

## **CHAPTER - I**

### **INTRODUCTION**

#### **1.1 Background of the study**

Morang district is located at 600 K.M. east of Kathmandu and is approachable by all weather roads as well as by air service. The district lies north of Dhankuta and Panchthar districts, in the east lies Jhapa district, and to its west lies Sunsari district. At the south it is bordered by the international boundary of the state of Bihar India.

There are 65 VDCs and one sub-metropolitan, 6 metropolitan in the district, out of these, 3VDC lie in the foot hills and rest of the others lie in plain alluvium of Tarai. The district headquarter is Biratnagar. Most of the district administrative and development officers are located in Biratnagar. Apart from these there are various zones as well as various industrial head offices. There are various amenities, hospital, clubs, sports ground, clinics, schools, colleges, university, airport and hotels. The district total area of 1855 sq km has 105270 hectare 54.7 percent as agricultural land.

The agricultural production of this district is much better compared to other district of Nepal. The climatic conditions which prevail in the district can be classified in to warm and cold temperature. The yearly average temperature stands around 15degree centigrade, humidity 750 and rainfall as 2014 mm.

There are 10 non-perennial rivers in the district originating from upper hills at Mahabharat. These rivers do have flows in the rainy seasons only.

There are wide economic disparities found among various countries of the world, the world can be categorized into rich and poor with regard to nature, character and degree of development. A few countries have attained the position of a developed economy with a very high standard of living and real income on the other side.

Two third of the world's population live in poor countries, these countries have very low per capita income as compared to developed countries. As a result almost two third of the world's population is still at a level of poverty. The extremely unequal distribution of world income and gap between the rich and poor countries can be felt. The inequalities between the developed and under developed countries as found not only in the field of production but in are the living standard of the countries. The majority of the population is occupied in subsistence agriculture sector.

We are very poor to provide food grains, education, health, skilled manpower, new technology in agriculture cultivation, and, moreover, in over all development efforts. In general we are poor because we are poor.

Thus, it is necessary to study the incident of inequality in terms of distribution of income and consumption.

Nepal's economy centres on agriculture 75 percent of the country's household cultivate some land, 70 percent have some live stock and 72 percent of the labour force relies mainly in agriculture for employment. The NLSS data's reveal that this overwhelming dependence on agriculture prevails regardless of consumption levels.

Non agriculture employment is an important factor in poverty reduction. The NRCS data show that as many as 40 percent of households in the landless and marginal land-owning groups are better off than other poor households because they earn substantially more from non- agriculture sources mainly in the form of salary and wages. Unfortunately, non-agricultural employment is not expanding fast enough to absorb even a fraction of the approximately 6, 00,000 people who enter the labour force each year (UNDP, 2007).

## 1.2 Statement of the Problem

Since 1956, Nepal has started planned process of economic development, but the basic issue of the country has remained the same. More than 80 percent of the population is still engaged in agriculture, agriculture production has not increased sufficiently the level of infrastructure is very poor. The country has not provided the basic facilities.

Nepal Rastrya Bank write that the rural poor are highly visible because they are hungry, if not starving they are most often Malnourished and frequently diseased. They are usually illiterate or insufficiently educated. They are badly cloth and live in under unsanitary condition. Moreover poverty depends upon the socio-cultural condition of a country. In Nepalese context, people spend huge sum of money on ritual feasts and festivals like Dashain, Tihar, Marriage, Chhat and Bratabandha. The low level of income is also caused by a low level of literacy among the people. Not only the rural sector but also the urban sector of a country is affected by the rural poverty. But the differences is in rural area majority of the people are absolutely poor and minority are relatively poor. On the other hand, in urban areas majority are relatively poor and minority are absolutely poor.

There are various studies to examine the extent of income distribution in different socio-economic group of people is Nepal. Many of the economists and instructions have defined the low level of income differently some of them have defined that problem of mass poverty in the third world is primarily one of the rural poverty. The majority of the population lives in the rural areas where average incomes are much lower than urban areas and the incidence of poverty are much higher. The low level of income in underdeveloped countries is conceived as an absolute phenomenon present in the rural society. Shortage of access to land may cause of insecurity of income and shortfall in meeting minimum consumption need leading to a situation of absolute poverty.

On the other hand inequality in the distribution of land and wealth has played a serious role as there is no other alternative employment provision for the farmers on the economy is still agrarian. So disguised unemployment is in existence. Due to the unemployment problem not only the economic condition is worse, but also it disturbs the socio-cultural condition as most of the unemployed force is involved in thefts, crime etc. In agriculture another problem is irrigation. There should be the provision of irrigation facilities on cultivable land, but it is the tragic work is only 38 percent cultivable land has seasonal irrigation facilities (CBS, 1994). This study attempts to identify the low level of income of Keroun VDC of Morang District and tries to establish a relationship between income and other economic variables, employment, literacy and landholding whether there is a direct relationship or not.

Those poor who are unable even to fulfill the basic needs of life or whose income is below the Wolf point, the income consumption intersection point, level of income are called relative poor. On the basis of income consumption criterion, Nepal has come up with the scenario of growing incidence of rural poverty during the last decades. (Sharma, 2006)

The World Bank (2010) expressed that Nepal has an underdeveloped rural economy with a per capita annual income of USA \$ 190 and 90 percent of the total population lives in the rural areas. National Planning Commission (2010) has presented that population below low level of income line comprise mostly of landless as well as small and very small farmers in the hills and tarai.

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

The main objective of the present study is to investigate the income distribution and expenditure pattern of villagers with a case study of Keroun village development committee in Morang District of Nepal. The specific objectives of the study are as follows.

1. To examine income and consumption pattern of rural people in the study area.
2. To measure the extent of inequality in the distribution of income among rural people.

#### **1.4 Limitations of the Study**

The limitations of the study are expressed in the following points.

1. This study is mainly concerned with only one Keroun VDC of Morang District. So this study may not reflect the situation of other VDCs of the same district as well as may not be useful to generalize elsewhere.
2. It is micro level study of rural area. This study is conducted within a limited time and financial constraints.
3. This study is concerned only with rural income inequality.

#### **1.5 Organization of the Study**

The study is organized on five chapters. In the first chapter, brief introduction and background of study problem is outlined. It is then followed by objectives, importance and limitation of the study. In the second chapter deals with the literature review. The third chapter describes methodology of the study that contains research design, Nature and Sources of data, Sampling Procedure, Tools and Techniques of data Collection, Presentation and data analysis.

In the four chapters contains introduction of income and expenditure in VDC, population level of income and expenditure pattern. In the five chapters contains an analysis of income distribution of Keroun VDC in which introduction of the study area, analysis of household data, level and sources of household income and distribution of income among different caste/ ethnic groups are discussed. In the expenditure pattern of households in the study area, level and pattern of household's expenditure by among different

caste/ethnic groups and consumption function in different ethnic groups. The five chapters describes summary of major findings, conclusion and recommendation. Reference and appendix are also presented in the last.

## CHAPTER - II

### LITERATURE REVIEW

Review of literature means reviewing research studies or other relevant proposition in the related areas of study. So that all the past studies and their conclusion may be known and further research can be conducted. The literature review involves a paradox on the one hand; effectively undertake a literature search without some ideas of the problem to investigate. On the other hand, the literature review can play an extremely important role in solving the research problem because the process of reviewing the literature helps the research problem clearly and precisely. It also helps to understand the relationship between research problem and the body of knowledge in the area of the study.

Review of literature where a researcher reviews books, journals magazines or any types of studies, which are relevant to his/her field of study.

#### 2.1 Theoretical Review

**Keynes (1936)** has focused on the estimation of consumption function fitted to time series total as well as cross sectional data. He states in his fundamental psychological law, “Men are disposed as a rule and on the average to increase their consumption as their income increase but not as much as the increases in their income.

**Dusenberry (1949)** shows that the fraction of family’s income spent on consumption depends on the income of the families relative to income of neighboring family and relative to previous income level, but not on the absolute level of the family’s income. Dusenberry calls it the “Demonstration Effect”.

**Branson (1972)** consumption may also be a function of assets on wealth. Milton Fried-man, in his paper accepts the basic relationship between

consumption and income is proportional, but the relationship is between permanent consumption and permanent income.

**Bhattacharya (1990)** have estimated the distribution of population by per capital income before tax for of the three periods in 1955-1956, 1960-1961, and 1963-1964. Aggregative income and saving also have been estimated in this study. This study is based on purely graphical estimation. In the Nepalese context, there are less study made in the field of income distribution, consumption and income inequality. Some of item an attempt has been made to review available literature review.

**Kuznets (1995)** concentrated on the character and causes of long-term change in the personal distribution of income. Whether inequality in the distribution of income increased or decreased in the course of a country's economic growth. He searched the relationship between income inequality and economic growth and factors affecting it and expresses the trend of income inequality on secular level.

He used the data of United States, England and Germany for developed countries. He used data of India, Ceylon and Porto Rico for underdeveloped countries. According to data analyses he has concluded that income distribution in underdevelopment countries are more unequal than in the developed countries.

He found two types of forces in the society that enhance the inequality, concentration of saving in upper income groups and the industrial structure of income distribution. He accepted the limitation of empirical data to validate his proposition. He hypothesized in his study that inequality first increased and then decreased with the level of development. This hypothesis is known "Inverted U-shaped pattern of income inequality". There is no use of any mathematical models in measuring income inequality.



**Widen (1999)** analyzed the micro determinants of consumption, poverty, growth and inequality in Bangladesh from 1983 to 1996 by using simple regression education demographic land ownership, occupation and poverty. The gains in per capital consumption associated with many of these household characteristics remained stable over time. Large contribution to growth could be a result of improving employment opportunities for woman education. He used conditional and unconditional variables by using Gini Index to check the inequality between groups. Only one variable was not sufficient to control for other characteristics. Gini's avoided this pitfall. It was also shown how to use unconditional and conditional variables between groups, for stimulating policies.

## **2.2 Empirical Review**

**National Planning Commission of Nepal (1989)** carried out a field research study on "Employment, Income Distribution and Consumption Pattern in Nepal in 1989". The data for this study was collected from a field survey. The survey was conducted on 10 town panchayates and 137 village panchayats of 37 districts. The survey showed that average household and per capital consumption in rural is less the urban areas, i.e. Rs. 5461 and 931.91 in rural and 9399 and 1606.66 in urban areas respectively. Similarly, consumption expenditure is concentrated more on food items which are 74.08 percent and remaining portion is spent on non-food items. In national level per capital income exceeds per capital expenditure only by 3.76 percent. It is 23.27 percent urban area where as it is only 1.9 percent in rural area. The study estimated the level of poverty at 40.3 percent in survey area.

**Joshi (1990)** fitted Keynesian types of consumption function to estimate MPC for different income group. He included family size as an additional explanatory variable and analyzed the size distribution of income buy using Lorenz Curve, Gini Coefficient. The Gini Coefficient was 0.36. Income

elasticity of food expenditure was found to be smaller than unit and non food was greater than unity.

**Adhikari (1992)** has conducted a study of income distribution and consumption of Laxmipur VDC of Dang District. His study is based on primary data. The main finding of this study indicates the Gini Coefficient of the household is 0.31. For all the income groups the coefficient is found to be positive. The tools used are Lorenz Curve and Gini Coefficient. Based on his findings he has concluded that the distribution of income in the study area is skewed.

**Kanel (1993)** show in the proof of the formula Cleary and in simplified manners. In the article, the concepts of the Lorenz Curve are very and the Gini Coefficient is very nicely and clearly examined.

**Poudel (1994)** studies income and consumption pattern in rural hill area based on Kumara VDC of Nuwakot district. He nicely analyzed the characteristics of household and its members, property and loan, income consumption expenditure with different statistical tools.

**Upadhya (1994)** has tried to measure the impact of change in “income distribution and consumption pattern of Chidipani Village Development Committee of Palpa District. To show the impact of change in income distribution and consumption expenditure, he has collected data of 1983 and five year back 1988. He has used various statistical tools such as range, coefficient of variance, the index, Elteto frigyies indices and inequality. He showed the relationship between income and consumption for which he has used liner consumption equation, income elasticity and threshold income. He concluded that inequality in income increase after comparing both years Gini Coefficient. Regarding consumption pattern he found that the saving capacity of VDC has increased in 1993 from that of 1988.

**K.C. (1995)** has analyzed the existing state of size distribution of income. He used primary data collected by random sampling. He used statistical tools such as Range, Gini Coefficient and Lorenz Curve. He came to conclusion that the Gini Coefficient was 0.54 and Range 12.79.

**Regmi (1997)** has tried to study income inequality in the size distribution of income of the Mallaj Lekphant Village Development Committee of parbat District. Using primary data collected from the study area, he has shown the distribution of income by household size, by ethnic groups, and by landholding. He has also presented the level and pattern of household expenditure by ethnic groups, by family size and has, tried to compare the income and expenditure of sample household. He has used statistical tools such as range, median, Gini Coefficient and Lorenz Curve for measuring the extent of income inequality in the study area.

**Dhakal (2000)** had used both primary as well as secondary data to meet the specified objectives of the study. The primary data have been collected through direct personal interview using questionnaire while secondary data were obtained from the household budget survey of the Nepal Rastya Bank and planning commission on publication. In this study, he used Lorenz's Curve, Gini Coefficient Ration, standard deviation where used to Umeasure inequality. He used Keynesian model to estimate the consumption function.

**Dhungel (2005)** concluded that share of per capital consumption of poor was 8 percent in 1995/96. The population below poverty was below 30 percent. During the period of 9 years, the number of poor reduced to 32 percent. However, the share of per capital consumption was 7.0 percent in 2003/04, which is lesser than share of 1995/96. The same was the case of the nearest poor. The share of per capital consumption was 12 and 10 percent in 1995/96, and 2003/04 respectively. Similarly, the share of the capital consumption of middle and near reach was 16 and 21 percent respectively in 1995/96 which is greater than per capital consumption share (14 and 20

percent) of 2003/04. From the above analysis, it was found that share of capital consumption of all the four groups ( poor, near poor, middle ,and near rich) was not increasing during the same period of time amidst the reduction of the 10 percent points of the absolute poor in Nepal. The share of the capital consumption of the rich increase from 43 percent in 1995/96 to 49 percent in 2003/04.

The Gini's Coefficient (GC) is the most popular method of the measure inequality. The value of the GC range from 0 to 1 indicating extreme situation of inequality. The overall expenditure inequality increase from 34.4 percent in 1995/96 to 41.4 percent in 2003/04 with the annual growth rate of 2.3 percent. The inequality in the food consumption (expenditure) decreasing to 26 percent in 2003/04 from 27 in 1995/96 with the annual growth rate of (-) 0.8 percent. Expenditure inequality on non food items increase from 51 percent in 1995/96 to 59 percent in 2003/04 with the annual growth rate of 1.9 percent. Similarly, expenditure inequality on education decreased to 80 percent in 2003/04 from 81 percent in 1995/96 with the 0.78 in 2003/04 respectively. It shows the extreme inequality in the distribution of the expenditure on the education and health. There was extreme case on the inequality of the expenditure of health and education. It reveals that the poor have no excess to health and education. In aggregate the inequality increase from 34.4 percent 1995/96 to 41.4 percent in 2003/04 with the annual growth rate of 2.3 percent. Give the scenario, during the period, there is significant reduction of the poor from 4 percent in 1995/96 to 32 percent in 2003/04. The process in reducing poverty could not be taken as sustainable because the inequality in the distribution of the expenditure was mounting over the year.

**Rai (2007)** analyzed the household's consumption behaviors of apartment and colony owners have estimated the consumption pattern of apartment and colony owners in Kathmandu, valley Nepal. He took 72 households as a sample. He used two step of sampling method to determine the sample size. In the first stage, he selected 8 settlements from 23 apartments.

Location, travelling cost and the possibility of getting co-operation from the part of developers are the factors taken in to consideration. In the second stage the 72 households were selected and they were allocated proportionally to each choose settlement. Questionnaire is used to collect the data. He used average frequency distribution and percentage used average frequency distribution and percentage and Engel function are used to estimate expenditure elasticity while ANOVA, t-test, t-test were applied to test the significance of hypothesis.

He found that the household of the communities spend an average of about 53.33 percent of total expenditure on food items and rest about 46.69 percent on non education followed by clothing and house operating. These occur mainly for two reasons. First, education on Kathmandu is expensive. Heavy expensive on tuition, school fee and stationary suppliers put considerable pressure to parent. Second, the community is highly affected by the demonstration effect. The regression result shows that the coefficient of in total expenditure (b1) is 0.439 for in food grains, in pulses (0.3610), in meat (0.404), in milk (0.402), in sweet (0.347), in bread (0.550) and in meals outside (0.403). All the vales of estimate were positive and less than one implied that a 10 percent increase on total expenditure and 4.39 percent n food grains. The values of estimated (b2) show relationship between household size and expenditure on all food is positive and proportional but inverse and non proportional in the case of non food. He concludes that gender of the head was found to be significant determinant for household consumption pattern. Consumption propensities of female- headed households differ from male headed households. As the female headed households economize expenditure during shopping, the mean consumption expenditure is lower for 11 selected food items compared to male-headed households.

**Gardner (2005)** has shown the income inequality which is known as the Gini coefficient. The Gini Coefficient was 0.26 for Bulgaria and Finland 0.34 for Korea and 0.52 for Hong Kong. Bulgaria and Finland were also able to provide time series for their Gini Coefficient. In the case of Bulgaria, their Gini

Coefficient has remained fairly study over the 7 years for which data was available. For Finland it has steadily risen from 0.20, in 1993 to 0.26 in 2003. While not a large different, there does appear to be a trend for incomes becoming more unequally distributed in Finland over time. To put these number in some sort of context, the United States had an estimated Gini Coefficient is 0.46 in 2000. Other than for Hong Kong, incomes are less equitable distributed in the USA than for the other countries analyzed in this paper.

**Banu (2008)** examined the economic status of Tibetan refugees and the various sources of their endowment of Jawalakhel camp. She took 50 households (i.e. 25 percent) from the camp. All the selected 50 households were interview and relevant information were collected were collected through questionnaires. Lorenz curve, Gini Coefficient was applied to analyze the data.

It is found that total consumption expenditure made on the food items is 59.49 percent and 43.51 percent is made on non food items. Among food items, all the income groups have shown higher share of consumption expenditure. Expenditure on housing (non food items) is found to be the highest in all the income groups become housing include electricity and water bill, gas, kerosene and rent bill. Expenditure on education is founded to be second position in the large income group i.e. 10.47 percent. She showed that the high income group spends high income on education and health comparatively to low and medium income group. Her study show, among 50 households, wages earner constitutes the large group with 34 percent of the total heads and the rest are engaged in other sections. She concluded the existence of inequality in income distribution.

**Shrestha (2010)** identifies the major sources of income of villagers and inequality in distribution of income and consumption behavior of people of Chunikhel VDC, Kathmandu Nepal. She took 123 households from the wade no. 3 and 9 VDC. All the selected 123 households were interview and relevant

information were collected through questionnaire. Range, Gini Coefficient, Lorenz curve, Regression analysis and Chi- square test were applied to analyze the data.

It is found that the total income of the households is 14.25 percent from agriculture occupation and 85.75 percent from non- agriculture occupation. The total consumption and non food items is 46.71 percent. Food and non food consumption is also analyzed according to gender. She found that the consumption habit of male and female are more or less same. In her analyzes it shows that male consumption on food items is 53.38 percent and female is 52.84 percent. The consumption on non food items of male is 46.62 percent and female is 47.16 percent. She also found that the consumption on education of male is 11.36 percent where as female is only 6.43 percent. She conclude that the coefficient of range is 0.98 it shows that there is high inequality in the income distribution and the coefficient of income elasticity an agriculture and non agriculture income are positively but less than unity.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

In this chapter deals with the methodology that will be used to conduct the research and to analyze the data. The interpretation of the data will be done on the basis of the methodology. It includes the research design, nature and sources of data, sampling procedure, tools and techniques of data collection, presentation and data analysis.

#### **3.1 Research Design**

This study is mainly based on the micro study of income and expenditure patterns of different ethnic groups. Under the existing frame work this research tries the analyze and described the specific problems of income and expenditure patterns in the study area. The study follows descriptive as well as an analytical frame work. Descriptive and exploratory research designs along with the help various research tools and techniques will be used. Study has been focused quantitative data of income and expenditure. Study has been gone via the exploratory method.

#### **3.2 Nature and sources of data**

The study will be based on the primary and secondary sources of data. Under primary sources, it includes field visit and observation, questionnaire, interview, focus group discussion among the research Keroun VDC, among leaders of the community, local people, household survey etc. The secondary data will be collected from reviewing the related documents. It includes the published data, unpublished data , Village Development Committee's documents, NPHC, NGO, INGO's documents, CBS, T.U. library dada etc.



### 3.3 Sampling Procedure

In the study area, there are in total 900 households according to the 2011, census (CBS). We have to decide the sample household's size that gathers maximum possible information on the households. We have taken 10 percent or 90 households of the VCD by random sampling method from each ward with different ethnic/caste groups. The sample households are chosen from the help of the 2011 National Population Census list of the VCD. For the selection of the experts, the researcher will be use purposive sampling. The ward wise sample households are presented as below.

**Table 3.1**

#### **Ward wise Distribution of Sample Households**

Wards No.	Total households	Sample households	Total households %	Sample households %
1	125	13	13.88	14.44
2	90	11	10.00	12.22
3	95	9	10.55	10.00
4	85	10	9.44	11.11
5	80	8	8.88	8.88
6	110	9	12.22	10.00
7	105	8	11.66	8.88
8	95	10	10.55	11.11
9	115	12	12.77	13.33
Total	900	90	100.00	100.00

Source: Keroun VDC Office, 2016

The sample is taken as the range of population, in which 13 households are taken from greater than 125 total households, 11 households are taken from less than 90 total households, 9 households are taken from more than 110 total

households and 8 households are taken from 105 total households, 10 households are taken from 95 total households and 12 households are taken from 115 total households from different wards.

Then strata were made so as to include population according to community and ethnical group. Otherwise when taking random sampling from the total population, it was experienced that the all the group could not get the same percentage proportionate share as it could have been experienced in very large number of samples. In this way, the sample firstly was purposive sampling to take all the groups. And after looking at the relative number of population there in the group, random sampling was done.

### **3.4 Tools and Techniques of data Collection**

Various statistical tolls have been used to measure and analyze the extent of inequality in the size distribution of income. To analyze the data, some statistical tolls are used where ever necessary. They are Lorenz Curve, Gini Coefficient. The brief information of the statistical tools is as follows.

#### **3.4.1 Gini Coefficient**

Gini Coefficient is a measure of the inequality of income distribution. The possible lowest Gini Concentration ratio is zero. The zero Gini concentration ratios signify perfect equality in the distribution of the income and the highest values of the ratio is 1 and this signifies inequality in the distribution of income.

A simplified formula to compute Gini Coefficient is;

$$G.C = 1 + \frac{1}{n} - \frac{1}{n^2 \bar{Y}} [ny_1 + (n-1) y_2 + (n-2) y_3 + \dots + y_n]$$

Where,

G.C. = Gini Coefficient

$N$  = Total number of observation

$Y_n$  = Variable value for the  $n^{\text{th}}$  observation

$\bar{Y}$  = Mean value of the observation

### 3.4.2 Lorenz Curve

In the present study the Lorenz curve is used to measure inequality in the distribution of income. Lorenz curve shows the relation between the cumulative percentages of some groups often and the cumulative percentages of the total amount of some variable (say income) which they hold. Hence, the objective of the Lorenz curve is to depict the degree of inequality in the relevant distribution it is taken from.

File major steps drawing a Lorenz curve are

- (a) Change the individual item of the given series into percentage, assuming the total as 100 percent. If there is continuous series, the mid values are taken first and then. We change the mid values into percentage, assuming their total as 100 percentages.
- (b) Convert the individual items expressed in terms of percentage into cumulative percentage.
- (c) On the X-axis, start from 0 to 100 and take the percentage of the cumulative frequencies.
- (d) On the Y- axis, start from 0 to 100 and take the percentage of cumulative values of the variables.
- (e) Draw a diagonal line joining (0, 0) with the point (100,100) this line is called the line of perfected equality or equal distribution line.

- (f) Plot the values in the graph i.e. plot the percentage of the cumulative values of the variable against. The percentage of the respective cumulative frequencies and join the various points.

### **3.4.3 Definition of Terminology**

Some of the terms which have been used in the study with specific purpose have been defined as follows.

**Households:** The household is defined as a group of person dwelling in a residence and sharing a common kitchen. With common households they are also interrelated by income, consumption and expenditure. But those members who continuously live outside the home and do not share income and expenditure of the family are not counted as the member the household. The total numbers of members, who come under the umbrella of a household sharing each other in common, represent the household size.

Although the decision can also be made by other members in the family, but generally the particular person who dominates, decides or finally approves the decision of the members are house, control, direct and responsible for the dealings is considered the household.

**Income:** The income of household is defined as earning in cash and transfer representing to all present members of the family during the reference period. Income figures are used on yearly basis in the analysis. The per-capital income is obtained from the household income divided by corresponding family size.

**Consumption Expenditure:** In the study, 'Expenditure' is used to mean only consumption expenditure. Consumption expenditure is the sum of all payments which are made in various of consumption. It refers to the value of goods services purchased and consumed by the household or single consumer. Consumption has been classified as expenditure in food and non food items. Food items include food grains, milk and milk products, vegetables, meat, egg, fruits, oilseeds, tea, sugar, cigarette, wine etc. non food items included clothes,

food wear, education, healthcare, festival and transportation, entertainment, housing and miscellaneous.

**Main occupation:** an occupation which accounts for the major part of income is takes as the main occupation.

**Earners:** Earners are member who contribute in the total income of the household. All economically active members of household who are employed are considered as earners.

**Landless household population:** landless includes those households who do not posses any agricultural land to cultivate excluding the kitchen garden.

**Agricultural household:** Agricultural households' means those households directly connected with agricultural land and who have their main source of livelihood from agriculture.

**Educated population:** Educated population is taken that population who at least passed Bachelor level.

### **3.5 Presentation and Analysis of Data**

After collecting the research data from the respondents, possible errors and inconstancies will be removed by checking and cross-checking them. The data will be processed by tabulating under different heading and sub-heading as per the objectives of the study. Further, the information will be analyzed and interpreted qualitatively and quantitatively in a narration. The quantitative data will be analyzed and interpreted with simple statistical tools like Lorenz curve, Gini coefficient will be presented and displayed in different types of tables, and figures. Other tools of the data will be also used according to the necessary.

## CHAPTER - IV

### ANALYSIS AND PRESENTATION OF DATA

#### 4.1 Socio-Economic Profile in Morang District.

The main occupation of the Keroun village Development Committee is agriculture. Out of the selected 90 households to be interviewed. The main occupation of 60 households was reported to be agriculture. However, the rest of the households who are engaged in other occupation are also engaged in agriculture partially. It was found that households also have different sources of income other than agriculture due to availability of opportunities outside agriculture, like availability of jobs in commerce, business and other non-specified fields. Different family members were found to be involved in different occupation. So it was rather difficult to label the main occupation in many cases. Based on the highest income yielding occupation, the main occupation in Keroun VDC is agriculture.

Total population of Morang Districts is 965370(2011 Census, NPHC). 150760 dwelling with average family size are 5.3. The district covers 1855 sq.km area and 54.6 percent being agriculture lands. There are 65 VDCs and one sub-metropolitan, 6 metropolitan in the district, out of these, 3VDC lie in the foot hills and rest of the others lie in plain alluvium of Tarai. The district headquarter is Biratnagar. Most of the district administrative and development officers are located in Biratnagar. Apart from these there are various zones as well as various industrial head offices. There are various amenities, hospital, clubs, sports ground, clinics, schools, colleges, university, airport and hotels.

Morang district is located at 600 K.M. east of Kathmandu and is approachable by all weather roads as well as by air service. The district lies north of Dhankuta and Panchthar districts, in the east lies Jhapa district, and to its west lies Sunsari district. At the south it is bordered by the international boundary of the state of Bihar India.

## 4.2 Demographic Status of Study Area

This study is confined to the Keroun VDC of Morang District. According to CBS (2001) and field survey the total population of VDC is 6350 among them 3265 are female and 3085 are male. The total population is organized in to 900 households. Out of them 90 sample of household are chosen. The sample frame is update for this survey, which was based on the data from the 2001 National Population Census. Out of them was 90 samples of households are chosen for sample survey which covered 10 percent of total households. The size of household and sex was taken from the table of 2001 National Population Survey. The distribution of the sample population is given in the table.

**Table 4.1**

### **Number of Households and population by ward and Sex**

Ward No.	Total HHs	Population		Total Population
		Male	Female	
1	140	450	520	970
2	100	355	350	705
3	90	280	290	570
4	95	380	385	765
5	75	250	270	520
6	85	320	335	655
7	100	350	365	715
8	95	325	350	675
9	120	375	400	775
Total	900	3085	3265	6350

Source: Field Survey, 2016

Table 4.1 clarifies that, there is a total population 6350 with 3085 males and 3265 are females living in 900 households. So, the female population is greater

than that of male and average family size is 5.3. Among the 9 wards, ward 1 is largest one which has 140 households with 970 total populations and ward 5 is comparative smaller than other wards with only 75 households and 520 total populations.

### 4.3 Occupation Status

This Keroun VDC main occupation of the peoples is agriculture sector. And some peoples are involed business, services, study, labour and others sector occupation it.

**Table 4.2**

**Occupation Classification of Sample Households**

S.N.	Main Occupation	Sample of HH	Male	Female	Total	percent
1	Agriculture	35	65	90	155	40.25
2	Business	15	30	10	40	10.80
3	Services	10	40	25	65	16.88
4	Study	15	40	35	75	19.48
5	Labour	10	15	10	25	6.49
6	Others	5	10	15	25	6.49
	Total	90	200	185	385	100.00

Source: Field Survey, 2016

The table 4.2 shows that agriculture is the main occupation of Keroun VDC. Because 40.25 percent of total population is based on agriculture. The percentage of business holder and service holders are 10.8 percent and 16.88 percent respectively. In the table others refers to people following animal husbandry and other economically inactive population. It covers 6.49 percent of total population. 16.88 percent of total population is engaged in civil service and private sectors and 19.48 of total population are engaged in study. Similar



the main occupation of 6.49 percent of total population is laboring and people following business is 10.80 percent.

#### 4.4 Age Structure of Population

The demographic characteristics of the population in this VDC is presented in table 4.3 which shows relatively high concentrating of the population below 60 years suggesting a low level of life expectancy.

**Table 4.3**  
**Distribution of Population by Sex and Age**

Age group	Number of Population					
	Male	Percent	Female	Percent	Both	Percent
0-4 Years	50	12.50	35	10.60	85	11.64
5-14 Years	60	15.00	50	15.15	110	15.06
15-44 Years	170	42.50	140	42.42	310	42.46
45-60 Years	80	20.00	70	21.21	150	20.54
60 Above	40	10.00	35	10.60	75	10.27
Total	400	100.00	330	100.00	730	100.00

Source: Field Survey, 2016

The total sample population of Keroun VDC corresponding 90 sample households is 730. In this, age group 0-4 years total 11.64 percent, 5-14 years total 15.06 percent; 15-44 years total 42.46 percent, 45-60 years 20.54 percent and 60 above 10.27 percent respectively. They are total population are economically active 11.64 percent are below 15 years and above 60 years is 10.27 percent in the Keroun VDC.

#### 4.5 Education Status of Sample Population

This VDC is quit ahead in the field of education compared to the others VDCs of Morang District. There are 2 Primary, 2 lower Secondary, 3 Secondary

school and 1 higher secondary school. The following table gives brief of population of this Keroun VDC.

**Table 4.4**

**Educational Structure of Population**

<b>Education Level</b>	<b>Male</b>	<b>Female</b>	<b>Both Sex</b>	<b>Percent</b>
Illiterate	98	60	158	21.94
Below SLC	133	102	235	32.64
SLC	114	86	200	23.78
Inter	58	45	103	14.31
Bachelor	16	3	19	2.64
Masters & More	4	1	5	0.69
Total	354	366	720	100.00

Source: Field Survey, 2016

As it is evident from table 4.4, only 21.94 percent of the population is illiterate and 78.06 percent of the population literate. Educated people of the population who have a degree of SLC and more are 45.42 percent of total sample size. Majority of educated population is concentrated around the SLC level. Out of 200 persons, the female person passed SLC 86 persons. Similarly, 14.31 percent are passed Inter level, 2.64 percent are passed Bachelor level and 0.69 percent is passed Masters Level.

**4.6 Ethnic Group Composition**

The nature of income and expenditure are also determined by the caste or ethnic groups. To determine the nature of poverty, relationship between ethnic group and poverty should be studied in the study area. In the case of most of the rural part of Nepal, the composition of ethnic group pays an essential role in the determination of standard of living. In the study area, it is found that the lower caste group possess a very small land area and they are most deprived section of the society. It is very essential to see the socio-

economic structure on the basis of ethnic groups. Table 4.5 shows the distribution of different ethnic groups of Keroun VDC.

**Table 4.5**

**Ethnic Group Composition of sample Households and Population**

Ethnic Groups	No. of Sample HHs	No. of Male	No. of Female	Total Population	Percent
Brahman, Chhetri	40	180	130	310	47.69
Gurung, Shrestha	12	20	15	35	5.38
Yadab, Sha	10	25	15	40	6.15
Kami, Sarki	9	40	45	85	13.06
Mushar	5	20	25	45	6.92
Satar	4	30	40	70	10.76
Jhagad	3	15	15	30	4.61
Others	7	20	15	35	5.38
Total	90	350	300	650	100.00

Source: Field Survey, 2016

Brahman and Chhetri constitute the main ethnic group in Keroun VDC. In the sample survey, they constitute 47.69 percent of the household, among 90 households. Similarly, Gurung, Shrestha are total population 5.38 percent, Yadab, Sha are total population 6.15 percent, Kami, and Sarki are total population 13.06 percent, Mushar total population 6.92 percent, Satar total population 10.76 percent, Jhagad total population 4.61 percent and others castes are total population 5.38 percent respectively.

**4.7 Distribution of Sample Households by Family Size**

According to the sample of household, the average family size in the study in the area in approximately 5-6 family size. It shows that table 4.6 below.

**Table 4.6**

**Distribution of Sample Households by Family Size**

Family Size	No. of Households	Percent
1-2	5	5.55
3-4	50	55.55
5-6	15	16.66
7-8	12	13.33
Above 8	8	8.88
Total	90	100.00

Source: Field Survey, 2016

Table 4.6 shows that the majority of the households 55.55 percent have 3-4 family members at the home, who are just separated from their parents. Otherwise, 16.66 percent of the sample households have 5-6 family members at the home. 13.33 percent have above 7-8 family members and 8.88 percent of the sample households have 8 family members and 5.55 percent of the sample households have 5 family members.

#### **4.8 Structure of Landholding**

Only about 17 percent of the total land area of the country is comprised of agriculture land. The per capital landholding is 0.14 ha. Land ownership is highly fragmented. About 69 percent of landholding is less than 2 ha. The average size of landholding is only 0.24ha, with, on average, more than four land parcels per holding (CBS, 1998).

Regional variation in the distribution of agriculture land is substantial. The tarai covering only 97 percent of the total land area comprise 49 percent of the total agriculture land. The Hills Mountains cover 63 and 20 percent of total land area, and account for 40 percent and 11 percent of agriculture land respectively. Most of the agriculture land in Nepal is cultivated by the owners themselves-it

accounts for 97 percent of the total landholding. The proportion of rented out land is thus only 3 percent. The larger the size of landing, the higher the proportion of land rented out is less than 5 percent for landholding of less than 1 ha, 11 percent for holdings of more than 3 ha and more than 19 percent for landholding size of more than 5 ha.

**Table 4.7**

**Size Distribution of Landholding in Bigha**

Size of Landholding	No. of HHs	% of HHs	Landholding In Bigha	% of Landholding	Average Landholding
Land less	-	-	-	-	-
Below 2 Bigha	30	33.33	80	6.00	3.05
2-4 Bigha	21	23.33	105	7.86	5.00
4-6 Bigha	10	11.11	285	21.34	17.10
6-8 Bigha	9	10.00	220	16.47	20.13
8-10 Bigha	8	8.88	125	9.36	10.10
10-12 Bigha	7	7.77	305	22.84	15.12
Above 13	5	5.55	215	16.10	30.10
Total	90	100.00	1335	100.00	100.00

Source: Field Survey, 2016

All of the 90 Sample households at least a small plot of land. It is 33.33 percent of households have 6.00 percent of total land to cultivate 23.33 percent of households have 7.86 percent of total land 11.11 percent o households have 21.34 percent of land and 10.00 percent of households have 16.17 percent of cultivable land. Similarly 8.88 percent of households have 9.36 percent of total landholding and 7.77 percent of households have 22.84 percent of total landholding and 5.55 percent of households have 16.10 percent of total landholding respectively.

## **4.9 composition and level of income by categories:**

### **4.9.1 Sources of income**

Source of income determines the level of poverty is high the incidence of poverty will be lower, that is why the nature of poverty or poverty problems is influenced or determine by the source of income value which is at subsistence level due to lack of education, technical farming method, irrigation operational land holding.

In the context of Nepal, a single occupation cannot support individual to maintain the subsistence norm, so the people are forced to accept the many occupations at the subsistence level due to the lack of specialization. Thus it is clear that multi occupation can't support to increase the level of income without specialization in the occupation. In the case of present study area, most of the poor households have two or three occupation but their earning level is low. Almost all of the study area do agriculture as the main occupation from the long past.

### **4.9.2 Occupation Distribution of income**

In this, Field observation and interviews indicates that, in the Keroun VDC of Morang District, the family member of the households, in general are found to be engaged in multiple occupation. It is evident that the level of income of a household is not only determined by the number of earners but also by their occupations. In this VDC, the households are engaged in various sectors like agriculture, labour, service, business and other occupations such as technicians' clinical and unspecified labour job. In main occupation, considered as the highest income yielding occupation, found to be agriculture. In the view of both major and minor occupation agriculture, business, and services respectively.

**Table 4.8**

**Composition of Income of from Major Occupation**

Source of income	Total annual Income	% of annual Income	No. of Household	% of Households
Agriculture	5810623	74.99	60	66.66
Business	652540	8.42	12	13.33
Labour	332820	4.30	10	11.11
Services	952550	12.29	8	8.88
Total	7748533	100.00	90	100.00

Source: Field Survey, 2016

From table 4.8 it is evident that 66.66 percent households earned their income mainly from agriculture 66.66 percent of the households were engaged in agriculture but earned over 75 percent of the total income. Similarly, 13.33 percent of the total households were engaged in business sector earning 8.42 percent of income. It means that agriculture is the main occupation according to the highest absorbent of population, but in earning share, business is dominant to agriculture . data indicate that 11.11 percent were labour who earned 4.30 percent of the income. Similarly 8.88 percent were service households who earned 12.29 percent of the total income.

**4.9.3 Occupational Income Distribution of Ethnic Group**

Field observation and interviews indicates that, in the Keroun VDC of Morang District, the family member of the households, in general are found to be engaged in multiple occupation. It is evident that the level of income of a household is not only determined by the number of earners but also by their occupations. In this VDC, the households are engaged in various sectors like agriculture, labour, service, business and other occupations such as technicians' clinical and unspecified labour jobs. In main occupation, considered as the highest income yielding occupation, found to be agriculture. In the view of

both major and minor occupation agriculture, business, and services respectively.

**Table 4.9**

**Income Distribution Pattern of Sampled Households**

Ethnic Group	Annual Income	Income by Sector (Amount in Rs. And %)		
		Agriculture	Business	Services
Barhman, Chhetri	150000	50000	70000	30000
Yadab, Sha, Gupta	110000	40000	50000	20000
Gurung, Shrestha, Dhimal	100000	35000	40000	25000
Kami, Sarki, Sunwar	95000	30000	25000	40000
Mushar	90000	32000	35000	23000
Satar	80000	34000	22000	24000
Jhagad	75000	28000	20000	27000
Others	125000	60000	35000	30000
Total	825000	309000	297000	219000

Source: Field Survey, 2016

Dada presented in Table 4.9 indicates a positive relationship between total annual income and level of total households income. The total household incomes are Rs. 825000. The household income is highest agriculture sectors Rs. 309000, if the business sectors incomes are Rs. 297000 and smaller than services sectors incomes are Rs. 219000 respectively.

**4.9.4 Consumption Distribution of Ethnic Group**

Field observation and interviews indicates that, in the Keroun VDC of Morang District, the family member of the households, in general are found to be engaged in multiple consumption. It is evident that the level of income of a household is not only determined by the number of earners but also by their



consumption. In this VDC, the households are engaged in various sectors like education, health and foods items.

**Table 4.10**  
**Consumption Distribution Patterns of Sampled Household**

Ethnic Group	Annual Consumption	Consumption by Sector (Amount in Rs. And %)		
		Education	Health	Food items
Barhman, Chhetri	100000	40000	25000	35000
Yadab, Sha, Gupta	85000	25000	27000	33000
Gurung, Shrestha, Dhimal	90000	30000	35000	25000
Kami, Sarki, Sunwar	80000	20000	25000	35000
Mushar	75000	15000	20000	40000
Satar	70000	13000	22000	35000
Jhagad	60000	11000	24000	25000
Others	110000	50000	30000	30000
<b>Total</b>	<b>670000</b>	<b>204000</b>	<b>208000</b>	<b>258000</b>

Source: Field Survey, 2016

Data presented in Table 4.10 indicate positive relationship between total household annual consumption and level of total household consumption. The total household consumption sectors are Rs. 670000. The household consumption is highest sectors are food items are Rs. 258000, if the health sectors are total consumptions are Rs. 208000 and education sectors are total consumptions are Rs. 204000 respectively.

#### **4.9.5 Mean Income Distribution by Family Size of Sample Households**

Family size is closed related with the income. There may be positive or negative relationship between level of income and the family size. If all family members are employed they will have high level of income and if the family

members are unskilled and unemployed, there will be high dependency ratio well as well as low income. Table 4.11 shows the relationship between mean income and the family size.

**Table 4.11**

**Mean Income Distribution by Family Size of Sample Households**

Family Size	Households		Population		Total income (Rs. 000)	Annual Mean Income in Rs.000
	No.	%	No.	%		
1-2	3	3.33	5	0.89	90.40	17.68
3-4	24	26.66	80	14.26	5606.92	59.06
5-6	30	33.33	126	22.45	4330.60	26.85
7-8	18	20	150	26.73	4680.40	234.47
Above 8	15	16.66	200	35.65	2895.85	13.72
Total	90	100	561	100	17604.17	100.00

Source: Field Survey, 2016

The table 4.11 shows that 3.33 percent of household whose family size 1 to 2 received the annual per capital income is Rs. 17680. Families with family size 3 to 4 are 26.66 percent and their annually per-capital income is Rs. 59060. The families with size 5 to 6 and 7 to 8 received the annual per-capital income of Rs. 26850 and Rs. 23447 respectively. The above table shows that above 9 family size incomes is Rs. 13720. Which is very low than the per capital income of 3 to 4 family size (Rs. 4606.91). The table also depicts that the average households

Income is closely related with size of household.

#### **4.9.6 Size Distribution of Household Income**

The size distribution of household income can be explained by dividing households in decline groups.

#### 4.9.6.1 Size Distribution of Household Annual Income by Decline Groups of Household

The household income distribution as well a per year by decline groups is shown in table 4.12 below.

**Table 4.12**

##### Size Distribution of Average Household Income (Rs. Per year)

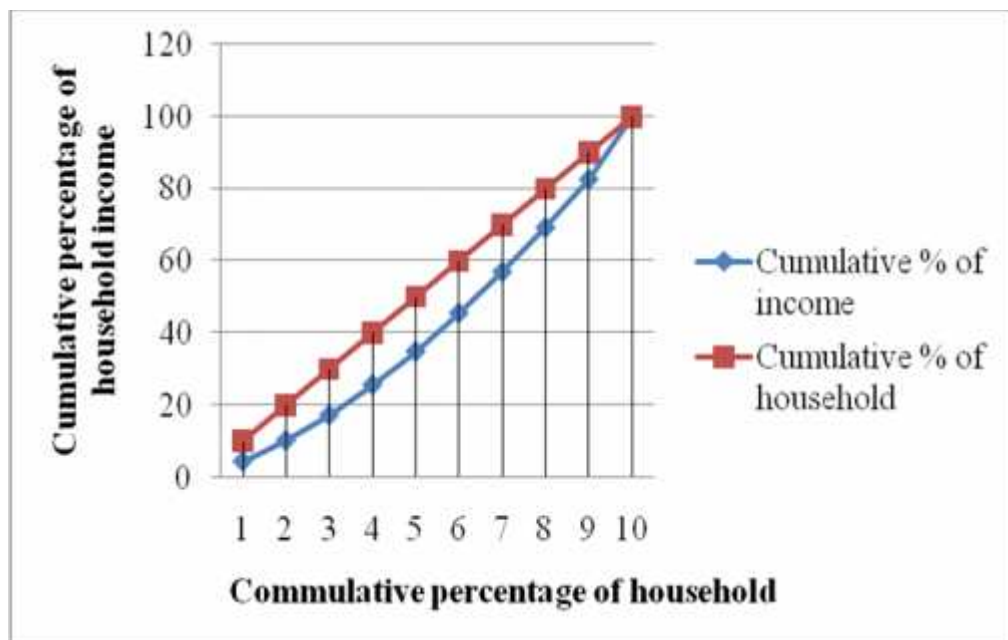
S.N.	Income receiving group	Average yearly income per household	% of total income per household	Cumulative % of income	% of household	Cumulative % of household
1.	Less than 46950	40549.58	4.30	4.30	10	10
2.	47340 - 60690	54659.17	5.80	10.10	10	20
3.	62050 - 69169	66222.00	7.03	17.13	10	30
4.	72880 - 82724	79240.50	8.41	25.54	10	40
5.	83629 - 91100	87325.58	9.27	34.81	10	50
6.	92025 - 103650	100666.67	10.68	45.49	10	60
7.	104245 - 110580	107735.00	11.43	56.92	10	70
8.	111020 - 119660	115752.08	12.28	69.20	10	80
9.	121800 - 133125	126537.75	13.43	82.63	10	90
10.	133750 - 251480	162600.83	17.37	100.00	10	100
	Total	942349.16		100.00%		100.00%

Source: Field Survey, 2016

Table 4.12 reveals that the share of average income to the bottom 10 percent households is less than Rs. 46950 (per year) which is cumulative percentage is 4.30. In contrast, the top 10 percent of the households capture an average annual income between Rs. 1, 33, 750 and above which out to be 17.37 percent of the total income.

In order to measure the inequality of income a Lorenz curve is fitted using the information provided in table 4.12. The Lorenz curve thus obtained as shown in fig 4.1 below.

**Figure 4.1: Distribution of average Household Income**



As shown in figure 4.1 the line of equal distribution shown perfect equality of the distribution of income, in an absence of perfect equality, the bottom income group have a proportionately lower share of income. Therefore, Lorenz curve must lies below the diagonal. The slope of the curve increasingly rises as we move towards the richer section of the household. The area between the perfect equality and the Lorenz curve is known as Gini concentration ratio. Gini coefficient of average household income is 0.2077 (APPENDIX 8) which shows income inequality is problem in this area.

#### 4.9.6.2 Income Distribution among Sample Population

Table 4.13

#### Income Distribution among Sample Population

(According to Average Per-Capita Income of Each Group)

S.N.	No. of Population in the group	% of the population	Cumulative	Average year income by group	Avg. per capita income	% of avg. per capita income	Cumulative % of income
1.	55	7.63	7.63	40549.58	8853.62	5.81	6.31
2.	64	8.89	16.52	54659.17	10255.00	6.73	12.54
3.	69	9.58	26.10	66222.00	11516.87	7.56	20.10
4.	67	9.30	35.40	79240.00	14200.81	9.32	29.42
5.	64	8.89	44.29	87325.08	16383.79	10.75	40.17
6.	73	10.14	54.43	100666.67	16557.01	10.87	51.04
7.	77	10.69	65.12	107725.00	11807.33	11.03	62.07
8.	80	11.12	76.24	115752.08	17380.19	11.41	73.48
9.	84	11.67	87.91	126537.75	18076.82	11.87	85.35
10.	87	12.09	100.00	163660.83	22327.52	14.65	100.00

Source: Field Survey, 2016

From the table No. 4.13, it is observed that bottom first 7.63 percent of population are being able to achieve only 5.81 percent of the total income of sample population whereas, top 12.09 percent (No 10 population 87) of the total population size received 14.65 percent of the total income. Similarly, it is visualized that bottom 44.29 percent (7.63 + 8.89 + 9.58 + 9.3 + 8.89) percent of the total sample population receive only 40.17 percent of the total income, where as population 55.71 percent of sample population receives 59.83 percent

of the total income. Thus, this calculation proves that there is certain gap in the distribution of income.

Such unfair distribution or inequality in the distribution of income can be calculated by Gini Coefficient in the distribution of income can be calculated by Gini Coefficient and Lorenz Curve.

Comparing information of fig 4.2 indicate that the Gini Coefficient ratio with respect to households income is 0.2077 while the Gini Coefficient ratio based on the per capital income level 0.144 (APPENDEX-9) approximately.

**Figure 4.2: Income Distribution among the Sample Population**

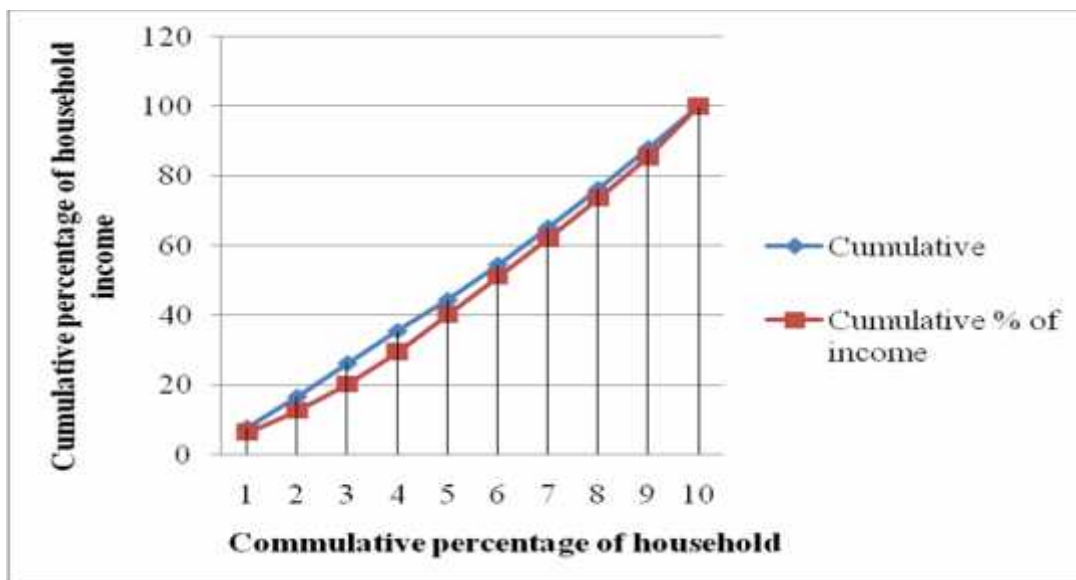


Figure 4.2, shows that the slope of the curve raises when we move towards the richer group of the households. Comparing information on fig. 4.1 and those from fig. 4.2 indicate that the Gini concentration ratio with respect to household income is 0.2077 (APPENDIX 8) while the Gini concentration ratio based on per capita income level is 0.14404 (APPENDIX 9) approximately. Those two results suggest that a higher degree of inequality is observed when the household income is measured on a group basis whereas a lower level of inequality is seen when household income is measured in per capita form.

#### 4.9.7 Degree of Income Concentration:

The Gini Concentration ratio countries place is given below Table 4.14 and 4.15

**Table 4.14**

##### **The Concentration Ratio in Certain Countries Places**

S.N.	Places	Survey	G.C.R.
1	India	1967-68	0.1647
2	Sir Lanka	1969-70	0.1443
3	Bangaladesh	1966-67	0.3990
4	Pakistan	1970-71	0.3645
5	Nepal	1984-85	0.34/0.57

Source: Nepal Rastrta Bank, 2016

In this table 4.14 shows that SAARC Countries Gini Concentration Ratio. According to Gini Concentration Ratio, Nepal has a high level of income inequality in comparison SAARC Countries. In Nepal size distribution of per capital income is 0.34 and household's income is 0.57.

**Table 4.15**

##### **The Gini Concentration Ratio in different VDCs**

S.N.	Place Name	Survey Year	G.C.R.
1	Garamani VDC	1989	0.3068
2	Sharadanagar	1990	0.3600
3	Ananban	1991	0.3800
4	Urlabari	1994	0.4420
5	Jagatpur	2002	0.4360
6	Chunikhel	2010	0.4700
7	Bayarbana	2010	0.14404
8	Keroun	2010	0.14203

Source: Field Survey, 2016

Based on number of studies within the country, in case of Nepal, the Gini Concentration ratio computed with reference to 8 places have been compiled in table 4.15 based on this Chunikhel VDC GCR of 0.447 which is highest and Garamani has 0.3068 which is lowest.

In Keroun, the Gini Concentration ratio has been calculated based on the per capital income of the households. The Gini Concentration ratio with respect to household income level is 0.142. This is below the national level of inequality of income distribution. It means inequality of income distribution is less than national level. In comparison to the other studies, the village account nearly to average.

#### **4.9.8 Level and Structure of Consumption**

A low level of households income and high propensity of consume has result in a high ratio of consumption on the late 70 percent which increased to 88 percent in the 80 percent and rose further to 90 percent in the 90s although the proportion of consumption is high,

#### **4.10 Pattern of Consumption Expenditure by Household Categories**

The consumption pattern in a society is generally determined by the income distribution, social tradition, income level, fashion, availability of goods, education status and similar other factors. It is difficult to list them all in a dynamic locality like Keroun VDC where there are indications of significant cultural diversities. Similarly, various forms of traditions and modern animation are seen to be intermingled together and this situation is further aggravated by the ever-changing dynamism in the social frame work. However, an attempt has been made to analyze the expenditure pattern of the households in this section of the study.



#### 4.10.1 Consumption Expenditure by Household Size

The composition and level of consumption expenditure by household size of the Keroun VDC is presented in table 4.16.

**Table - 4.16**

##### **Level of Consumption Expenditure by Household Size**

<b>HHs Size</b>	<b>No. of HHs</b>	<b>Total HHs Size</b>	<b>Annual Expenditure (Rs)</b>	<b>Annual Per Capita Exp.</b>	<b>Expenditure in percent</b>
1-4	8	30	443719.00	14790.63	4.29
5-7	60	580	8072155.00	13917.51	78.06
8-10	22	110	1825719.00	16597.44	17.65
<b>Total</b>	<b>90</b>	<b>720</b>	<b>10341593.00</b>	<b>14369.92</b>	<b>100.00</b>

Source: Field Survey, 2016

As shown in table 4.16, the annual per capita consumption of the respondents was found to be Rs. 14363.32. The total consumption for the households with household's size of 1-4 members is Rs 443719.00. The maximum expenditure (78.06 percent) is income by the H.H. size 5-7 and the minimum (4.29 percent) by the H.H. size 1-4. In terms of per capita expenditure per annual, the figure is highest (Rs 16597.44) for 8-10 H.H. Size. The lowest (Rs 13917.50) for 5-7 H.H. Size. The per capita expenditure range is Rs 2679.93 which is monthly term is Rs 223.33 with an average value of Rs 14363.32. The H.H. size 1-4 and 8-10 have an expenditure levels higher than the average level. Similarly, the H.H. size 5-7 has an expenditure which is less than the average level. This suggests that there is no clear cut relationship between the per capita expenditure level and the household's size. The reported expenditure level seems to rather erratic and not highly different with in groups. This shows a general and normal tendency for all the households to consume in a socially predetermined and relatively similar type of consumption function.

#### **4.10.2 Expenditure on Cost of Agriculture cost of Livestock, Food and Non-food items.**

In this study, expenditure is classified into four different categories which are expenditure on agriculture, livestock, food items and non-food items. The total expenditure of the entire sample stood at Rs 10362385 out of which agriculture expenditure was Rs 1656656 (15.99 percent), expenditure on livestock at Rs 1888300 (18.22 percent), those on food items is Rs 4193901 (40.47 percent) and non-food items expenditure Rs 2623528 (25.32 percent).

The present study intends to analyze the pattern of consumption on food, non food items and others. Table 4.17 shows households expenditure on various items.

**Table - 4.17**

##### **Expenditure on Various Items**

<b>S.N.</b>	<b>Expenditure on</b>	<b>Total expenditure</b>	<b>Percent</b>
1.	Agriculture cost	1656656	15.99
2.	Livestock	1888300	18.22
3.	Food items	4193961	40.47
4.	Non-food items	2623528	25.32
	Total	10362985	100.00

Source: Field Survey, 2016

#### **4.10.3 Distribution of HHs Annual Consumption by Decline Group of Household**

Table 4.18 shows the consumption expenditure and percentage in decline group, according to ascending order.

**Table - 4.18**

**Distribution of Households Annual Consumption by Decline Group of Household**

<b>S.N.</b>	<b>Decline group of HHs</b>	<b>Average yearly expenditure HHs</b>	<b>Percent of expenditure</b>	<b>Cumulative percent of expenditure</b>	<b>Percent of HHs</b>	<b>Cumulative Percent of HHs</b>
1.	Less than 43245	37951.58	4.39	4.39	10	10
2.	43246 - 58175	53503.83	6.19	10.58	10	20
3.	58176 - 66830	62119.75	7.19	17.77	10	30
4.	66831 - 73767	71327.66	8.26	26.03	10	40
5.	73768 - 82735	787007.25	9.11	35.14	10	50
6.	82736 - 98060	90615.83	10.49	45.63	10	60
7.	98061 - 102805	99999.66	11.58	57.21	10	70
8.	102806 - 111575	107129.83	12.49	69.70	10	80
9.	111576 - 123196	117153.16	13.98	83.68	10	90
10.	123196 - 179520	145023.50	16.79	100.00	10	100
	Total	863532.05	100.00		100	

Source: Field Survey, 2016

Table 4.18 shows that the share of total expenditure to the first 10 percent of the households with an average yearly expenditure is Rs 37951.58 and in context in tenth (highest) 10 percent is 16.79 percent of average total yearly expenditure is Rs 145023.50 of total households surveyed. Table 4.14 shows that lower 50 percent of household has 35.14 percent of the total average expenditure, while the highest 50 percent at the household expenditure is 64.86 percent of total expenditure. This gives inequality in expenditure of household consumption.

#### 4.11 Income Inequality Measures by Various Methods in the Distribution of Income

This unit is presented to the extent of inequality in the size distribution of income by computing various inequality indices. Computation of the indices and the results are shown in table 4.19

**Table 4.19**

##### **Inequality Indices**

<b>S.N.</b>	<b>Indices Range</b>	<b>Result</b>
1.	(a) Household income (per year)	13.07
	(b) co-efficient of range	0.6031
2.	Gini concentration Ratio	
	(a) Average per month H.H. income	0.20776
	(b) Per capita income	0.14004
	(c) Average H.H. Expenditure (per year)	0.1988

Source: Field Survey, 2016

Table 4.19 shows that the range of household income is 13.07 and the coefficient of range is 0.6031 when the data were taken in percentage terms, the range value is low here.

Relative Gini-concentration ratio is average per month household income is 0.20776. In per capita income 0.14004 and average household expenditure 0.1988, which shows a lower than household ratio.

## CHAPTER - V

### SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATION

#### 5.1 Summary and Findings

The dissertation is an attempt to study the socio-economic condition of Keroun Village Development Committee. The people in this VDC are poor especially with respect to agricultural sector. They live in poverty; their technique of agriculture is not modern. They mostly use traditional method of farming.

When looking at the income and consumption behavior of the people, it is found that the income distribution at first 10 percent of average yearly income per household is Rs. 40549.58 and at last 10 percent of average yearly income per household is Rs. 163660.83, and respective consumption of villagers is at first 10 percent of average yearly expenditure per household is R. 37951.58 and last 10 percent of average yearly expenditure per household is Rs. 145023.50. This shows that the income distribution and respective consumption of villagers is not equal. There is inequality in distribution of income. To test the inequality is not equal. There is inequality in distribution of income. To test the inequality in income distribution. We found the analysis of table the Gini-Concentration ratio of average per month household income is 0.20776, per capita income is 0.14004 and average household expenditure (per year) in percent of expenditure is 0.1988.

Here, Lorenz Curve also used and Range of household income (per year) is 13.07 and Coefficient of Range is 0.6031, to study the consumption pattern, Lorenz Curve, Gini-Coefficient is also used.

The major results obtained from this study are as follows:

- 1) In this study area it is found that female population is higher than male population.
- 2) The literacy status of male is comparatively higher than that of the female.
- 3) Majority of sample population children of 0-4 years (9.6 percent) and those of age 5-14 years is (15.06 percent). 63 percent of population is under the age group 15-59 and 10.27 percent of population lies above 60 years.
- 4) The 40.25 percent of the population engaged on agriculture and non-agriculture (business, service, study, labour, others) sectors are 59.75 percent.
- 5) In the study area, 50 household(55.55 percent) have family size 3-4,15 household(16.66 percent) have family size 5-6,12 household(13.33 percent) have family size 7-8,8 household(8.88 percent) have family size above 8 and 5 household (5.55 percent) have family size 1-2 respectively.
- 6) Sample average household family size is found to be 6.41, which is greater than average national family size i.e. 5.3(CBS 2011).
- 7) The average land holding size is 5 Bigha distribution of land among the sample household.
- 8) From the study area, it is found that agriculture is the main source of income i.e. 75 percent of total annual income, business is another source of annual income 8.42 percent, labour is another source of income 12.29 percent and services is another source of income 12.29 percent respectively.
- 9) Brahaman and Chhetris castes have annual income and consumption greater than other castes.

- 10) Sample average household family size is found to be 6.41 which are greater than average national family size i.e. 5.3 (CBS, 2001).
- 11) Expenditure on various items are agriculture 16 percent and another items are livestock 18.22 percent, food items 40.47 percent and non-food items are 25.32 percent respectively.
- 12) In the study area & sample of households are (4.29 percent) annual expenditure have been households size 1-4, 60 sample of households are (78.06 percent) annual expenditure have been households size 5-7 and 22 sample of households are (17.65 percent) annual expenditure have been households size 8-10 respectively.
- 13) In this study area has greater disparity of income as well. Nearly 10 percent of lower level of households earns 4.30 percent of total income and the higher 10 percent of households earn 17.37 percent of total income.

## **5.2 Conclusion**

From this study, we conclude that is high inequality in the inequality in the income and expenditure distribution in Keroun VDC. There are various kinds of inequalities, such as agriculture productivity, distribution of land holding, education, health, job status, geographical structure etc. which result in high income and expenditure. The main occupation of the people is agriculture but the share of this sector in the total income is comparatively lower than service sector. It is because people are still using traditional methods for agriculture production. Moreover agriculture is if subsistence type rather than profit oriented. Unemployment and disguised unemployment is found everywhere in this VDC. There is no any industrial sector for people to get good job. So a large number of youths have gone abroad seeking better jobs. Therefore income from remittance is comparatively higher than income from pension and business.

From ethnic point of view, majority of people are Brahmans and Chhetris (47.69 percent). These caste groups are generally literate and engaged in service sector. So share of income through this sector is comparatively higher than other sectors.

### **5.3 Recommendations**

Income and expenditure is the burning issues in the country. Almost 66.66 percent population is engaged in agriculture but the distribution of landholding size is not proportional. Due to unequal distribution of income, landholding and traditional agriculture system, people are affected in their income ratio. To main objective of this study is to identify the level and sources of income and examine the income and expenditure in the study area. We have analyzed the level and sources of income and examine the income and expenditure from the level of income distribution different ethnic group, household size and landholding size etc.

In the study the distribution of income between different ethnic groups was found highly unequal and the level of income as well as the source of income is not reliable and sufficient to improve of the economy and reduce inequality of income distribution. To escape this vicious problem the following suggestions are recommended.

1. Economic development is directly affected by education status of the people. So, in the VDC some technical and vocational education program should be implemented immediately that would help to uplift the socio-economic status of people.
2. The main occupation of the people is agriculture but agriculture techniques are of traditional type and have less productivity. So farmers should be encouraged to cultivate vegetables, fruits and other cash crops that yield better income. Poultry, livestock farming and other geographically suitable works should be emphasized.



3. Disproportional distribution of land is the major cause of income inequality. People of so called lower caste have insufficient land and some families are nearly landless. Revolutionary and scientific land reform can only solve this issue. Those who toil on land should have ownership over the land. The government should buy land from the land holds and distribute it rationally among the landless and the households with insufficient land.
4. Due to the traditional method of agriculture, the income from this sector is very low. So to increase agriculture income traditional system should be modernized with time. Not only should this to increase the productivity of agriculture, improved seeds, chemical, fertilizers insecticides and qualified technicians be provided.
5. Most of the land is deprived of irrigation facilities and the people have to depend upon monsoon rains for farming. Irrigation projects should be implemented so that farming can be done throughout the year. People can cultivate off seasonal crops that have a better market price.
6. Even the very few people who have attained higher education are jobless. The government should create new job opportunities for those people. It should help increase their income level. The government should emphasize on the technical support to establish the cottage industry in the study area.
7. The government should emphasize on small and cottage scale industries. Financial and technical support should be provided to the people. Banks and financial institutions should be encouraged to provide loans to the people at minimum interest rates.
8. NGOs/INGOs can implement skill development oriented program and income generating activities to the people in the study area.

9. The concept of co-operative should be introduced among the people so that they can collect their small capital and start their own business. This would of course pay off a lot.
10. To reduce the income inequality government should apply progressive taxation policy.
11. The average family size of the study area among total sample population is found large, majority of them are joint families. Because of large households size, and large number of dependent population the income of families does not suffice their general requirements and so their quality of life is very low. So family planning Program and other educational programs are needed.
12. Transport and the communication play a key role in making people more easy and convenient. Thus, to raise the standard of living of the people, there should be the facility of transport and communication.
13. To labour force should be utilized in productive sector.
14. These recommendations play vital role in the increment of productivity and level of income. So if all these recommendations are accepted positively and practiced in the concerned areas there will be less difficulty to reduce the income inequality.

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## APPENDIXES

### Income Distribution in Keroun VDC (2003/04 and 2010/11)

Now let  $x$  be the deciles groups, A and B are the income share of 2003/04 and 2010/11 respectively.

#### Income distribution over years

<b>Deciles group</b>	<b>Class Interval</b>	<b>Cum % of <math>x_i</math></b>	<b>A (%)</b>	<b>Cum % of A</b>	<b>B (%)</b>	<b>Cum % of B</b>
0-10	10	10	2.1	2.1	1.5	1.5
10-20	10	20	3.2	5.3	2.6	4.1
20-30	10	30	4.0	9.3	3.4	7.5
30-40	10	40	4.9	14.2	4.4	11.9
40-50	10	50	5.8	20.0	5.4	17.3
50-60	10	60	7.0	26.9	6.7	24.1
60-70	10	70	8.6	35.6	8.5	32.6
70-80	10	80	11.0	46.6	11.2	43.8
80-90	10	90	15.7	62.3	16.7	60.6
90-100	10	100	37.7	100	39.5	100

**For computation of sum of products**

Cum x <sub>i</sub>	For 2003/4			For 2010/11		
	Cum. Ai-(X <sub>i</sub> )	X <sub>i</sub> Y <sub>i+1</sub>	X <sub>i+1</sub> Y <sub>i</sub>	Cum. Bi=(Y <sub>i</sub> )	X <sub>i</sub> Y <sub>i+1</sub>	X <sub>i+1</sub> Y <sub>i</sub>
10	2.1	-	42	1.5	-	30
20	5.3	53	159	4.1	41	123
30	9.3	186	372	7.5	150	300
40	14.2	426	710	11.9	357	595
50	20.0	800.0	1200	17.3	692	1038
60	26.9	1345	1883	24.1	1205	1687
70	35.6	2136	2848	32.6	1956	2608
80	46.6	3262	4149	43.8	3066	3942
90	62.3	4984	6230	60.6	4848	6060
100	100	9000	-	100	9000	-
Total		X <sub>i</sub> Y <sub>i+1</sub> =22192	X <sub>i+1</sub> Y <sub>i</sub> =17593		X <sub>i</sub> Y <sub>i+1</sub> =21315	X <sub>i+1</sub> Y <sub>i</sub> =16383

$$\begin{aligned}
 \text{For 2003/4 (A), } G_C &= \frac{1}{100} [\sum X_i Y_{i+1} - \sum X_{i+1} Y_i] \% \\
 &= \frac{1}{100} [22192 - 17593] \% \\
 &= \frac{1}{100} [4600] \% \\
 &= 45.9\%
 \end{aligned}$$

$$\begin{aligned}
 \text{For 2010 /11 (B), } G_C &= \frac{1}{100} [\sum X_i Y_{i+1} - \sum X_{i+1} Y_i] \% \\
 &= \frac{1}{100} [21315 - 16383] \% \\
 &= \frac{1}{100} [4932] \% \\
 &= 49.32\%
 \end{aligned}$$

As the value of G.C. for Keroun VDC B is higher than G, C. for Keroun VDC A, income inequality in Keroun VDC B is higher than Keroun VDC A.

Calculation of inequality in per capita income

The formula,

$$G_C = 1 + \frac{1}{n} - \frac{2}{n^2 \bar{y}} [ny_1 + (n-1)y_2 + \dots y_n]$$

<b>y<sub>i</sub></b>	<b>Respective no.</b>
580	n = 4
473	(n-1) = 3
354	(n-2) = 2
388	(n-3) = 1

$$\therefore \bar{y} = \frac{\sum y_i}{n}$$

$$= 448.75$$

$$G_C = 1 + \frac{1}{4} - \frac{2}{(4)^2 448.75} [4 \times 580 + 3 \times 473 + 2 \times 354 + 388]$$

$$G_C = 0.1$$

**INCOME AND EXPENDITURE PATTERNS IN KEROUN VDC  
OF MORANG DISTRICT, NEPAL  
2073(2016)**

**QUESTIONNAIRES**

1. General Information

**District: Morang, Nepal**

VDC : Keroun

Name of Respondent: .....

Ward No: ..... Sex: .....

Age: ..... Cast: .....

Occupation: ..... Education: .....

1. Demographic Situation

a. How many members are in your family?

Age Group	Male	Female	Total Number
0-14			
15-30			
31-60			
61 above			
Total			

2. Education Status

Education	Male	Female	Total
Illiterate			
Under S.L.C.			
S.L.C.			
Intermediate			
Bachelor			
Master and above			
Total			

3. What are the occupations of your family member?



Major Occupation	Total Number
Agriculture	
Business	
Services	
<b>Govt. Employment</b>	
Foreign Employment	
Study	
Other	
Total	

4. Asset information

a. How much land do you use own?

Land	Total Bigha /Katha /Dhur
Own land	
Land rented in	
Land rented out	
Other land	

b. How much land to you use of other?

Land	Total Bigha /Katha /Dhur
Own land	
Land rented in	
Land rented out	
Other land	

5. Sources of income

5.1 .Income from Agricultural production?

How much income received last your agricultural production?

Crops	Quantity	Market prices(Rs)
Paddy, Rice		
Wheat		
Maize		
Pulses		
Potato		
Oil/ Seed		
Vegetable		
Other		
Total		

## 6.2. Income from live stock.

How much annual average income do you received from your animal products?

Item	Sales Qty.	Value (in Rs)
Milk		
Ghee		
Meat		
Eggs		
Cows		
Buffalo		
Goat		
Pig		
Hen		
Others		
Total		

## 6.3. Income from services.

**How much income did your animal last year?**

Services	No. of Person	Salary/ wage(Rs)
Services holder		
Job retired person		
Total		

## 6.4. Income from non-Agricultural sectors:

How much annual average income do you get from?

Kinds	Annual Income
Business	
Cottage and small Industry	
Remittance	
Others	
Total	

## 7. Cost of Agricultural production and consumption expenditure.

7.1. Agricultural production cost annually.

Input	Total Cost (Rs)
Seeds	
Pesticides, Fertilizer	
Labour hired	
Harvest	
Insecticides	
Land Tax	
Others	
Total	

7.2. Live stock expenditure:

Expenditure	Price (Rs)
Purchase of Cattle	
Treatment	
Others	
Total	

7.3. Family consumption expenditure annual:

a. Expenditure on non-food item:

Item	Total price (Rs)
Clothes and foot wears	
Education	
Health care	
Social work (Marriage/ Birthday/Death)	
Festival	
<b>Lighting, Energy</b>	
Smoking and drinking	
Transportation	
Others	
Total	

7.4. Expenditure on food item:

Item	Quantity	Total price (Rs)
Rice, Maize, Wheat		
Pulses		
Milk and milk production		
Cooking oil		
Vegetable		
Fruits		
Tea/Sugar		
Meat and eggs		
Others		
Total		

8. In your opinion, what are the causes of income inequality?

- (a)..... (b).....  
(c)..... (d).....

9. In your opinion, what are the solutions to reduce income inequality?

- (a)..... (b).....  
(c)..... (d).....

10. Do you have any social problems due to inequality (if yes)?

- (a)..... (b).....  
(c)..... (d).....

11. If you have any comment regarding your income and expenditure please mention?

- (a)..... (b).....  
(c)..... (d).....