INCOME INEQUALITY IN THE RURAL AREA OF NEPAL

[A CASE STUDY OF AMPPIPAL VDC OF GORKHA DISTRICT]

A Thesis

Submitted to the Central Department of Economics

Faculty of Humanities and Social Sciences in the Partial

Fulfillment of Requirement for the Master's

Degree of Arts in Economics

By

<u>Shakuntala Marahatta</u>

Roll. No. 67 / 2007

Central Department of Economics

Tribhuvan University,

Kirtipur, Kathmandu, Nepal

July 20

Acknowledgements

The Dissertation entitled **"Income Inequality in Rural Area of Nepal" (A case study of Amppipal VDC, in Gorkha District)** has been undertaken in to the study for the partial fulfillment of the requirements for master's Degree of Arts in Economics. Due to the lack of space, it is impossible to include the name of all people who has assisted me during my research work. However, I could not escape without mentioning the names of those individuals whose supports, advice, enhancement and motivation have become long life quittance to me. So I would like to express my deep gratitude to all of them.

First of all, I would like to express my sincere gratitude to the Central Department of Economics, Tribhuvan University for giving me an opportunity to write this research paper.

I would like to express my deep gratitude to my respected Supervisor, Mr. Tej Ram Poudyal, Associate Professor of Central Department of Economics, T.U. Kritipur for his valuable guidance and encouragement to prepare this thesis.

I am also highly indebted to prof. Dr. Madhavi Singh Shah, Head of Central Department of Economics, T.U., Mr. Dadhi Adhakari Lecturer of the same department and Mr. R.N Dawadi, lecturer of economics and vice principal of Budhanilkantha School because of their valuable suggestions for preparing the proposal and thesis booklet.

I am also indebted to Mrs.Shova Rajauriya and my friends for their cooperation during the thesis work.

<div align="right">

Shakuntala Marahatta

20 th August 2007

</div>

TABLE OF CONTENTS

LIST OF FIGURES

Figure No.	Title	Page No.

ABBREVIATIONS

ADB   :   Asian Development Bank

CBS   :   Central Beaurea of Statistics

Exp.   :   Expenditure

Gc.   :   Gini Coefficient

GDP   :   Gross Domestic Product

HDR   :   Human Development Report

HDI   :   Human Development Index

HHs   :   Households

IFAD   :   International Fund of Agriculture Development

IMF   :   International Money Fund

LSMS   :   Living Standard Measurement Survey

NLSS   :   Nepal Living Standard Survey

No.   :   Number

NPC   :   National Planning Commission

NRB   :   Nepal Rastra Bank

OECD   :   Organization for Economic Cooperation and Development

SAARC   :   South Asian Association for Regional Co- operation

UDCs   :   Under Developed countries

UNDP : United Nation Development Programme

VDC : Village Development Committee

WB : World Bank

WDR : World Development Report

$: US Dollar

CHAPTER- ONE

INTRODUCTION

1.1 Background

Nepal is a land locked country and home place of natural beauty, which is situated in the lap of the Himalayas, and is located in between the latitude 26°22′ North to30° 27′ North and latitude 80° 4′ East to 88° 12′ East. Geographically, the country is divided into three regions, the Mountain, the Hills and the Terai; accommodating 7.3%, 44.3% and 48.4% of the population respectively, in 2001.The temperature and the rainfall differ from place to place. In the geographic diversity and varied climatic condition, the census 2001 enumerated more than 100 caste/ethnic groups. The projected population in 2006 is 25.8 millions. So, Nepal presents an example of being united in diversity over the history and has maintained its pride to be an independent and sovereign state.

One of the poorest countries based on rural economy, Nepal is characterized by scarce and under developed resources, low production, low productivity along with high poverty, lack of physical and economic infrastructure, increasing inequality in terms of income, cast, religion, sex wise distribution of the population, low economic indicators: like per capita income, GDP growth rate, fiscal and monetary situation, etc. More than 38% of the total population is living below the poverty line. Out of which 44 % of the rural households and 23% of the urban households lie below poverty line. Moreover, the incidence of poverty is more in the hills and mountains than in the Terai (NPC, 1997). So inequality is one of the root causes for the underdevelopment of Nepal.

Not only in Nepal, has inequality been one of the most persistent and an unmanageable problem faced by other developing as well as the developed countries. But, the developing countries are suffering more from it. So we can categorize the world into two regions i.e. developed and developing regions. Nepal is categorized under developing countries and is placed in 138th rank out of 177 countries in the world by UNDP.

Inequality is one of the most important issues in under developed countries like Nepal .Generally, inequality implies the situation of the country in which people are classified into many economic categories on the basis of economic situation or living standard, such as unequal distribution of income, assets, land, educational attainment etc.

Inequality of income refers to unequal distribution of income among persons or households in a country. It refers to the state of a society in which some get more income in comparison to others. This results from the unequal earnings of the people in the society owing to the large unequal distribution of wealth and economic power. As a consequence of the poor income distribution there is wide variation with in the region, districts, VDCs and households due to their consumption behavior. Due to the inadequate income, the poor families are going to be poorer and are unable to meet their basic requirements such as food, clothing, housing, education and health, while the reach families are going to be richer and richer and are able to enhance their standard of living. Rural people are suffering from poverty as well as the grip of inequality in the distribution of income (Jhingan, 1994).

According to western economics thought, the goals of economic growth and its equal distribution are incompatible. Classical economists are in favor of income inequality. They argued that income equality means a higher income for the working classes and a rise in their consumption. Therefore they believed that inequalities of income were necessary tools to provide the incentives for the economic growth. But

on the contrary, socialist economist like Karl Marx opined that income inequality would bring the doom of the poor masses. So, he is in favor of equality.

In developing countries, inequality in income distribution is normal feature. Unfortunately it is not an economic obstruction but is a human condition of despair grief and pain. So, UDCs now have to face it and some how find the solution.

Like other various developing countries, Nepal is also facing the problem of inequitable distribution of income, though one of the objectives of different government plans has been to remove the inequality of income; but this problem is becoming serious day by day. Actually, it relates with all social and economic conditions; and thus inequality and the trend towards rising inequality stand as complex inhibitions and obstacles for the development of the country. The situation becomes even worse, when one discovers that these inequalities and disparities in economic prospects have imposed a direct impact not only in the present generation but also the days to come .Without equitable distribution of income every thing goes haphazardly and hampers the overall development of the nation.

Amartya Sen has written that "development can be seen ……………. as a process of expanding the real freedoms that people enjoy" (HDR 2006). This statement also supports the role of income equality in real freedom of the people as well as in the development of nation.

It is true that inequality raises important questions rooted in normative ideas about justice and fairness in all societies. Because of the direct effect due to income distribution patterns, opportunities for nutrition, health and education become challengeable. Income inequality is also related intimately to the wider inequalities in capability and in some cases to absolute deprivation. (WDR 2006).

In Nepal, most of the rural people are suffering from "Vicious Circle" of poverty that means they were born in poverty and die in poverty so the pattern of income distribution is quite uneven. This fact is indicated by the following traits:

Low per capita income.

Low life expectancy.

Illiteracy.

Ill health.

High dependency in agricultural sector.

Lack of technological knowledge.

High infant mortality.

Large family size with high fertility rate etc.

In developing country like Nepal, more than 81% of the total population is engaged in agricultural sector. So occupation of the people is agriculture. As such, agriculture is the backbone of our country. Although agricultural sector is subsistence but it has to provide the maximum level of employment to the economically active population. There are no other alternatives. This is the symptom of poverty and inequalities.

Though our government has already introduced ten economic plans, only from the third plan, it began to give an effective priority to the agricultural sector (i.e. for increasing food production). But the government has not been found to be fulfilling the aims till now. It is the hard fact that without expanding the industrial sectors, we can not generate additional employment which could be one of the important steps in reducing poverty.

As Nepal is developing country, the main obstacles for the development could be enumerated as unemployment, underemployment, high income and wealth inequalities etc. Among these, poverty and income inequality are considered as serious factors. It is estimated that 44% of the rural household and 23% of the urban household lie below the poverty line in Nepal (NPC 1997). So, at present, poverty is one of the most burning issues in Nepal. It is widely accepted that the problem of rural poverty is a direct consequence of the lack of developmental message,

structural transformation, technological transformation, mobilization of natural resources etc. The distribution of income is not so equitable and justifiable. In rural areas, it is spread more seriously (NRB 1998).

In rural areas, important asset of people is unskilled labor and that they are forced to sell it at extremely low wages. An overwhelming majority of poor people is actually "Hard Core" and "Ultra Poor" who spend most of their income on basic needs like food, clothes, fuel, health and education.

We can easily say that the economic development is not possible without equitable distribution of income. So it is essential to reduce income inequality in society for the economic development, social welfare as well as the progress of nation.

1.2 Statements of the problem

Income inequality constitutes a curse on humanity; it generates huge number of problems in every field and finally retards the pace of overall development of the country. This problem has been a serious topic and is creating controversial questions among various thinkers, policy makers, and economists. All countries in the world [developing and developed] are suffering from this problem. But its impact, nature and magnitude is more serious in developing countries. Though, solving these problems is not an easy task, but the planners, policy makers, thinkers and economists must find out the solution to it otherwise the advancement of the developing countries is not easy as their status would be going back and back day by day.

Nepal is one of the poorest countries in the world. There is a wide gap between rural and urban incomes. The people of urban areas are more facilitated than rural areas while comparing with living standard, housing, education, health,

drinking water, communication and other economic and social infrastructures. So most of the researchers agree that poverty is widely spread but mostly it appears in rural sectors. So Nepal must reduce it otherwise the job is not that easy.

Inequalities lead to great economic wastage. Due to this there is loss of human capital and also to the capital formation. Not only have these inequalities brought the social and economic crisis but also caused social unrest and dissatisfaction in the society. The unequal distribution of income is becoming one of the most important features in Nepalese context. So poverty is not a new phenomenon in developing countries like Nepal but it is becoming serious and complex day by day. The wealth which is one of the attributing factors of household's income has been accumulated in a few rich families. Generally, their income is expanded unproductive sector such as luxurious goods, jewelry entertainment etc. On the other hand, poor families are living hardely.Because they have no enough income. So there is wide gap between the rich and poor households. This is becoming serious problem whether urban and rural area. Most of the poor families spend a high amount of their household's income for food. They compel to avoid their basic needs. So it is called that in economic the marginal propensity to consume (MPC) is high of the poor families than in rich families. They are deprived from the other basic needs such as housing, clothing, health and hygienic care and education. These make poor families malnutrition, high infant mortality, inadequate shelter, unhealthy low purchasing power and high migration tendency etc. Due to these above features poor families may not involve in any field of work and can not maintain their opportunities. Not only this, these features lead the social and economic criminality in the society. If there is heavy difference between low income and high income group, then it continuously fed the rich people only. In Nepalese context inequalities based on income, wealth, gender race and other forms of inherited disadvantage as well as location which can make national averages a

14

misleading indicator for human well-beings. That is why there is always low equilibrium in economy and would be subject to a trap. Thus, for keeping well and peaceful environment in the society, for removing the regional disparities and for balanced growth in the economy the national income should be distributed equally and fairly. But in rural area of Nepal income and wealth is not distributed properly and fairly. Income inequality is spread at large amount in rural areas. One must know about the following major questions in order to find the solutions of situation of inequalities.

        1. Does rising inequality restrict opportunity?

        2. Does income distribution matter for poverty reduction?

These two questions are challengeable for the Nepalese economy in order to ensure the broad based growth that alleviates poverty, unemployment and inequality.

        Thus, the present study will try to find out the existing level of income inequality and its effect on opportunities in the society of Amppipal VDC of Gorkha district.

1.3 Objectives of this study

The following objectives are set for the study:

    To examine the existing level of income inequality in Amppipal VDC of Gorkha district.

    To find the effect of inequalities in opportunities (education, health and job).

1.4 Significance of the study

        Though income inequality is the common characteristics of the developing countries like Nepal, but inequality in the rural areas is the main problem. This case study of Amppipal VDC in Gorkha district will help to know the existing structure of income distribution in a rural setting. Poverty is a root cause of Nepal and it has a

vicious circle. Since, the term research itself means "Search again or take another look" so as to find out something more accurate. I would try my best to fathom the degree of inequality in above area and try to bring out of any.

Generally this study is based on micro level. Micro research is more essential to find exact and reliable information. Thus this study may not represent the overall structure of income distribution in the country. Though many researchers have done different research in this subject with reference to other localities, but the same has not been done in this area previously. I hope it would be helpful for policy makers to identify the related problems of income inequality in rural areas of Nepal.

1.5 Limitations of this study

The study has the following limitations.

1. This study is mainly concerned with only one VDC named, Amppipal VDC, in Gorkha district. So it may not reflect the situation of other VDCs of the same District as well as may not be useful to generalize else where.

2. It is a micro level study conducted with in a limited time and financial constraints; so some necessary information might be omitted out.

3. The study is based upon primary and secondary data of Amppipal VDC in Gorkha District during the time period of April, 2007, so, if one does the longitudinal   study of the same area in different time, it may not match.

CHAPTER- TWO

REVIEW OF THE LITURATURE

We know that "income inequality" is a burning problem in the world at present. And it is a one of the widely researched subject matters in economic discipline. Therefore many economists have been working hard in finding the cause of income inequality as it is directly related with economic variables, like: growth and development, employment, income, production and distribution etc. Various empirical studies in income inequality cover many countries over various periods. International institutions especially World Bank, Asian Development Bank and International Labor Organization have conducted several studies in this subject. Also some individuals and professional researches have been done on this topic. Some relevant literatures are reviewed below:

2.1 International Context

Different studies and research have been conducted on the topic of income and property distribution in the context of world. In one sense they have theoretical and practical importance. Being a developing country it has similar types of problem and experience as in other develop and developing countries. So different studies and research are conducted on the similar topic on the context of world have been reviewed in this topic.

Keynes (1936) published his book "The General Theory of Employment Interest and Money" In this book he pleaded for income inequality in order to sustain the economic growth. He wrote, in contemporary conditions, the growth of wealth far from being dependent on the abstinence of the rich as is commonly supposed by it. According to Keynes, a society which saves more due to inequalities of income and wealth bring secular stagnation because inequalities would reduce in

consumption capacity and bring contraction in demand. It would lead to fall in production and slowing down the economic activities. Keynes therefore favored income inequality that might lead to sustained economic growth that gives impetus to the multiplier effects.

H.S Bal and Gurbanchan Sing (1970) studied the pattern of income distribution in rural India. For this purpose two objectives were carried out (a) to compare the per capita and per house hold income of different categories of rural population (b) to find out the concentration and variation in the income distribution.

By considering about 129 observations through random selection of the farm family, farm labor family and non farm family of the six different villages of Ludhiyana district, the methodologies such as Gini concentration ratio, Lorenz curve, Log normality test, Mean deviation and coefficient of variation had been used to measure the income inequality. The major findings of this study were

1. Farm family enjoys the highest per capita income of Rs.1103.08, where as the farm labor families have the lowest income of Rs362.47

2. The house hold income is more evenly distributed among non farm non-farm families. Where concentration ratio is only 0.20 whose mean income per-capita is Rs.620.69

3. With the help of Profit relation log normality, the income distribution was estimated. The value of coefficient is 96.04, 42.42 and 44.16% for farm families, farm labor families and non-farm families respectively.

4. The lowest 20% of the person share a small proportion of the total income and the percentage share of upper segment worked out to be about43%, 30%and 34%for farm families, farm labor families and non-farm families respectively.

Simon Kuznets (Kuznets, 1975) conducted a study on "Economic Growth and Income Inequality" in underdeveloped as well as developed countries. His study is mainly focused on income distribution pattern in the Under-Developed Countries (UDCs) and causes of its long-term change. In his study he has found that the income distribution in UDCs is more unequal than that of the developed countries. With the help of this study, the relationship between inequality of income and economic growth as well as factors affecting it was indicated. It also described the trend of income inequality in secular level. At the initial phase, inequality seems to be wider and then becomes narrower. His study was based on cross-sectional data of United State of America, United Kingdom and Germany for the developed country and for UDCs case; he had used the data of India and Srilanka. He derived the conclusion that inequality at first increases and begins to decrease as the level of development increases. In the UDCs as well as developed countries, inequality is less in the agricultural sector than in the non –agricultural sector. The central causes of greater inequality in UDCs are due to the greater concentration on the ownership of the income earning assets.

The economist, Amartya Sen, in "Economic Inequality" (1985), deals the concept of income inequality. The book has divided into four different parts. Welfare economic, utilitarianism and equity are discussed in the first part. According to him, for the study of inequality, welfare economics can not fulfill this desire. The Perato optimality avoids the distributional judgment and the stander approach of social welfare function concentrates only on individual ordering so fails to provide a frame work for distributional discussions. Utilitarianism gives strongly egalitarian results. Thus the relation of connection between welfare and inequality seems very complex. The second part discuss with different techniques for measuring income inequalities which are positive as well as normative: they are range of income, the relative mean deviation, the variance and coefficient of

variation, the standard deviation of logarithms, the Gini coefficient, and the Atkinson measure. The third part of the book deals with income inequality as a quasi ordering from the normative as well as the descript point of view. This part of the book is conceptually more abstract. The last part of the book deals about works, needs and inequality. Inequality is viewed as a measure of dispersion from certain level of income as well as a measure of the difference between the actual distributions of income. This dual nature of inequality is extended on the policy implications of socialist countries. The writer accepts the mixture of descriptive and normative considerations in the concept of inequality, which shows the need of exploration to alternative approaches to measure economic inequality and at last the scope of this book goes beyond the economics and covers philosophy and other social science.

International Fund of Agriculture Development (IFAD) has published "the state of world rural poverty" in (1992) using data from 1965 to 1998. The main purpose of this report is to visualize the situation of inequality in the distribution of income and rural poverty in the selected countries. Among 55 countries, data of only 42 countries were available. Among these 42 countries, income distribution has remained unchanged in 12 countries. In terms of quintile ratio the situation seems to have worsened in 17countries where the worsening of distribution of income is caused by polarization. However, there are some countries where a more equitable distribution of income has been accompanied by greater polarization of income among the highest quintile of the country. In most countries, rural poverty and income inequality has been found increasing over time .There are seven countries in which an improvement in income distribution as actually been accompanied by an increase in poverty as measured by head count ratio. In Bangladesh distribution of income has changed but rural poverty has increased. In case of Nepal, the lowest 20% receives only 4.6% share of the income while top 20% receives 59.2% share of

the income. The value of Gc for Nepal is 0.47%.which shows that the inequality of the distribution of income in Nepal is serious as well as problematic.

Thirwall, (1994,34) cites the empirical studies of the early 1970s, shows fairly conclusively that inequality increases up to a certain stage of development and then declines. The average Gini coefficient for 43 developing countries is 0.467 compared with 0.392 of 13 developed countries. This study has also shown that the greater degree of income inequality in the developing countries appears largely due to the higher share of income received by the richest 5% of income recipients. This study further shows that in developing countries this share is 28.7%, compared with 19.9% in developed countries. The share going to the poorest 20% in the developing countries is slightly higher than in the developed countries. It is evident that "many of the fastest growing countries have a comparatively equal income distribution while the slowest growing countries have a high degree of income inequality".

R.K Lekhi (1996), in his book, "The Economics Development and Planning" has defined the meaning of inequalities of income, and told "inequality of income is that disproportionate ownership of resources between different sections of the society, that is minority having majority shares of national income while the majority of people have poor part of national income". He has discussed the causes of inequality of income such as social, economic and political life of the country. Inequality of income and wealth is vicious circle that was started during the earlier phases of the development. The entire society is divided into two classes 'haves' and 'haves nots'. The "haves" enjoy most of the facilities of luxuries but "have nots" are totally deprived of even the basic needs of life. Further, the author discussed that, today there is a wide economic disparities among various countries of the world. The world can be categorized in rich and poor lands with regard to the nature, character and degree of the development. A few countries have attended the position of the developed economy and are enjoying very high standard of living and real

income. On the contrary, there are countries which are comparatively poor and where people have very low standard of living and per capita real income. Thus there is a division of nation into two classes, Developed and underdeveloped, i.e., rich and poor countries.

Max. E Fletcher on "Economic and Social Problems" says that income inequality is a pocketbook issue in every aspect, and every country would still face the fact that inequality is far more than simply a technical economic problem, so greater inequality impair economic efficiency.

In the United State, the federal government has information necessary to portray the distribution of income. The economists find that the family making up the lowest fifth of the 1975 array got 5.4% of total income and the top 20% of the families array received 41% of the total incomes. The best paying job holders take the form of power, prestige, challenge, pleasant surrounding and feeling of accomplishment and for less paying job holders; on the other hand, the psychic income is minimal or perhaps even negative: no power, no prestige, no challenge, unpleasant or dirty surroundings and little or no feeling of accomplishment. Similarly the distribution of income in the United Kingdom shows that the lowest fifth of the families got 5.1% of the total income and the highest fifth percent of the families got 44.2%and in West Germany, Sweden and France this situation is recorded as 5.3% and 52.9%,4.4% and 44%,and1.9%and 53.7% respectively. This study further shows that high income families with more money are able to fulfill their needs immediately .They have homes, household goods, pleasure boats, and cars where as the low income family with less income than they can not fulfill their immediate needs.

Human Development Report 2005, carried out that inequality is a matter for Millennium Development Goals (MDGs) and it is a fundamental issue for human development. Extreme inequalities in opportunities and life chances have a

direct bearing on what people can be and what they can do-that is ,on human capabilities. Children facing a higher risk of death because they are born in to a low income or indigenous household or if they are female, they have less opportunity to realize their potential. Inherited disadvantage in opportunity is wrong for intrinsic reasons: It violates basic percepts of social justice. There are also strong instrumental reasons for a concern with inequality. Deep disparities based on wealth, region, gender and ethnicity are bad for growth, bad for democracy and bad for MDGs. The MDGs do not directly address inequality. In this sense they are distribute neutral. Progress is measured by aggregating and averaging change at a national level. In theory, the MDGs could be met even if, say, households with low incomes were falling behind on the income poverty and health targets, on if the rate of reduction in child deaths among boys was sufficient to compensate for a slower rate of reduction among girls. It further states that ideas about inequality, like idea about fairness and social justice, are rooted in values. As Amartya Sen. has argued, virtually every body today believes in equity of something: equal rights before the law equal civillibertiese, equality of opportunity and so on. Most people would accept that not all inequalities are unjust. Inequality in income is an inevitable product of any functioning in market economy. At the same time few people would accept in principle that inequalities in opportunity   are tolerable when based on gender, inherited wealth, ethnicity or other accidents of birth over which individuals have no control.

For human development perspectives, there is a range of mutually reinforcing intrinsic and instrumental reasons why inequality matters? These can be summarized under the following headings.

- Social justice and morality

-Growth and efficiency

-Political legitimacy

-Public policy goal

On this study, Latin America and Sub Saharan Africa register very high levels of inequality, where Gc is 72.2, South Asia and Organization for Economic Co-operation and Development (OECD) countries register much lower levels where Gc is 33.4 and 36.8 respectively. While comparing between low income countries and high inequality countries, the study gives some reliable examples, the poorest 20% of the population in Guatemala have an average income of $ 550 a year or 46% below $2 a day international poverty line. In Vietnam, their average incomes would raise to $ 1560 or 66% above the $ 2 a day line. So income inequalities reflect and affect the chance of wider life inequalities, starting with the chance staying alive. In Bolivia and Peru, infant death rates are four to five times higher for the children of the poorest 20% of the population than the children of the richest 20% with more births. So, this study concludes that inequality is a fetal disease for the opportunities of the people and for MDGs.

Human development report 2006, carried out that the HDI provides a snapshot of average national performance in human development. However, averages can obscure large disparities within countries. Inequalities based on income, wealth, gender, race and other inherited disadvantage, as well as location can make national averages a misleading indicator for human well being.

According to Human Development Report 2006, on "Income Inequality", "Inequality raises important questions rooted in normative ideas about social justice and fairness in all societies. Because income distribution patterns directly affect opportunities for nutrition, health and education, income inequality is also intimately related to wider inequalities in capability and in some cases to absolute deprivation. Regional variations in income inequality are large. The Gini coefficient a measure of inequality calibrated on a scale from 0(perfect equality) to

100(perfect inequality), ranges from 33 in South Asia to 57 in Latin America and more then 70 in Sub-Saharan Africa".

2.2 National Context

Being a developing country, it has dual economy so we have two types of economic condition. In rural area there is still barter exchange system. In urban area it has sophicated and developed monetary exchange system. Even in rural area there is vast different between different class of people in terms of property and income distribution. All of the major literatures and research on the topic of income inequality and property distribution related to Nepal has been reviewed in this topic.

Diwakar Khanal (1988), on "Income inequality and consumption behavior in Nepal" has specified the nature of inequality and examined its extent in the size of distribution of income. This thesis is based on the primary data. He has used various statistical tools such as the Gini concentration ratio; the standard deviation of logarithm, Lorenz curve, lognormal variances indices to measure income inequality etc. He concluded that inequalities of income and landholding are extreme in village and which is the major determinant of poverty.

Tiwari (1990) present a paper on "Farm Size and Productivity in Nepalese Agriculture" shows that there is an inverse relationship between farm size and productivity. The central policy implication will be to implement ceiling laws to reduce the upper limit of existing ceilings to promote economic growth. The basic objectives of the study were: (i) To identify the relationship between farm size and land productivity and (ii) To explain such identified relationship in the light of some of the principles of agricultural economics. To analyze the farm size and productivity relationship for whole farm he used two variable and multiple variable regressions and as in the case of individual crops, two variable regressions of linear, log-linear, simple quadratic functional forms have been fitted to depict the relationship between size of holding and different variables separately.

Nav Raj Kanal,(1993) has published an article on the Economic Journal about "Lorenz Curve and Gini Coefficient Conceptual Consideration." The main objective of this article is to show a method of deriving the formula for calculating Gini coefficient from definition, the Lorenz Curve. The great important of this article is to show the proof of the formulation clearly and in a simplified manner. In the article, the concept of the Lorenz Curve and Gini Coefficient are very nicely and clearly examined, and formulas for the computation of the Gini coefficient are derived.

The publication of CBS named "Nepal Living Standards Survey Report" (1996) shows the various sources and distribution of income in the country. The objectives of the survey were to assess the living standard and the poverty situation of the Nepalese society. Another aim of that survey is to analyze and study inter-relationship between various socio-economic variables and in order to use for the formulation of Ninth plan. The survey has followed the "Living Standard Measurement Survey (LSMS)" methodology developed by the researchers at World Bank by using the simple frame of population census 1991, "Probability Preoperational Size (PPS)" method of sampling was adopted and the sample size was set at 3.373 household from four strata (1) Mountains (2) Urban hills (3) Rural hills and (4) Terai. Twelve households were interviewed in each elected ward in selected VDCs of 73 districts. In the second stage of the sampling a fixed number of households were chosen with equal probabilities from each selected primary sampling units (wards).The survey omitted the income aggregate items-(1) net interest income and income from machinery and housing properties.

According to the final reports, average household income for Nepal as a whole was NRS 43732 per annum while per capita income was NRS 7690 .There are wide variations by geographical areas. Income was much higher in areas urban

than in rural areas. Average per–capita income was more than twice the average rural per-capita income. Among the urban areas, Kathmandu valley stands out as having for higher income than the average but by a much smaller then eastern and central part among rural areas. The western part of the country had lower income than the eastern and central part of the country. There was a big difference in the degree of inequality in between urban and rural areas. The Gini coefficient (Gc) across the country typically lies in range of 0.2 to 0.5. At that time, the Gc for urban areas was as high as 0.43 compared to 0.31 in rural areas. The difference of inequality in the two regions is striking. Per-capita income was lower in the Terai than in the Hills.

This report further states that in the distribution of income in nominal term, the bottom 80 percent of the households earn 50 percent of the total income while the top 20 percent earn the other 50 percent of the income. Nearly 73 percent of the sampled household had their income less than adequate, 26 percent had just adequate and around one percent had more than adequate. In the mountain and hilly region the share of income of the households indicates that the percentages of households having more than adequate was than the national average.

Badri Prasad Bhattarai (1997), in his dissertation "Income inequality in Nepal", tries to illustrate the level of pattern of income distribution and examines the impact of income inequality in social structure. He has used various statistical tools to measure the income inequality such as Range, Gini co- efficient and Lorenz curve. He has presented the sample household data accordingly to cast group of household, occupational structure of household, educational status etc. The Gini coefficient study found that there is high inequality in rural part of Nepal. He also concluded that the economy is not facing only inequality but also suffering from low level of income trap.

Bimal Adhikari (2002), in his dissertation entitled "Income Inequality and Expenditure in Manpur VDC" has used primary data as well as secondary data. The main objective was to estimate household income and expenditure and measure the extent of inequality.

Gita Nath Khanal (2004) in his dissertation entitled, "Income Inequality in Nepal" has analyzed the distribution of income in Syangja district and concludes that there is high inequality in income distribution in the study area, which are appeared in production of crops, distribution of landholding, education and geographical structure.

Yuba Raj Bhusal and Keshav L. Maharjan presented a paper on the topic; "Poverty Reduction Efforts on the Socio Economic Development Process of Nepal"(2004) in the Economic Journal of Nepal, illustrated that economic growth with social equity, has become the main theme of development with the beginning of 21st century. Poverty not only incorporates income, consumption and human development (education, health and sanitation) but also incorporates empowerment and social security against vulnerability. Poverty in rural areas is widespread and more persistent which accounts nearly 4/5 th of the world's poverty (IFAD, 2002). In developing countries, about 69 percent of the rural population subsists below nationally defined minimum level of income and consumption. This study further said that poverty in Nepal is both endemic and acute that has generally been argued as stemmed up from strong inequality of income and distribution. More than 4/5 th of Nepalese people relay on agriculture. Inadequate cultivable land, low productivity, rugged topographic conditions leading to fertile soil loss, low intensity of rainfall etc. have made it rather wretched sector. The country faces a challenge of significant regional disparities in human development. Since the country is divided into three ecological zones (Mountain, Hill and Terai) with urban and rural areas, the adult literacy rate is 27.5, 40.2, 35.9 and average life expectancy rate is 52.7,

58.0 and 59.5 in (1996) respectively. And on location wise, in urban area adult literacy rate is 63.5 and life expectancy rate is 55.0 where as in rural area adult literacy rate is 34.5 and life expectancy rate is about 53.7. So we can say that there are vast disparities among ecological zones as well as rural and urban localities. Such disparities exist not only in different regions, but also exist among the occupational castes and some ethnic minorities. Similarly, the poverty level among the upper social castes such as Brahmin, Chhetri, Yadav, and Newar seems much lower than that of the so called lower caste groups. Therefore for every indicator, ethnic minorities fall below the national average and well below that for Brahmin Chhetri and Newar and the situation with the dalits is even worst.

Similarly in "Macro Economic Situation 2006" published by NRB states that "a high level of poverty is detrimental to economic development and growth since households are unable to utilize their disposable income for saving and investment". In Nepal the magnitude of poverty has been inquired by CBS in 1996\97 and 2003\2004 and Nepal living standard survey. Both surveys revealed that poverty head count in 1995\96 and 2003\2004 had decreased from 42% to 31% but inequality is going wider and wider (both income and regional) and given one example, the average life expectancy in urban area(Katmandu) district in 2001was 69.53 years while it was 44.07 years in rural area(Mugu) district. It is felt that this factor had been one of the major contributors to present situation of conflict.

Shiva Sharma on Eradicate Extreme Poverty and Hunger,(2006) states that reduction of poverty and hunger by half (between 2000 and 2015) is one of the key goals among the Millennium Development Goals (MDG).And for Nepal it is a daunting task as the incidence of poverty and hunger stood high to begin with, and the reduction rates have remained far behind the required rates over the last decades. Poverty rate has been contained to 31% in 2004 from 42%in 1996.But to reduce it further by almost half in the next decade remains a daunting task given the slow

growth and rising inequality. As of 2000 almost half of Nepal's population did not get the minimum level of dietary energy consumption, 17% of populations are in below$1 per day (ppp values) and 21% of populations are below national poverty line till now. So reducing this by 25% in 2015 again will be contingent on the overall poverty scenario, proactive efforts to target in the field of availability and utilization of food and containing the food shortage due to natural disasters and calamities.

This paper further shows that poverty in Nepal has been reduced in recent years, from 42%in 1996, to 31%in 2004 .Out of this 31%, 34.6%are in rural area and 9.6% are in urban area. During this period, per capita income increased by 1.7%only.Compared with 2.9%during 1986-95.The decline in poverty is 1.4%and the poverty elasticity growth is 0.82.But this improvement is possible only with high quality growth-a growth which is built- in equitable. However this was not the case as evidenced by widening income inequality in Nepal.

There are a numbers of indicators which speak of the widening of income inequality over two survey periods (1996-2004). These are agriculture, consumption, income and employment. The situations of these indicators are summarized below.

The percentage of total farm holdings that operate less than 0.5 hectors of land has increased by 4.7 percentage points (from 40.1% in 1995/96 to 44.8% in 2003/04).The percentage of holdings operating renting –in land is only 4.8 percent in 1996 and 7.3 percent in 2004.So the change is only 2.5 percent.

The class wise changes in consumption shares between the two point of time (1996 and 2004) show the growing incidence of inequality. The consumption of the poorest 20 percent of the households increase at the pace that is roughly half of the increase in consumption of the richest 20 percent of the sample households (91% vis-a-vis 177%).And the nominal percapita consumption of poorest 20 percent

of households is declining by -1.4 percent i.e (7.6% at 1996 and 6.2% at 2004), but the share in percapita consumption of richest 20 percent of households is increase by8.4 percent i.e.(44.9% at 1996 and 53.3 % at 2004). Thus, trends in class wise consumption share unequivocally points to the worsening inequality.

The nominal income of the poorest 20 percent of the households has increased at the rate which is 11.3 percentage points lower than the rate of increase for the richest 20 percent of the households: 98.2 percent verses 109.5 percent. In terms of real income by using GDP deflator, the income of the poorest one- fifth of the households increased by 50.5 percent as compared to 61.8 percent for the richest 20 percent. In terms of employment scenario, there is an apparent shift away from agriculture, which is very plausible .But there is a very sharp drop in the share of employment in agriculture as compared to only a marginal increase in the share of non-agricultural employment. This should have resulted in to growing incidence of unemployment. But the survey results are contrary to the explanation, which shows that the rate of unemployment has fallen from 4.9 percent in 1996 to 3.8 percent in 2004.

This study concludes that poverty and hunger are interconnected concepts, and in both fronts Nepal has difficulties to meet MDG. As they are multidimensional issues, especially hunger, countries development in all fronts are essential. Much higher economic growth will be required to have dent on poverty significantly when inequality in income is high. Hence equal attention is to be paid to inequality reduction –a poor growth is needed.

.

CHAPTER- THREE

RESEARCH METHODOLOGY

3.1 Research Design

This study is mainly based on the micro study of income inequality. The objective of this study is to analyze the existing level of income inequality in specific area.

3.2 Sample design

The sampling process consists of following steps.

3.2.1 Selection of the study area

Amppipal VDC is one of the 66 VDCs of Gorkha district of the Gandaki zone. It is 20 kms. East from the district headquarters. The people of this VDC are not identical in terms of their income. Some are very poor; some are in the average line while very few are rich. Because of the measure income inequality of this VDC, it is selected out of 66 VDCs. The Amppipal VDC as a sample is highly suitable in order to verify the hypotheses and to increase the accuracy level of this dissertation.

3.2.2 Selection of sample household

In the study area there are 1090 households with a total population of 6099 [3025 are male and 3074 are female]. Out of these households, only 10 % (109) households were selected for random sampling (VDC report 2063).

3.2.3 Sources of data

This study is based on the primary as well as secondary data.

i. Primary data

Primary data is collected by administering questionnaires to the sample households during April – July 2007.

ii. Secondary data

Secondary data published by different sources like Central Bureau of Statistics (CBS), Nepal Rastra Bank (NRB), World Bank (WB), National Planning commission (NPC) and various other organizations have been used.

3.2.4 Method of data collection

The primary data has been collected by the method of questionnaire survey and the secondary data was collected from relevant books, journals, publications of NPC, NRB, WB, IMF, UNDP etc.

3.2.5 Data analysis

Data has been analyzed with various statistical tools which are given below.

i. Variance

Variance is frequent used to measure inequality and it is extremely useful technique concerning researches in the field of economics. It is defined as the aware root of the standard deviation.Which is calculated from the following relation where the symbols have their usual meanings.

$$\sigma^2 = \frac{(Y - Y_i)^2}{N}$$

Where,

$\quad \sigma^2 = $ Variance

$\quad$ N = Number of observation

$\quad Y_i = $ Percentage of income received.

$\quad$ Y = Total income of sample households

ii Range

The range of a set of numbers is the difference between the largest and smallest numbers in the set. So it shows the difference between the maximum and minimum observation of the distribution. As the value of range tends to zero, there is equality in the distribution of income and vice versa. Range is calculated by the following formula:

$$\text{Range} = \frac{\text{Max.Y} - \text{Min.Y}}{\overline{Y}}$$

Where, Max. Y = Maximum income

$\quad$ Min. Y= Minimum Income

$\quad \overline{Y} = $ Mean income

iii. Lorenz Curve

Lorenz curve is a special type of cumulative frequency graph known as a curve of concentration and it is useful for studying the concentration of wealth of income in relation to certain segments of the population and in similar other situation. The greater the departure of the Lorenz curve from the line of equal distribution, the higher is the concentration of the total value in a few individuals.

iv. **Gini Coefficient (Gc)**

Gini coefficient is the measure of inequality or concentration based on Lorenz curve which is the proportion of the total area of the triangle under the diagonal that lies in the area between the diagonal and the Lorenz curve. Gini coefficient is given by

Gc = $\dfrac{\text{Area between Lorenz curve and equality line}}{\text{Total area below the equality line}}$

Mathematically,

$$Gc = 1/100[(\sum X_i Y_{i+1}) - (\sum X_{i+1} Y_i)]\ \%$$

Where,

Gc = Gini coefficient.

X_i = The cumulative percentage of the population in the class interval.

Y_i = The cumulative percentage of the income in the class interval.

If the value of Gc is 0 then there is no inequality and if Gc is 1, there is maximum inequality .Therefore the value of Gc is always lies between 0 and 1 or $0 \leq Gc \leq 1$.

V.Inequality Ratio

It is defined as the ratio of the incomes accruing to the bottom 35% of households to the income accruing to the top 5% of households.

Symbolically,

Inequality ratio = $\dfrac{\text{Percentage share by 35\% bottom group}}{\text{Percentage share by 5\% top group}}$

VI   Relative mean deviation

It is used to measure the equality in the distribution of the income. It also measures the variation of each item from its mean value. If the value of mean deviation is 0, it expresses that there is perfect equality, otherwise not. It can be expressed as:

$$\text{M.D.} = \frac{Y_i - \overline{Y}}{N\,\overline{Y}}$$

Where, M.D. = Mean deviation

$\overline{Y}$ = Mean income

Y_i = Income of an individual.

n   =   number of observations.

3.3 Description of variables

3.3.1 Income

The sum of income earned by the family members from different sources such as agricultural production, livestock production and selling, income from wage and salaries, pension, business, labor etc. as defined as the gross total household income.

3.3.2 Households

A household is defined as a single individual or more than one member is living together. They earn income and consume together.

3.3.3 Family

The group of members of a household is called family and they are related with each other by blood through marriage.

3.3.4 Total household consumption

Total household consumption is defined as the sum of the total expenditure on food items as well as total expenditure on non food items.

3.3.5 Total household income

Total household income can be summed up by the following simple formula:

Total household income = Income from agriculture + Income from livestock + Total profit from business+ Total income from Service (wage and salary) + Total income level From burrowing + Gift.

3.3.6 Total household expenditure

Total household expenditure can be summed up by the following items: Total household expenditure = Expenditure on agricultural products + expenditure on livestock+ expenditure on raw materials + expenditure on food and non food items + expenditure on health, education and entertainment etc.

CHAPTER- FOUR

INTRODUCTION OF THE STUDY AREA

4.1 General Introduction of Gorkha District

Gorkha district is one of the old famous places of our country. It is 120Km far from Kathmandu and covers the area of 3610 SqKm.According to National Population Census 2001,the total population of this district is288134,which is 1.24% of total population of our country. Out of this 153727 are female and134407 are male with58923 households. So average family size is 4.89.The ratio of male to female was found to be 87.83. The density of population is 80 per square Kms.More than 54.3%of population is literate, among them 45.7%are female and 64.4%are male.

According to Women Development Report 2005 there are 496 schools and 3 campuses, 74 health posts and 2 hospitals. Hindu, Buddha, Muslim, Kristian and Kirat are the main religion of this district. But majority of people (about 62.79%) believed Hindu Dharma. Gurung, Mager, Brahmin, Chhetri and Newar are the major five caste groups. The total agricultural land is found 29907.4 hector. Out of this only35.99%land was irrigated and Paddy, Maize, wheat, Millet and Potato are the major crops of this district. In administrative point of view there are 66 VDCs and one municipality. Among these 66 VDCs Amppipal VDC is selected for my study.

4.2 Introduction of Amppipal VDC

Amppipal VDC is one of the rural VDCs among 66 VDCs of the Gorkha district of Gandaki zone .The topographical feature of the VDC is hilly. Geographically, the bordering VDCs of this VDC are Harmi, Palungtar, Chhoprak and Khoplang. It is 20Km far from district headquarter. According to the national population census 2001, the total population of this VDC is 5161.Out of them 2271 is male and 2890 are females. The total house hold number is1152.Thus average family size is 4.48. But according to VDC report 2063 the total population of this VDC is 6099 with 1090 households. Among them3025 are male and 3074 are female. Thus average family size is 5.59. so this study depends on this current VDCs report. The VDC is completely rural and rural character. The main occupation of the people is agriculture, un- employment and disguised unemployment can be realized every where in the VDC. Paddy, millet, maize and wheat are the main crops of this VDC. Some fruits like Pineapple, Mango, Banana, Naspati, and Papaya and in some where Arue, Litchee and Junar are found. Potato, Cauliflower, Brinjal, Cabbage are the major vegetables of this VDC.

It has attained some progress in educational domain. There are 8 primaries, 1 high school and 1 private boarding school. The percentage of school going female children is comparatively less than male children. Majority of the people are Brahmin, Chhetri, Magar and other cast groups like Sharki, Kami, Giri, Bhujel, Damai, Newar etc are also lived in this VDC. The Brahmin families are more educated comparatively to other caste groups. Not only this, the living standard of these groups is also different and they are much more forward in every field of works. Most of the agricultural lands are concentrated on Brahmin so other ethnic groups like Damai, Kami, Sharki, Gharti were depend on the land lords and they sold

there labor on Land lords and fulfill their minimum requirements. Most of the household works are covered by women where as male care external works like agriculture, government service, and business etc.

There are one hospital and one health post. Typhoid, Jaundice and Common cold are the normal diseases of this VDC which is taken care by this hospital. There is small market near the hospital area and one post office near the VDC office. Due to the cause of political instability in the country, the level of unemployment is increasing day by day. So most of the young people are hopeless for their future and they have crossed the boarder looking for good job. So now a day, there is lack of young generation in the village.

In administrative point of view Nepal is divided into five development regions, fourteen zones and seventy five district having 3913 VDCs Out of these development regions, Gorkha district lies on western development region. It is one of the hilly districts of that region. It has 66 VDCs. Out of these, Amppipal VDC, which is situated in the belt of famous old palace named LIGLIGKOT, is selected for the purpose of this study.

4.3 Proposed Study Area

In light of these traits, it would be better if we understand the knot-bolts of Inequalities in the entire country. But since it would be rather expensive and time consuming for a degree student to go for such in-depth study. So, it would like to do a sample study of income inequality based on the case study of the one of the VDCs of the Gorkha district, Amppipal VDC.

It is hoped that it will be useful to formulate a suitable model for economic development especially in developing countries. Many planners and policy makers are also benefited to formulate plans and policies in general as well as particular situation of the country.

Now, the following table gives brief knowledge about this VDC

Table No. 1

4.1.3 Division of Wards and Villages.

Ward Number	Name of Village
1	Pathibhara
2	Rautipani
3	Boharaghaun
4	Liglicote
5	Ratdanda
6	Simpani
7	Simpani Hattya
8	Vanjyang
9	Darmichaur

Table No. 2

4.1.4 Number of Households and Population by Ward and Sex

No of Ward	Total Household	Total population	Male	Female	Male: Female
1	207	1344	614	730	1:1.18
2	133	862	439	423	1:0.96
3	44	239	126	113	1.1:1
4	112	635	393	342	1.14:1
5	157	987	505	482	1.04:1
6	98	591	296	25	1:0.99
7	87	498	233	265	1:1.13
8	114	822	420	402	1.04:1
9	138	611	389	322	1;0.82
total	1090	6099	3025	3074	1:1.02

Source: VDC Report, 2063

Above table makes clear that, there is 6099 population with 1090 households. Out of them 3025 are male and 3074 are female. So the female populations are greater than male, and average family size is 5.59.Among the 9 wards, ward No. 1 is larger one. Which have 207 households with 1344 No. of population and ward No. 3 is comparatively smaller than other wards.i.e.only 44 households with 239 populations. The ratio of male to female is 1: 1.02.

4.1.5 Population by Caste \Ethnic Group of Amppipal VDC

This VDC is inhabited mainly by Brahmin, Chhetri, Newar, Sharki respectively. Others ethnic groups like Thakuri, Damai, Gharti, Kami, Rai and Giri etc.The total population of this VDC by ethnic groups is given below. **Table No. 3**

Caste Group	Total Population	Percentage
Brahman /Chhetri	3082	50.53
Sharki/Damai/Kami	1358	22.26
Magar/Gurung	941	15.42
Newar	447	7.32
Mushlim	20	0.03
Gharti/Bhujel	182	2.98
Rai	9	0.14
Unidentified	40	0.68
Others	20	0.29
Total	6099	100.00

Sources:VDC Report 2063

Table No. 3 makes clear that Brahmin and Chhetri constitute the large number of population i.e.50.53% of total population. And other ethnic groups cover remaining part i.e49.47%.Among this 49.47%, Sharki, Demai and Kami covers 22.26%, Magar/Gurung covers 15.42%,Newar covers 7.32% and remaining caste covers nominal portion of the total percent.

4.1.6 Ward Wise Distribution of Population for Village Development Committee.

Table No. 4

Ward	0-5	5-14	14and above	Total pop.
1	68	215	929	1212
2	31	125	534	690
3	13	39	253	305
4	23	100	484	607
5	60	198	712	970
6	25	121	488	634
7	24	71	360	465
8	27	54	588	669
9	26	52	469	547
Total	297	975	4827	6099
Percent	4.94	16.22	79.14	

Source: VDC report 2063

Above table shows that the age group of 2-5 is comparatively low than other two age group.i.e.only 4.94% of total population. Where as the age

group of 5-14 are 16.22% of total population and age group of 14 above is found to be 79.14% of total population. This is comparatively higher than the rest.

4.1.7 **Population- Six year and above, by Literacy Status and Sex of the Village Development Committee.**

The VDC is quite a head in the field of education comparatively to the other VDCs of Gorkha district. There are 8 primary and 1high school in this VDC. The following table gives a brief knowledge about the literacy status of population of this VDC.

Table No. 5

Illiterate			Literate			Total		Grand Total
Tot.	M	F	Tot.	M	F	M	F	
1834	817	1017	3969	1995	1974	2890	2913	5830

Source: VDC report 2063

Above table shows that 1834 population are illiterate. Among them female illiteracy is greater than male.Similarly, 3969 population are literate and the literacy status of male is greater than female. The cause of low female literacy rate is custom of early marriage and conservative thought of the people that daughters should not read and write they should be only good house wife.

CHAPTER FIVE

DATA ANALYSIS

5.1 Data Presentation and Analysis of Sample Area

5.1.1 Sample Households

In the study area altogether there are 1090 households. Only 10%of total households were chosen to collect the information. The number of household sampled in each ward is presented in the following table.

Table No.6

Ward Wise Sample Households and Population by Sex

Ward no.	Total no.of HHs	Sample HHs	Male	% of Male	Female	% of Female	Total pop.	percentage
1	207	20	72	20.33	70	19.02	142	19.66
2	133	13	35	9.88	41	11.14	76	10.52
3	44	5	14	3.95	15	4.07	29	4.01
4	112	11	33	9.32	38	10.32	71	9.83
5	157	16	64	18.07	61	16.57	125	17.31
6	98	10	32	9.03	27	7.33	59	8.17
7	87	9	24	6.77	30	8.15	54	7.47
8	114	11	43	12.14	43	11.68	86	11.91
9	138	14	37	10.45	43	11.68	80	11.08
Total	1090	109	354	100.00	368	100.00	722	100.00

Source: Field survey,2064

Above table shows the ward wise and the sex wise distribution of population and households. There are 1090 households only 10% of these households were chosen to collect the reliable information i.e 109 households were chose randomly. Among which most of the sample households (20) are in ward No. 1.The total sample population of this VDC is 722 out of it 368 are female and 354 are male.i.e.,percent of female(50.96) is higher than of male(49.04).

5.1.2 Ethnic Composition

Ethnically, Amppipal VDC has a mixed composition of population; more than 12 caste groups are found there. They are   Brahmin, Chhetri, Newar, Kami, Sharki, Giri, Ghine, Rana, Magar ,Gurung, Demai, Thakuri and Bhujel etc. The mother tongue of most of the people in this area is Nepali.Which is followed by all caste groups. But we can also find that Newar, Gurung Muslim is speaking their mother tongue. The distribution of sample and sample population by ethnic group is presented in the following table.

Table No.7

Distribution of Sample Household and Population by Ethnic Group

Ethnic Group	No. of sample HHs	No. of Male	No. of Female	Total Pop.	Percentage
Bra/Chhetri	47	169	167	336	46.53
Newar	13	40	44	84	11.63
Magar/Gur.	16	44	42	86	11.91
Sharki/Dema	22	70	68	138	19.11
Gharti	5	25	18	43	5.95
Others	6	16	20	36	4.98
Total	109	354	368	722	100.00

Note- others refer Giri ,Muslim and Kami etc

Source: Field Survey,2064

Above table clearly shows that 43.11% of total sample HHs and46.53% of total sample population is covered by Brahmin and Chhetri. The second larger number is covered by Sharki and Demai.i.e.20.18%of HHs and 19.11% of population.Similarly,11.92% of HHs and 11.63% of

population is covered by Newar.14.67% of total HHs and11.91%of population is covered by Magar and Gurung,4.58% of total sample HHs and5.95% of population is covered by Gharti and 5.50% of sample HHs and 4.98%of population is covered by other remaining caste groups. So in the study area, most of the sample HHs and population is covered by higher caste group.

5.1.**3 Age Structure**

To find the economically active and inactive population of the sample population age structure can be divided in three groups, which are given below.

Table No.8

Distribution of Sample Population by Age and Sex

Age Group	Male	Female	Total	Percentage
0-14	103	98	201	27.83
15-59	216	240	456	63.15
60 and above	35	30	65	9.02
Total	354	368	722	100.00

Source: Field Survey 2064

Here the age group of15-60 is considered as economically active population and 0-14 and 60 above is considered as economically inactive population. (Economically dependent people) Here the study shows that the number of economically active population is comparatively higher than inactive population.i.e 63.15 % of population is economically active and 37% of population is counted as economically inactive. Due to the lack of economic and physical infrastructures, lack of productive land and modern technology active population can not utilized their man power in their

village. So the production of agriculture is just used to meet their minimum daily requirements.

5.1.4 Family Size

House hold family size is categorized in four groups. The house holds having 1-4, 5-7, 8-10 and 11above are the four groups in this study. The number of households in different group is presented in the following table.

Table No.9

Distribution of Sample House holds and Population by Household size

Family Size	HH Number	Percent	Pop Number	Percentage
1-4	15	13.76	52	7.20
5-7	61	55.96	348	48.19
8-10	28	25.68	259	35.87
11 and above	5	4.58	63	8.72
Total	109	100.00	722	100.00

Sources: Field Survey, 2064

The above table shows that most of the households have 5-7 members, which is 55.96%of the total households and covers 48.19%of the total sample population. The households having more than 11is found in dalits groups (Kami, Gharti, Damai, Sharki) and the household having 8-10 members are mostly found in Newar, Magar, Rana and some where it can be found in Brahmin and Chhetri where joint family system take place. So the joint family system is still common in the study area. House hold having 1-4 members are those which have just separated from their joint family is mostly found in Brahmin and Chhetri caste groups.

5. 1.5 Occupational Composition

Table No.10.

Distribution of Sample Population by Occupation

Major occupation	No of HHs	Population	Percentage
Agriculture	49	430	59.55
Service	30	215	29.77
Ind/Business	12	30	4.15
With out any Gainful work	10	21	2.90
Others	8	26	3.60
Total	109	722	100.00

Where other refers Poultry Farming, Beekeping, and Live Stock etc

Source: Field Survey, 2064

From the field survey we can conclude that agriculture is the main occupation of the Amppipal VDC, because the percentage of agriculture based population is 59.55% of the total population. The percentage of service holders and traders are 29.77% and 4.15% respectively. In the table others refers PoltryFarming, Beekeeping Live stock etc and it covers 3.60% of major occupation .However the income generating two groups i.e.(service and business/ind) is significantly higher than the rest. Because of the lack of economic infrastructure, agricultural market, modern technology and chemical fertilizer the production of agriculture is not enough but just meet their daily needs. So the development of industry is not possible their, on the other hand 2.90 % of total population was remain idle, and we conclude that these idle people also depend on agriculture.

5.1.6. Educational Status

From the field survey, it was found that the literacy status of sampled population is 65.79% out of total population. That is comparatively higher than National average 48 %(NLSS 2004). This can be shown by following table.

Table No. 11

Sample Population and Households by Literacy Status

Ward No.	Total Sample Pop.	Sample HHs	Illiterate	Literate/Under SLC	SLC	Higher Education
1	142	20	60	57	20	5
2	76	13	22	25	14	15
3	29	5	11	4	2	12
4	71	11	14	24	24	9
5	125	16	42	52	5	26
6	59	10	17	24	4	14
7	54	9	17	16	6	15
8	86	11	32	39	6	9
9	80	14	32	30	3	15
Total	722	109	247	271	84	120
Percent			34.21	37.53	11.63	16.62

Source: Field survey, 2064

  Note:- The figure of primary, under SLC and educated persons are included under literate groups.

Above table revels that nearly 35%of total population has been still illiterate and only 16.62%of total population were success for higher education that is not satisfactory for the total population and 37.53% are below SLC.11.63% of total sample population are in SLC.Here the field study shows that female are more literate than their mail counterpart.

Ward No.1 covers the higher number of total sample population as well as households but the educational status is comparatively worst than other wards.i.e.with 142 persons 60 persons are illiterate,57 are literate, 20 are in SLC and only 5 persons have been gained higher education. Similarly, in ward No.2 illiterate, literate, SLC and higher education is 22, 25, 14 and 15.In ward No. 3 illiterate, literate SLC and higher education is 11, 4, 2 and 12.In ward No.4 this status is 14, 24, 24 and 9.In ward No. 5, 42 are illiterate, 52 are literate, 5 have gained SLC and 26 are success for higher education. In ward No. 6, 17 are illiterate, 24 are literate 4 are in SLC and14 are success for higher education. In ward No. 8, 32 are illiterate, 93 are literate, 6 are in SLC and only 9 persons are success for their higher education but literacy status is comparatively better than other wards. In ward No. 9, 32 are literate, 30 are literate, 3 are in SLC and 15 have gained higher education. So we found that, among these 9 wards ward No. 3 is quite ahead in educational status.

5.1.7. Structure of Land Holdings

Land is important factor of production**.** So it is the main source of income**.** In this VDC, main occupation of the people is agriculture. Most of the people are engaged in this sector. There is not any industrial and business sector**.** There fore, land is most important sources of income in the study area. On the other hand land is not distributed proportionally on the hand of all households. Minority of people have majority of land and

majority of people have minority of land to cultivate. Most of people are poor due to their insufficient land to generate income. There are two kinds of land i.e. Khet and Pakho.Accordind to field survey, the land is known as Khet, which is irrigated. And second type of land is Pakho, which is not irrigated. So, Khet is most important source of income. The size distribution of land holding in study area is presented below.

Table No. 12

Size Distribution of Land Holding in Ropanee

Size of Land Holding	No. of Households	Percent of Households	Land Holding in Rop.	Percent of Land Holding	Average Land Holding
Land Less	5	4.58	-	-	-
Below 5 *	15	13.76	73	5.80	4.86
6-10 *	40	36.69	360	28.6	9.00
11-15 *	28	25.68	395	31.39	14.10
16-20 *	15	13.76	280	22.25	18.66
20 +	6	5.50	150	11.92	25.00
Total	109	100.00	1258	100.00	11.54

Note: * Ropanee

Source: Field survey 2064

Above table illustrates that4.58% of households in the study area have no land to cultivate,13.76% of households have5.80% of total land to cultivate,5.50% of house holds have 11.92% of total land. 36.69% of households have 28.6% of total land, 25.68% of households have 31.25% of

total land.Similarly,13.76% of house holds have 22.25% of total land and only 5.50% of households have 11.92% of total land holding. It is clearer from above table that 13.76% of households occupied only 5.80% of total cultivable land and on the other hand5.50% of total sample households occupied 11.92% of total cultivable land. Thus, we can say that the distribution of land in between sample households is not distributed equally. Here, the average size of land holding is 11.54 ropanee to the whole sample households.

5.1.8 Size Distribution of Land Holding by Ethnic Group

In the study area the distribution of land is not equitable among the ethnic groups. Most of cultivable land is occupied by Brahmin/Chheti although, Demai, Sharki ,Kami Gharti and other lowest caste group occupy very few part of land to cultivate with comparison to upper caste group.

Table No.13

Size Distribution of Land Holding By Ethnic Group (in ropanee)

Caste Groups	Number of HHs	Total Land Holding	Total %of Land Holding	Average Land Holding
Brahmin/Chhetri	47	719	57.15	15.29
Newar	13	179	14.22	13.76
Magar/ Gurung	16	195	15.50	12.18
Demai/ Sharki	22	115	4.14	5.22
Gharti	5	29	2.30	5.8
Others	6	21	1.66	3.5
Total	109	1258	100.00	11.54

Source: Field survey 2064

The above table shows that 47 No. of sample households are Brahmin/Chhetri, who occupied57.15% of total cultivable land and having 15.29 average land holding. Similarly, 13 households are Newar, who occupied 179 Ropanee i.e. (14.22%) of total land and is 13.76 of average land.16 households are Magar/Gurung, who occupied 195 of total land i.e.(15.50%) and with 12.80 of average land. On the other hand, 22 households are Demai/Sharki caste group, who occupied only 9.14% of total land and5.22 of average land.5 households is Gharti, who occupied 2.30% of total land and 5.8 ropanee of average land. And other caste group covers 6 household who occupied only 1.66% of total land and 3.5 ropanee of average land. So in comparison to higher caste and lower caste group we can found that the size distribution of land holding is not distributed equally among the ethnic groups.

5.1.9 Level and Sources of Income (Annual)

In the study area the main occupation of the people is agriculture but it covers less amount of income comparison to service sector but greater than other sectors like Industry, Business, remittance income and others. The following table clarifies the sources and level of sample HHs income.

Table No .14

Level and Sources of Households Income (In Annual)

Different Sources of Income	No. of Households	Total Income	Percentage of Income
Agriculture	49	4,304,000	34.18
Service	30	5,527,600	43.90
Industry/Bus.	12	330,000	2.62
Remittance Income	10	852,000	6.76
Others	8	1,575,600	12.51
Total	109	12,589,200	100.00

Source: Field Survey 2064

Where, other refers Live Stock, political work, Laboring Interest and house rent etc.

The above table shows that 43.90% of total income is gained through service sector. This is higher amount of income comparison to other sectors.Similarly, agriculture, industry and business, Remittance income and other covers34.18%, 2.62%, 6.76% and12.51% respectively. Here share of farm income in Nepal is 47.8 %((NLSS 2004, Vol-II), but it is evident from above table that only 34.18% of total income is shared by agricultural sector. This is les than that of National level. The share of income from industry and business is comparatively less than other sectors.

5.1.10 Level and Source of Income by Ethnic Groups

In the study area the income is not distributed equally among the ethnic groups. Most of the income is shared by higher caste groups (Brahmin

55

andChhetri), although they have small family size comparison to lower caste groups. The following table helps to show the level and sources of income by ethnic groups.

Table No.15

Level and Source of Income by Ethnic Group (Annual)

Ethnic group	No.of HHs	Popn.	Sources of Income(Rs)					Total Annual income	Percent
			Agri.	Service	Industry business	Remitance.	Othres		
Brahmin\Chhetri	47	336	2,238,950	4,088,000	176,000	148,000	983,000	7,633,450	60.63
Newar	13	84	550,000	552,000	116,000	219,000	188,000	1,625,000	12.90
Magar\Gurung	16	86	682,000	660,000	-	275,000	299,000	1,916,000	15.21
Damai\Sharki	22	138	555,000	180,000	38,000	80,000	50,000	903,000	7.17
Gharti	5	43	140,000	-	-	75,000	25,000	240,000	1.90
Others	6	36	138,000	47,600	-	55,000	30,000	270,600	2.14
Total	109	722	4,304,000	5,527,600	330,000	852,000	1,575,600	12,589,200	100.00
Percent			34.18	43.90	2.62	6.76	12.51	100.00	

Source: Field survey2064

The above table shows that the source and level of sample household's income by ethnic groups. Here we can found that, Brahmin and Chhetri has the highest annual income (Rs 7633450) covers 60.63% of total income.15.21% of income is covered by Gurung and Magar, 12.90% of income is covered by Newar, which is comparatively higher than Gurung/Magar.On the other hands Demai/Sharki covers 22 households with 138 population but have only 7.17%of total annual income. Which is comparatively very less amount than higher caste groups. Similarly, Gharti and other caste groups cover 1.90% and 2.14% of total annual income.

It has been already mentioned that Brahmin/Chhetri are considered as higher caste groups in this society and having with highest amount of average land. They possess large average farm land areas and are well educated to have good jobs and salary. So most of the income is captures by them.

Most of the remittance income is covered by Magar, Gurung and Newar caste groups. They are comparatively poorer than Brahmin and Chhetri and richer than remaining lower caste groups.

Sharki,Demai, Kami, Gharti and others caste groups are the poorest groups of this VDC with the lowest average annual income. Because they possess very small amount of land with low fertile. Most of their family is uneducated and do not get good job. So the share of income in the society is also low.

5.1.11. Distribution of Household Income in Sample Area

Economics is a dynamic and practical discipline enhancing change as required by time. Income inequality is a most interesting part of this discipline. To measure income inequality economist has basically propounded the idea of Lorenz curve and Gini-Concentration Ratio.

It will not seem as exaggerating the fact that rural and our economy are synonymous. More than 90% of total population still live in rural areas with agriculture is the main occupation and 38% of people in rural Nepal fall below poverty line. So income is one of the most significant determinants of the welfare. The increase in income is not complete solution of development problems of third world, because in developing countries. The disparities in come distribution are more acute which helps to generate poverty in the society. Therefore to eradicate poverty, to fulfill basic needs and maximize social welfare, it is better to generate more equitable distribution of income

by reducing income inequality. This study attempts to fill in small extent the gap prevailing to measure income inequalities and concentration in rural Nepal. So size distribution of income in sample area is presented below.

Table No.16

Distribution of Household Income in Sample Area

Income Per Month	No of HHs	Mid Income	Total Income	% of HHs	% of Income	Cum. % of HHs	Cum. % of Income
0-5000	39	2500	97500	35.77	9.17	35.77	9.17
5000-10000	27	7500	202500	24.77	19.17	60.54	28.22
10000-15000	25	12500	312500	22.93	29.41	83.47	57.63
15000-20000	6	17500	105000	5.50	9.88	88.97	67.51
20000-25000	3	22500	67500	2.75	6.35	91.72	73.86
25000-30000	3	27500	82500	2.75	7.76	94.47	81.62
30000-35000	6	32500	195000	5.50	18.35	100	100.00

Above table reveals that daily household income acquiring to the bottom 35.77% of households with monthly income 0-5000 is 9.17% of total income. In contrast, the top 5.50% of households with an income of 30,000 and above is18.35% of the total monthly households income. Thus percentage share of the income among the income groups seems unequal in the study area. So there is vast inequality in the size distribution of income. The distribution of income in the study area is presented in the following graph.

0   10   20   30   40   50   60   70   80   90 100

Cumulative Percentage of House holds   ⟶
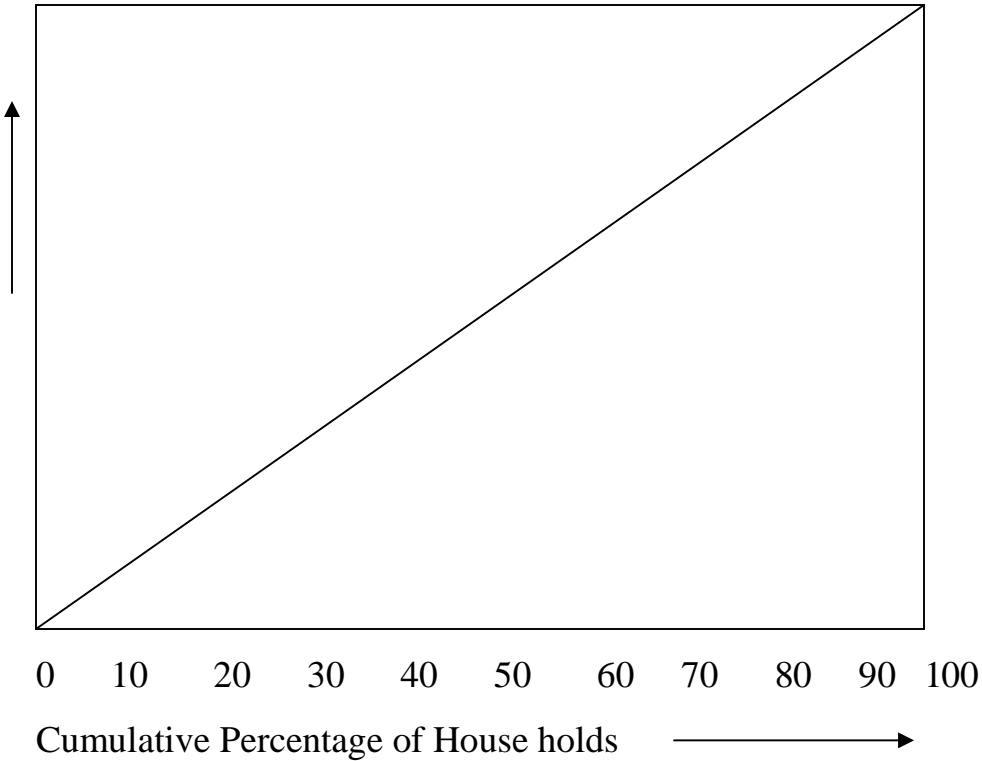
     In above figure the cumulative percentage of households is plotted in horizontal axis and cumulative percentage of household's income is plotted in vertical axis. Thus the Lorenz curve is the locus of the point of various combinations of cumulative percentage of percapita household's income and cumulative percentage of households. The rising the slope of Lorenz curve greater the inequality in the distribution of income. So, here the figure shows that richer section of households enjoy higher share of total income. The farther away of the Lorenz curve from the line of equal distribution the greater inequality of income will be in study area and vice versa. On percapita income basis the Gc is computed as 0.27

5.2 Different Methods of Measuring Income Inequality

The extent of inequality in the size distribution of income has been measured by Gini Co-efficient, Range, Variance and Relative Mean Deviation etc.Which are calculated below.

1. <u>Gini-Co-efficient or Gini- Concentration Ratio</u>

Gini-Coefficient or Gini- Concentration Ratio is another indicator which is calculated in terms of simplicity and convenience. It is calculated by Lorenz curve. It is the ratio between actual distribution line and 45 lines. In other words Gc takes value between 0-1.If coefficient is small the income distribution is more equitable and if it is large, income distribution is inequitable.

From table No 16.we can calculate Gc with the help of following formula.

$$Gc = \quad 1\backslash100 \quad \frac{[X_iY_{i+1} - X_{i+1}Y_i]}{1}$$

Table no. 17

Calculation of Gc

Cum % of HHs	Cum % of Income	XiYi+1	Xi+1Yi
35.77	9.17	_	555.1518
60.54	28.22	1009.4294	2355.5234
83.47	57.63	3488.9202	5127.3411
88.97	67.51	5635.0597	6192.0172
91.72	73.86	6571.3242	6977.5542
94.47	81.62	7486.1864	8162
100	100.00	7924.4060	_
total		32115.3259	29369.5877

Where,

XiYi+1=32115.3259

Xi+1Yi=29369.5877

We know that,

$$Gc = 1/100 \ \frac{[X_iY_{i+1} - X_{i+1}Y_i]}{100}$$

Now, putting these values in above formula we get,

$$Gc = 1/100 \ \frac{[\ 32115.3259 - 29369.5877]}{100}$$

$$= 0.2745$$

$$Gc = 0.27$$

The Gini –coefficient between different house holds is 0.27.Hence the inequality ratio of this VDC is less than national level (0.55).

2. Range:

It is simplest method of studying inequality. It is defined as the difference between highest and lowest income levels divided by mean income. Computation of Income inequality with the help of range for household's monthly income can be calculated by following formula.

As we know,

$$R = \frac{Max \ Y - Min \ Y}{\overline{Y}}$$

Where,

R= Range

Max Y=Maximum income

Min Y=Minimum income

$\overline{Y}$ =Monthly mean income

Now,

We have

Max Y=35000

Min Y=5000

Mean income=8134.86

Where

$$Y = \frac{\text{Total income of households}}{\text{Total No. of household}}$$

$$= \frac{886700}{109}$$

=8134.36

By substituting the value in formula,

$$R = \frac{35000\text{-}5000}{8134.36}$$

$$= 3.68$$

Range(R) = 3.68

It shows that there is highly inequality of income between the sample households in Amppipal VDC of Gorkha district.

3. Relative Mean Deviation:

It is used to measure the equality in the distribution of income. If the value of Mean Deviation is 0,it express that there is perfect equality, other wise not. It can be calculated by following formula.

$$\text{M.D}= \sum_{i=1}^{n} \frac{Yi\text{-}y}{n\ y}$$

Where,

M.D= Mean Deviation

Yi =Income of an individual

n= number of observations

y = Mean income

We have

n= 109

y=8134.36

Yi-y= 52630.48

By substituting the value in above formula, we get

$$\frac{52630.48}{109\ 8134.86}$$

= 0.0593

M.D=0.05

It shows that there is income inequality in study area.

This above result is calculated on the following table.

Table no. 18

Calculation of Relative Mean Deviation

Income	No. of HHs	Mid Income	fy	Yi-y
0-5000	39	2,500.00	97,500.00	(5,634.36)
5000-10000	27	7,500.00	22,500.00	(634.36)
10000-15000	25	12,500.00	312,500.00	4,365.64
15000-20000	6	17,500.00	105,000.00	9,365.64
20000-25000	3	22,500.00	67,500.00	1,436.64
25000-30000	3	27,500.00	82,500.00	19,365.64
30000-35000	6	32,500.00	19,200.00	24,365.64
Total	109		886,700.00	52,630.48

Where, $y = \dfrac{Y}{N}$

$= \dfrac{886700}{109}$

$= 8134.36$

4. Variance:

Variance is frequent used to measure inequality and it is an extremely useful technique concerning researches in the field of economics. It is defined as the aware root of the standard deviation. This can be expressed as following formula.

$$^2 = \frac{(Y\text{-}Yi)^2}{N}$$

Where,

^{2} =Variance

N=Number of observation

Yi =Percent of income received

Y=Total Income of Sample households

We have

N=109

$(Y\text{-}Yi)^2$ =1004.6358

Now, put these values in above formula we get

$$^2 = \frac{1004.6358}{109}$$

$$= 9.21$$

This result has been calculated from the following table.

Table no. 19

Calculation of Variance

Yi	Y-Yi	(Y-Yi)2
9.17	26.60	707.56
19.05	5.72	32.72
29.41	(6.48)	41.99
9.88	(4.38)	19.18
6.35	(3.60)	12.96
7.36	(5.01)	25.10
18.35	(12.58)	165.12
100.00		1,004.64

5. Computation of inequality ratio

We found inequality ratio from the following formula

$$R = \frac{Y_b}{Y_t}$$

Where

R= inequality ratio

Y_b = Share of income occurring to the bottom 35% of households

Y_t = Share of income occurring to the top 5% of households

From table No. 16

$$Y_b = 9.17$$

$$Y_t = 18.35$$

Therefore,

$$R = \frac{9.17}{18.35}$$

$=\ 0.4997$

It shows that there is in equality in the distribution of income among the sample households.

5.3 Results of Income Inequality Measures

Table No.20

Inequality Measures	Results
a.Gini Concentration Ratio	0.27
b.Range	3.68
c.Mean Deviation	0.05
d.Variance	9.21
e.Inequality Ratio	0.45

The above table shows the various results of inequality. The value of Gc is 0.27 indicate that there is maximum inequality in the study area. The higher the value of Gc the higher will be the inequality and vice versa. The range of income distribution is 3.68.This shows that there is high degree of income inequality among the sample households. Mean Deviation and variance is 0.05 and 9.21 respectively indicate that there is inequality in the distribution of income. The Inequality Ratio is 0.45, which shows the inequality in the distribution of income. Lower the value of ratio higher will be the inequality and vice versa.

5.4 Dimension of Income Inequality

Table No. 21

Gc For Selected Countries

Countries	Survey Year	Gini index
United States	1998/99	.460
Brazil	1998/99	.601
India	1999/00	.325
Srilanka	1999/00	.332
Pakistan	2002	.306
Bangladesh	2000	.318
Nepal	2003/04	.472
Amppipal VDC	2007	.274

Source: HDR, 2006 and Field Survey 2007

This table makes clear that the value of Gc in Amppipal VDC is comparatively lower than National and international level.

CHAPTER SIX

EXPENDITURE PATTERN OF HOUSEHOLDS

6. Level and Pattern of Households Expenditure

Level and pattern of expenditure is affected by various factors such as income status, family size, geographical situation, farm size and productivity, cultivation, educational status and so on. Consumption is a functional factor of an economy. Simply consumption means the use of goods to satisfy different wants and consumption expenditure is the sum of all those payments which are made of different items of consumption. Every body of this VDC have different living standard, so they need different items of food for consumption. Mainly the needs of the society's members are food items and non-food items and they spent some amount on these items. So people earn money for different sources and spent on different items. In this chapter an attempt is made to illustrate nature of expenditure in this study area.

Table No. 22

6.1. Expenditure on Different Items of Sample Households (In Annual)

Items of Expenditure	Total Amount Spending in Rs	Percentage
Food Items	4,460,000	44.66
Non-food Items	3,364,000	33.69
Agriculture	1,725,000	17.27
Livestock	436,000	4.36
Total	9,985,000	100.00

Source: Field Survey 2064

Note: Food items include rice, flour, vegetable, pulse, milk, milk products, meat, egg, tea, sugar, fruits etc.

 Non- food items includes clothes, shoes and sandel, health care, smoking, lighting, transportation, education, marriage, birth, festivals etc.

The above table shows the different sources of expenditure in sample households. Total expenditure of sample households in the study area is 99, 85,000.Out of this the large amount of total expenditure is in food items.i.e.44.66% which is higher than national level 31.2 (NLSS 2004 vol II).Expenditure on Non-food items is 33.63%.Similarly expenditure on agriculture and livestock is 17.27% and 4.36% respectively.

6.2. Total Expenditure by Ethnic Groups

Table No.23

Ethnic Groups	No.of HHs	Popn.	Sources of Income Food	Non food	Agri.	Live st.	Total exp.	Percent
Brahmin\Chhetri	47	336	2,738,000.00	1,822,000.00	1,055,000.00	193,000.00	5,880,000.00	58.26
Newar	13	84	730,150.00	775,000.00	345,000.00	107,000.00	1,951,750.00	19.54
Magar\Gurung	16	86	520,000.00	473,000.00	154,000.00	66,000.00	1,213,000.00	12.14
Damai\Sharki	22	138	211,000.00	111,000.00	75,000.00	23,000.00	420,000.00	4.20
Gharti	5	43.00	109,000.00	95,000.00	50,000.00	25,000.00	279,000.00	2.79
Others	6	36.00	151,250.00	88,000.00	46,000.00	22,000.00	307,250.00	3.07
Total	109	722.00	4,460,000.00	3,364,000.00	1,725,000.00	436,000.00	9,985,000.00	
Percent			44.66	33.69	17.27	4.36		100.00

Source: Field survey 2064

The above table depicts that expenditure of Brahmin/Chhetri group is 58, 80,000 which is higher than other caste groups. The percentage of expenditure on food items is comparatively higher than other items.i.e. 44.66% of total expenditure is in food items and 33.69% is in non-food items, 17.27% is in agriculture and 4.36% is in livestock.

In this table, total expenditure of Newar caste group is 19, 51,750 and percentage share of food, non-food, agriculture and livestock expenditure are 730750,775000,345000 and 101000 respectively. Similarly,the total expenditure of Magar/Gurung, Demai/Sharki, Gharti and others are1, 213,000, 420,000, 279,000 and 307,250 respectively. In the above table, total expenditure of Gharti is comparatively lower than

others.i.e 279,000 per annuals and share in food, on-food, agriculture and livestock expenditure are 109,000, 95,000, 50,000 and 251,000 respectively

6.3 Comparison between Income and Expenditure by Ethnic Groups

This study has tried to analyzed income and expenditure by ethnically. This is shown by following table.

Table No. 24

Comparison of Income and Expenditure of Sample Households

(Annual)

Ethnic Groups	No. of HHs	Pop.	Total Income	Percapita Income	Total Exp.	Percapita Exp.	Total Savings	Percapita Saving
Brahmin/Chhetri	47	336	7,633,450.00	22,718.60	5,880,000.00	17,500.00	1,753,450.00	5,218.60
Newar	13	84	1,625,000.00	19,345.23	1,951,750.00	23,235.11	(326,750.00)	(3,889.88)
Gurung/Magar	16	86	1,916,000.00	22,279.06	1,213,000.00	14,104.65	703,000.00	8,174.41
Demai/Kami	22	138	903,000.00	6,543.47	420,000.00	3,043.47	483,000.00	3,500.00
Ghatri	5	43	240,000.00	5,581.39	279,000.00	6,488.37	(39,000.00)	(906.97)
Others	6	36	270,000.00	7,500.00	307,250.00	8,534.72	(37,250.00)	(1,034.72)
Total	109	722	12,589,200.00	17,436.56	9,985,000.00	13,829.63	2,604,200.00	3,606.92

Source: Field Survey, 2064

The above table shows that total saving of higher caste group (Brahmin/Chhetri) is comparatively less than Magar/Gurung and Demai/Sharki. While Newar,Gharti and other caste groups are in deficit. But Newar caste group is more deficit than Gharti and other caste groups. The percapita income of the study area is 17436.56, this is comparatively lower than national level (80111) per annum.Percapita expenditure is 13829.63 and percapita saving is 3606.92.The percapita income of higher caste group is comparatively higher than other caste groups but the percapita saving is

lower .This is because the expenditure of higher caste group is comparatively higher than other lower caste groups.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATION

7.1 Summary.

This study attempts to explore rural income inequality for Amppipal VDC of Gorkha district. For this composition level of income and expenditure by different categories of households are analyzed. Only 10%of household's were randomly selected from each of 9 wards of the VDC.The statistical analysis of the study is based on the data collected through direct personal interview using some relevant questionnaire.

To test the inequality in income distribution range, Gini concentration ratio, Lorenz curve, Relative mean deviation and Variance are applied in the study.

Major results obtained from this study are as follows:

1. In the study area, total sample population is 722 and out of this 368(50.9%) are female and 354 (49.03%) are male.

2. In the study area it is found that female population is higher than male population.

3. The literacy status of male is comparatively higher than female.

4. Majority of the sample population lies under the age of 15-59 years (63.15%). Only 9.03%of population lies above 60 years. And 27.83% of sample population lies under the age of 0-14 years.

5. In the study area, economically active and inactive population is 456 and 266 respectively.

6. The percentage of population engaged on agriculture and non agriculture sector are 59.55 and 40.45.

7. In the study area, 61 households (55.96%) have 5-7 family size, 28 households (25.68%) have 8-10, 15 households (13.76%) have 1-4 family size and 5households (4.58%) have 11 and above family members.

8. Sample average household size is found to be 6.62 which are greater than that of national level 5.4.(CBS 2001)

9. There is high disparity in land holding in the study area. Nearly 51%of total cultivable land is occupied by higher caste group and in the hand of lower caste group the amount of land is very nominal.

10. From the study area, it is found that service is the main sources of income.i.e 52.64%of total income is gained from service sector; only 6.76% of total income is received from agriculture which is comparatively very amount than service income and remittance income. Where remittance income received 25.45% of total income. Only 2.62%of income is received from industry and business.

11. Amppipal VDC has greater disparity in distribution of income as well. Nearly 35.77%of bottom level of households is earned by9.17%of total income and the top 505. %of households is earned by18.35%of total income.

12. In the study area Gini concentration ratio between deciles households group is 0.2745.Which is lower than national level (0.55) (1973/74).

13. According to the monthly household's income the value of Range, Relative Mean deviation is 3.68 and 19.52.

14. It is found that expenditure on food is higher than other items. It shares 44.66%of the total expenditure.

15. Expenditure on livestock production takes sound position, which shares 4.36% of total expenditure, and second position takes place by agriculture which shares 17.27% of total expenditure.

16.In this study it is found that Brahmin,Chhetri,Demai,Kami,Magar,Gurung are able to save while Newar,Gharti and other caste groups like Kami,Giri,Mushlim are in deficit.

7.2. Conclusion

From this study, we concludes that there is high inequality in the income distribution in Amppipal VDC.There are various kinds of inequalities, such as, production of crops, distribution of land holding ,education,health,job status and geographical structures etc.Which resulting high income inequality. The main occupation of the people is agriculture but share of income from this sector is comparatively lower than service sector because people are still using traditional equipments for agricultural production. So unemployment and disguised unemployment is found every where in this VDC .There is no any industrial sectors and people were not get good job, so large numbers of people has been crossed the boarder looking for the good job. Therefore remittance income is comparatively higher than industry and business income.

From the point of view, ethnically, majority of people are Brahmin and chhetri (43.53%) and mostly these caste groups were literate and engaged in service sector. So share of income through this sector is comparatively higher than others sector. The higher educated people are 16.62% of total population, but they are not getting suitable opportunity to be employee.

7.3 Recommendations

The main objectives of this study are to examine and measure the extent of income inequality. So we have analyzed the extent of inequalities from the level of income distribution by household's size, land holding and occupation.

In the study area, most of the people are depending on agriculture but the nominal part of income is getting on this sector. Due to the unequal distribution of land people are affected in their income ratio. Not only this agricultural system is almost traditional, so the production from this sector is very low and just to meet minimum requirements. Hence following measures should be taken to enhance income level.

Some income generating activities should be promoted. For example, advancement in technology of agriculture, livestock development, some cottage industry and vegetable cultivation should be promoted, development of small agricultural marketing with reliable price. So to advance these factors the main obstacles of the VDC must be omitted. These main obstacles are economic and physical infrastructure. Hence, with out sufficient infrastructure the development of this VDC is impossible and with out development, increase in the level of income is impossible.

In this VDC the distribution of income is highly unequal between different households .There fore the policy makers should take following steps for its solution.

1. To increase income, income generating activities should be promoted and the government should provide technical and vocational training for establishing small domestic industries.

2. The main occupation of the people is agriculture, therefore there must be encouraging farmers to do certain fruitful program like, farming of cash crops ,livestock and other geographically suitable works.

3. Lower caste groups are nearly land less. So land should be given to them. Not only this, these groups are comparatively illiterate than higher caste groups, so any special literacy programs should be implemented to educate them.

4. Due to the traditional method of agriculture, the income from this sector is very low. So to increase agricultural income traditional system should be modernized. Not only this to increase the productivity of agriculture, hybridged seeds, chemical fertilizer, insecticides and qualified technician be provided.

5. To create off season employment opportunities, there must be provided irrigation facilities.

6. To reduce inequality in income the taxation should be flexible so that no body can escape from this area.

7. From attaining equal distribution of income the government should be provide additional job opportunities, which can directly help for lower income groups to increase their income level in such a way that it should be help for different opportunities.

These above 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 concerning areas, there will be less difficulty to reduce the income inequality.

Appendix-A
Design of questionnaires for the research on income inequality:
[A case study of Amppipal VDC, Gorkha district]

1. Name of the respondent:
   Caste: Tole:
   Sex   Ward no:
   Ethnicity: Household no:
   Age:
   Date of interview:

2. **Family description by age and sex**
   How many members are currently living in this household?

S.No.	Name	relation	Age	Sex	Occupation	Literate	Illiterate	Education level

3. Land holding (ropanees).

Own land		Rented Land				Khet	Pakho	Total
Irri.	Non irrri..	Rented in		Rented out				
		Irri.	Non irrri.	Irri.	Non irri.			

Note: Irri.= Irrigated.

Non irri.= Non irrigated.

4. **Sources of income**

A. **Income from agriculture:**

Crops	Quantity produced (muri or Kg)	Per unit price in Rs	Total income
Paddy			
Wheat			
Millate			
Maize			
Soybean			
Fruits			
Vegetables			
Others			
Total			

i.   Is your production sufficient to meet your needs for the whole year?
  Yes (   )
   No (   )
   If yes, do you have any surplus?
       Yes (   )
       No (   )
   If no, for how many months is the production not sufficient?
     Less than 3 months
     3 to 6 months
     6 to 12 months.

B. **Income from livestock**.

Livestock	Quantity	Price	Total income
Buffalo			
Goat			
Cock/hen			
Pig			
Ox/cow			
Others			
Total			

i)   **Income from sales of livestock products**

Kinds	Income
Milk	
Ghee	
Eggs	
Compost fertilizers	
Others	

C. **Income from Non agricultural sector**

Sources	Day/month	Total income
Salary		
Pension		
Labor\Wage		
Business		
Cottage industry		
Remittance		
Others		

i.   Do you have any sort of business?

Yes (   )   No (   )

If you have some income from business, what type of business are you doing?

Shop (   )   Industry (   ) , any others (specify) (   ) .

D. Is your family's total income enough through out the year to fulfill your daily requirements?

Yes (   )   No (   )

If yes, how much rupees can you save per year?   (------------)

If no, for how many days\ years is your family's income not sufficient?
(------------).

If no, how do you maintain your expenditure?
- Loan
- Others (specify)

5. **Expenditure Account:**

i.. How much did you spend on agricultural sector last year?

Inputs	Amount	Unit cost	Total cost
Land preparation			
Seeds			
Fertilizer			
Insecticids			
Harvest			
Others			
Total			

ii.   How much did you spend on the following items?

Items	Expenditure Rs
Food stuffs	
Education	
Health care	
Clothes	
Drinking and smoking	
Festivals	
Lighting	
Others	

iii.   Expenditure on live stock:

Live stock	Feeding	Medicine	Total expenditure in Rs
Cow/Ox			
Buffalo			
Goat			
Hen/Cock			
Pig			
Other			
Total			

6. In your view, what are the main causes of income inequality?

   --------------.
   --------------.

7. Does income inequality affect your opportunities?

      Yes (   )   No (   )
 8. Is "the income inequality" a root cause of under development in your
    Village?
            Yes (   )   No (   )

BIBLIOGRAPHY

Adhikari, Bimal (2002**). Income Inequality and Expenditure in Nepal A Case Study of Manipur VDC.**

Bhattrai, Badri Prasad (1997). **Income Inequality in Nepal.**

CBS (2004). **Nepal Living Standard Survey 2004,** Vol.-I and vol.-II. National Planning Commission, Central Bureau of Statistics, Kathmandu.

CBS Nepal (1996). **Nepal Living Standard Survey Report, Main Findings,** Vol. I, Dec 1996 and Vol. II, May 1997, Kathmandu, Nepal.

NPC, (1997). **A Survey of Employment Income Distribution and Consumption Pattern in Nepal.**

CBS (2006). Statistical Pocket Book; Central Bureau of Statistics, Kathmandu, Nepal.

H.S. Bal and Singh G., (1970). **Pattern of Income Distribution in Rural Areas**; Indian Journal of Agricultural Economics, vol. 25, No. 1-4.

Human Development Report (2005), **Aid Trade and Security in an Unequal World.** Published by UNDP.

H.S. Bal and Singh G., (1970). **Pattern of Income Distribution in Rural Areas**; Indian Journal of Agricultural Economics, vol. 25, no 1-4.

IFAD (1992), **The State of World Rural Poverty.** Intermediate Technology Publication, UK.

Jhingan, (1994). **The Economics of Development and Planning.**

Keyns , (1936). **The General Theory of Employment, Interest and Money.**

Kuznets**, Economic Growth and Income Inequality**. Harvard University Press.

Kanel, N.R. (1993). **Lorenz curve and Gini Coefficient Conceptual Consideration.** The Economics Journal of Nepal, Vol. 16, No.4 Central Department of Economics, T.U, Kathmandu.

Macro Economics Situation, (2006). Poverty and Unemployment.

Max.E Fletcher. **Economics and Social Problems,** University of IDAHO.

NRB, **Achieving Millennium Development Goals: Challenge for Nepal,** Nepal Rastra Bank, Research Department, Kathmandu, Nepal.

R.K Lekhi, (1996). **The Economics of Development and Planning.**

Nepal Living Standard Survey Report, Main Findings, Vol. I (1999), and Vol. II(1997), Kathmandu, Nepal.

Sen A.K, (1985). **Economic Inequality.** Oxford University Press, Delhi, India.

The Economic Journal of Nepal, (2004) Vol.27, No. 3 July-Sep.

Thirlwall A.P, (1999). **Growth and Development; with Special Reference to Developing Economics.** 6th edition, London, Macmillan Press.

World Bank, (2000). **The Global Economic Prospects and the Developing Countries**.