record of tea cultivation is also dated to this period (the reign of Emperor Xuan of Han), during which tea was cultivated on Meng Mountain near Chengdu.[33] Another early credible record of tea drinking dates to the third century AD, in a medical text by Hua Tuo, who stated, "to drink bitter t'u constantly makes one think better." However, before the mid-8th century Tang dynasty, tea-drinking was primarily a southern Chinese practice. It became widely popular during the Tang Dynasty, when it was spread to Korea,

Japan, and Vietnam. In India, tea has been drunk for medicinal purposes for a long but uncertain period, but apart from the Himalayan region it seems not to have been used as a beverage until the British introduced tea-drinking there much later.

Through the centuries, a variety of techniques for processing tea, and a number of different forms of tea, were developed. During the Tang dynasty, tea was steamed, then pounded and shaped into cake form, while in the Song dynasty, loose-leaf tea was developed and became popular. During the Yuan and Ming dynasties, unoxidized tea leaves were first pan-fried, then rolled and dried, a process that stops the oxidation process that turns the leaves dark, thereby allowing tea to remain green. In the 15th century, oolong tea, in which the leaves were allowed to partially oxidize before pan-frying, was developed. Western tastes, however, favoured the fully oxidized black tea, and the leaves were allowed to oxidize further. Yellow tea was an accidental discovery in the production of green tea during the Ming dynasty, when apparently sloppy practices allowed the leaves to turn yellow, but yielded a different flavour as a result.

## **2.5 Cultivation and Harvesting**

*Camellia sinensis* is an evergreen plant that grows mainly in tropical and subtropical climates. Some varieties can also tolerate marine climates and are cultivated as far north as Cornwall in the United Kingdom, Perthshire in Scotland, Washington state in the United States, and Vancouver Island in Canada. In the Southern Hemisphere, tea is grown as far south as Hobart on the Australian island of Tasmania and Waikato in New Zealand.

Tea plants are propagated from seed and cuttings; about 4 to 12 years are needed for a plant to bear seed and about three years before a new plant is ready for harvesting. In addition to a zone 8 climate or warmer, tea plants require at least 127 cm (50 in) of rainfall a year and prefer acidic soils. Many high-quality tea plants are cultivated at elevations of up to 1,500 m (4,900 ft) above sea level. Though at these heights the plants grow more slowly, they acquire a better flavour.

Two principal varieties are used: *Camellia sinensis* var. *sinensis*, which is used for most Chinese, Formosan and Japanese teas, and *C. s.* var. *assamica*, used in Pu-

erh and most Indian teas (but not Darjeeling). Within these botanical varieties, many strains and modern clonal varieties are known. Leaf size is the chief criterion for the classification of tea plants, with three primary classifications being, Assam type, characterised by the largest leaves; China type, characterised by the smallest leaves; and Cambodian type, characterised by leaves of intermediate size.

A tea plant will grow into a tree of up to 16 m (52 ft) if left undisturbed, ] but cultivated plants are generally pruned to waist height for ease of plucking. Also, the short plants bear more new shoots which provide new and tender leaves and increase the quality of the tea.

Only the top 1–2 inches of the mature plant are picked. These buds and leaves are called 'flushes'. [62] A plant will grow a new flush every seven to 15 days during the growing season. Leaves that are slow in development tend to produce better-flavoured teas. [50]

Pests of tea include mosquito bugs of the genus *Helopeltis* (which are true bugs that must not be confused with the dipteran) that can tatter leaves, so they may be sprayed with insecticides. In addition, there may be Lepidopteran leaf feeders and various tea diseases.

## **2.6 Some Economic Aspect Related to Tea**

Poudyal (1995) has studied the economic impact towards the local peoples by the tea estate in providing employment opportunities and tea saplings to the local people for extending the surrounding village land for tea plantation. This study also deals with the changes of economic status of the villagers due to the establishment of the tea estate in their surrounding area. His findings are helpful to know the positive and negative impacts on socio-economic aspects of the villagers.

Sarkar and Lama (1984) had studied about the origin of tea industry in Nepal. It also deals with the topics like migration, role of labor force, income sources of labor, development of tea as an industry, production, productivity and trend of earning and wages of labor etc. An article that deals with tea industries of Ilam district is

focused. This book will be a guideline for understanding the different aspects of tea cultivation and income generating activities of farmers for this research work

A Special Tea Term Loan (STTL) for the tea sector was announced by the Nepalese government in 2031BS. It envisaged restructuring of irregular portions of the outstanding term/working capital loans in the tea sector with repayment over five to seven years and a moratorium of one year, which was to be on a case to case basis for large growers. The STTL also provides for working capital up to Rs. 2 lakhs at a rate not exceeding 9% to small farmers. (Report of ADB of Nepal).

Some farmers are engaged in governmental and nongovernmental services and some are engaged in small scale business too. It helps them to uplift their lifestyle but it is not satisfactory yet.

Tea cultivation has become an integral part of agricultural system, cultivated mostly in eastern part of Nepal, especially in Ilam district since 1920 B.S. It was first introduced by the "Bada-Hakim" Colonel Mr. Gaja Raj Singh Thapa. But now this cultivation is introduced and spread to the different part of Nepal. The Scientific Name of tea is *Camellia Sinensis*. It is one of the leading cash crops and also one of the agro-based and most labor oriented sectors. On the other hand, it has reduced the problem of unemployment. It has helped to gain foreign currency through its export and also contributes in environment and economic conservation. So it is one of the main income sources for uplifting the economic status of small farmers (NTDC,2065BS.).

Cash crops plantation in general and tea plantation in particular play a major role in increasing overall agriculture production and conserving the deteriorating environment. So the foreign currency by producing superior quality of tea in a large scale provides great employments opportunity to the local people.

There are certain governmental and non-governmental organizations looking after the tea promotional activities. Among the governmental organization, they are NTCDB, trade promotion center and export promotion center. The non-governmental organizations are agro-enterprises, FNCCI, SNV Nepal, JAICA

Nepal, etc. are related to produce and promote Nepalese tea in International market (NTDC, 2065)

Nepal government has been anxious to promote rural economy by giving high priority to tea plantation within various agriculture development programs. In 2029B.S. five districts viz. ilam, Dhankuta ,Therathum and Jhapa were declared as tea plantation areas. Government declared subsidy of 50 percent reduction in the interest of loan and 90 present of in the large revenue. Such declaration inspired the small farmers to start tea plantation in Nepal.

The economic condition of the people of this district is satisfactory comparing to the people of other districts. People here are not only in single job or occupation but they are engaged in different other fields for income generation. The tea estate has provides the green scenery and has helped this areas in environment conservation too by controlling soil erosion, floods and landslides. But this tea estate has been impacting the local environment.

Nepal is the one of the poorest country in the world due to rapid growth of population, lack of civic awareness, political instability is hampering the developing efforts. We have very few possibilities of industrialization and limited scope for transportation and development of agriculture. In such a situation we have comparative advantages in the field of cash crops like tea. Basically, we produce two types of tea - the CTC and the Orthodox. CTC and Orthodox are tea-manufacturing processes. The generic name of the plant is Camellia, whether it is CTC or Orthodox. Tea grown in lower altitudes is manufactured to produce CTC type and has strong colour. The strong colour of CTC tea is the main quality attribute for most of the domestic consumers and as a result, this tea accounts for more than 95% of total domestic consumption. Cultivation for producing CTC tea is confined to Jhapa District of the Terai region. As per the Government statistics, currently, Nepal is producing 10.06 million kg of CTC tea out of which small farmers produce 28.6%. Land used for producing CTC type of tea is about 8323 hectares. Currently, 50 tea states, 668 small farmers and 23 tea-processing factories are engaged in CTC tea production in Nepal (NTCDB, 2005).

Tea grown in high altitudes is processed to produce Orthodox type. It has lighter colour better flavor and good aroma. In Nepal, Orthodox tea is exclusively made from processing leaves of hill grown tea bushes and therefore, it is known as hill tea. Nepalese Orthodox tea, which is produced at altitudes between 3000 - 7000 ft are famous for its aroma, bright liquor and subtle, slight fruity flavor, which are mostly sought attributes by the consumers of overseas countries. The total land area under orthodox tea plantation is around 6689 hectares, this industry consists of more than 35 tea states, around 7000 small farmers and about 13 tea-processing factories. Currently Nepal is producing more than 1.55 million kg of Orthodox tea of which small farmers' contribution amounts to 67.8% (NTCDB, 2005). More than 90% of orthodox tea is exported to India and overseas countries and the rest is partially used for consumption and partially for blending purpose in black tea to impart good flavor. The major hill districts for orthodox tea production are Ilam, Panchthar, Dhankuta, and Terathum. Tea is a high value, flavor intensive perennial crop with a potential for generating foreign exchange, reducing rural poverty, promoting economic growth and improving ecology and environment. It is also labor-intensive industry and provides moderately higher farm wage rate for the workers. The tea industry in Nepal provides employment to over 25000 workers with high participation of women. The industry involves 35% capital-intensive and 65% labor-intensive technology with a big scope to provide employment to rural masses( Dahal, 2005).

In recent years, prices of tea has considerably scaled up, which is attributed to higher demand for tea in the world market. HMG/N has accorded top priority to commercialization of agriculture and development of high value crops as envisaged in the Agricultural Perspective Plan (APP). Tea has been considered one of the premier high value crops. The budget of fiscal year 2004/05 states that subsidy on the interest will be given to tea farming, which will be expanded to twelve districts. Tea industry has tremendous impact in rural economic development by empowering women and providing employment to huge mass of unemployed people.

Nepal's total annual demand is 7. 8 million kg of made tea, which implies that average consumption per head per annum, comes to 350 gram. But the increasing per capita consumption shows big demand of CTC tea. India is, at present, our main



market. Approximately 1.5 million kg of CTC and 1.1 million kg of orthodox tea was exported to India in 2003-4. Though India herself produces large quantities of tea (about 850 million kg tea out of which 8 million kg is high grown orthodox tea), our neighboring country Pakistan is also a very big market for our tea. Last year, about 1 million kg (both orthodox and CTC) tea was exported to this country. Pakistan's 150 million populations consume approximately 140 million kg tea per year. Similarly, Bangladesh, which is now exporting tea will be an importing country very soon due to increased population and increased per capita consumption. In the year 2003 Nepal has exported 44 tons of orthodox tea to Germany, which is only 0.1% of its total import. India, China, Sri Lanka and Kenya are the major suppliers for Germany (Raush, 2004). There is a big market for orthodox tea in Germany, Japan and other EU countries. Pakistan and Gulf countries are potential market for CTC tea. Present statistics show that the world's annual production of high grown orthodox tea is about 10 million kg; while, the demand is approximately 50 million kg and growing considerably. This shows the ever-increasing demand of organic orthodox tea in world markets.

## **2.7 From the Perspective of Environment and Tourism Development.**

The tea industry of Nepal is committed to the conservation of the environment. Every effort is made towards the preservation of the hills and the well being of its people. Tea is environment friendly. It absorbs considerable amount of carbon dioxide from the environment and helps in reducing global warming. Tea roots penetrate deeply into the soils and conserve them. Eventually, it helps to stop soil erosion and landslides from the steep hills characteristic to most of Nepal. Tea plantation increases the scenic beauty of steep hills, which attracts many people for visiting this area. If we look across the border of our country, in Darjeeling, just because of tea, and environment, tourism has grown rapidly within the last 40 years. This indicates that tea plantation could help tourism development.

## **2.8 Issues and Impediments**

While the demand for Nepali organic tea remains paramount in the international market, the industry has been struggling to tap into the local tea market. Perhaps, due to the premium prices and limited production associated with organic orthodox

tea, the majority of the Nepali population consumes CTC tea. Another potential reason for this could be a lack of awareness and exposure among the people, as tea farming is geographically limited to particular regions due to its ecological necessities. However, in recent years various tea bars and tea lounges have been popping up to educate the local population about Nepali tea, especially organic orthodox tea. Ting's Tea Lounge, BG Tea Bar, and Teafresho are some prominent tea venues and considered pioneers in the field. Furthermore, organic farmers markets and organic tea fairs have also drastically helped the tea farmers/retailers sell their teas locally.

On the production end, even though there has been steady progress, the industry is suffering from a labor deficit. Men are migrating overseas in droves in search of employment, leaving behind only the elderly, women and children. Despite the overall increase in the people interested in tea farming, a lack of active labor is an emerging issue. Providing training and learning resources can help overcome this problem. KTERC is planning on relocating individuals who lost their shelter during the recent earthquake and providing them with technical training and resources that will engage them with the tea trade. Furthermore, a free housing and free education model would further aid the victims of the natural disaster.

Among all the challenges that the tea industry is facing, those relating to energy and technology are perhaps the most pressing. Fuel crises in Nepal are very common and ubiquitous. Despite exponential advances in available technologies, Nepal relies on old-school methods for tea production, like burning firewood. Therefore, shifting towards greener and more efficient energy to power the factories would enable stable production and increased yield and efficiency. It is equally important that the essential soil nutrients be preserved, as studies have indicated that soil health and biodiversity are imperative for the good health of the plant. Therefore, the application of advances in agricultural science and research could significantly aid in addressing the challenges faced by the tea industry.

SADP-Nepal conducted a needs assessment survey in 2010 to assess the socioeconomic status of primary beneficiaries, agriculture practices, food security and the people's receptivity to a project focused on organic production.

Socioeconomic status was assessed on the basis of participant's income, education status and food sufficiency. SADP-Nepal prepared a standard set of questionnaires for this needs assessment survey and project team members visited respondents of the project area to conduct the survey. A total of 98 randomly selected respondents representing marginal peoples from Kumal and Darai communities were involved in the survey. The average annual income of the project area (Can\$319) is lower than the average annual national income (Can\$429). Forty-five percent of the households earn their income exclusively from agriculture and 29% from foreign employment. Sixty-five percent of the respondents do not have sufficient food for the whole year whereas only 10% were satisfied with the productivity of their farming practices. This indicates that food insecurity, food insufficiency and lack of disposable income are key problems in the project area. Overall, socioeconomic assessments showed that 72% of the households were below the poverty line. The education status of Kumal and Darai communities was very poor. Twenty percent of the Darai community and 10% of the Kumal community were literate, and 10% of both communities had high school (completed Grade 10) and less than 1% had college level education (Intermediate to Bachelor degree). Bhatt and Doppler (2011) compared the socioeconomic status of farmers involved in subsistence farming, commercial conventional farming and small holder organic farming in the Peri urban areas near Kathmandu Valley. They found that socioeconomic status (such as income generation, educational levels, awareness of organic productions and markets) was very high in conventional commercial growers and organic small holders compared with subsistence growers. The gross margin of the different vegetable production systems per hectare were Can\$967, Can\$5204 and Can\$6486 for subsistence growers, conventional commercial growers and small holder organic growers, respectively (Bhatta and Doppler 2011). This indicates the substantial potential to increase the income levels of subsistence growers of our project area by adopting organic farming of high-value crops.

A survey was conducted to identify marketing opportunities for organic products in the nearby cities of Tanahu: Kathmandu (Capital of Nepal), Pokhara (one of the largest metropolitan areas), Damauli (the nearest city from the project area) and Narayanghad (another big city in central Nepal). In collaboration with the Organic

Village-Nepal, SADP-Nepal identified major traders of organic products and other organizations working in related fields in these cities. The Organic Village-Nepal is a national partner of SADP-Nepal, which has been conducting the business of organic product marketing in Kathmandu. Survey questionnaires were utilized to assess the demand and supply of organic agriculture products, types of organic products demanded in markets and consumers perceptions regarding buying organic products. Overall, the market survey indicated that there is the ample market opportunity for organic products in urban areas in Nepal, with the greatest market opportunities in Kathmandu followed by Pokhara, Damauli and Narayanghad. In Kathmandu, around 20 supermarkets and outlets sell organic products. Most of the retailer survey respondents noted that there is a large demand for organic products, which is unmet due to unavailability and inconsistency of supply. Organic vegetables and fruits, cereals, organic pickles, etc., are in particularly high demand. Bhatta and Doppler (2011) identified four different marketing channels being used in the Kathmandu valley to deliver organic products from growers to consumers: directly to consumers (29%), through collectors (11%), through collectors to retailers (20%), and through cooperatives to retailers (40%). This indicates that cooperatives have a significant role in providing marketing of organic products. Most of these cooperatives are formed by local farmer groups, have strong organizational capacity and many of them also have established microfinance institutes to provide small loans to growers (Bhatta and Doppler 2011). The proposed long-term project (2011–2016) has a goal to promote marketing of organic products through formation of farmer cooperatives in the project area. The initial (2010–2011) project has already formed six different farmer groups in the project area and the long-term goal is to transform these farmer groups into cooperatives.

The project also supported improvements and renovations to the SADP resource centre at the project site, which acts as an organic farm and research training centre. Training is provided to ethnic Kumal and Darai communities and other marginal peoples of Kyamin Village on compost making, soil nutrient management and overall organic farming practices. The local farmer groups participated in the training and workshops and also interacted with the Canadian project monitoring team. Female participants (>50%) were involved in project activities such as training

programs, workshops, interactions with Canadian project participants and in the formation of farmer groups. The participation of high numbers of female members from the project area in this initial phase is a positive indication of the projects potential to achieve the desired outcomes with respect to gender balance.

In summary, to date, the project has successfully strengthened the organizational capacity of the lead organization (SADP), conducted a baseline assessment study in the project area, assessed the potential domestic market for organic product, promoted organic farming among the ethnic marginal farmer groups (Kumal and Darai), identified and established a strong collaborative project link with the agricultural university and scientific societies of Nepal and developed a longer-term (2011–2016) project proposal. Improvement in the SADP-Nepal's capacity to organize training and workshops, the renovation of the resource centre of SADP-Nepal at Tanahu and the establishment of strong networking with national and international organizations are indicators of success in strengthening the organizational capacity of SADP-Nepal. Canadian team members (Canadian International Project Coordinating Committee member Dr. Rishi Burlakoti and AIC International Program Coordinator Tom Beach) visited Nepal in December 2010 and assessed the success of the project outcomes and reviewed the project progress. The team also interacted with participating farmer's groups, participated in workshops and interacted with representatives of collaborative organizations [AFU, Nepal; Society of Agricultural Scientists (SAS)-Nepal; and Nepal Horticulture Society (NHS) and supportive organizations (government agencies and local organizations)]. The project monitoring report was posted on the AIC website (Anonymous 2011). Moreover, SADP-Nepal submitted quarterly and final reports of project's progress and outcomes to AIC and CIDA. The 1-yr project also successfully allowed for networking with both regional and national government bodies such as the Department of Agriculture, Ministry of Science and Technology, Nepal Agricultural Research Council, district levels offices of agriculture and soil conservation and livestock. In particular, SADP developed a strong link with the AFU, Nepal and scientific societies of Nepal (SAS-Nepal and NHS). The Canadian committee (comprising CSA and CSHS members) also played a vital role in this project. The committee provided scientific input and feedback on the project operations, project

monitoring and review of quarterly and annual reports plus preparation of a full proposal for a proposed longer-term project (2011 to 2016).

Nepal has experienced phenomenal growth in production of organic foods in the recent decade and primarily focusing on the export markets. Organic agricultural export market is one of the major drivers of organic agriculture in India. The country is best known as an exporter of organic tea, organic fruits, organic spices and organic rice. Over the past several years, the organic food industry in India has been experiencing an annual growth between 20-22 percent. The nation has the potential to be largest organic food producer. However, Indian domestic markets for organic products particularly metro cities such as Delhi, Mumbai and Bangalore are witnessing significantly growth in the recent years. Antonio et al (2009) suggested a vital role of studies on Green Consumerism in understanding the consumer attitudes, behaviour and intentions aptly due to rising environmental consciousness. There are numerous factors which contribute and affects the consumer's awareness levels regarding the organic food products. It has also been investigated by many researchers that socio-demographic profiles of the consumer, buying behavior and knowledge about the nutritional content of the foods are few of the main points which affect the awareness levels and impact the purchase decision. (Gracia and Magistris, 2007)

#### Organic herbal tea

There is an increasing demand for organic herbal tea in the US as consumers now prefer organic herbal tea over conventional teas. This is mostly due to the increasing awareness of the associated health benefits of organic tea. Consumers are looking for organic and eco-friendly products, and are even ready to pay a premium price for such products.

According to Akash Pandey, a lead non-alcoholic beverage research analyst from Technavio, "Organic herbal teas such as turmeric, ginger, chamomile, and peppermint have therapeutic values, due to which their demand is expected to increase among the health-conscious consumer base in the US. Therefore, manufacturers are concentrating on various product offerings in organic herbal teas."

## Organic black tea

The organic black tea market in the US is growing with the increasing availability of various flavors and the high consumer awareness regarding the associated health benefits of the product. Organic black tea contains antioxidants and polyphenols, which help clear free radicals in the body (produced because of natural metabolic processes and due to the exposure to environmental toxins), thereby increasing the metabolic rate.

“With the increasing demand for varied flavors in organic black tea, many manufacturers are now launching various flavored organic black teas. For example, Arbor Teas produces a variety of flavored organic black teas such as Organic Apricot Black Tea, Organic Decaf Mixed Berry Black Tea, Organic Earl Grey Black Tea, Organic Holiday Spice Black Tea and Organic Lychee Black Tea,” .

## Organic green tea

The demand for organic green tea is high, owing to its associated health benefits. Health magazines and blogs regularly feature stories of organic green tea's weight loss capabilities. Consumption of organic green tea increases fat-burning and boosts metabolic rate. Organic green tea brewed from loose tea leaves generally contains potent antioxidants like epigallocatechin gallate (EGCG).

Owing to the popularity of organic tea in the US, many manufacturers have started offering various organic green tea products. For example, The Republic of Tea produces USDA-certified organic green teas such as Organic Lean Green SuperGreen Tea Bags, Organic Serenity SuperGreen Tea Bags, Organic Immunity SuperGreen Tea Bags, and Organic Brain Boost SuperGreen Tea Bags.

### **2.9.1 Marketing Problem**

Private Factory owners have now controlled the purchase of green leaves produced by small farmers. Till 1990, the NTDC used to be the monopolist buyer of green leaf. Moreover, green leaf is also exported to Darjeeling from Sri Antu areas in Ilam District as it is not convenient to transport leaves to the factories located in Nepal. Generally, the tea processors in Jhapa district cartel the buying price of the green

leaf. As the harvested green leaf can not be stored more than 10-12 hours, the tea planters without processing plants are forced to sell green leaf at the price set by the tea processing plants. Some inherent constraints, such as lack of transportation links, also limit planter's ability to reap out benefits of higher prices. It is very interesting to mention that some tea processing factories are having hard time to get raw materials as farmers adjoining these factories refuse to sell them because of the bad past records of the processors, who delay payment on the purchase of green leaves.

Globally, tea is sold through auctions. This process was adopted by NTDC when it was in the public sector. Now almost all the processors sell their products to the packers through negotiation. Some of the tea processors sell their made tea directly to the packers for blending and packing under their names. There are more than 250 registered tea packers in Kathmandu valley alone. It is a common practice that most of these packers import low quality tea from India and blend it with superior quality Nepalese tea. Generally the quality of tea being marketed in Nepal remains questionable, except a few popular brands marketed by well-established companies. It is found that tea packets are subjected to double tax system. Pricing of tea in Nepal is the function of the auction price of tea in Siliguri, India plus transportation up to the border plus the import duties in Nepal that varies from year to year.

We export our tea to USA, UK, Japan, Germany other EU countries, Pakistan and India. Indian exporters blend Nepalese tea and re- export to third countries. The imposition of quarantine checks has adversely affected export to India as the trucks carrying Nepalese tea are, at times, held for as long as 15 to 30 days at border points, which not only damage tea quality but seriously affects price. The time frame for selling tea has vital importance. First flush tea finds high rate in market if sold instantly after manufacture. If time lapse increases, its value goes down considerable. Same rule holds goods to second flush, rainy and autumnal flush teas. It is important that we devise a mechanism that will avert this situation.

Establishment of tea garden requires huge investment with long gestation period. Equity capital forms only a small portion of the total investment. The rest has to be raised through loans from the financial institutions. It has been found that the loans provided to tea gardens for the planting of tea and its maintenance per unit of land is



inadequate. A major strength of the Nepalese tea industry is the large number of small farmers associated with it. With the present financing available from the Agriculture Development Bank (the prime source for the financing of the tea plantation industry in Nepal), it is not encouraging for small tea farmers to take up tea cultivation. Most of the Tea planters have complained about the bureaucratic delays while availing credit facilities from the ADB/N. Interest rates are high, grace period provided are not enough. Despite its long history in tea financing, the ADB/N has not been able to establish well-designed procedures for loan sanctions & disbursement

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

#### **3.1. Research Design:**

To meet the objectives of the study, descriptive and exploratory research design were applied in this study. It was used exploratory design in the study area. The data has been collected from the field survey i.e. primary resource. The data has been analyzed in descriptive and analytical way. In addition case study has been for the household's survey. Such a research design helped to find the above mentioned objectives. It has tried to explore scope of organic tea farming of the study area in terms of practice and knowledge.

#### **3.2. Rationale of the Selection of Study Area**

This study is organized in Gorkha Valley organic tea farming located in the Suryodaya Municipality Ward No.9 is expertise many national and international stakeholders across the world came to support and today there are many certified organic .

#### **3.3 Nature and Sources of Data**

The present study were mainly based on primary as well as secondary data. Both quantitative and qualitative information was taken into the account.

#### **3.4. Universe and Sample size**

In the study area as there were organic tea farmers who are formally certified organic tea growers. It was selected as much as to represent different age groups, economic status, income level etc. to determine the accurate condition. The large sample could not be possible due to the constraint of time and money and also brings difficulties in interpretations. So that I prefer the simple random sampling take only 20 households as a sample size among the 40 respondent's households. It is the 50% of total households.

### **3.4.1. Primary Data**

The main method for collection for the primary data were household survey of the randomly selected farmers along with the direct field observation, information from key informants.

### **3.4.2. Secondary Data**

The secondary source of information from documentary source: books, reports of survey, official published data, thesis and unpublished documents.

## **3.5. Data collection technique and tools**

The primary data collected from the survey and the interview for the research along with the secondary data available from different private firm, government and non-government organization working in this sector along with the online report, journal and article. To collect primary data, the structured questionnaire, and semi unstructured and open end type of interviews were taken along with observation.

### **3.5.1. Household Survey**

Structured and semi structured questionnaire was prepared to generate the realistic and accurate data from the survey of the organic tea farmer households. The respondents were asked and filled out the questionnaires to collect require the data.

### **3.5.2. Key Informant Interview**

The primary data were collected from key informants using the semi or structured interview method. The interview were taken for 20 individual as cross checking for data obtained from the survey and finding different aspects of the study as per objectives. These informants will experts and people involved in organic tea farming, tea industry, and agricultural expert.

### **3.5.3. Observation**

Field of organic tea farm, processing and different activities was observed along with the conventional tea farm and figure out differences and other feature related to this research.(Annex I)

### **3.6. Data Presentation and Analysis**

Data processing and analysis were done by both ways, manually as well as using simple statistical tools and programs as per requirement of research design. Using quantitative as well as quantitative tools the systematic analysis has been made. The quantitative as obtained from structured questionnaires were processed firstly, and then processed data have been presented in tabular form. Finally, the data interpreted with additional information simple statistical tools such as, percentage, average have been used to present the finding. Besides this, bar diagram, and pie chart are used to supplement the presentation of the findings of the study.

## CHAPTER–IV

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Introduction of the Study Area

Gorkha Valley tea Farming located under the under Suryodaya Municipality in Ilam District in the Mechi Zone of eastern Nepal. It is famous for its beautiful green tea garden and picnic spots. Knyam and Fikkal have large estates for which Ilam has been famous for the last 140 years. These tea plantation areas are popular among tourists for picnicking, sightseeing, and taking photographs.

#### 4.2 Education Status of the Local Respondents

Education is the key to any success. it is the cornerstone of the development also. Higher the level of the education means better will be the opportunities. The education level of the local respondents has been listed on the following table:-

**Table No. 4.2 Education Level of Local Respondents**

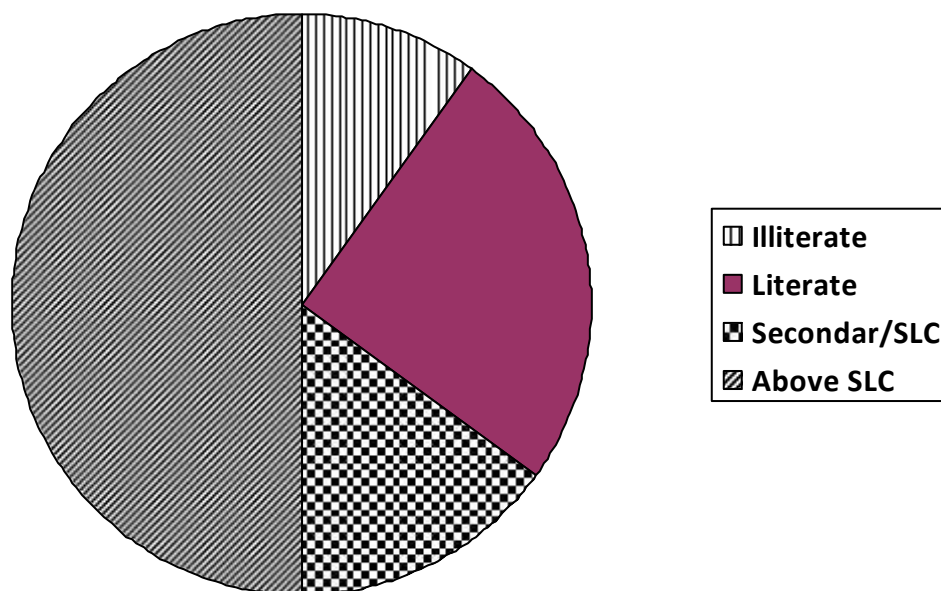
<b>Educational Levels</b>	<b>No of respondents</b>	<b>Percentage</b>
Illiterate	2	10
Literate	5	25
Secondary /SLC	3	15
Above SLC	10	50
Total	20	100

Source: Field survey, 2017

The above table no. 4.2 presents that 15 percent local respondents have secondary level of education. Out of the total respondents 10 percent are only literate and 50 percent are above SLC passed respondents similarly there are 5

percent illiterate respondents. It concludes that the level of education in respondents is not in homogenous background, it is because of the icon of rural life also.

**Fig. No. 4 .2 Education Level of Local Respondents**



### 4.3 Occupations of the Local Respondents

Occupation in the engagement of people in different activates to satisfy their daily needs is human beings adopt different types of occupations such as agriculture, Trade, Service, social worker etc. in these study respondents occupational status has been presented below in the table no. 4.3.

**Table No. 4.5 Occupational of the local respondents**

Occupational	Respondents	Percentage
Agriculture	8	40
Animal Husbandry	3	15
Tourism Related Business	2	10
Trade And Commerce	3	15
Services	2	10
Others	2	10
Total	20	100

Source: Field Survey, 2017

Table 4.5 shows 15 percent of the local respondents are taken animal husbandry as a more occupation for their livelihood. It is followed by agriculture which occupies 40 percent. Similarly, consisted 10 percent and trade and commerce is the main occupation of also 15 percent of the local respondents. Likewise, 5 percent and 10 percent are service holders and other way of life herbal product, wine product etc respectively. It clears that due to its upload geography, majority are egged in animal husbandry because crops production is not suitable for this area.

#### **4.7 Religion of the Respondents**

Nepal is a country having many religious diversifications. As Nepalese societies are of patriarchal type, the society in this study area can't be isolate from this trend. So the society of this area is totally dominated by male chauvinism. The social norms and values are totally biased towards the male and females are only the sub-coordinating parts of such males. Every social, political and economic power are exercised by males and put burden on females , every household decisions are taken by males where females should follow viz. child bearing situation depends on males , females outdoors work are also guided by males. But exceptionally the Mongolian women are granted some individual rights and are exercising some power in comparison to the woman beyond their culture. The below table shows the distribution of respondents on their basis of religion.

**Table No-4.7 Religions of Respondents**

<b>Religion</b>	<b>No. of Respondents</b>	<b>Percent</b>
Hindu	15	75
Buddhist	2	10
Kirati	3	15
Total	20	100

Source: Field Survey, 2017

**Fig. No. 4.7 Education Level of Local Respondents**

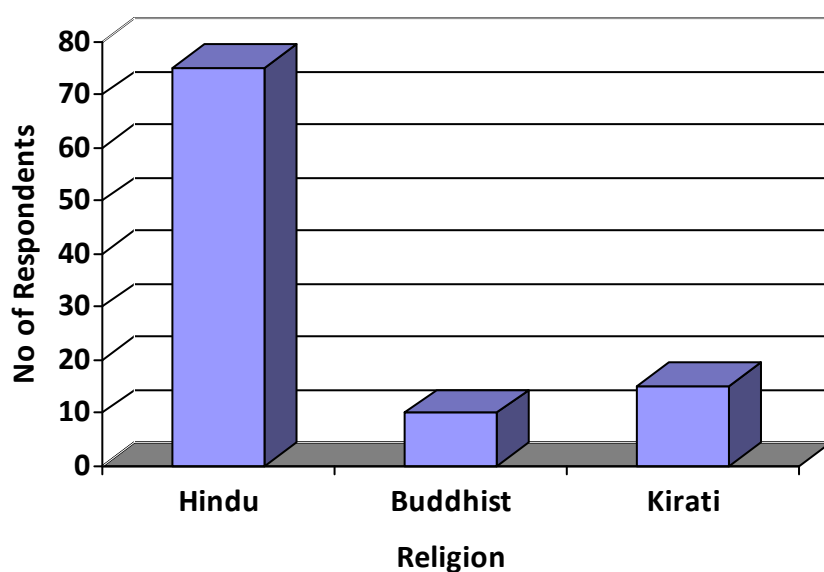


Table No.-4.7 shows that the major peoples are Hindus. Hindus are 75%, which is the 15 in respondents. 10% are Buddhists and 15% are Kiratis. The main causes of majority of Hindus are the majority of Brahmans and Chettri.

#### **4.8 Age Distribution of Respondent**

Age is an important demographic characteristic. Roles and responsibilities, ownership of land/property, decision making power of a woman are affected by their age. In this study, the age of the respondents ranged from 15 to 59 years. The description of age group in the sampled households can be shown by the given table.

**Table No. 4.8 Distribution of the Respondents according to Age**

Age (group years)	No. of respondents	Percentage
15-29	7	35
30-44	8	40
45-59	5	15
Total	20	100

Source: Field Survey, 2017



In this table, the age distribution of the sampled women has been presented under 3 age groups. Highest percentage of respondents was of 30-44 years age group that is 59.68 percent. 22.58 percent of the respondents fall under the age group of 45-59 years and 17.74 percent of the respondents fall under the age group of 15-29 which is lowest percent of the respondents. In above table, we found that the majority of the respondents are of middle age that is 30 years to 44 years old.

#### **4.9 Land Ownership**

As agriculture is the main occupation of Nepalese, this study conducted in kanyam also depicts the same result. But the cultivation pattern a little bit different as found in nation wide cultivation pattern, that is, several studies have shown that farmers do not get their own land for cultivation rather landlords occupies most of the land and farmers get land in rent. But in this study area, cultivation pattern in land is done by own landowner.

**Table No. 4.9 Percentage Distribution of Land Ownership of Sampled Household**

Ownership	Number of Respondents	Percentage
Cultivated by Own	15	77.42
Rented	3	5.38
As a Tenant	2	17.20
Total	20	100

Source: field Survey, 2017

According to the Table No .4.9 among the sampled households, 77.42 percent of household cultivate their own land, 5.38 percent of sampled household cultivate land taking in rent. Similarly, 17.20 percent of sampled household cultivate land but as a tenant.

#### 4.10 Monthly Income

Income is a variable which shows the status of an individual as well as family in society. It determines the economic status of everyone. Therefore an attempt has been made to find the monthly income of the sampled households.

**Table No.4.10 Percentage Distribution of Monthly Family Income of Sampled Household**

<b>Income (in NRs)</b>	<b>Respondents</b>	<b>Percentage</b>
Up to 5000	15	75
5001-10000	3	15
Above 10000	2	10
Total	20	100

Source: Field Survey, 2017

From the different sources of income sampled population make certain income in monthly basis which can be discussed as in the table 20 sampled household 15 percent of respondent earn up to 5000/- NRS per month, 15 percent of the total respondents earns between 5001 to 10000 NRS Per Month for their survival, 22.04 percent of the participants of the survey replied of earning monthly between 10001 to 15000. Similarly 10 percent and 26.88 percent of the total surveyed population replied as earning 15001 to 20000 and above 20000 respectively. The household income level of the study area, in general, is quite good. Thus, economic condition is seemed to be quite satisfactory in Nepalese context.

#### 4.11 Family Structure

Family is a social institution and the most important primary group of the society as well. It is the first and the most important intermediate social environment to which a child is exposed and where a child develops its basic attitudes. Along with the wave of modernization and urbanization, the traditional family system has been changing its shape. Traditional joint family system is gradually fading away replacing by the nuclear family system. Less of the household is found living jointly.

**Table No. 4.11 Types of Family Structure**

<b>Family Structure</b>	<b>Respondents</b>	<b>Percentage</b>
Nuclear	15	75
Joint	5	15
Total	20	100

Source: Field Survey, 2017

Table No. 4.11 indicates that the existence of Nuclear family constitutes fairly high percentage that is 75 percent than that of joint family 15 percent. As the structure of Nuclear family is increasing everywhere, this study also shows the increasing trend of Nuclear family in the study area.

#### **4.12 Occupation**

The respondent's income is not sufficient to fulfill their requirements from only one occupation because the size of the family members is high and the employed member per family is very low so they have involved in many other income generating activities. The primary occupation of the respondents is depending on tea garden. More than 50% of the respondents are involved in tea farming, plugging, green leaf transportation etc and some have their own jobs in private sector as soon as government sectors.

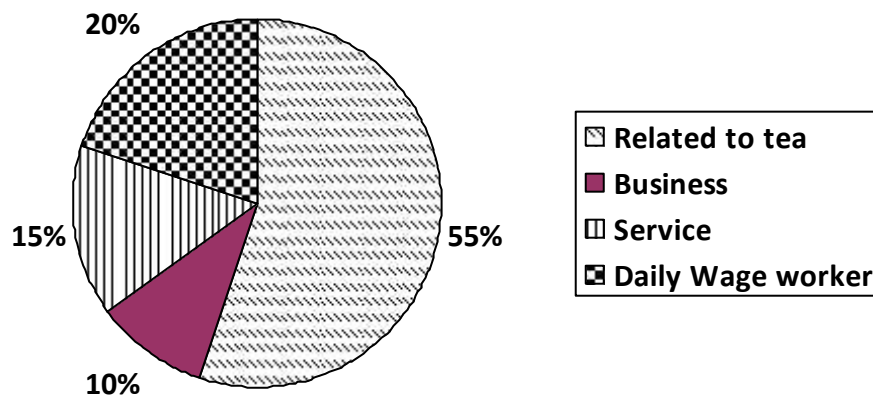
**Table No.- 4.12 Primary Occupation of the Respondents**

<b>S.N</b>	<b>Primary Occupation</b>	<b>No of Respondents</b>	<b>Percentage</b>
1	Related to tea	11	55
2	Business	2	10
3	Service (Gov. and Private Sector)	3	15
4	Daily Wage Worker	4	20
	Total	20	100

Source: Field Survey, 2017

For Skill development training is one the important tool however the participation might indicate its success and the social factor. Training enhances the knowledge and practice performance of the farmer required in the technology adaptation. However, 79% farmer replied that they have taken trainings related to the organic tea farming and about 21% they have not taken any formal training (fig.37). Farmers were only practicing the organic tea farming with only the consideration that they should about only synthetic fertilizer and the pesticides.

**Fig. No. 4 .12 Primary Occupation of the Respondents**



#### **4.13 Types of Organic Farming of Respondents**

The respondents were asked about their practices organic tea users increasing in the world, an it contains health beneficial value. We grow organic herbal tea, black tea, mint tea, nettle tea, cinnamon tea, tulsi tea and green tea organically. Nepali teas are popular in the world, climate of eastern region of Nepal is best to cultivate organic tea in Nepal.

**Table no. 4.13 Types of Organic Farming of Respondents**

<b>Types of farming</b>	<b>Respondents</b>	<b>Percent</b>
Organic Tea	18	90
Others tea	2	10
<b>Total</b>	<b>20</b>	<b>100</b>

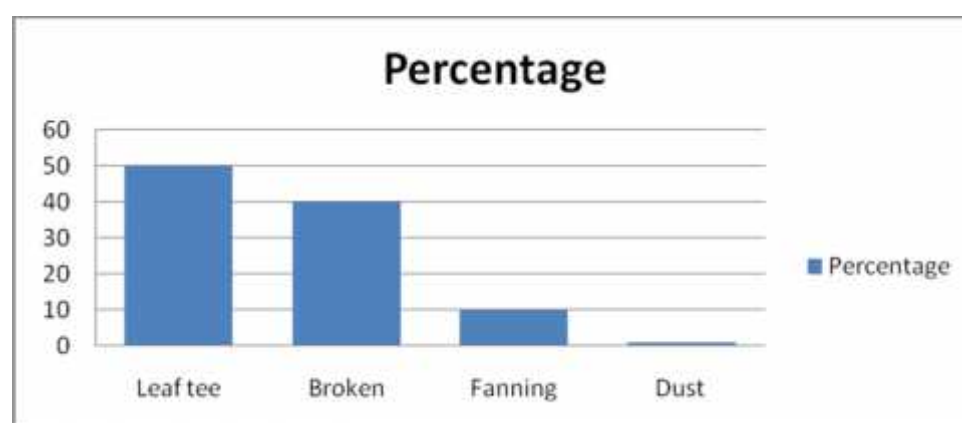
Source : Field Survey,2017

In the table no. 4.15 demonstrate that the 90 percent of respondents answer having or cultivating organic tea similarly 10 percent non-organic tea.

#### **4.14 Types of Tea Production**

During the survey the respondents were asked about the social changes, mostly focusing on the positive social changes, whether they have been observed or not. As per as survey record 40 percent of organic tea is formed leaf tea so on 40 percent broken tea, 10 percent fanning tea and remaining dust tea were produced.

**Fig. No. 4 .14 Type of Tea Production**

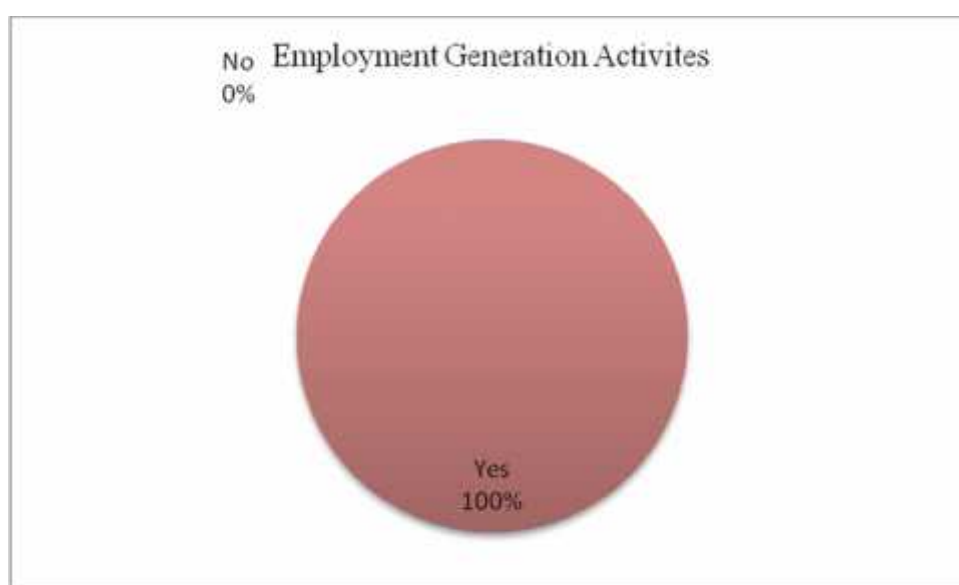


Source: Field Survey, 2017

#### 4.15 Employment Generation Activities

In the organic farming need mores labour in the manure management. However, there are also other cultural and the harvesting activities are carried in the organic tea farming. These all activities have created the employment generation in organic tea farming. It was surveyed that whether the organic tea garden of the respondents has created and provided employment to the local people or not and 100% respondent answered yes .

Figure.4.15 Employment Generation Activates



Source: Field Survey, 2017

#### 4.16 Sources of Purchase of Organic Tea

Sources	Respondents	Percentage
Nearly	12	60
Big Bazzar	2	10
Local Stores	6	20
Whole Seller	2	10
Total	20	100

Source Filed Survey, 2017

Table n0 o4.18 describes the Major Source of Purchase of Organic Tulsi Tea that is whether the tea is bought from Exclusive organic Stores or any store. From the analysis it has been found that out of 12 respondents maximum of them nearly 60% purchase it from Nearly ,10 % from Big Bazzar , 20% from Local stores and only 10% from specialized stores and other Modern Whole Sellers.

#### **4.17 Reason for Preferring Conventional Tea over Organic Tea**

**Table no.4.17 Reason for Preferring Conventional Tea over Organic Tea**

<b>Reason for orgnic tea</b>	<b>Respondents</b>	<b>Percentage</b>
Doctor Recommendation	3	15
Own curiosity	11	55
Medical Benefits	5	25
Because of Diabetes	1	5
Total	20	100

Source: Field Survey, 2017

The above table no.4.19 demonstrate that after survey analysis that only 15 % of the consumers for Organic Tea consume it on Doctor's Recommendations and 74% on their own out of their curiosity and Impulse Buying Behavior. When they are further inquired about the reason for following the Doctor's Advice, 25% commented that it is due to some specific reasons / medicinal benefits that they get from the organic Tea. And categorically 5% of them consume it because of Diabetes

## CHAPTER -V

### SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

Nepal is landlocked country. It is located in the south East Asia between 26 degree to 30 degree North latitudes and 80 degree to 88 degree East longitude. Nepal Is Boarded by India in the west, south and east and China in the north. Culture of Nepal is combination of north and south. It is about 885 km long from the east to west. Its width is about 193 km from north to south.

Nepal is the one of the poorest country in the world due to rapid growth of population, lack of civic awareness, political instability is hampering the developing efforts. We have very few possibilities of industrialization and limited scope for transportation and development of agriculture. In such a situation we have comparative advantages in the field of cash crops like tea.

Ilam district is the hilly district of Nepal. It is located in the eastern part of Nepal having the height of 3000 meters to 3636 meters above the sea level. This district is very famous for cultivation of tea, cardamom, ginger, orange, potato, akabare chilly, amliso as cash crops including milk production and timber forest. All these productions have helped the people to generate high income and profit. This district is also very famous for tourism and eco-tourism. As many beautiful places exist here, many domestic and foreign tourists visit this place to have enjoyment and to get pleasure looking the panoramic views. Almost every part of eastern region of Nepal from mountainous regions including some places of West India could be seen from high hills of this district. Sandakpur is the highest hill station for tourist which has the height of 3636 meters (DDC, Ilam, 2005)

Ilam district lies in the far eastern region of Nepal at the 26<sup>0</sup>7' to 27<sup>0</sup>1' north latitude and 87<sup>0</sup> to 98<sup>0</sup>15 east longitude. The altitude from the sea level rises from 300 to 3636 meters. Ilam is surrounded by Darjeeling district of west Bengal, India in the east, Dhankuta and Morang in the west, Panchatar in the north and Jhapa in the south. Annual mean rainfall varies from 80ml to 250ml in the monsoon season (Ibid). Beautiful panoramic landscapes, alpine climate and high productive



agriculture system are the heritage of the district. From the hygienic point of view, this district is regarded as a healthy place. There is high possibility of tourism development if a promotion initiation program is effectively launched.

Different cast\ethnic peoples are living here in this district. Hinduism, Buddhism and Christianity are the main religions followed by these peoples. They are living here highly respecting each other's customs, rituals, festivals and religions. Each and every group of people has their own honorable identity in the society. They have a very high level of social integration and social solidarity. They have always tried to minimize the social conflicts but the racial discrimination of so-called higher caste with the dalits are found discriminating them as lower and untouchable caste. The dalits are socially excluded but they are given equal chance to be participated in different social activities, political platforms, religious functions etc. There is a high degree of socio economic co-operation and co-ordination among the people of each and every group and class. The families structures mostly are of joint type but nuclear type are also found in some families. Every people follow their own religious culture and rituals in their marriage inviting their neighbors of all castes, class and religions. The public health is satisfactory having access to hospitals and health-posts. They are very conscious in their sanitary habits. They are very conscious and aware in their family planning and child bearing process too. But the traditional practice and belief if superstitions are also found viz. Tantric, Dharmi, jhankri etc. The males are more literate than females and males exercise more household decision making power than females. Women's participation process in different social and developmental activities is increasing as many CBOS, NGOs, INGOs and other local Government bodies are formulating and implementing their programs keeping these low ranked women in priority and targeted group.

Tea cultivation has become an integral part of agricultural system, cultivated mostly in eastern part of Nepal, especially in Ilam district since 1920 B.S. It was first introduced by the "Bada-Hakim" Colonel Mr. Gaja Raj Singh Thapa. But now this cultivation is introduced and spread to the different part of Nepal. The Scientific Name of tea is *Camellia Sinensis*. It is one of the leading cash crops and also one of the agro-based and most labour oriented sector. On the other hand, it has reduced the problem of unemployment. It has helped to gain foreign currency through its export

and also contributes in environment conservation. So it is one of the main income sources for uplifting the economic status of small farmers (NTDC, 2065BS.).

Tea can be planted even in sloppy areas as well. Despite of its evergreen beauty, it checks the soil erosion and landslides in hilly areas. Cash crops plantation in general and tea plantation in particular play a major role in increasing overall agriculture production and conserving the deteriorating environment. So the foreign currency by producing superior quality of tea in a large scale provides great employments opportunity to the local people.

Nepal government has been anxious to promote rural economy by giving high priority to tea plantation within various agriculture development programs. In 2029B.S. five districts viz. ilam, Dhankuta ,Therathum and Jhapa were declared as tea plantation areas. Government declared subsidy of 50 percent reduction in the interest of loan and 90 present of in the large revenue. Such declaration inspired the small farmers to start tea plantation in Nepal.

The Study area is located in Suryodaya Municipality (ward no 09) of Ilam district of *Mechi* zone of eastern development region of Nepal having about 930 meter height from the sea-level. This area is accessible to the researcher for the study. It is very easy to collect data in self- expense. The more reliable data could be collected in familiar manner with the respondents. It is easy to collect data due to transportation facilities. It is just 500metre east from Mechi highway.

Here, in this study area, the major people have depended on tea garden as their primary occupation. Some of respondents, are involved Business jobs etc. some landless people living around the tea garden and works the others land, are employed as the wage labor as the main occupation in this tea garden but their number is not very high. They have only 4 respondents. Some are engaged on small scale business too, for surplus income. The tea garden is giving various works to these peoples as an employee. The above table shows that the main occupation of the respondents is agriculture related to tea. Out of 20 respondents 11 are seen to be engaged in tea garden. 2 others in business, 3 in government or other private services and other 4 are as daily wage workers in tea Garden.

## 5.2 Findings

In this study area, people of only four casts and ethnic groups are living these are Brahamans, Cheetries, Rai (Kirati) and Tamang. Especially in Brahamans society they have rigid in culture. The main findings of this study are as follow:

- ) There is Gender differences between male and female.
- ) Brahamans and Cheetries are Hindus and others are Buddhist and Kirati.
- ) There are mainly joint families as soon as nuclear family too on the basis of composition.

Women are weak in household decision making process. More than 50% of final decisions are of males in everything. Although the peoples here are divided religiously, they respect each other's religion, culture, custom, festivals in the society.

There is high level of co-operation and interaction in the Tea garden group and they themselves manage the possible social, economic and other problems.

They have arranged Marriage system as soon as love marriage system too.

People have practicing cross cultural and under aged marriage system against social will.

The people are mainly based on agriculture and livestock as their occupation.

To fulfill the family requirements, they have involved in other secondary occupation and professions such as business, official jobs, domestic labors etc.

The landless peoples are mainly engaged in Gorkha Valley tea tea as employee.

The people finished their income in their day to day to day expenditure.

The tea labors get small amount of wage.

The labors life is not secured as they can be dropped out at any time from their job.

Due to the tea garden the tea factory is depending. Local bazaars including local products are promoting which has helped this area and people in strengthening their economy.

The positive aspect is that there is no use of chemical fertilizer and pesticides which has helps to keep the health condition in balance and feet.

The cattle are dying out of contaminated grass brought from tea garden.

The agro-farming life style system of local peoples is in high risk due to such animal disease.

### **5.3 Conclusions**

The findings of the study reveals that the Market for Tea is demand driven and faces a cut-throat competition hence to survive that, several Marketing strategies need to be employed. It can be concluded that consumers are health conscious they give high priority to their health and safety and consult the doctor and considers the specific health benefits and medicinal qualities of Tea before purchase. Many respondents buy organic Tea once in a month which depicts their positive attitude towards it.

The marketers needs to adopt a more competitive strategy to push the sales of Organic Tea as urban consumers have a higher buying potential and concern for health, safety and environment.

Tea produced in Nepal is some of the finest quality tea you can find in the world. The international demand for organic tea is very high and expected to increase, while the local market is yet to be explored thoroughly. There are certain caveats in terms of usage of technologies, mobilization of labor forces and linking of local markets to the global. We must transition into a greener and more efficient agricultural model that our present day socio-economical and ecological realities demand.

It is a difficult to find out the conclusion. Otherwise it is necessary for the study. In here findings are divided in different topic according to their nature.

Conclusions of income generating activities are as follows:

Tea plugging and livestock are the main occupation of this study area but it is found that the people are involved in other occupation and profession to fulfill the family requirements viz. small scale business, government and private sectors services etc.

Especially the landless peoples are found mainly employed in tea garden. The tea labors get small amount of facilities from tea estate, like soft loan, emergency lone etc.

Conclusion of Educational conditions of the study areas are as follows:

The educational status of the study area is satisfactory due to it is not in the survival level yet.

The Rais and Tamangs are found low literacy in the comparison to Brahamans and Cheetries.

It is found that the major people are literate but the female literacy rate is lower than male. They are dropping out from school because of their early marriage and early pregnancy.

Women are weak in household decision making process and all other important decision making process due to low level of literacy.

The conclusions of the social conditions of the study are as follow:

The society is divided in three categories on the basis of religion but they have a strong integration to do social work and celebrating customs.

Women are weak in household decision making process and all other important decision making process due to low level of literacy.

Although the peoples are divided religiously, it is found that they respect each other religion, culture, customs, festivals etc. in the society. There is high level of co-operation and integration in the society. It is found the people themselves manage the possible social conflicts and to solve the every problems.

The community of Rais and Tamangs are found low literacy in the comparison to Brahamans and Cheetries.

It is found that the major people are literate but it is found that in the janajati community the female literacy rate is lower than male. They are dropping out from school because of their early marriage and early pregnancy.

In this study area, it is found that the female participation in developmental activities is increasing as many self help groups, NGOs, INGOs, CBOs, local Government bodies etc. are formulating and implementing their program targeting these under privileged women.

#### **5.4 Recommendations**

- There is gender discrimination in society which should be minimized through launching awareness program and through implementation of acts and laws formulated by the state against it and also human rights activist should take steps against it.
- Co-operation and co-ordination among the tea garden group about the social , economic and other problem too.
- More skill development programs on tea farming should be focused and implemented regularly basis.
- An appropriate government policy, giving priority to organic tea farming addressing the issue related, financial support during the conversion period, creating linkages among the farmers, processor and traders, inspection and certification as currently farmer depends upon only one organization
- National Tea and Coffee Development Board should take lead role integration with INGOs, NGOs for the sustainable establishment of organic tea farming.
- The outreach units of NTCDB should be strengthened to carry out research and development on organic tea cultivation and processing.
- There should be subsidies for organic tea farmer from the government, along with the appropriate scientific trainings to the farmer.
- Every non-governmental organization having programs and project related to the organic tea farming should have coordination with the government stakeholder and the programs and project should be transparent.
- There should be coordination and collaboration in between government and the private sector.

The youth initiation program should be conducted among the youth to make them involve in different social activities and developmental; process which makes them responsible towards their society and culture.

Tea estate should bring the specific programs targeting the wage labors for uplifting their economic status. The governmental and nongovernmental organizations also should bring the programs related to awareness, income generation activities, handicraft making, tea processing program, saving scheme, and insurance program etc.

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12. Has income from organic farming contributed to your spending living than before?

- i) No
- ii) Yes, significantly
- iii) Yes, insignificant
- iv) Same as before.

13. Has your income raised after adopting organic tea farming?

- i) No
- ii) Yes, significantly
- iii) Yes, insignificant
- iv) Same as before

14) Has this farming practice brought community changes?

- i) Yes
- ii) No

15. If yes what type of change?

Answer .....

16. How are you engaged in organic tea farming?

- i) Individual
- ii) Group
- iii) cooperative

17. What other types of work your group involved in

Answer .....

18. If No, why? .....

19. Have this farming provide employment for local people?

- i) Yes
- ii) No

20. How many people are engaged in you farm throughout the year?

- i) Man .....
- ii) Women .....
- iii) If any other .....

21. How much is your annual income?

- i) 10000
- ii) 20000
- iii) 100000
- iv) >100000

22. You taken part in any planning program of organic tea farming?

- i) Yes
- ii) No

23. How many of people getting employment?

- i) 2
- ii) 6
- iii) 10
- iv) 4 only

24. What type of tea mostly like?

25. Please indicate your current annual income range?

S.N.	Annual income	Tick ( )
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1	less than 25,000	
2	25,001 to 45,000	
3	45,001 to 65,000	
4	Greater than 65,000	

26. Are you totally dependent on organic tea farming?

- i) Yes                                          ii) No

27. How are you engaged in organic tea farming?

- i) Individual                                  ii) Group                                  iii) Cooperative

28. If group or cooperative is it still involved in

Answer .....

29. I no, why?

Answer .....

30. Have you taken part in any planning program or organic tea farming?

- i) Yes                                          ii) No

31. Do you have any suggestion for the organization, firms and farmer who are involved in this sector?

Answer .....