NON-AGRICULTURE INCOME & CONSUMPTION BEHAVIOR OF HOUSEHOLDS IN CHANUWA VDC OF DHANKUTA DISTRICTS

A Thesis

Submitted to Central Department of Economics,

Faculty of Humanities & Social Science,

Tribhuvan University, Kirtipur, Kathamandu, Nepal

in the Partial Fulfillment of Requirements for the Degree of

MASTER OF ARTS

in

ECONOMICS

by

Bikas Adhikari

Roll No: 26/70

Symbol No: 2108

Regd.No: 6-1-9-93-2007

Central Department of Economics

Tribhuvan University, Kirtipur Kathamandu, Nepal

May, 2017

LETTER OF RECOMMENDATION

This thesis entitled **NON-AGRICULTURE INCOME & CONSUMPTION BEHAVIOR OF HOUSEHOLDS IN CHANUWA VDC OF DHANKUTA DISTRICTS** has been prepared by Mr. Bikas Adhikari under my supervision. I hereby recommended this thesis for examination to the Thesis Committee as a partial fulfillment of the requirements for the degree of Master of Arts in Economics.

_____

Mr. Naveen Adhikari

Lecturer

Thesis Supervisor

Date: 16 April, 2017

Date: 25th Baisakha 2074

APPROVAL LETTER

This thesis entitled **NON-AGRICULTURE INCOME & CONSUMPTION BEHAVIOR OF HOUSEHOLDS IN CHANUWA VDC OF DHANKUTA DISTRICTS** submitted by Mr. Bikas Adhikari has been evaluated and accepted as partial fulfillment of the requirements for the Master's Degree of Arts in Economics by evaluation committee.

Thesis Committee

Prof. Ram Prasad Gyanwaly, Ph.D.
Head of the Department

Associate Prof. Kiran Pandey
External Examiner

Mr. Naveen Adhikari
Lecturer
Thesis Supervisor

Date: 8 May 2017

ACKNOWLEDGEMENTS

I am greatly indebted to my supervisor Naveen Adhikari, Lecturer, Central Department of Economics, Tribhuvan University, for his supervision, valuable guidance and encouragement to complete this study.

I would like to express my sincere gratitude to Prof. Dr. Ram Prasad Gyanwaly, Head of Central Department of Economics who gave me opportunity to write this thesis.

I am also thankful to VDC office of Chanuwa for providing me required information and relevant materials to prepare this research work.

I am very much grateful to my friends Mahesh Acharya, Satish Chandra Bhatta & Dipesh Baral for their suggestions and substantial time during the course of preparing this thesis.

I am deeply indebted to my parents and my wife Rubina for understanding moral support as well as financial support during my thesis completion period.

Bikas Adhikari

May, 2017

TABLE OF CONTENT

Page No.

Acknowledgements ……..... i

Table of Contents ……..…… ii

List of Tables ……..…..…….. v

List of Figures ……..……. vi

Abbreviations/ Acronyms ……..……...……. vii

CHAPTER I …… 1-10

INTRODUCTION …….. 1

1.1 Background of the Study …… 1

1.2 Categories of Consumption …… 4

1.3 Nature of Consumption …….. 4

1.4 Factors Affecting Consumption Pattern …… 4

1.4.1. Income …….. 5

1.4.2. Social Barriers …….. 5

1.4.3. Globalization and its Impact on Consumption Pattern …… 5

1.4.4. Household Decision Making …… 6

1.4.5. Time Use …… 6

1.4.6. Information …….. 6

1.4.7. Availability of Infrastructure for Essential Goods and Services …. 6

1.5 Statement of the Problem ……7

1.6 Objectives of the Study …….. 9

1.7 Significance of the Study …… 9

1.8 Limitations of the Study……..…… 10

1.9 Organization of the Thesis …… 10

CHAPTER II …….. 11-21

REVIEW OF LITERATURE …….. 11

2.1 Review of Literature in the International Context …….. 11

2.2 Review of Literature in Nepalese Context …… 15

CHAPTER III……..…… 22-28

RESEARCH METHODOLOGY……..…. 22

3.1 Population and Sampling …… 22

3.2 Data Collection …… 23

3.3 Data processing ……... 23
3.4 Tools Used to Analyze the Data ……. 23
3.4.1 Mean ……24
3.4.2 Variance……24
3.4.3 Standard Deviation ……. 24
3.4.4 Gini coefficient …….. 25
3.4.5 Lorenz Curve …….. 25
3.5 Definitions of Terminology …… 27
CHAPTER IV…….. 29-51
INCOME DISTRIBUTION AND EXPENDITURE PATTERN…… 29
4.1 Demographic Profile …… 29
4.1.1 Gender of Surveyed Family Member ……. 29
4.1.2 Marital Status of Surveyed Family Member …….. 30
4.1.3 Age of Surveyed Family Member …….. 30
4.1.4 Education of Surveyed Family Member……. 31
4.2 Household Characteristics …….. 32
4.2.1 Caste of Household …… 32
4.2.2 Religion of Household ……... 32
4.2.3 Type of Houses …….. 33
4.2.4 Source of Water of Households……. 33
4.2.5 Source of Light of Households ……. 34
4.2.6 Amount of Land Size ……. 35
4.2.7 Occupation Status of Households …….. 35
4.2.8 Time to Reach Market of Household …… 36
4.3 Income Pattern ……37
4.3.1 Income Source of Households ……... 37
4.3.2 Total Monthly Income of Households ……..…… 38
4.3.3 Distribution of Income by Caste …… 38
4.3.4 Distribution of Income by Religion ……... 39
4.4 Expenditure Pattern ……. 39
4.4.1 Monthly Income and Expenditure Pattern ……. 40
4.4.2 Monthly Consumption Expenditure Pattern …….. 40
4.4.3 Distribution of Food Expenditure ……. .41
4.4.4 Distribution of Non-Food Expenditure ……. 42

4.4.5 Total Monthly Food Expenditure ……... 43
4.4.6 Total Monthly Non-Food Expenditure ……... 44
4.4.7 Distribution of Food Expenditure by Caste …… 44
4.4.8 Distribution of Non-Food Expenditure by Caste …… 45
4.4.9 Distribution of Food Expenditure by Religion ……... 45
4.4.10 Distribution of Non-Food Expenditure by Religion …… 46
4.4.11 Distribution of Total Expenditure by Caste ……. 46
4.4.12 Distribution of Total Expenditure by Religion …… 47
4.4.13 Inequality in Consumption and Income …….. 47
4.4.14 Inequality in Food and Non-Food Consumption Expenditure …… 48
4.4.15 By Cast and Religion Inequality …….. 49
CHAPTER V ……. 52-55
SUMMARY, CONCLUSION AND RECOMMENDATIONS……... 52
5.1 Summary of Major Findings …….. 52
5.2 Conclusion ……. 53
5.3 Recommendations ……. 54
References ……. 56-58
Appendices ……. 59-63

LIST OF TABLES

Table No.	Title Page	No.
Table 3.1:	Total Population of Chanuwa VDC	22
Table 4.1:	Gender of Family Member	29
Table 4.2:	Marital Status Family Member	30
Table 4.3:	Age Distribution Family Member	30
Table 4.4:	Education of Family Member	31
Table 4.5:	Caste of Households	32
Table 4.6:	Religion of Households	32
Table 4.7:	Type of Houses	33
Table 4.8:	Source of Water of Households	34
Table 4.9:	Source of Light of Households	34
Table 4.10:	Amount of Land Size	35
Table 4.11:	Occupational Status of Households	36
Table 4.12:	Time to Reach Market of Households	36
Table 4.13:	Income Source of Households	37
Table 4.14:	Total Monthly Income of Households	38
Table 4.15:	Distribution of Income by Caste	39
Table 4.16:	Distribution of Income by Religion	39
Table 4.17:	Monthly Income and Expenditure Pattern	40
Table 4.18:	Monthly Consumption Expenditure Pattern	41
Table 4.19:	Distribution of Food Expenditure	42
Table 4.20:	Distribution of Non-Food Expenditure	43
Table 4.21:	Total Monthly Food Expenditure	44
Table 4.22:	Total Monthly Non-Food Expenditure	44
Table 4.23:	Distribution of Food Expenditure by Caste	45
Table 4.24:	Distribution of Non- Food Expenditure by Caste	45
Table 4.25:	Distribution of Food Expenditure by Religion	46
Table 4.26:	Distribution of Non-Food Expenditure by Religion	46
Table 4.27:	Distribution of Total Expenditure by Caste	47
Table 4.28:	Distribution of Total Expenditure by Religion	47
Table 4.29:	Caste-wise and Religion-wise Inequality Distribution	50

LIST OF FIGURES

Figure No.	Title Page	No.
Figure 4.1:	Inequality in Consumption and Income Lorenz-Curve	48
Figure 4.2:	Inequality in Food and Non-Food Consumption Expenditure	49

LIST OF ABBREVIATIONS / ACRONYMS

AIH	:	Absolute Income Hypothesis
APC	:	Average propensity to Consume
BS	:	Bikram Sambat
CBS	:	Central Bureau of Statistics
DDC	:	District Development Committee
FY	:	Fiscal Year
GDP	:	Gross Domestic Product
HH	:	Household
MPC	:	Marginal propensity to Consume
NGO	:	Non-government Organization
NLSS	:	Nepal Living Standard Survey
NPC	:	National Planning Commission
NRB	:	Nepal Rasta Bank
PIH	:	Permanent Income Hypothesis
RIH	:	Relative Income Hypothesis
Rs	:	Rupees
SLC	:	School leaving Certificated
TU	:	Tribhuvan University
UNDP	:	United Nation Development Program
VDC	:	Village Development Committee
WB	:	World Bank

CHAPTER I

INTRODUCTION

1.1 Background of the Study

There are wide economic disparities in the world such disparities are indeed outcome of resource allocation to nature, character and degree of development. A few countries have attained the position of a developed economy with a very high standard of living and real income on the other side as compared to other countries. European and some Asian countries are in the list of rich countries where as African, Latin American and South Asian countries belongs to the under developed countries (World Bank, 2016).

According to The World Bank (2016), the percentage of people living in countries defined as "low-income" has tumbled by 80% over the past two decades, according to the data. In 1994, there were 3.1 billion people living in 64 low-income nations, but in 2014 there were 613 million people in 31 of the world's poorest countries. It shows, almost two third of the population is still at a level of poverty. The inequalities between the developed and under developed countries as found not only in the field of production but also in the living standard of the countries. The majority of population is occupied in subsistence agriculture sector.

Nepal is a under develop country where low infrastructural development coupled with high population growth has made the lives of many poor people very difficult. Still there are wide ranges of variation on educational expenditure in different income groups of the households. The benefits of knowledge and education go to higher income groups of rural households. Similarly in case of medical expenses and other necessary expenses are far away from these deprived masses which show a direct relationship with level of income. The present study relates the income and consumption patterns of rural households to show the frequent changes in both food and non-food consumption expenditure due to the changes of income pattern of the society. This study tries to analyze the changing pattern of rural household consumption expenditure under various changing situations of the society and its surroundings. Majority of consumption expenditure is still at household. For instance, out of household expenditure, consumption expenditure is increasing due to increase in urbanization, breaking up of the traditional joint family system, desire for quality food, lack of time which translates in to an increased need for convenience. Increasing

number of working women, rise in the per-capita income in forcible situations of other dominants, changing lifestyles and increasing level of prosperity of the surroundings with lack of saving attitude and appropriate awareness brought a significant changes in the expenditure patterns among the rural communities. The study also examines the pattern of inequality and distribution of income under caste wise and religion wise in the study areas .

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

Chanuwa VDC is situated in the Dhankuta district, eastern region of the Nepal. Agriculture is the main occupation which absorbs nearly 80 percent of the total work force. Chanuwa VDC is rich in natural resources, but it is also exposed to natural calamities like floods etc. which is one of the many reasons attributed for its backwardness from time to time. The standard of living of a household can be understood from the consumption pattern, and the qualities of consumption budget which clearly indicate the level of welfare of the household. Food consumption pattern of household is an important barometer of individual welfare and well-being in any region. Human life is ultimately nourished and sustained by consumption. Consumption clearly contributes to human development when it enlarges the capabilities and enriches the lives of people without adversely affecting the well-being of others. Today's consumption is exacerbating inequalities. And the dynamics of the consumption-poverty-inequality environment nexus are accelerating. If the trend continues without change not redistributing from high income to low income consumers, not shifting priority from consumption for conspicuous display to meeting basic needs then it will worsen today's problems of consumption and the process of human development. Consumption must be (a) shared: ensuring basic needs for all, (b) strengthening: building human capabilities, (c) socially responsible: so the consumption of some does not compromise the well-being of others, and (d) sustainable: without mortgaging the choices of future generations. (Pradhan, 2012)

Consumption pattern of the rural households depends on many factors like assets, level of

education, occupation and demographic characteristics. Saving in any community depends on these factors. The sources of income in the rural household sector are various. In most of the households the main occupation is not the only source of income and in the cultivator households, more than 50 percent of the household income originate from agricultural sources. Agricultural sources are the main source of income for many households in the Chanuwa VDC.

According to Human Development Report published annually by UNDP (2014), Nepal is one of the poorest countries in the South Asia. Agriculture is the main sector of the Nepalese economy. More than 80 percent of the total labor force is engaged in agriculture activities. Contribution of agriculture in GDP is 33.1 percent. (Economic Survey, 2014)

Some classical economists were in favor of income inequality like David Recardo, Malthus etc. They argue that equality discourage saving. Income equality means higher income for the working classes and rise in their consumption. This in turn meant arise in population. Therefore, inequalities were necessary to provide the incentive for economic growth. According to modern economists, with vast inequality in income distribution, firstly, economic development policy of the government cannot be provided to retarget group of society. Secondly, economic development adds more disparities from region to region. Thirdly, modern agriculture strategy may benefit only selected rich farmer in the community. Fourthly, anti-society activities like black marketing, corruption, smuggling etc can be increased. Thus, it is necessary to study the incidence of inequality in terms of distribution of income and consumption (Sharma, 2004).

1.2. Categories of Consumption

Consumption categories are formed mainly on the basis of the commodities involved. Broadly speaking there are two categories: Food and non-food consumption. Consumption to gratify hunger and thirst needs is food consumption. The consumption that is not related to the above but meant for satisfaction of health, education, travel and recreational needs is regarded as non-food consumption.

There is yet another classification purely based on the types of needs called primary and secondary consumption. According to this classification we can distinguish between essential and non-essential consumption commodities. Primary consumption involves the

fulfillment of needs that arise out of physiological bodily functions like thirst and hunger. These needs are also called biogenic needs. Considering the basic nature, the needs for shelter clothing, health and education can also be included in the category of primary consumption; the secondary consumption comprises the gratification of a more sophisticated structure of physiological needs which relate to social, cultural and intellectual interests.

1.3. Nature of Consumption

The dynamic nature of human needs gives consumption a dynamic character. Human needs are always subjected to change. The dynamic character of consumption depends on the nature of the society and economy. Variations in consumption are visible in different societies, as there exists, a difference in environmental, social, economic and cultural contexts. Human wants get transformed as the society grows and in turn cause substantial changes in the outlook of the people towards consumption of commodities.

1.4. Factors Affecting Consumption Pattern

Individual consumers are assumed to be in the best position to judge their own needs and preferences and to make their own choices. It is unbiased to assume that people know what they are looking for and have reasons for their preferences when they choose one consumption pattern over another.

Yet millions of people faces too narrow a range of consumptions, which prevents them from enlarging their capabilities. They may not be able to get enough food, may lack health care services or may have little access to transport beyond their own feet. There are many factors causing these constraints on consumption options. Income is not the only one. Other factors include the availability and facility of essential goods and services, time use, information, social barriers and the household setting.

1.4.1. Income

Income gives people the ability to buy nutritious foods instead of eating only their own crops, to pay for motorized transport instead of walking, to pay for health care and education for their families, to pay for water from a tap instead of walking for many hours to collect it from a well.

The increasing dependence of much consumption on private income means that changes in income have a dominant influence on changes in consumption. When income rises steadily consumption rises for most of the population. But for the same reason, when income decline, consumption also falls sharply, with devastating consequences for human wellbeing.

1.4.2. Social Barriers

Income cannot always remove barriers to access to opportunities. This is particularly so when considerations of gender, class or ethnicity limit people's freedom to consume the goods and services they want. For example, people belonging to certain ethnic groups might be denied equal access to education, employment and other basic social services by the state, regardless of how much they earn.

1.4.3. Globalization and its Impact on Consumption Pattern

Due to globalization the purchasing power and opportunity to purchase has increased and a change has manifest in the activity of consumption. Globalization is integrating not just trade, investment and financial markets; it is also integrating consumer markets around the world and opening opportunities. This has two effects- economic and social. Economic integration has accelerated the opening of consumer markets with a constant flow of new products. On the social side local and national boundaries are breaking down in the setting of social standards and aspirations in consumption. As a consequence, a host of consumption options have been opened for many consumers, but many are left out through lack of income. Spending has shifted from striving to match the consumption of a next door neighbor, to pursuing the life style of the rich.

1.4.4. Household Decision Making

A great deal of household consumption decision making is in the hands of one person- often the mother or the father of the family. Although this may lead to good outcomes, it can also be a source of inequity within the family. The education and background given to children early in life play a critical part in establishing their ability to make good use of the options available for living a full and fulfilling life.

1.4.5. Time Use

Opportunities to consume can be severely limited by lack of time. Women, spend many

hours a day meeting the household's needs and have no time left for education, better health care or opportunity activities. Similarly, overworked laborers may receive an adequate wage, but they often work long hours and are denied the opportunity of regular leave.

1.4.6. Information

Information is the key too raising awareness of the range of consumption options available and enabling the consumer to decide which choices are best. Without information, there is no way of knowing that goods and services are available in the market, and what services are being provided by the state and are, by right, available to all. Advertising and public information campaigns play an important role in this respect.

1.4.7. Availability of Infrastructure for Essential Goods and Services

Many of the most basic essential goods and services like water, sanitation, education, health care, transport and electricity cannot be provided without an infrastructure. Traditionally these facilities have been provided by the community and then by the state. As markets develop and the technology improves, the services increasingly are being provided by the private sector in areas where profit can be made.

1.5 Statement of the Problem

Since 1956 Nepal has started planned process for economic development. Planned development practices did not bring expected fruitful outcome on the drive of sustained economic growth with lesser poverty and inequality. Some sectors as education, health fairly improved during planning era. Poverty reduction through inclusive growth is a goal of Nepal's development. It is now widely acknowledged that poverty encompasses not only the material well being, but also inferior outcome in access to services and exclusion. Poverty alleviation programs in Nepal must embody the most important casual factor: population growth, income inequality, low means of subsistence and unemployment. As the bulk of poor is concentrated in rural and agrarian setting, the centrality of agrarian reform for sustained long-term development cannot be underestimated. Agrarian reform as implemented in the past has not substantially changed the traditional hierarchy of interest where rural landlords are still dominating the political economy of village life. The irony of the plans, programs and projects in Nepal is that they generate only a trickle down effect on the rural poor and the needy. Rather it is benefiting the urban elite and rural elite. With

urban connection, while the overwhelming majority of the poor of the nation have remained in the periphery of the development circle. Thus, for Nepal, several decades of the second half of the last century was a loss while assessing development performance. Neither economic nor social reforms were effectively enacted, nor public or private investments in creating necessary socio-economic infrastructures were forthcoming. Development outcomes were lopsided and mostly digested by feudal elements leaving a large segment of Nepal's rural population by passed from the minimum basic public services and development benefits (Sigdel,). More than 80% of population is still engaged in agriculture. Agriculture production has not increased sufficient data. In the field of industry, Nepal is still in the transitional period. The level of infrastructure is very poor. Medical facility is also quite inadequate. Drinking water supply is also inadequate .In short; the country has not become able to provide basic facility to the people (Sharma, 2004).

The World Bank (2016) expressed that Nepal has an underdeveloped rural economy with a per capita annual income of US $ 743 and 80 percent of the total population lives in the rural areas. National Planning Commission (2013) has presented that population below low level of income line comprise mostly of landless as well as small and very small farmers in the Hills and Tarai.

Those poor who are unable even to fulfill the basic needs of the life or whose income is below the wolf point, the income consumption intersection point, level of income are called relative poor. On the basis of income consumption criterion, Nepal has come up with the scenario of growing incidence of rural poverty during the last decades (Sharma, 2004).

On the other hand inequality in the distribution of land and wealth has played serious role as there is no other alternative employment provision for the farmers and the economy is still agrarian. So disguised unemployment is in existence. Due to the unemployment problem not only the economics condition is worse but also it disturbs the socio-cultural condition as most of the unemployed force is involved in thefts, dacoits, crime etc. In agriculture another problem is irrigation. There should be the provision of irrigation facilities on cultivable land but it is the tragic work as only 38 percent cultivable land has seasonal irrigation facilities. So, the main problem of the Chanuwa VDC is how to find out the income structure, their consumption behavior, to analyze the extent of inequality and distribution of income.

This study will attempts to identify the level of income of Chanuwa VDC of Dhankuta District and will try to establish the relationship between income and other economic variables, employment, literacy and landing whether there is direct relationship or not.

Research questions are as follows:

i) What is the distribution of income and consumption behavior of the households in Chanuwa VDC?

ii) What is the pattern of inequality and distribution of income in the study areas?

1.6 Objective of the Study

The main objective of the study is to examine the income distribution and expenditure pattern of households of Chanuwa VDC in Dhankuta District of Nepal. The specific objectives of the study are

i) To examine the pattern of income and consumption behavior of the household;

ii) To analyze inequality and distribution of income and consumption in study area.

1.7 Significance of the Study

While studies done on the consumption expenditure among rural and urban households for various expenditure classes, little effort has been made to study the consumption expenditure pattern within rural sector. On the other hand the study on background, issues and objectives of the study household consumption expenditure pattern is very important as it is related to poverty and standard of living of our society. It is necessary to study the changes in expenditure pattern under the changing situations of country. If the society is wealthy proportionately high expenditure will be made on secondary necessities, comfort, and luxury products and conspicuous consumption. On the other if the society is at substance level, people will spend proportionately more on food. The study of pattern of consumption expenditure provides an important indicator of economic development. Various attempts have been made through the programs by the government and non-

government organization to reduce the problem of unequal distribution of income, but yet there have not been any significant progresses in the economic condition with the Chanuwa VDC. This study will allow to know the status of households of study area and examine the extent of inequality among the households of Chanuwa VDC. This study may help in the formulation of right policies and also be useful to the researchers, student and persons who are interested in the development of Chanuwa VDC, Nepal.

1.8 Limitation of the Study

The major limitations of the study;

- The study basically concerns to a particular area therefore the generalization of the result may not be equally relevant to other rural part of Nepal.
- Income and consumption of transitory nature are excluded.
- Value of land is not included as source of income.
- Consumption expenditure is made for differences in household size and, age structure of sample households.
- Includes the factors like caste, and religion in our analysis and they are found to be helpful in explaining the variation of budget shares of the commodities in most of the case.

1.9 Organization of the Thesis

The present study is organized into five chapters including the present one. The present chapter introduces the study, gives an overview idea of the factors affecting consumption pattern and spells out the scope and objectives, limitation of study.

The second chapter reviews some of the existing theoretical and empirical studies made on the pattern of consumption expenditure in rural household. This chapter reviews briefly the various developments in consumption theories.

The third chapter brings out a detailed discussion about the tools of time series and methodology used for study.

The fourth chapter analyses the socio economic characteristics, sources of income and consumption expenditure pattern of the households. It also shows the relation between average income and pattern of consumption expenditure among different occupation groups and different income groups. Here the consumption pattern of households is analyzed by studying the differences in the expenditure on different items in the consumption baskets by taking food items and non-food items. It also attempts to examine the differences in expenditure on each of food and non-food items. The final or the fifth chapter summarizes the study and suggests some policy implication.

CHAPTER II

REVIEW OF LITERATURE

Income inequality is one of the major problems in the world, but it is a serious burning issue in the developing countries. Economists deal particularly in the context of the world, but very few research works have been done. Therefore, the available literatures of review of the income distribution presented below.

2.1 Review of Literature in the International Context

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

Dalton, (1949) in his book “Some Aspects of the Income Inequality of in Modern Communities” is divided into four parts including different chapters. The first chapter discusses the ethical aspect of the income inequality on the ground of justice and welfare. The second part of this theories distribution of income which is concentrated on the distribution of factors of income rather than personal of income. Finally, the last part deals with the division of income between persons this book is classic on the subject. Ideas are clearly expressed, no ambiguity arises in the study them. The final part of this book is an appendix of sixteen pages which deals with the measurement of inequality of income. This is the most attractive part of the book. This part deals with the different measures of income inequality such as the Mean, Bowley quartile measurement of dispersion, Gini concentration ratio, Pareto measure, etc. All techniques are clearly expressed which are easy to understand for any ordinary reader.

Kuznet, (1955) in his article “Economic Growth and Income inequality” has analyzed the relationship between income inequality and economic growth. The author concentrated on the causes and characters of long term changes in the personal distribution income. He analyzed the relationship between income inequality and economic growth i.e. Transition state; the income inequality becomes wider than in normal phase but after a certain period of stabilization. He has also compared the experiences of developed countries, namely USA, UK, Germany with underdeveloped countries, namely India, Srilanka.

He finds the distribution of personal income is more unequal underdeveloped countries than in developed countries. He hypothesized in his study that the inequality first increases and then decreases with the level of development.

UNDP, (1971) in its publication has dealt about the extent of inequality in the distribution of income in American Countries. This study has also tried to show the problem related to the distribution. They are only decided into five major groups the third one has analyzed several more specific aspects, although these are always lined to the overall distribution.

Gupta, (1977) in his study, has made a basic economic report of Indonesia. An attempt is made to explore the growth potential of Indonesian economy. He analyzed the effect on employment and income distribution and other consequences of adopting alternative development strategies. One of the primary is to explore the tradeoff between equality and growth and growth is long term context of context of the alternative strategies. The main motto of this working paper is therefore to explore the tradeoff between growth and equality, growth and employment and growth and poverty. Using secondary data and primary collected by a World Bank Mission to Indonesia, this is highly interpreted with mathematically.

Jhingan, (1997) in his book "The economics of Development and Planning", he describes the different view discouraging saving he analyzed income inequality propels the engine of economic growth has not hold in the context of the developing countries. An inequality harms the economy. Inequality retards development and leads to great economic waste. He also added that economic waste causes loss of human capital because majority people are poor with low level of income. He has described the prominent causes of inequalities in India such as poverty , inadequate development of economic concentration , tax evasion , inequitable distribution of the means of production , capital intensive technology etc. are the main causes of income inequalities. He has suggested the policy makers that aiming to reduction in income and wealth inequalities should be redistributive in nature. They should work towards the general socialization of the means of production. The removal of economic concentration and the increase in the income levels of the mass of people.

Andrew (2000) using annual time series data for Indian state examined the relationship between average household living standard and inequality. Causality tests are applied to investigate the relationship between household consumption and subsequent inequality on the one hand and initial inequality and subsequent consumption on the other. Lower

inequality has generally been associated with higher future consumption levels, but urban sectors of some state's consumption is positively correlated with subsequent inequality.

Deaton (2000) examined poverty and inequality in India considering related evidence from CSO, National Accounts Statistics and NSSO. It was found that per capita expenditure grow more rapidly across already better of states than the poorer states. Rural urban disparities of per capita expenditure were found to have increased, also inequality with in urban areas. Examination of other indicators of living standards such as literacy rate, nutritional levels, health achievements, it was found that social progress has been uneven across the different fields. Significant increase in economic inequality is found.

Human Development Report (2006) on "Income Inequality" inequality raises important question 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 wonder, inequalities, on capability and is some cases to absolute deprivation.

Regional variation in income inequality are large. The Gini coefficient a measure of inequality calibrated on scale from perfect equality 70 to 100 (perfect equality) ranges from 22 South Asia to 57 in Latin America and more than 70 in Sub- Saharan Africa. "Income Distribution and Economic Development" Prepared by Jacques Lecaillon, Fellix Paukart, Christian Morrison and Dimitri Germiclis, presents a discussion about the distribution of income. This volume is primarily concerned with the distribution of income between poor and rich, or in other words, with distribution of income by size. This research paper has tried to connect income distribution with economic development. This paper has three main objectives:

i) To show how income distribution has behaved in certain countries in the course of development and to specify the conditions under which the income distribution could be improved.
ii) To identify the major measurable factor associated with income inequality and major characteristics of the poor and
iii) To identify and assets the impact of instruments and command of governments to improve income distribution.

Fernandez et al. (2007) examined facts from consumer expenditure survey data and stated that both expenditures on nondurables and durables have a sizable hump, around 50% of

which is accounted for by changes in household demographics. The other half remains to be explained by factors not present in the standard complete markets life cycle model of consumption. They plotted life cycle profiles of total expenditure i.e. expenditure on durables and expenditure on nondurables, controlling for group and time effects. They gave special emphasis on the comparison of different approaches to control for changes in demographics over the life cycle. Significant changes have been observed over the life cycle for total, nondurable, and durable expenditure.

Rout (2009) examined the variation in food consumption and nutritional status of women in the state of Odisha in rural and urban areas against different background variables by using the NFHS-II data on 4425 ever married women in the age group 15-49. He defines the difference between standard and actual level of food intake among different groups of women. He found that, 33% of urban women and 48.6% of rural women are in the low BMI group and urban women enjoy a better position in all the food items. So, nutritional status is positively related with education of respondent, education of husband, household standard of living, and occupation of husband. Most of the rural women when categorized were found to be taking less food than their requirement. All these clearly suggest a condition of emergency for improving the nutritional status of women in Odisha, especially in the rural areas.

Chudali et al., (2011) stated that there is a wide range of variation on educational expenditure in different income groups of farm households. The benefit of knowledge, medical expenses, and education goes to higher income group of rural households. The expenditure shows a direct relationship with level of income. The study relates the consumption patterns with income and employment of Nepalese people at different topographical situation. Five villages have been selected to conduct the study. They found that, income elasticity of demand for food overall is 0.40 which means that the 0.41 per cent change in demand for food, if 1 percent change in the income.

2.2 Review of Literature in Nepalese Context

Many studies are conducted in the field of income distribution and consumption pattern in Nepal. Some relevant literature in the case of Nepal is reviewed below.

A survey was conducted by National Planning Commission (1977) in ten town Panchyat and one hundred twenty eight village Panchyats of the thirty seven districts of the country. This

survey is related with employment, income distribution and consumption pattern of Nepal. The data collected on the basic of sample applying random sampling between March-July 1997. The main objectives of the study were to estimate per capita income, per household income, per capita consumption and to see employment pattern in Nepal. Simple mathematical tools such as Gini coefficient and Lorenz curve were used in this study.

National Planning Commission, (1977) in its report "A Survey of Employments, Income Distribution and Consumption Pattern in Nepal " the survey covered 10 towns. Survey covered 10 town Panchayats and 18 Village Panchayats of 37 district covering 4037 rural households. The survey is related with employment, income distribution and consumption pattern of Nepal. Simple mathematics total such as Gini-Coefficient and Lorenz Curve has been used in the study. According to the result of the study only 1.04 percent of families has income greater than Rs.7500 per annum. It also showed that 71.5 percent of the people were living in mountains 34.48 percents of people were living in the hill area below poverty line. The Gini coefficients was 0.6 for rural and 0.5 for urban Nepal. In this way, the first nationwide survey showed that average household total and per capita consumption of rural area is less than urban area.

Risal, (1979) in his study, has very nicely prepared a study on regional distribution of income in rural Nepal in his dissertation entitled “An Economic Analysis of Income Distribution, Consumption Pattern and Poverty in Urban Nepal.” This dissertation is based on the secondary data published in Household Budget Survey (1976) of Nepal Rastra Bank with econometric methods of analysis. He has used various tools to measure income inequality such as Gini- Coefficient, Coefficient of Variation, Lorenz Curve and Theil indices. With the help of variance of log-normal distribution, he has concluded that highest inequality of income moves from far western urban region towards the eastern region. Gini- Coefficient has been used for international comparison of inequality. Among some less developed countries, Nepal is found to be on second lowest position.

Kanel, (1993) in his article on economic journal states that the main objective of this 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 prove of the formulation clearly and in a simplified manner. In the article, the concept of Lorenz Curve and Gini Coefficient are very nicely and clearly examined and the formulas for the computation of the Gini coefficient are derived.

Kandel (2003), in his dissertation thesis has studied the income inequality of Bharatpur Municipality of Chitwan. He has used primary data selecting from sample household of the study area. The main objectives of the study were to examine the relationship between poverty and income inequality. To measure the extent of inequality in the size of distribution of income, he has used Range, Lorenz Curve and Gini concentration ratio. He found the Gini coefficient for total income is to be 4064 in the study area. He deduced that land is a major source of livelihood which is distributed unequally among the household.

Khanal, (2004) in his M.A. Dissertation has nicely analyzed the income inequality in rural area of Kuwakot VDC, Syangja District. The main objectives of the study are to show the size of distribution of income of the existing level of income inequality and analyzed the income distribution of different ethnic groups. To measure the income inequality he has used some essential tools such as range, Lorenz curve, Gini coefficient, relative mean deviation, variance and coefficient of variation. The study based on primary data collection and secondary data has also been used. This study concludes that there is high inequality in income distribution in rural part of Nepal. The majority of people are based on agriculture sector and they use traditional tools for cultivation. This study also finds that the average per capita annual income is Rs.7078.97 and average annual households income is Rs.42201.54 only which is very negligible and insufficient to sustain their lives.

Dhungel (2005) published a report entitled "Consumption Distribution, poverty and Inequality "Including data from 1995/96 to 2003/04. He concludes that the share of per capital consumption of the poor was 8 percent in 1995/96. The population below poverty was 32 percent. During the period of nine years, the number of poor reduced to 32 percent. However, the share of per capita consumption was 7.0 percent in 2003/04 which is lesser than the share of 1995/96. The same was the case of nearest poor. The share of per capita consumption was 12 and 10 percent in 1995/96 and 2003/04 respectively. Similarly, the share of per capita consumption of middle and near rich was 16 and 21 percent respectively in 1995/96 which is greater than the per capital consumption share (14 and 20 percent) of 2003/04. From the above analysis it was found the share of per capita consumption of all the four groups (poor, near poor, middle and near rich) was not increasing during the same period of time amidst the reduction of 10 percent points of the absolute poor in Nepal. The share of per capita consumption of the rich increased from 43 percentages in 1995/96 to 49 percent in 2003/04.

The overall expenditure inequality increased from 34.4 percent in 1995/96 to 41.4 percent in 2003/04 with the annual growth rate of 2.3 percent. The inequality in food consumption (expenditure) decreased to 26 percent in 2003/04 from 27 percent in 1995/96 with the annual growth rate of (-) 0.8 percent. Expenditure inequality on non food items increased from 51 percent in 1995/96 to 59 percent in 2003/04 with the annual growth rate of 1.9 percent. Similarly, expenditure inequality on education decreased to 80 percent in 2003/04 from 81 percent in 1995/96 with the 0.78 in 2003/04 respectively. It shows the extreme inequality in the distribution of the expenditure on education and health.

There was an extreme case on the inequality of the expenditure of health and education. It reveals that the poor have no access to health and education. In aggregate the inequality increased from 34.4 percent in 1995/96 to 41.4 percent in 2003/04 with the annual growth rate of 2.3 percent. Given the scenario, during the period there is a significant reduction of poor from 42 percent in 1995/96 to 32 percent in 2003/04. The progress in reducing poverty could not be taken as sustainable because the inequality in the distribution of expenditure was mounting over the year (Dhungel, 2005).

Wagle (2006) studied the economic inequality in urban Nepal using wealth, income, and consumption as the key indicators. Many of the factors contributing to inequality in wealth, income, and consumption were uniform and consistent; the effects of educational attainment, age, household size, children under six, adults employed in unregistered business, and a lack of house title. The effect of many variables differed in significance among the three dimension of inequality, indicating that households with high incomes were not necessarily those with high wealth and consumption.

The findings of the study further suggest that spatial segregation would rank consistently high as the strongest determinant of economic inequality in Kathmandu. This analysis did not find discrimination as a potential source of economic inequality but there were strong suggestions that economic inequality has a detrimental effect on the multiple dimensions of human lives.

Nepal Rastra Bank (2006), states that a high level of poverty is detrimental to economic development and growth. Since household is unable to utilize their disposable income for saving and investment. In Nepal, the magnitude of poverty and Nepal Living Standard Survey has been inquired by CBS in 1996/97. Both surveys revealed that poverty had count in 1995/96 and 2003/04 had decreased from 42 percent. But the income and regional

inequality are going wide. As for example the average life expectancy in urban area (Kathmandu) district in 2001 was 69.93 years and 44.07 years in rural area (Mugu) district. It is felt that this factor has been one of the major contributors to present situation of conflict.

Wagle (2007) further studied the different dimensions of inequalities in Nepal. This paper investigates the scale, sources, and potential causes of economic inequality during the democratic era in Nepal. Using micro level survey data to derive Gini coefficients for consumption expenditures, incomes, and wealth, this paper found large and slightly increasing economic inequality between 1996 and 2004. Income from house rental, employment, businesses and remittances, as well as the stock of wealth in real estate, housing, and businesses, were the leading sources of inequality. Horizontal and vertical inequalities have increased along caste/ethnic and spatial lines, providing a strong impetus to the ongoing political instability in the country. These dimensions of inequality have important social, political, and policy implications.

The inequality of business ownership however, appears to be a leading source of wealth inequality, especially when looking at the rampant increase in the associated Gini index. Horizontal inequality constitutes an inter-group dimension of inequality, with groups formed along some socio-economic or demographic lines like gender, age, education, occupation, and class. These are some popular characteristics used to form socio-economically meaningful groups. Caste and ethnicity is a major socio demographic factor that provides a significant impetus to one's access to economic resources. The spatial face of inequality was also evident with increasing disparities in access to resources along the lines of urban/rural distinction, regional, and the ecological belt. Several studies have tried to show potential linkages between macro economics and poverty in Nepal. Obviously, macro-economic policy measures are primarily aimed at achieving macro-economic stability.

Shrestha (2010) in her M.A. thesis "Analysis of income and Expenditure Pattern: a case Study of Chunikhel VDC, Kathmandu" with the main objectives to identify the major sources of income of villagers and inequality in distribution of income and consumption behavior of people of Chunikhel VDC, Kathmandu Nepal. She took 123 households from the Ward No. three and nine of the VDC. All the selected 123 households were interviewed and relevant information were collected through questionnaire. Range, Gini coefficient, Lorenz curve, Regression Analysis and χ^2 test were applied to analyzed the data.

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

Pant (2011) states that remittance flows are crucial policy concern since they are large in size, relatively stable and provide direct benefit to households. The remittances sent home by the migrants affect development at both the household and national levels. At the household level, remittances help to reduce poverty, improve standard of living and attain higher educational levels. At the macro level, remittances could be used for entrepreneurship and productive investment which in turn increases job opportunities and income of the people. At the same time, remittance inflows help to augment foreign exchange reserves and improve the current account position. But for the economy remittance do not automatically contribute to national development. So, government needs to provide incentives to direct remittance to productive investments so that the families of migrant workers are able to undertake small businesses.

Thapa (2014), in his dissertation thesis has studies the income inequality in Gangaparaspur VDC of Dang district. He has used primary data selecting from sample household of the study area. The main objectives of the study were to identify the level and source of household income in the study area and to assess the socio-economic status of Gangaparaspur VDC. To measure the extent level of household income, he has used range, Gini-coefficient, Lorenz curve, variance and mean deviation. He found the labor has lowest daily per capita mean income (Rs 232.3) compared to other source of income and there is positive relationship between the size of landholding and income level. And further he found there is higher inequality in income distribution among sampled HHs. There are various results of income inequality indices. It shows that the range of income distribution is 2.78 which show high degree of income inequality among the sampled household of Gangaparaspur VDC of Dang.

NRB, (2016) in its study states that "A high level poverty is determined to economic development and growth since households is 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 20013/14 and Nepal Living Standard Survey. Both surveys revealed that poverty had count in 1995/96 and 20014/15 had decreased from 42% to 25% but inequality is going wider and wider (both income and regional) and given one example, the average life expectancy in urban area (Mugu) district it is felt that this has been one of the major contributors to present situation of conflict. In conclusion, income inequality is one of the major problems in the world. But the situation of the inequality distribution of income seems to be the burning issue of the developing countries and have not been done the works by many scholars in different parts of developing countries. In addition very few researchers have been in Nepal and other hand the government has been taken different types of policies and programs to reduce income inequality in Nepal.

In the conclusion of the above theories and literature, we found that consumption does not depend upon income alone as made out by Keynes's psychological law of consumption function. The relative and permanent income hypotheses hold that relation between consumption and income is proportional whereas absolute income theory holds that the basic relationship is non-proportional. From the literature it shows that, there is no surety that the influence of many socio-economic and religious factors will be enough to shift or to drift the consumption function upward at the rate necessary to give a long run proportionally between income and consumption. Therefore, this study will be carried out on the nature if inequality in distribution of income in Chanuwa VDC, Dhankuta district, Nepal.

CHAPTER III

RESEARCH METHODOLOGY

This chapter present details of the research methods used and followed in this study. It discuss on research design, nature and sources of data, processing procedure and statistical tools analysis.

3.1 Population and The Sampling

From purposively chosen Dhankuta District, Chanuwa VDC is selected for research. In Chanuwa VDC various caste and ethnic people of different income level holders are settled here. Therefore, it facilitates the researcher to select and understand the general socio-economic environment of the study area. There are 1578 household and 5199 people according to Chanuwa VDC office. Total 110 households from 9 different wards have been taken for the study. After looking the total number of population of each ward and having appraisal of the people according the number of quotas. Then strata has made so as to include the population according to community and ethnical group. Otherwise when taking random sampling from the total population, it was experienced that all the group could not get the same percentage proportionate share as it could have been experienced in very large number of samples. Number of households for sample are as follows:

Table 3.1: Total Population of Chanuwa VDC

Wards	Total population	% of total population	Sample population
1	450	8.66	10
2	1119	21.53	22
3	267	5.14	7
4	355	6.83	8
5	417	8.02	10
6	680	13.08	13

7	458	8.81	10
8	604	11.62	13
9	849	16.34	17
Total	5199	100.00	110

Source: VDC Office, Chanuwa, 2016.

The sample has taken as the range of population in which 10 households take from less than 500 population, 13 households take from less 700 population, 17 households take from below 900 population and 22 households take from the above 1200 population from different 9 wards.

3.2 Data Collection

The entire selected 110 household were interviewed and information were collected through the questionnaires. The questionnaires were completely based on direct personal interviews. The respondent was head of the household. Crosse- checks, editing and indirect questions were also asked. The format of the questionnaires is providing in Appendix-1.

3.3 Data Processing

Structured questionnaires were used to get detail information about income inequality. It was used to collect data on household information, occupation, education, religion, family size, ethnic group and income of socio-economic. Basically, household survey was conducted to obtain quantitative data such as population, sex, education, land holding size, economic condition etc. It helps researcher to familiarize with community and further made easy to detail interview.

After the completion of field work, all the information obtained were presented in a table with several columns and rows. These data were tabulated manually by using cross-tabulation. Data processing were done with the help of Stata, data analysis and statistical software.

3.4 Tools used of Analysis

The basic problem involved in measuring changes in income distribution is to compare two frequency distributions. Various measures have been used to analyze the data. It is agreed that a single analysis may have its drawbacks and defects, when looked into the analysis. To avoid the chance of shorts coming, we have here used various statistical tools in the analysis to reach the proper and rational decisions. The choice of a specific measure depends on its appropriateness for the purpose of the study. Tools used to analyze the data are :

3.4.1 Mean

In probability and statistics, mean and expected value are used synonymously to refer to one measure of the central tendency either of a probability distribution or of the random variable characterized by that distribution.

Symbolically $\overline{X} = \frac{\sum x}{n}$

3.4.2 Variance

Variance is understood as the mean of the squares of deviations taken form the mean of the given series. Variance can as well be described as the squares of the standard deviation.

Symbolically, $V = \frac{\sum (X - \overline{X})^2}{n-1}$

Where,

X= values of individual items

$\overline{X}$ = Mean of the series

N= total no. of items

Variance frequently used measures of variation an extremely useful technique concerning in the field of economics the technique whether to analysis that a policy decision may be taken concerning a particular variety.

3.4.3 Standard Deviation:

Free from the defects of other measures of description such as range. Quartile deviation mean deviation standard deviation is considering an improvement. Standard deviation or root mean square deviation is the square root of the mean of the squared deviation $\{(X-\overline{X})^2\}$ from their mean of a set of values.

Symbolically,

$$\sigma \qquad Or \qquad V=\sqrt{\frac{\sum(X-\overline{X})^2}{n-1}}$$

3.4.4 Gini Coefficient

Gini coefficient is a measure or the inequality of income distribution. The possible lowest value of Gini-concentration ratio is zero. The zero Gini concentration ratios signify perfect equality in the distribution of the income and the highest values of the ratio is I and this signifies inequality in the distribution of income.

A simplified formula to compute Gini coefficient is;

G.C. = 1 + (1 /n) - ($2/n^2\,\overline{y}$) (ny_1 + (n-1) y_2 + ... + Yn

Where,

G.C.= Gini coefficient

n = Total number of observation

y_i = Variable value for the i^{th} observation.

y = Mean value of the observation

3.4.5 Lorenz Curve

In the present study the Lorenz curve is used to measure inequality in the distribution of income. Lorenz curve shows the relation between the cumulative percentage of some groups often and the cumulative percentage of the total amount of some variable (say

income) which they hold. Hence, the objective of the Lorenz curve is to depict the degree of inequality in the relevant distribution it is taken from.

The features of the Lorenz curve

The essential features of the Lorenz Curve are as follows:

1) The Lorenz curve graphically shows the degree of dispersion of income (or of consumption, wealth, etc).

2) If income is equally distributed – for example every 10 percent of the population receives 10 percent of total income – the Lorenz curve overlaps the line of absolute equality.

3) If the Lorenz curves for two distributions do not intersect, then we can say unambiguously that the distribution closer to the diagonal (egalitarian line) is less unequal than the other.

4) It is quite possible to reach different conclusions if the Lorenz curves intersect.

Major steps in drawing a Lorenz curve are.

a) Change the individual item of the given series into percentage, assuming the total as 100 percent. If there is continuous series, the mid values are taken first and then. We change the mid values into percentage, assuming their total as 100 percent.

b) Convert the individual items expressed in terms of' percentage into cumulative percentage.

c) On the X-axis, start from 0 to 100 and take the percent of' the cumulative frequencies.

d) On the Y- axis, start form 0 to 100 and take the percent of cumulative values of the variables.

e) Draw a diagonal line joining (0, 0) with the point (100,100) this line is called the line of perfect equality or equal distribution line.

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

3.5 Definition of Terminology

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

Household: The household is defined as a group of persons dwelling in a residence and sharing a common kitchen. With a common household they are also interrelated by income, consumption and expenditure. But those members who continuously live out side the home and do not share income and expenditure of the family are not counted as the member of the household.

The total numbers of members, who come under the umbrella of a household sharing each other in common, represent the household size.

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

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

Consumption Expenditure: In this study, 'Expenditure' is used to mean only consumption expenditure. Consumption expenditure is the sum of all payments which are made in various items of consumption. It refers to the value of goods and services purchased and consumed by the household or single consumer. Consumption has been classified as expenditure in food and non food items. Food items include food grains, milk and milk products, vegetables (only purchased) meat, egg, fruits, oilseeds, tea, sugar, cigarette, wine, etc. Non-food items include clothes, foot wear, education, healthcare, festival, and transportation, entertainment, housing and miscellaneous.

Main Occupation: An occupation which accounts for the major part of income is taken as the main occupation.

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

Landless Household Population: Land-less includes those households who do not posses any agricultural land to cultivate excluding the kitchen garden.

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

Educated Population: Educated population is taken that population who at least passed SLC level.

Literate: A person who can read and write, who is under SLC or not getting any formal education.

Farmers: Those persons who are engaged in agriculture are farmers. Farmers are categorized here in two groups. Those, who used improved seeds, chemical fertilizer, modern inputs for land preparation and plantation, are “modern farmers.” These farmers are called here modern, technology user farmer. Similarly, those farmers who used there own seeds, compost fertilizer and don’t use pesticide, insecticide and modern inputs, for their cultivation are ‘Traditional Farmers.’

CHAPTER IV

INCOME DISTRIBUTION AND EXPENDITURE PATTERNS

This chapter present details of the demographic profile, households characteristics, income and consumption pattern of surveyed households and family members of Chanuwa VDC. This chapter make clear about situation of population, education level, income level, expenditure condition of research area.

4.1 Demographic Profile

The demographic profile have an important bearing on the level of income, consumption expenditure and saving of the society. Feature like rate of growth of population, educational level of the head of the household and other members, their occupation, the age of the members of the household, the size of the family are some of the factors which have a direct effect on the saving of the community, especially in the rural areas.

4.1.1 Gender of Family Member

Table 4.1 shows a majority of male member as compared to female. In this study, the distribution of sex of the members among surveyed households shows a majority of male members (55%) as compared to female (45%).

Table 4.1: Gender of Family Members

Sex	Frequency	Percent
Male	284	55.36
Female	229	44.64
Total	513	100.00

Source: Field Survey, 2016

The National Population Census 2011 showed 49% people are male and 51% are female. Which is slightly different with surveyed result.

4.1.2 Marital Status of Family Member

Table 4.2 shows, there is higher number of married members 66% in comparison to unmarried members 34%.

Table 4.2: Marital Status of Family Members

Marital Status	Frequency	percentage
Married	337	65.69
Unmarried	176	34.31
Total	513	100.00

Source: Field Survey, 2016

National population census depicts similar results. It shows 65% of people are married and 35% are unmarried.

4.1.3 Age Distribution of Family Member

Table 4.3 shows the distribution of the sample population according to their age. It shows that highest number of people (30%) is in the age group 16-30 years, which is followed by age group 31-45 years (20%). Similarly, lowest numbers of people are in the age group above 60 years (16%).

Table 4.3: Age Distribution of Family Members

Age	Frequency	Percentage
Below 15 years	92	17.93
16-30 years	152	29.63
31-45 years	102	19.88
46-60 years	87	16.96
60 years above	80	15.59
Total	513	100.00

Source: Field Survey, 2016

According to NLSS 2010/11, distribution of population by age for various level of disaggregation. Among five year age groups, 10-14 years age group has the highest proportion of population (14%) followed by 5-9 years age group (13%). Among broader age groups, on the other hand, 54 percent of population is in 15- 59 years age group, 36.7 percent below 15 years of age and 9.1 percent is in the age group 60 years and above. Which is vaguely similar to surveyed result.

4.1.4 Education of Family Member

Table 4.4 shows the status of education among the surveyed family members. According to the sample survey higher numbers of people (28%) ends education at primary level; it is followed by people ending their education at higher secondary level (18%). Likewise, the lowest number of people (9%) ends their education at lower secondary level. According to CBS report 2011, the highest number of people (39%) lies in illiterate and primary level education group. It is followed by lower secondary level education group (20%). The lowest number of people (4%) ends their education at university level in the scenario of Nepal.

Table 4.4: Education of surveyed family member

Education	Frequency	Percentage
Illiterates	92	17.93
Primary (1-5)	145	28.27
Lower Secondary (6-8)	45	8.77
Secondary Level (9-10)	67	13.06
Higher Secondary (11-12)	93	18.13
University	71	13.84
Total	513	100.00

Source: Field Survey, 2016

The literacy rate has increased slowly but progressively over the last 45 years. Starting from the extremely low 5 percent literacy ratio, the ratio in 1997 has increased to approximately 40 percent. Literacy among the 6-14 year age group is much higher. 77 percent of the boys and 56 percent of the girls in the 11-15 year age group are literate compared to 29 percent and 2 percent among those above 60 years of age. Increasing literacy has been possible both due to the increasing popular demand for literacy as well as the responsiveness of public policies and investments. The National Educational System Plan, which was implemented since 1971, created the conditions leading to initial spurt in growth in the literacy rate. Investments in education, primary education in particular, have continued to show gains since. (HDR-N 2011)

4.2 Household Characteristics

4.2.1 Caste of Households

Table 4.5 shows caste distribution of the surveyed family. it shows that highest numbers of family (46%) are from Brahmin/ Chettri, which is followed by Janjatis they constitute 30% of the total population. Dalit constitutes only 23.64% of the households which is least one.

Table 4.5: Caste of Households

Caste	Frequency	Percentage
Janjati	33	30.00
Brahmin/Chhetri	51	46.36
Dalit	26	23.64
Total	110	100.00

Source: Field Survey, 2016

According to National Population and Housing Census 2011, the highest number of people (33%) lies in Janjatis. It is followed by Brahmin/Chhetri caste group (30%). The lowest number of people (7%) lies in Dalit.

4.2.2 Religion of Households

Table 4.6 shows religion wise distribution of households. There are only two religious groups in research area. 87% of households follow Hindu and 13% of households among the total surveyed population are Christian.

Table 4.6: Religion of Households

Religion	Frequency	Percentage
Hindu	95	86.36
Christian	15	13.64
Total	110	100.00

Source: Field Survey, 2016

National population census 2011 shows 81% of people are Hindu and 1% is Christian in the context of Nepal. Which is similar with surveyed result of households.

4.2.3 Types of Houses

Table 4.7 demonstrates the types of households. Three types of houses are found in the study areas that are cottage, concrete house and non- concrete house. 77% of the households have non- concrete house, it is followed by 18% households with cottage. Only 5% households have concrete house which is least one.

Table 4.7: Types of Houses

Type of House	Frequency	Percentage
Cottage	20	18.18
Concrete House	5	4.55
Non-Concrete House	85	77.27
Total	110	100.00

Source: Field Survey, 2016

According to NLSS 2010/11, about one half of the households (48 %) are living in the housing units walled by mud bonded bricks/stones. Households residing in the housing units with

outer walls made of other construction materials include cement bonded bricks/stones and concrete (26 %), wood and tree branches (24 percent), and others 2 percent. Which indicates similar result with surveyed households.

There is a direct association between quality of dwelling walls and household consumption. Richer households are more likely to wall their housing units with either cement/concrete or cement bonded bricks/stones while poorer households tend to wall them with mud bonded bricks/stones, wood/branches and other materials.

4.2.4 Source of Water of Household

Table 4.8 illustrates sources of water among surveyed households. It shows that Households uses water form three different sources that are tap, Kuwa/pond and stream/river. Highest number of households (73%) uses water from tap; it is followed by 18% of the households uses Kuwa/ pond for the water. Only 9% of households use water from stream/ river, which is least one.

Table 4.8: Source of Water of Households

Source of Water	Frequency	Percentage
Tap	80	72.73
Kuwa/ Pond	20	18.18
Stream/ River	10	9.09
Total	110	100.00

Source: Field Survey, 2016

The piped water is considered as one of the sources of safe drinking water. According to NLSS report 2010/11, nearly 45 percent households have access to piped water; almost half of which have private connections. The remaining 55 percent of households depend on covered well (39 percent), open well (7 percent) and other unreliable sources like river and spring water (10 percent). Which shows similar result with surveyed households.

4.2.5 Source of Light of Households

Table 4.9 explains sources of light among surveyed households. From the table, households get light from three sources that are hydroelectricity, solar power and Tuki/ Kupi. It shows that highest number of households (86%) uses hydroelectricity; it is followed by households using solar power which is equal to 9% of total households. Only 5% households get light from the traditional method that is Tuki/Kupi that is least one.

Table 4.9: Source of Light of Households

Source of Light	Frequency	Percentage
Hydroelectricity	95	86.36
Solar Power	10	9.09
Tuki/ Kupi	5	4.55
Total	110	100.00

Source: Field Survey, 2016

According to National Population and Housing Census 2011, the highest number of households (67%) uses hydroelectricity for source of light. It is followed by households (19%) uses Tuki/ Kupi. The lowest number of households (8%) uses solar for light in the context of Nepal.

4.2.6 Amount of Land Size

Table 4.10 shows Ownership of land among the households. Highest number of households (36%) holds the land between 20 to 30 Ropani, It is followed by the households holding above 51 Ropani of land, and total 28 % of households fall in this category. Least number of households (9%) holds 41 to 50 Ropani of land.

Table 4.10: Amount of Land Size

Amount of Land	Frequency	Percentage
20-30 Ropani	40	36.36
31-40 Ropani	29	26.36

41-50 Ropani	10	9.09
Above 51 Ropani	31	28.18
Total	110	100.00

Source: Field Survey, 2016

According to CBS 2011, only about 17 percent of the total land area of the country is comprised of agriculture land. The per capita landholding is 0.14 ha. Land ownership is highly fragmented. About 69 percent of landholding is less than 2 ha. The average size of landholding is only 0.24 ha, with, on average, more than four land parcels per holding

4.2.7 Occupation Status of Households

Table 4.11 shows the distribution of surveyed people in different types of employment. It shows that highest number of the people involved in the agriculture (53%), it is followed by the service sector with 18% members of households involved in this sector. Only 13% people involved in the wage sector, that represents lowest number of people.

Table 4.11: Occupational Status of Households

Employment	Frequency	Percentage
Agriculture	58	52.73
Wage	14	12.73
Business	18	16.36
Services	20	18.18
Total	110	100.00

Source: Field Survey, 2016

The main occupation of the Chanuwa Village Development Committee is agriculture. Out of the selected 110 households to be interviewed. The main occupation of 58 households was

reported to be agriculture. However, the rest of the households who are engaged in other occupation, are also engaged in agriculture partially.

4.2.8 Time to Reach Market of Household

Table 4.12 shows, the highest number of households (63%) needs 1 to 2 hour to reach the nearest market and 37% households need less than 1 hour to reach nearest market.

Table 4.12: Time to Reach Market of Households

Market Time	Frequency	Percentage
less than 1 hour	41	37.27
1-2 Hour	69	62.73
Total	110	100.00

Source: Field Survey, 2016

According to NLSS 2010/11, 45 percent of households are within 30 minutes of access to the nearest market center, followed by 30 minutes to one hour (18 percent), 1-2 hours (18 percent), and 2 hours and more (20 percent). Compared to market center, access to Haat bazaar (local market that operates during certain days of the week) is much better: 64 percent of households in the country are within 30 minutes reach to the nearest Haat bazaar. It shows slightly different with surveyed results of households. In study area, there is consume more time of people to reach market for selling their products and purchases a daily uses goods. It discourage to people for market practices.

4.3 Income Pattern

Field observation and interviews indicate that, in the Chanuwa VDC of Dhankuta district, the family members of the household, in general are found to be engaged in multiple occupations. It is evident that the level of income of a household is not only determined by the number of earners but also by their occupations. In this VDC, the households have various income sources like interest income, wage income, salary income, remittance income and other income. The main source of income is remittance income.

4.3.1 Income Source of Households

Table 4.13 shows, there are 5 different types of income sources among the households that are interest income, wage income, remittance income, salary income and other sources. Among them highest number of households (79) receive income through remittance. Average income from the remittance is Rs. 20562. It is followed by 68 households receiving income through salary. The average salary income among the households is Rs. 14045. Only 10 households receives income from the sources other than above mentioned sources, it is the category that contains lowest numbers of households.

Table 4.13: Income Source of Households

Types of Income	Obs.	Mean	Std. Dev.	Min	Max
Interest income	60	4555.55	1969.14	1250.00	8333.33
Wage Income	56	10974.70	4217.32	1666.66	16666.67
Salary Income	68	14045.36	3348.09	8333.33	20833.33
Remittance Income	79	20562.50	7725.86	1500.00	33333.33
Other Income	10	1475.00	1088.69	416.66	4166.66
Total Income	110	46946.21	8269.00	28958.33	60625.00

Source: Field Survey, 2016

According to Fifth Household Budget Survey 2014-2015 (NRB), out of the average monthly household income of Rs. 30,121, salary, wages, allowance and pension contributed 30.26 percent (Rs. 9,115), income from business contributed 24.43 percent (Rs. 7,360) whereas remittance income contributed 17.61 percent (Rs. 5,304). Remittance is major income source in the rural area compared to the urban area whereas the contribution of salary, wages, allowance and pension, business income, and rent and imputed rent in household income was larger in urban area.

4.3.2 Total Monthly Income of Households

Table 4.14 shows the distribution of total monthly income among surveyed households. It shows that highest number of HHs (41%) earn RS. (40,000-50,000) monthly, it is followed by 27 % households whose monthly income lies between RS. 30,000 and Rs. 40,000. Similarly, 21% of the households earn monthly income RS. (20,000-30,000) and 7% households earn

more than Rs. 50,000. Only 2.73% households earn less than RS. 20,000, this is the category that contains lowest numbers of households.

Table 4.14: Total Monthly Income of Households

Monthly Income (in Rs.)	Freq.	Percent
0-20,000	3	2.73
20,000-30,000	24	21.82
30,000-40,000	30	27.27
40,000-50,000	45	40.91
Up to 50,000	8	7.27
Total	110	100.00

Source: Field Survey, 2016

4.3.3 Distribution of Income by Caste

Table 4.15 explains income distribution by caste. It shows that Brahmin earns highest average income of Rs. 47773 with the standard deviation 7483. It is followed by Janajati with the average income Rs. 45128 and standard deviation 10520 similarly, Dalit earns lowest income that is equal to Rs. 47629 with the standard deviation 6181.

Table 4.15: Distribution of Income by Caste

Caste	Observation	Mean	Std. Dev.
Janjati	33	45128.78	10520.55
Brahmin/Chhetri	51	47773.69	7483.15
Dalit	26	47629.80	6181.44
Total	110	46946.21	8269.00

Source: Field Survey, 2016

4.3.4 Distribution of Income by Religion

Religion also plays a dominant role in the distribution of income. Table 4.16 shows the distribution of income by religion. According to the table Hindu earns highest average income Rs. 47101.32 with the standard deviation 8452.09. It is followed by Christian with average income RS. 45963.89 and standard deviation 7176.89.

Table 4.16: Distribution of Income by Religion

Religion	Observation	Mean	Std. Dev.
Hindu	95	47101.32	8452.09
Christian	15	45963.89	7176.89
Total	110	46946.22	8269.00

Source: Field Survey, 2016

4.4 Expenditure Pattern

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

4.4.1 Monthly Income and Expenditure Pattern

Table 4.17 shows the monthly income and expenditure pattern of surveyed households. Income and consumption pattern among the households can be analyzed with the help of the monthly income and consumption of food and non- food expenditure. Households monthly food expenditure is higher than the non- food expenditure. The average monthly

income of the households is Rs. 46946. Similarly, the average monthly expenditure of households is Rs. 36329 .

Table 4.17: Monthly Income and Expenditure Pattern

Variable	Obs.	Mean	Std. Dev.	Min	Max
Monthly Food Expenditure	110	20094.95	6789.61	10716.67	53033.33
Monthly Non-Food Expenditure	110	16234.09	4341.33	10333.33	30916.67
Monthly Expenditure	110	36329.04	6888.49	22035.42	69541.66
Monthly Income	110	46946.20	8269.00	28958.30	60625.00

Source: Field Survey, 2016

According to Fifth Household Budget Survey 2014-2015 (NRB), the average monthly income of Nepalese households is Rs. 30,121 in the year 2014/15. Such income included individual salary, wages, allowance and pension amount of all usual members of the households. Similarly, the average monthly expenditure of Nepalese households is Rs. 25,928 in the year 2014/15 of which Rs. 23,883 was consumption expenditure and Rs. 2,045 was non consumption expenditure. It shows slightly similar trend of monthly income and expenditure pattern of surveyed households.

4.4.2 Monthly Consumption Expenditure Pattern

Table 4.18 shows, average monthly food expenditure is RS. 20094 and the average non- food expenditure is Rs. 16234. Standard deviation for the average monthly food expenditure is 6789 and the standard deviation for the average non- food expenditure is 16234. Similarly, minimum monthly expenditure on food is Rs. 10716 and minimum monthly expenditure on the non- food is Rs. 10333. The maximum monthly food expenditure is Rs. 53033 and maximum monthly non- food expenditure is Rs. 30916. It shows expenditure pattern of surveyed households. Total consumption expenditure is made off of two types of the expenditure that are food expenditure and non- food expenditure. From the table it is clear that non- food expenditure is less than the food expenditure. Thus, it is clear that in the total expenditure on food expenditure has the highest share than the non- food expenditure.

Table 4.18: Monthly Consumption Expenditure pattern

Variable	Obs.	Mean	Std. Dev.	Min	Max
Food Expenditure	110	20094.95	6789.61	10716.67	53033.33
Non-Food Expenditure	110	16234.09	4341.33	10333.33	30916.67
Total Consumption Exp.	110	36329.04	6888.49	22035.42	69541.66

Source: Field Survey, 2016

According to Fifth Household Budget Survey 2014/15, the average monthly household consumption expenditure on food and beverage items is smaller than such expenditure on non-food and service items in all analytical domains except the Mountain region. Out of the monthly national household consumption expenditure of Rs. 23,883, average expenditure on food and beverage items was Rs. 10,371 (43.43 percent) and average expenditure on non-food and service items was Rs. 13,512 (56.57 percent).

4.4.3 Distribution of Food Expenditure

Table 4.19 shows distribution of food expenditure. It shows that highest average expenditure is made on paddy that is Rs. 1639 with the standard deviation 649. Similarly, expenditure on salt is Rs. 98 with the standard deviation 24, which covers least monthly expenditure. Thus, in total expenditure on food is equal to Rs. 20,094.

Table 4.19: Distribution of Food Expenditure

Expenditure Items	Obs.	Mean	Std. Dev	Minimum	Maximum
Paddy/Rice	110	1639.88	649.54	666.67	2125.00

Wheat/Flour	110	159.31	53.59	104.17	208.33
Dal	110	540.63	107.47	300.00	875.00
Maize	110	156.25	73.66	52.08	208.33
Milk	110	1333.33	.	1333.33	1333.33
Vegetables	110	565.48	491.75	208.33	1666.67
Meats	110	1250.00	0.00	1250.00	1250.00
Tea/Sugar	110	389.09	80.51	250.00	625.00
Fruits	110	208.33	.	208.33	208.33
Oil	110	515.95	180.91	150.00	833.33
Salt	110	98.47	24.41	33.33	150.00

Source: Field Survey, 2016

According to NRB (2016) in rural area, out of the total household monthly average expenditure on food and beverage items is Rs. 9,996 in Nepalese context which shows slightly similar with surveyed result.

4.4.4 Distribution of Non-Food Expenditure

Table 4.20 shows the distribution of monthly non-food expenditure. It shows that monthly expenditures on medicine that is Rs. 2040 on an average which is highest expenditure on non-food items. it is followed by expenditure on clothes that is Rs. 1745 on an average, Similarly, the expenditure on radio is Rs. 219 on an average which indicate that traditional communication systems replace by new modern technologies. Tables shows total expenditure on non-food is Rs. 16,234.

Table 4.20: Distribution of Non- Food Expenditure

Items	Obs.	Mean	Std. Dev.	Minimum	Maximum
Clothes	110	1745.46	430.70	833.33	2500.00
Footwear	110	642.42	147.76	416.66	1000.00
Education	110	1310.61	918.51	41.66	4166.66
Medicine/Healthcare	110	2040.15	555.84	1250.00	4166.66
Festival/Custom	110	1680.30	171.76	1250.00	2083.33
Entertainment	110	1247.73	1231.20	166.66	6666.66
Housing	110	1447.35	1885.30	416.66	12500.00
Transportation	110	966.66	333.18	416.66	1666.66
Tax	110	731.81	764.75	375.00	4166.66
Miscellaneous	110	1120.46	222.23	83.33	1250.00
Radio	80	219.27	31.61	125.00	291.66
Television	97	1516.32	307.98	1000.00	2500.00
Freeze	5	1566.67	91.28	1500.00	1666.66
Washing Machine	3	1666.67	0.00	1666.66	1666.66
Mobile Phone	107	1131.62	509.86	416.66	2916.66

Source: Field Survey, 2016

According to NRB (2016) in rural area, in rural area, out of the total household monthly consumption expenditure of Rs. 20,904, average expenditure on non-food items is Rs. 10,908. It shows there is different result of surveyed area with national context.

4.4.5 Total Monthly Food Expenditure

Table 4.21 shows monthly food expenditure of households. The total monthly food expenditure helps to know the pattern of monthly food consumption by the households. It

shows that highest number of households (77%) spends Rs. 15000-30000 on food expenditure. It is followed by 16% of households which has monthly expenditure is less than 15000. Similarly, 5% of the households spend between 30000-45000 monthly. And the least number of the family that is highest 2% family spends more than 45000 monthly.

Table 4.21: Total Monthly Food Expenditure

Monthly Expenditure (In Rs.)	Freq.	Percent	Cum.
Less than 15000	18	16.36	16.36
15000-30000	85	77.27	93.64
30000-45000	5	4.55	98.18
More than 45000	2	1.82	100.00
Total	110	100.00	

Source: Field Survey, 2016

4.4.6 Total Monthly Non-Food Expenditure

Table 4.22 shows, total monthly non- food expenditure helps to the distribution of the non-food expenditure by the various families on the span of time. The highest number of family that is 48% family spend less than 15000 for non- food consumption. It is followed by 38% family with the average expenditure 15000-20000. Similarly, 8% households spend more than 25000 for non- food consumption. On the other hand, lowest number of family that is 5% families spend 20000-25000.

Table 4.22: Total Monthly Non-Food Expenditure

Monthly Expenditure (in Rs.)	Freq.	Percent	Cum.
Less than 15000	53	48.18	48.18
15000-20000	42	38.18	86.36
20000-25000	6	5.45	91.82
More than 25000	9	8.18	100.00

Total	110	100.00	

Source: Field Survey, 2016

4.4.7 Distribution of Food Expenditure by Caste

Table 4.23 illustrates, distribution of the food expenditure among the different caste system. It shows that Janajatis are in the first position with the average expenditure of Rs. 22329 and the standard deviation 8875. It is followed by Brahmin/ Chhetri Community with the average income 20498 and the standard deviation 5726. Dalits spend lowest in the food with the average expenditure Rs. 16466 and the standard deviation 6789.

Table 4.23: Distribution of Food Expenditure by Caste

Caste	Obs.	Mean	Std. Dev.
Janajati	33	22329.48	8875.38
Brahmin/Chhetri	51	20498.98	5726.97
Dalit	26	16466.26	3734.70
Total	110	20094.94	6789.61

Source: Field Survey, 2016

4.4.8 Distribution of Non-Food Expenditure by Caste

Table 4.24 demonstrates caste wise distribution of the non- food expenditure. It shows that Dalit takes the first position with the average income Rs. 17931 and the standard deviation 5194. It is followed by the Brahmin/ Chhetri community with the average income Rs. 16050 and the standard deviation 4444. Janajatis are in the lowest position with the average income of Rs. 15180 and the standard deviation 2951.

Table 4.24: Distribution of Non-Food Expenditure by Caste

Caste	Obs.	Mean	Std. Dev.
Janajati	33	15180.55	2951.58

Brahmin/Chhetri	51	16050.65	4444.77
Dalit	26	17931.08	5194.37
Total	110	16234.09	4341.33

Source: Field Survey, 2016

4.4.9 Distribution of Food Expenditure by Religion

Table 4.25 illustrates religion wise distribution of the food expenditure. It explains Hindus secure the first position with the average expenditure as Rs. 20694 and the standard deviation 6826. It is followed by Christians with the average expenditure Rs. 16297 and the standard deviation 5304.

Table 4.25: Distribution of Food Expenditure by Religion

Religion	Obs.	Mean	Std. Dev.
Hindu	95	20694.52	6826.39
Christian	15	16297.69	5304.78
Total	110	20094.94	6789.61

Source: Field Survey, 2016

4.4.10 Distribution of Non-Food Expenditure by Religion

Table 4.26 shows the distribution of the non- food expenditure in different caste systems. It shows that Christian has the highest share in it with the average expenditure Rs. 18197 and the standard deviation 6890. It is followed by Hindu with the average expenditure Rs. 15924 and the standard deviation 3751.

Table 4.26: Distribution of Non- Food Expenditure by Religion

Religion	Obs.	Mean	Std. Dev.

Hindu	95	15924.12	3751.20
Christian	15	18197.22	6890.37
Total	110	16234.09	4341.33

Source: Field Survey, 2016

4.4.11 Distribution of Total Expenditure by Caste

Table 4.27 shows the distribution of total expenditure by caste. According to the table Janajatis stood first in caste wise distribution of total expenditure it is equal to 37510 with the standard deviation 9261. It is followed by Brahmin/ Chhetri with the average expenditure Rs. 36549 and the standard deviation 4400. Dalits stood at the last position with the average expenditure Rs. 34397 and the standard deviation 7247.

Table 4.27: Distribution of Total Expenditure by Caste

Caste	Obs.	Mean	Std. Dev.
Janajati	33	37510.03	9261.84
Brahmin/Chhetri	51	36549.64	4400.91
Dalit	26	34397.35	7247.77
Total	110	36329.03	6888.49

Source: Field Survey, 2016

4.4.12 Distribution of Total Expenditure by Religion

Table 4.28 shows the distribution of total expenditure by Religion. It shows that Hindu Stands first position with the average expenditure Rs. 36618 and the standard deviation 6522, which is followed by Christian with the average expenditure Rs. 34494 and the standard deviation 8921.

Table 4.28: Distribution of Total Expenditure by Religion

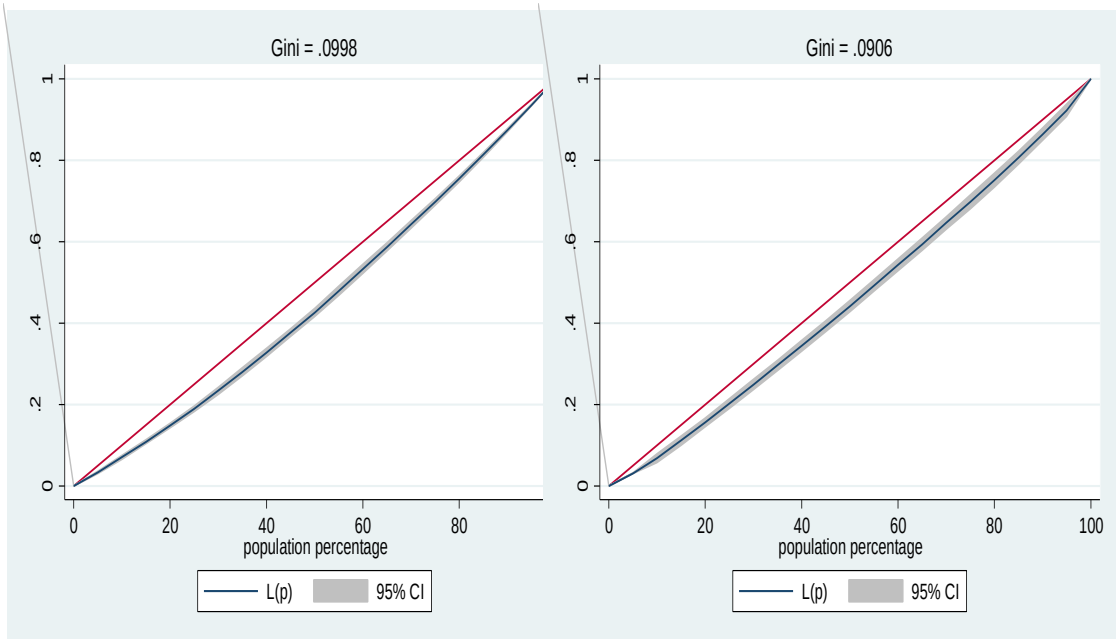
Religion	Obs.	Mean	Std. Dev.
Hindu	95	36618.64	6522.77
Christian	15	34494.86	8921.83
Total	110	36329.03	6888.49

Source: Field Survey, 2016

4.4.13 Inequality in Consumption and Income

Lorenz curve is generally used to illustrate economic inequality through Gini coefficient which may range from 0 representing complete equality to 1 showing complete inequality. In our study, the measure of income is objected to capture all sources of household revenues while consumption include the flow of consumption activities that accrue to households in a given period. From the study it is observed that both Lorenz curves have minimal Gini coefficient i.e. 0.0998 and 0.0906 for monthly income and consumption respectively thus, incidence of inequality is lower in study area. Finally, it can be predicted that inequality in income is relatively greater than inequality in consumption in Chanuwa VDC, Dhankuta.

Figure 4.1: Inequality in Consumption and Income –Lorenz Curve



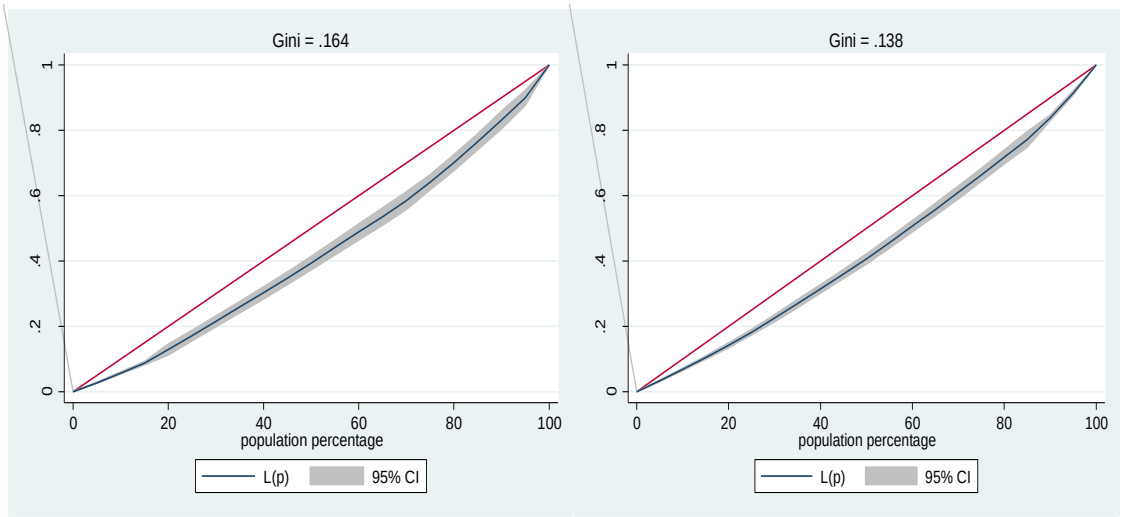
Source: Author's Calculation based on primary survey from Stata-12

The 9% average monthly income and consumption inequality in study area is lesser than 28% of national rural average and also lower than 27% of EDR according to NRB (2015). The reason behind this lower inequality might be attributed to lower: volatility of idiosyncratic income shocks, income variability, consumption dispersion as most of the subjects are either involved in agriculture or service sectors for their income source which result in lesser fluctuations in their income and consumption profiles.

4.4.14 Inequality in Food and Non-Food Consumption Expenditure

The Lorenz curves depicting the inequality in food and non-food consumption expenditure predicts that inequality in food consumption (Gini=0.164) is greater than 0.138 Gini coefficient of non-food expenditure. The reason behind this variability in consumption inequality may be contributed to dominating share of low income households who mostly allocate spending towards necessities as compared to luxuries of high income groups.

Figure 4.2: Inequality in Food and Non-Food Consumption Expenditure –Lorenz Curve



Source: Author's Calculation based on primary survey from Stata-12

According to NRB (2016), urban area had slightly higher degree of inequality in consumption expenditure than rural area. Higher inequality in urban area had been also reflected in a higher value of Gini coefficient.

One of the main reason behind the dispersion between food and non food consumption inequality in Chanuwa VDC might be contributed to the increased shift of high income households' demand from inferior food items to expensive food items while their demand to non food items remain stable over the study period.

4.4.15 By Caste and Religion Inequality

The Gini coefficient is one of the mostly used measure to explain how evenly the income or wealth or consumption is distributed. According to Human Developmen Report (2013) published by UNDP/WB, Nepal ranked 145th with Gini coefficient 32.8% which shows higher level of income inequality in Nepal compared to world's average. Quite contrary to this fact our study shows income inequality is only 9% in Chanuwa VDC which may be attributed to the fact that the households there have less income and consumption variation. Accordingly the caste and religion wise inequality distribution in study area reveals weak inequality dispersion.

Table 4.29: Caste-wise and Religion-wise Inequality Distribution

Income Inequality		**Consumption inequality**	
Caste	**Gini coefficient**	**Caste**	**Gini coefficient**
Janajati	0.129	Janajati	0.113
Brahmin/Chhetri	0.087	Brahmin/Chhetri	0.056
Dalit	0.064	Dalit	0.106
Religion	**Gini coefficient**	**Religion**	**Gini coefficient**
Hindu	0.102	Hindu	0.079
Christian	0.080	Christian	0.127

Source: Field Survey, 2016

Table 4.29 shows cast & religion wise inequality. In case of income inequality, Janjati has highest value of Gini coefficient (0.13), followed by Brahmin/Cheetri with Gini Coefficient (0.09). The lowest value of Gini coefficient is found in Dalit community which is equal to 0.06. It shows that there is highest income inequality among Janjatis this is because some of them have very good earning from UK and Indian Army and others should depend upon wage obtained from being village labor. Income inequality among Brahmin/Chhetri is lower than in Janjatis. The lowest income inequality is found in Dalit community, this is because most of them depend upon traditional jobs with limited variations in their income.

In case of consumption inequality, Janjati have highest value of Gini coefficient i.e. equal to 0.11 followed by Dalit and Brahmin/Chhetri communities with their respective GC equaling 0.10 and 0.06 respectively. The reason behind Janjati and Dalit having higher consumption inequality compared to Brahmin/ Chhetri might be contributed to variation in their consumption pattern which is highly influenced by cultural background of spending more in feast, festivals among Janjati and Dalit while Brahimin/ Chhetri spend wisely with equal focus given to saving as they are relatively more educated.

Gini coefficient for religion wise distribution shows, there is the highest income inequality among households following Hindu religion and lowest income inequalities among Christian households. This is because mostly low income people follow Christian religion and they get money from donor agencies. And most of the people follow Hindu religion and they have various level of incomes thus Hindu has higher level of income equality.

Gini coefficient for consumption inequality demonstrates, there is the highest consumption inequality among Christian households and lowest inequality among Hindu households. This is because Hindu have same and traditional consumption behavior but Christians want to follow modern civilization and all of them cannot do so due to income inequality. Thus there is the highest consumption inequality among Christian.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Major Findings

There are many countries which are comparatively poor with very low living standard and per capita real income. Thus there is a division of nations into two group developed and underdeveloped countries. Over the years Nepal has been suffering from growing incidence of rural poverty which is a major macroeconomic problem. Hence the study attempted to examine the inequality and distribution of income and expenditure pattern of households living in Chanuwa VDC, Dhankuta district of Nepal. For this purpose the study using primary data collected from sample survey used quantitative research methods namely mean, variance, standard deviation, Gini coefficient and Lorenz curve to statistically analyze the results.

The study finds, the demographic composition of 513 population is moreover evenly distributed with 55% male and 45% female where married were 66% and unmarried equals 34%. Similarly, the surveyed family members were mostly of 16-30 years age group with 30% population and 28% have completed their primary education. Accordingly, more than 60% of the sample population were engaged in agriculture having mixed ratio of castes while Hindu dominated the religious classification with more than 86% . Due to poverty about 77% of the people lived in non-concrete house with 73% having access to tap water, 86% used hydroelectricity as source of power. As the study area was mostly rural, 63% of surveyed family members have to travel 1 to 2 hour for market reach. The income distribution pattern of surveyed households shows 41% of sample have Rs. 40000-50000 monthly income depicting medium-sized family income. Whereas, less than 3% have the monthly income below 20000 thus indicating low incidence of income poverty. From caste wise and religion wise distribution of income it is observed that Bhramin/Chhetri and Hindu have the highest average monthly income of Rs. 47101 which is not significantly more compared to other caste and religion showing equal distribution of income. Likewise, the expenditure pattern illustrate that average monthly expenditure is Rs. 36329 with 55% share of food spending where Janjati and Hindu leads with Rs. 37510 and Rs. 36618 average monthly expenditure respectively.

The result from Lorenz curves shows income inequality is relatively greater than consumption inequality as their respective Gini coefficient equals 0.099 and 0.090. This is because income variations in Chanuwa VDC is more than consumption dispersion. Similarly, inequality in food consumption (Gini=0.164) is greater than non-food consumption (Gini=0.138) since high income households demand shifted from inferior food items to expensive ones while their demand of non-food items remain stable over the study period. Likewise, caste wise and religion wise inequality distribution measured through Gini coefficient value shows Janajatis have highest income and consumption inequality with 0.129 and 0.113 respectively while Dalits have lowest income inequality (Gini=0.064) and Brahmins/Chhetris have least inequality in consumption (Gini=0.056). Meanwhile, the religion wise perspective of inequality distribution shows contradictory results as Hindus have highest income inequality (Gini=0.102) while Christians lead in consumption inequality (Gini=0.127).

5.2 Conclusion

The study examined the income and consumption behavior and attempted to analyzed the pattern of inequality in Chanuwa VDC, Dhankuta district of Nepal. Furthermore, the study used monthly expenditure and income as variable and various quantitative techniques such as Lorenz curve, Gini-coefficient, measures of central tendency and dispersion to derive justifiable results for addressing the research problems and to generate some policy suggestions.

a) The study finds remittance to be the major source of income while most people are from mid-level income group. In this context, there is little dispersion in distribution of income and expenditure among households in both caste and religion wise division. Similarly, the expenditure pattern of surveyed households shows even distribution on monthly food and non-food expenditure.

b) Although, the Lorenz-curves predicted low average inequality (about 9%) in Chanuwa VDC, the caste and religion wise inequality distribution suggests higher impact of inequality in Janjatis and Dalits compared to Brahmins/Chhetris. The reason behind this dispersion might be attributed to uneven literacy rate, income source, consumption behavior, cultural influence and other socio-economic divisions among communities. Accordingly, the inequality incidents in food consumption

behavior is higher than non-food expenditure due to changing consumption pattern of subjects.

c) One of the major findings of this research paper is that income inequality is relatively more compared to consumption inequality which is in accordance with economist Simon Kuznets' inverted U-shaped hypothesis that inequality first increases as countries develop, then peaks and starts falling after a certain level of development is attained. In this context, Nepal is still in its early phases of development where due to increased spending by both private and public sector has generated a widening consumption distribution gap. While the income inequality specially in rural areas like Chanuwa VDC remain somehow stable due to consistency and equality in income sources.

5.3 Recommendations

Based on the present study, the following recommendations are made. Agriculture sector being the main source of yielding and employment it should be developed technically and systematically with active investment of both private and public sector.

a) As the results from Lorenz curves predict low incidence of inequality the major concern is not poverty but economic development. Although, inequality is less, there are still shortcomings in caste and religion wise consumption and income distribution since marginalized groups are still suffering from high incidence of poverty and inequality. Thus, concerned parties should prioritize on investing more on human development by promoting education, health, employment and market accessibility with utmost focus of government on capital spending as it has a multiplier positive effect on socio-economic condition of focused group. It is evidenced from the study site that NGOs/INGOs are successfully campaigning local development programs like UNNATI, SOLVE NEPAL with close coordination of government and local people which have helped in road construction, promotion of local agricultural products through fair price purchase from farmers, conducting training and development programs and ultimately reducing local poverty.

b) Regarding consumption expenditure, the highest percentage of expenditure is made on food items followed by expenditure on non- food items. The

consumption behavior is traditional as consumers have low bargaining power and lacks market knowledge. People are mostly uneducated, traditional, and heavily reliant on remittance as a major income source i.e. both volatile and unevenly distributed thus to increase their living standard and subsequently reduce poverty and inequality investment should be channelized to education, commercialization of agriculture, establishment of cottage industries that would generate stable and equal income source ultimately reducing inequality.

c) Another suggestion the study strongly recommended is to reduce the higher APC by encouraging the saving behavior of localities which can be achieved through wider access of finance to marginalized people which would generate more employment opportunities via increased investment.

d) The government should provide additional job opportunities in such a way that is should help the lower income group to increase their income level for equal distribution of income and to reduce the income inequality the government should apply progressive taxation policy.

REFERENCES

Mckay, S. P. (2002). Relationships between Household Consumption and Inequality in the Indian States. *Journal of Development Studies* , 65-90.

Deaton, A. (2002). Poverty and Inequality in India. *Economic and Political Weekly* , 3729-3748.

Bose, S. R. (1969). *Income and Its Distribution in Bihar.* Calcutta : Firma K. L. Mukhopadhyay.

Branson, W. H. (1972). *Macro Economic Theory and Policy.* New York: Harper and Row.

CBS. (2011). *Nepal Living Standard Survey 2010/11.* Kathmandu: Central Bureau of Statistics.

Central Bureau of Statistics. (2011). *National Population and Housing Census.* Kathmandu : Central Bureau of Statistics .

Dalton, H. (1920). *Some Aspects of The Inequality of Incomes in Modern Communities.* London: London : Routledge.

Dhungel, P. (2005). *Consumption, Distribution, Poverty and Inequality.* TU, Central Department of Economics. Kirtipur: Unpublished.

Duesenberry, J. S. (1967). *Income Saving Theory Consumer Behavior.* Mishawaka: Oxford University Press.

Fernandez, J. (2007). Consumption Over The Life Cycle: Facts From Consumer Expenditure survey Data. *The Review of Economics and Statistics* , 552-565.

Friedman, M. (1957). *A Theory of the Consumption Function.* New Jersey: Princeton University Press.

Gupta, S. P. (1977). *A Model For Income Distributions Employment and Growth. A Case Study of Indonesian Economy.* Washington D.C.: Johns Hopkins University Press.

H. Chudali, A. C. (2011). Socio-economic Analysis of Consumption Patterns of Nepalese People. *Economic Affairs , 56(2)*, 213-218.

Jhingan, M. (2010). *The Economics of Development & Planning.* New Delhi: BookVistas.

Kandel, N. (2003). *Income Inequality in Nepal. A Case study of Bharatpur Municipality,Chitwan District.* TU, Central Department of Economics. Kirtipur: Unpublished.

Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money.* UK: Palgrave Macmillan.

Khanal, G. N. (2004). *Income inequality in Nepal; a case study of Kuwakot Village Development Committee, Syangja District, Nepal* . TU, Central Department of Economics . Kirtipur : Unpublished .

Kuznets, S. (1995). Economic Growth and Income Inequality. *The American Economic Review* , 1-28.

Modigliani, F. (1966). The Life Cycle Hypothesis of Saving, the Demand for Wealth and the Supply of Capital. *Social Research* , 160-217.

Nair, P. (2009). *The Impact of Gender and Remittances on Household Expenditure Patterns.* Gorgetown University. Washington D.C.: Unpublished .

National Planning Commission. (2013). *A Survey of Employment, Income Distribution and Consumption Pattern in Nepal.* Kathmandu: NPC.

Nepal Rastra Bank. (2016). *Fifth Household Budget Survey Nepal 2014/15.* Kathmandu: Project Office, NRB.

NPC. (1977). *A Survey On Employment, Income Distribution and Consumption Pattern in Nepal.* Kathmandu: NPC,HMG/N.

NRB. (2006). *Achieving Millennium Goals;Challenge for Nepal.* Kathmandu: Rastra Bank, Research Department.

Pant, B. (2011). *Harnessing Remittances for Productive Use in Nepal.* Kathmandu : Nepal Rastra Bank.

Pradhan, H. K. (2012). *Patterns of Consumption Expenditure in Rural Household: A Case Study of Select Villages of Sundargarh District of Odisha.* National Institute of Technology. Rourkela: Unpublished .

Risal, R. P. (1979). *An Econometric Analysis of Income Distribution, Consumption Patterns and Poverty in Urban Nepal.* TU, Central Department of Economics. Kirtipur : Unpublished.

Rout, N. R. (2009). Food Consumption Pattern and Nutritional Status of Women in Orissa: A Rural-Urban Differential. *J Hum Ecol* , 179-185.

Shapiro, E. (2001). *Macroeconomics Analysis, Fifth Edition.* New Delhi: Global Publication Pvt. Ltd. .

Sharma, S. (2009). Poverty, Growth and Economic Inclusion in Nepal. *Expert Group Meeting* , (pp. 1-5). Kathmandu.

Shrestha, R. (2010). *Analysis of Income and Expenditure Pattern: A Case Study of Chunikhel VDC.* Kathmandu: Unpublished.

Thapa, D. B. (2014). *Measuring Income Inequality in Gangaparaspur VDC Dang.* Tribhuvan University , Central Department of Economics. Kirtipur: Unpublished .

UNDP. (2014). *Human Development Report* . New York : United Nation Development Program .

Wagle, U. R. (2006). Economic Inequality in Kathmandu: A Multi-Indicator Perspective. *Himalayan Journal of Democracy and Development* , 1-30.

Wagle, U. R. (2007). Economic Inequality in the 'Democratic' Nepal:Dimensions and Political Implications . *Himalayan Journal of Democracy and Development* , 1-37.

Wikipedia. (2017, March 2). *Wikipedia Corporation*. Retrieved 2017, from Wikipedia Corporation Web site: https://en.wikipedia.org/wiki/Lorenz_curve

World Bank. (2016). *World Development Report* . Washington D.C. : World Bank Group.

APPENDIX – 1

Questionnaire

NON-AGRICULTURE INCOME & CONSUMPTION BEHAVIOR OF HOUSEHOLDS

Chanuwa, Dhankuta

Ward No ☐☐

Date: 2073/ /

1. **Name of respondent:** _____

Age: ☐☐ Sex 1-Male/ 2- female Caste: 1-Janajati/ ☐

2-Brahmin,Chhetri 3-dalit/ 4-other

Religion: ☐ 1- Hindu/ 2-Christian/ 3-Muslim/ 4-Kirat/ 5-other

S.N.	Name	Age	Sex	Marital Status	Education	Employment
1	(HH Head)					
2						
3						
4						
5						
6						
7						
8						

Marital Status:

1-Married

2- Unmarried

Education:

1- Illiterate

Employment

1- Agriculture/ self employment

2- Agriculture wage

3- Business wage

4-Own business

2- Primary (1-5)
3- Lower Secondary (6-8)
4- Secondary level (9-10)
5- Higher secondary (11-12)
6- University

5- Government
6- NGO/INGO
7- Private Company
8- other

2. Types of House ☐

1- Cottage
2- Concrete house
3- Non concrete house
4- Other

3. Source of Drinking water ☐

1-Tap
2-KUWA/ pond
3- Stream/ River
4-other

4. Source of Light ☐

1-Hydroelectricity
2-Micro Hydroelectricity
3-Solar power
4-TUKI/KUPPI
5- Other

5. Time to reach Market ☐

1-30 min
2- 1-2 hour
3-2-5 hour
4- 1 day
5- more than 1 day

6. Amount of land holding

	Ropani	**Aana**	**Paisa**
Irrigated	☐	☐	☐
Non-Irrigated	☐	☐	☐
Total	……	……	……

7. Income/Cost of Production (last year)

Name of Product	Production (in Kg)	Self Consume (in kg)	Selling price (in Rs)	Income (in RS)	Cost (in Rs)
Paddy					
Maize					
Wheat					
Oil seeds					
Vegetable					
Fruits					
Others					
Total					

8 Income from business (Profit) Rs. _____

9. Income from Interest Rs. _____

10. Income from Wages Rs. _____

11. Income from Salary Rs. _____

12. Income from Remittance Rs. _____

13. Income from Other source Rs. _____

14. Debt (Annual Rs.) _____

15. Expenditure (Consumption)

a) On food items (Annual)

S.N.	Name of Items	Quantity	Local Market Price (in Rs)
1	Paddy/ Rice		
2	Wheat/ Flour		
3	Dal		
4	Maize		
5	Milk		
6	Vegetables		
7	Meats		
8	Eggs		
9	Tea/sugar		
10	Fruits		
11	Oil		
12	Salt		
13	Others		
	Total		

b) On non food items (Annual)

S.N.	Name of Items	Local Market Price (in Rs)
1	Clothes	
2	Foot ware	
3	Education	
4	Medicine/ Health Care	
5	Festival/ Custom	
6	Entertainment	
7	Housing	
8	Transportation	
9	Tax	
10	Miscellaleneous	
	Total	

c) Durable (Annual)

S.N.	Name of Items	Local Market Price (in Rs)
1	Vehicle	
2	Radio	
3	Television	
4	Freeze	
5	Washing Machine	
6	Mobile Phone	
	Total	