A STUDY OF ECONOMIC INEQUALITY IN NAGALAND

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By

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DECLARATION

I, Mr. Chubakumzuk Jamir bearing Ph. D. Registration No. 660/2015 dated November 18, 2014 hereby declare that, the subject matter of my thesis entitled 'A Study of Economic Inequality in Nagaland' is the record of original work done by me, and that the contents of this thesis did not form the basis for award of any degree to me or to anybody else to the best of my knowledge. This thesis has not been submitted by me for any Research Degree in any other University/Institute.

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ABBREVIATIONS

EU	European Union
GC	Gini-coefficient
GNP	Gross National Product
HCR	Head Count Ratio
MPCE	Monthly Per-capita Consumption Expenditure
MPI	Multidimensional Poverty Index
NER	North-East Region
NSSO	National Sample Survey Organization
OEDC	Organization for Economic Development and Co-operation
SAP	Structural Adjustment Programme
ST	Schedule Tribe
UNICEF	United Nation International Children and Educational Fund
GMP	Global Monitoring Report
WB	World Bank
MNREGA	Mahatma Gandhi National Employment Guarantee Act
SGRY	Sampoorna Grameen Rogzar Yojana
JRY	Jawarhar Rogzar Yojana
SSA	Sarva Siksha Abhiyan
PCA	Principal Components Analysis
CCS	Combine Components Score
LC	Lorenz Curve
IRDP	Integrated Rural Development Program
AYUSH	Ayurveda, Yoga, Unani, Sidha, Homoeopathy
NRHM	National Rural Health Mission
JSSK	Janani-Shishu Suraksha Karyakar
SJGSY	Swarna Jayanati Gram Swaragzar Yojana

CHAPTER I

INTRODUCTION

1.1: Introduction and Concept

Economic Inequality can be defined as a situation where there is uneven distribution of wealth and income among the citizen of the society due to which some are 'poor' and other are 'not poor'. Both of these inequalities act and counteract upon each other. Since social inequalities stands as a main cause of economic inequality, while at the same time, economic inequality hold up social inequality. These socio-economic inequalities are responsible for the poverty of a state and "these inequalities may itself be not only a cause of the existing poverty, but also at the same time its consequences" (Myrdal, 1970). The process of economic inequality has been a source of worldwide economic and social disorder. It has become a strike in the hands of social reformers and a spot of intellectual debate among academicians and policy makers. There has been innumerable empirical research, attempting to measure the depth and the extent of economic inequality, both within and across nations. Inequality is a correlation of control by an individual, group or class over another in the society (Montanty, 1983). Inequality is in itself an ill at ease word, use in connection with a number of awkward social and economic problems (Cowell, 1995). The reason why income inequality exists is that people in an economy differ from each other in many ways that are related to their income. The early literature on the evolution of income inequality over the process of economic growth used to be subject by the Kuznets hypothesis, according to him income tend to be distribute fairly equal in the poorest countries. As these countries begin to

undergo economic development, their income distribution become more uneven, this decline in equality is likely to be arrested and reversed again after these countries reach a certain threshold of economic development and aggregate prosperity (Kuznet, 1955)

Poverty and inequality are nothing but the two sides of the same coin better known as economic growth. This is because the problems of poverty are primarily caused by uneven distribution of the benefits from economic growth. Poverty can be defined as a social phenomenon in which a section of the society is unable to fulfill even its basic necessities of life (Rowntree, 1901, Mowafi and Khawaja 1979, Ringen 1987). There are different types of poverty such as absolute poverty referred to the subsistence below a minimum, socially acceptable living condition, established based on nutritional requirements and other essential goods. Sometimes known as subsistence poverty, absolute poverty was expressed in simple absolute terms as the equivalent sum of money required to attain minimum desired nutrition (Bardhan, 1970; Minhas, 1970; Plotnick and Skidmore, 1975; Coates and Silbum, 1970: Baran and Sweezy, 1966). The concept of relative poverty is mostly applied to develop countries but is also largely replacing the classical concept of absolute poverty in less developed and developing. Generally, relative poverty compares the lowest segments of a population with upper segments, usually measured in income quintiles or deciles (Mack and Lansley 1985; Galbraith, 1958; Atkinson, 1975; Rein, 1970). Relative poverty measures are used as official poverty rates by the European Union, UNICEF and OEDC (Blastland, 2009). Rowntree also distinguished between primary and secondary poverty. He considered that household whose income was too low to provide minimum necessities were in primary poverty, while families whose income were marginally above the poverty line would be called as

secondary poverty. The latest definition of poverty is in terms of multidimensional poverty index proposed in 2010 by Sabina Alkire and Foster of Oxford University. Multidimensional measure can incorporate a range of indicators to capture the complexity of poverty and better inform policies to relieve it. Different indicators can be chosen appropriate to the society and situation (Alkire and Foster 2011, Alkire and Seth 2011). Multidimensional Poverty Index is an index designed to measure acute poverty. First, it includes people living under condition where they do not reach the minimum internationally agreed standards in indicators of basis functioning's (Sen 1999, Sen, 1987, Thorbecke 2008, Tsui 2002, Ravallion 2011, Rippin 2010) such as being well nourished, being educated or drinking clean water. Second, it refers to people living under conditions where they do not reach the minimum standards in several aspects at the same time. In other words who experience multiple deprivations; such undernourished and do not have clean drinking water, adequate sanitation or clean fuel.

Poverty exists in society due to low level of economic development. Many studies shows that development in infrastructure leads to better economic development and helps in uplifting the standard of living and narrows down the inequality level in the society. In today's competitive world it is difficult for an economy to seek to be strong without sound infrastructure facilities. The importance of infrastructure for development was recognized early with the emergence of developmental economics (Hirschman, 1958; Rostow, 1959 and Rosenstein-Roden, 1943). Nowadays infrastructure development is becoming necessary in the modernisation process of state and the urban system are heavily dependents on infrastructure networks to make their economic and social systems function effectively (Graham and Marvin, 1994). This infrastructure development

generates distributional effects and growth effects, distribution effects generate individual income, output within and outside the region where as growth effects are the total benefits accumulated from rise in economic output, productivity, employment, reducing poverty and inequality (Calderon and Serven, 2004). Since, infrastructure is a pre-requisite to economic development, its deficiency, ipso facto, explains the backwardness of the region. It may be truly said that the importance of infrastructure for economic development could hardly be ignored, as the superstructure of a country overall wealth hinges on it (Ferrerira and Issler, 1995, Day and Zou 1994). International organization such as the World Bank, has taken development of infrastructure as their main objective to boost economic growth, education, reducing poverty level, income inequality and environmental sustainability especially to underdeveloped and developing nations. Studies done by Mentolio and Sole-Olle (2009) Songco (2002) shows the improvement in transport facilities helps to determine the scope of economic development and found that higher economic growth level generates from better transport infrastructure and that public investment on road construction in underdeveloped regions is crucial to economic growth and helps in reducing poverty. Raikhy and Singh (1990) also attempted to study power infrastructure as the engine of economic growth and found that abundantly supply of power helps in bringing radical changes in socio-economic life of a region. However Myrdal, (1968), examined on direct and indirect role of education on capacity building of a country and found that education encompasses better health, nutrition and improves socio-economic condition. It is one of the most important social infrastructure variables which is having direct link with the level of income, human capital and standard of living. Joshi (1990) also attempted to study the relationship between health and work

efficiency and it was found that good health condition helps in providing better opportunities for development.

1.2: Review of Literature

Economic inequalities are a well researched and debated topic across the world at different level. Inequalities with regard to infrastructure, income, wealth and poverty have been studies. Works on inequalities are highlighted below.

Alagh (1971) attempted to studies the social and physical infrastructure development in India. The finding shows that infrastructure development in India must give importance not only greater availability of infrastructure facilities but also on improvement in their efficiency. They suggested need for decentralization in order to arrive at the best planning and implementation method.

Shah (1970) analyzes the infrastructure facilities that exist in India at the time of independence. The study found that there exist positive correlation between per-capita income and level of infrastructural development in India.

Tewari (1984) studies the inter-regional disparities in levels of development in India taking two points of time, 1970-71 and 1980-81. The results suggested that in 1970-71, six states had both higher level of infrastructure and economic development. It has been found that two states namely Maharashtra and West Bengal shows low infrastructural but high developmental level, while Andhra and Himachal Pradesh had relatively lower levels of economic infrastructure but high level of development. The article points out that there exist a direct relationship between infrastructure and development.

Dadibhavi (1991) studies the social infrastructure in India over the period 1970-71 to 1980-85 taking education and health indicators using principal component analysis. It has been found that even though there had been remarkable progress in the availability of

social infrastructure. It has been found that there is a direct relationship between social infrastructure and economic development.

Fan *et. al* (1999) study showed that infrastructure development in the region helps in reducing poverty. The study found that increased government expenditure on infrastructure such as health, education and technology, poverty alleviation programme and thus contribute to agriculture productivity, which in turn increases income and finally reduces rural poverty.

Fan and Hazzell (2000) presented a study of the effect of infrastructure on poverty reduction using state-level data for 1970 to 1993. The results shows that government spending on productivity enhancing investment, such as agricultural research and development and irrigation, rural infrastructure (including road and electricity), and rural development targeted directly to the rural poor.

Majumder (2005) the article focus on regional development and regional infrastructure levels such as agriculture sector, industrial sector, human development and financial sector. The major findings of this paper highlights that there has been noticeable rise in levels of infrastructure and development during study period, at the same time regional disparities have been increased in the post Structural Adjustment Programme (SAP) period indicating that perhaps this era has content the better-off region and deserted the weaker regions. He suggested that proper identification of region as regards their development level and then concentrating on the lagging regions for infrastructural upgradation should be a priority area of action.

Deepika (2003) this study is primarily focused on the productivity impact of economic infrastructure, social infrastructure and aggregate infrastructure in India for the period

between 1965 to1999. The result shows that infrastructure plays a positive and significant role in affecting the productivity in the industrial sector in India and thus contributes towards economic growth. He suggested that infrastructure provision enhances the productivity in the economic sector and it helps to lower the cost of production.

Lall (1999) analyse the efficiency of public infrastructure investment in Indian states, finding shows that social infrastructure has a positive impact on output while physical infrastructure shows negative results on output.

Roa (1999) study the propositions of the neo-classical growth model of Solow and Swan to determine the role of infrastructure and power shortage on the rate of growth of per capita income using cross-section data on Indian states for the period 1970-90. The finding shows that the level of per capita income across states in not consistent as a result it effect development process of infrastructure in India.

Ghosh and De (1998) the paper analyse the relationship between physical infrastructure and regional economic development in Indian states during 1961-62 to 1994-95. The results shows that regional disparity has been raising in recent years and planning process failed to play a major role for development of physical infrastructure. Secondly, regional disparity in physical infrastructure contributes to income inequality across the states.

Ram (1995) points out the inter-district disparities in socio-economic development in Himachal Pradesh during 1973-74 to 1990-91. The study revealed that inter-district inequalities in overall socio-economic development had shown a converging tendency over the period. It has been found that under-development was associated with smaller number of developed sectors and a higher level of socio-economic development was related to a greater number of developed sectors.

Goswami (1999) studies the development of power sector in North-East India and also aim to analyse the imbalance between demand and supply of power. It has found that there is acute shortage of power supply in the region and the gap between demand and supply is ever increasing. So, rapid expansion of power infrastructure is needed in order to electrify the unelectrified villages in the region.

Dutta (2003) examine the rapid socio-economic transformation has been taking place in Indian Economy while addressing the problems of regional inequality, for which North-East are suffering due to lack of fund, development and improvement of social-economic backwardness. The study found that North-East Region are far from other states of India so far as the basic facilities of life such as education, health, water supply, electricity, road, banking, etc. is necessary for rapid development in the region.

Neogi (2010) brings out the extent of inter-state disparity of North-East Region of India on social and economic aspects. The study considered fifteen variables on social and economic aspects for two specific period of time i.e., 1995 and 2005. The findings highlights that many of the North-East state shown improvement in socio-economic aspects but as a whole development level in the region is declining due to lack of fund and implementation of policies.

Laxminarayan (1970) analyze Nagaland economy considering both social and physical infrastructure and stated that the economy is based on agriculture, primitive techniques of production, poor education facilities, lack of medical facilities and limited financial resources for economic development. According to him for rapid economic development emphasis must be on building road transport and communication, electricity, water supply, health, financial institution etc.

Saleh (1989) study the economic development of Nagaland including primary, secondary and tertiary sector, she highlighted the development process during Third, Fourth and Fifth Five Year plans and highlighted the infrastructure development of Nagaland from 1960-1980. The result shows the progress of infrastructure facilities like education, health, power, road, banking, water supply from 1960 to 1980.

Jamir (2006) studies the importance of physical and social infrastructure in the process of economic growth in Nagaland. The results show that most of the districts suffer from socio-economic overhead capital, and the spread had been unequal across districts. The author gave due importance to public investment in agriculture, industry, trade and service etc. and enhances the productive capacity.

Baishya and Deka (2010) study the level of social and physical infrastructure facilities in Nagaland considering education, health, power, water supply, banking, transport and communication. The key findings of the study are that the existing infrastructure facilities are inadequate and need to be strengthened to meet the ever increasing demand of the state.

Ezung and Jamir (2016) examine the level of development in Nagaland and regional disparity among the districts using seven variables and found that the level of development index indicates that the districts of Kohima, Dimapur, Zunheboto and Mokokchung are categorised as developed districts while moderately developed districts are Wokha, Phek and Peren and less developed districts are Tuensang, Mon, Longleng and Kiphire. They suggested that high priority should be given in the development of road and electricity in less developed districts. This development will lead to proper utilization of resources from a mineral rich district like Kiphire.

Nakhro (2010) attempt to analyse the role of infrastructure facilities in rural development of Nagaland and the results shows that Kohima and Mokokchung districts provide better facilities compare to others districts. He suggested that state need more number of medical institutions, postal services and financial institution to boost economic development in rural areas.

Dandekar and Rath (1971) examine the average per capita calorie consumption per day for both the rural and urban. On the basis of the NSSO data on consumer expenditure, they revealed that, in rural area, the household with monthly per capita of Rs. 14.20 at 1960-61 prices and consumed on an average food with calorie equivalent to 2250 per capita per day together with such non-food items as they chose, in urban areas monthly per capita expenditure of Rs 22.50 at 1960-61 prices. On average per capita monthly expenditure of Rs 20 was considered to be the national average. On the basis of these criteria, they estimated that in 1960-61, 40 per cent of rural population and 50 per cent of urban population are still living below poverty line. They suggested that whereas the Planning Commission accepts Rs 20 per capita month (240 per annum) as the minimum desirable standard, it would not be fair to use this figure for both rural and urban areas.

Bradhan (1973) measure the income poverty by the consumption expenditure of Rs 15 at 1960-61 prices imply in 1964-65 and 1967-68 at current prices. The results show that 38 per cent of the rural population lived below the poverty line in 1960-61. Thus, it was found that the incidence of poverty has increases from 38 per cent in 1960-61 to 63.1 per cent in 1967-68.

Malik (2000) studies the poverty level from 1952-1973 using NSSO and found that from 1986-87 there is sharp decline in poverty rate. The study also showed that there was a

sharp increase in poverty in 1992 which decline after 1993-94. The decline in rural poverty is due to increase in agriculture wages. The study found that decline in rural poverty is faster than urban poverty. The author found that the impact of economic reforms was negative which increases the poverty level but slowly favourable results have been observed.

Minhas (1970) examine the poverty line in terms of per capita consumption expenditure. He refers to a distinguish working group of 1962 set up by the planning commissions which recommended per capita consumption expenditure of Rs 240 at 1960-61 prices. On the other hand Minhas point out that the poverty line for rural areas is Rs 200 per capita per year. In comparison, he has shown that by taking Rs 200 as the minimum level of living, the number of people below the poverty line was worked out to be considerable lower. Taking Rs 240 at 1960-61 prices as the minimum level of living, the proportion of people living below poverty line has come down from 65 per cent in 1956-57 to 50.6 per cent in 1967-68.

Ahluwalia (1977) examine the inverse relationship between rural poverty and agriculture growth using time series analysis over the past two decades i.e. from 1956-57 to 1972-73 using NSSO data. The poverty line used estimated at Rs 15 per person for 30 days at 1960-61 rural prices. The result shows declining in rural poverty from over 50 per cent in the mid-fifties to around 40 per cent in 1960-61. It has been found that the state of Assam and West Bengal shows a significant trend increases in rural poverty, where as Andhra Pradesh and Tamil Nadu show a decline in the rural poverty. Again result shows the state of Punjab and Haryana experience increasing trends in rural poverty, despite the visible success of the Green Revolution.

Fan *et.al* (2000) study the rural poverty in India and conclude that the level of rural poverty has been declining continuously, much of the steady declined in poverty from the mid-1960s to early 1980s has been attributed to agricultural growth, but the downward trend in rural poverty continued even when the agricultural growth rate slowed after green revolution and also poverty decline rapidly in the state that benefited relatively little from the green revolution. Again the finding shows continuous decline in rural poverty in short term is due to the positive impact of public expenditure on road, agricultural research and development, education, irrigation, soil and water conservation, health, power etc.

Saikia and Saikia (2015) the study is to investigate the poverty and income inequality among of Schedule Tribes (ST) in Morigaon district of Asssam which consist of six blocks i.e. Bhurbonda, Mayong, Kapili, Lahorighat, Dolongghat, Baropujiwa and found that the per capita income of schedule tribes is lower in all blocks than that of non-schedule tribe. It has been found that in terms of per capita income of Schedule Tribes, Mayong is at the top and Baropujiwa is at the bottom. For instance, in Bhurbondha, a typical poor schedule tribes can afford to purchase only 76 per cent of the minimum basket of goods and services necessary to keep them on the poverty line, whereas Dolongghat consist of 57 per cent and as low as 54 per cent in Baropujiwa. A typical poor non-ST however can buy 61 per cent of their minimum needs, this shows substantial inequality between a typical poor non- schedule tribe and a schedule tribe with regard to standard of living.

Ninan (1994) this paper analyses the trends of rural poverty across Indian states during 1957-58 to 1986-87 and the study period is divided into two phases i.e. phase 1(1957-58

to 1968-69) were the rate of decline in rural poverty is higher than phase 2 (1969-70 to 1986-87). Also, the rate of decline in the incidence of rural poverty in the latter period was much higher than the rate of increase in rural poverty in the preceding period using both time series and cross-section analysis. The results also points out some important factors responsible for affecting rural poverty such as poor agriculture growth, high rate of inflation, population growth, environment issues, poor implementation of welfare programmes, rural consumption level, inequality in consumption and poor rural infrastructure.

Uma and Juan (2007) study the relationship between employment and poverty level in India. The data of households were collected at three time period 1983, 1993-94 and 1999-2000 for both rural and urban areas separately. The results show the important role of employment for poverty reduction. Lower education levels are the main obstacle for substantial poverty reduction in the country.

Bhalla (2003) analyzed the poverty level using per capita consumption expenditure and concludes that less than 15% of the total population lives under poverty line during 1999-2000 corresponding to 35-40 per cent World Bank estimate for the same year and 26% per cent estimate by government of India and the main factor responsible for poverty in India is due to inequality in consumption, unemployment, declining real wage in agriculture sector, slow growth rate.

Datt and Ravallion (1998) in his study on farm productivity and rural poverty shows the relative position of poor people improve or worsen with agricultural growth in rural areas, using data spanning the period from 1958-94 and finds out that both higher agriculture wage and higher yield reduce rural poverty and inequality.

Kurian (1989) examine the anti poverty programme during the sixth five year plan (1978-83) which visualized the Integrated Rural Development Program as a total development model for rural areas with the community development block as the unit of planning, where the very poor section of the society would be benefited from primary education, health service, drinking water etc, apart from infrastructure services like rural road and rural electrification. By and large, the benefits of all these facilities and others, like subsidies inputs and credit for production purpose, are distribute in rural areas in proportion to the existing assets and income. It has been found the basic philosophy of IRDP is to depend on the entrepreneurial abilities of the poor who do not have the needed capital. The main thrust of the programme is to provide the needed asset and the requisite skills for development.

Fosu (2008) in his study on inequality and the growth of poverty points out that poverty has become one of the important global issues. The growth of poverty is mainly because of income distribution. Applying analysis of covariance to 1990s African data, the study finds the impact of growth as a decreasing function of inequality and a poverty which show that roughly 50% of Africa population is in poverty.

Aram (1972) conducted a study on socio-economic aspects of Nagaland which emerged from the traditional tribal farm and move into the modern agro-industrial phase. It has been found that over a period of time inequality had been developed between the different sections of the population in both the urban and rural sectors, whereas the bulk of population was still living under poverty and as a result of it, gap was ever increasing between educated and uneducated sections in the state.

Abraham and Kumar (2008) examine the multidimensional poverty of 15 major states over two time periods i.e.1993-94 and 1999-2000 and taking NSSO data and study the indicators like consumption, education, sanitation, access to water, source of energy for cooking and dwelling for both rural and urban areas of India and concludes that in rural areas, all states perform poorly in the sanitation and energy except Kerala and Assam. And also Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Rajasthan and Tamil Nadu shows improvement in education dimension. Rural Orissa witnessed deterioration in performance in the consumption dimension whereas in Madhya Pradesh, performance remained stagnant in that dimension. In urban areas state which shows improvement over time are Andhra Pradesh, Kerala, Assam, Gujarat, Karnataka, Punjab, Tamil Nadu and Uttar Pradesh. It was found that less improvement in all the dimensions where observe for the states of Madhya Pradesh, Haryana, Rajasthan and West Bengal, Bihar, Orissa, Maharashtra.

Aziz (2000) analyzed the progress in reduction of rural poverty both at the national and state level but inequality has been increasing in different parts of the states. The results shows better performance of some states helps in reducing poverty in the 1990s was partially due to higher growth and lower level of inflation rate.

Nayar (2005) study the rural poverty and economic growth across various states in India using panel data for 1983-2000 and concludes that economic growth is an important determinant of poverty reduction by raising the level of income, again public expenditure on anti-poverty programmes, spread of education, distribution of land, setting up of social and political institution, which make for democratic decentralization reinforce the transformation of economic growth to poverty reduction.

Hansda and Ray (2006) he points out the negative relationship between unemployment and poverty, taking the 55th and 60th Round NSSO report and found urban unemployment rate has been consistently higher than the rural rate, where as urban poverty ratio has been lower than the rural poverty ratio. Similarly, higher poverty ratio has been observed among the female than male counterpart, it has been observe household below poverty line have lower consumption expenditure on food, clothing, education etc.

Thamarrajakshi (2003) he analyzed the poverty level in India using NSSO report for 1999-2000 and found that during the post reforms period, the poverty ratio has not been declining continuously, because of slow growth rate of agriculture, high rate of inflation, declining in the growth rate of employment and slow implementation of anti poverty programmes.

Kumar, *et.al* (2015) studies the multidimensional poverty deprivation of 104 countries using health, education and standards of living. The results show that 51 per cent of South Asia and 28 per cent of Africa are multidimensional poor. India lies on 73th position from 104 countries with a 53 per cent are multidimensional poor. Among the 28 states Goa, Punjab, Himachal Pradesh and Tamil Nadu are in vulnerable stage. Kerala remains in top position, while remaining states remains in the bottom positions. They suggest that multidimensional poverty index is the most important measure of the poverty because of its multi-dimensions and multi indicators which provide the reason behind the causes and effect of poverty and the solution how to prevent poverty

Deaton and Dreze (2002) examine changing patterns of inequality during the 1990s. Firstly, there is a strong evidence of divergence in per capita consumption across states. Secondly, their estimates of state-wise per capita expenditure revealed that rural-urban

inequality in per capita expenditure significantly increased at an all-India level. They also found strong evidence of increased rural-urban inequality within states between1993-94 and 1999-2000, with the southern and western regions doing much better than the northern and eastern regions. Most of the developmental indicators, like health and education shows positive result, whereas employment shows negative results which finally results in increasing the poverty level.

Ahluwalia (2002) also Points out the trends of increasing inequality among states by using per capita gross state domestic product data from the period 1980-81 to 1998-99. The results from Gini-Coefficient indicate inter-state inequality, which confirms that inter-state inequality grew steadily in India after economic reforms of 1991.

Sen and Himanshu (2005) studies the growing level of poverty and inequality in India based on the 50th and 55^{th} Round of NSSO. They highlighted the striking evidence about increased inequality in India in the post-reform period, they pointed out that consumption level of the upper section of the population, including the top 20 per cent of the rural population, went up remarkably during the 1990s, the bottom 80 per cent of the rural population suffer during this period, no doubt the consumption inequalities between the rich and the poor and between urban and rural India increased during the 1990s.

Agarwalla and Pangotra (2011) in their studies on regional inequalities in the level of economic growth, states have experienced different pace of economic growth, with some states showing fast progress and others languishing behind, although the national growth has been remarkable for the past two decades. The study re-examines the issue of convergence/divergence in regional incomes for the period of 1980-2007, a period of rapid growth in Indian economy. The period can be divided into two sub periods, i.e. the

pre-reform period (1980-1992), and the post-reform period (1993-2007), during this period, industrial expansion was heavily state controlled, with the objective of helping the lagging regions, GDP growth rate for this period on an average was around 5.3%, and the per capita income growth rate was around 3.2 per cent. During the post-reform period, the growth rate of Indian economy has risen to 5.9 per cent and per capita has grown at around 4.1 per cent because of a declining population growth rate.

Gaur (2010) in their studies points out that regional imbalance has been one of the major problems in the country. After independence, reduction in inter-state inequalities has been emphasized during successive Five Year Plans; again it has been found that growth failed to pick up in states such as Bihar, Orissa and U.P, as a results regional imbalance increases. The Eleventh Five Year Plan has also admitted that regional inequalities have continued to grow and the gap have been accentuated as the benefits of economic growth have been largely confined to the better developed areas.

Kundu and Varghese (2010) this article analyses the trends and patterns of economic inequality across Indian states since the early 1990s. He finds the inter-state inequality in per capita income and consumption expenditure show a clear increasing trend during the first and second phase of structural reform. However, the strategy of inclusive growth and balanced regional development launched since 2003-04, has led to acceleration in the average growth in the less developed states, including those in the North-East region. Further, poverty reduction has been relatively less in less developed compared to developed states, resulting in concentration of poverty in a few backward states. The correlation of economic development with amenities, although statistically significant, is relatively low, which suggests that the problems pertaining to health, education, and

access to other amenities cannot be effectively addressed just by focusing on economic development.

Naga and Lamiraud (2009) in their paper designed to provide an overview of picture of developing countries such as India working in informal sectors and their health related risks which will create major impact on consumption and can severely disrupt household welfare. The study using Engle curve finds that cost for public and private health care services are driving many families in to poverty, and are increasing the poverty of those who are already poor.

Roy (2012) in his study points out that per capita income in all states in India increased in the past four decades but at the same time disparities in terms of income were higher within the rural areas across states compared to their urban areas. This is mainly because of the development activities undertaken by the government as well as by the private sector only in the developed region. He also point out declining gap in terms of various human development indices such as literacy rate, general enrolment ratio and life expectancy at birth across states and shows that gaps also declined between the rural and urban segments within states. Again the share of agriculture in state domestic product declined for all the states but it did not result in a decline in income gap across states.

Jha (2000) examines the relationships among inequality, poverty and economic growth in India using data on consumption from the 13th to the 53rd round of the National Sample Survey. The study revealed that rise in inequality has been the result of three factors (1) a shift in earning from capital to labour income (2) the rapid growth of the service sector particularly the banking, financial institutions, insurance and real estate sector, and (3) a drop in the rate of labour absorption during the reform period, the author concluded that

both inequality and poverty do converge, but inequality acts as a constraint on economic growth.

Mckay and Pal (2004) points out the relationships between household consumption and inequality over the period from 1960-94, the author points out that higher consumption and inequality differ from state to state; the nature of these relationships will reflect the pattern of growth and other state-specific factors like geographic location, demographic, political and economic. The panel data analysis suggests that the availability of bank credit has a positive impact on growth in both rural and urban areas, but is generally associated with higher or increasing inequality.

Sinha (2004) examined its validity for the Indian economy during the period from 1980-81 to 1997-98. The results provide an econometric explanation for the increase in inequality after 1990-91 economic reform. The conclusion state that the reason for the inequalities inherently lies in the social and political restructuring taking place in the economy.

Gupta and Singh (1984) study the extent of income inequality and change in income inequality across countries, whole study was divided into two periods, first one with 1960 and another one with 1970 for the 27 selected countries. The study concludes that income inequality varies widely among countries in the world. Countries with low income inequality are Korea, Holland, Sweden, United Kingdom and Yugoslavia where Brazil and Mexico are considered as high income inequality. The author also supports the Kuznets hypothesis of U-shaped curve between inequality and the per capita income.

Edward (2006) analyzed the global consumption distribution to study the interactions of poverty, inequality and growth at the global level. He used data for 147 countries

covering the period from 1993 to 2001. The findings of this study conclude that world Gini-coefficient rise from 0.652 in 1993 to 0.657 in 2001 and the economic growth did not support the poor; but it was much better for the rich.

Chattopadhyay and Ghosal (2004) points out the degree of inequalities in consumption across the states in rural India. The main findings of the study include: firstly, it has been found that degree of inequality in the distribution of rural consumption expenditure has indeed declined both at the national and state levels. Secondly, while the percentage of people living below poverty line has declined, the relative share of the bottom 20 per cent of the rural population in the aggregate consumption has declined in some states during the post globalization period.

Bhanumurthy and Mitra (2004) made an attempt to decompose the changes in poverty over the two time periods from 1983-84 to 1993-94 again from1993-94 to 1999-2000. They study the three effects such as growth effect, inequality effect and population effect, covering rural and urban areas of 15 major states and at the all India level. The study found that growth effect had been dominant and resulted in decline in the incidence of poverty in both periods. The undesirable inequality effect also fell in magnitude in the reform period. The authors concluded that both economic growth and its ability to reduce poverty were achieved in the reform period.

Pal and Ghosh (2007) he also examine the increasing problem of inequality and poverty in India after the economic reforms and points outs the main factor responsible for these trends include, fiscal tightening, regressive tax policies and expenditure cuts and also financial sector reform that reduced institutional credit flow to small producers and farmers, liberalization of rules for foreign and domestic investment.

Anand and Thampi (2016) examine the trends in wealth ownership and its inequality in India between 1991 and 2012 comparing the three rounds of All-India debt and Investment Survey data using Gini-coefficient and Lorenz curve and found that in 2012, the rural population share was 68 per cent while its wealth share was only 45 per cent, whereas urban population share was 32 per cent, while its wealth share was almost 55 per cent. Again the ratio of urban to rural average per capita value of assets increased continuously from 1.41 per cent in 1991 to 1.67 in 2002 and further increase to 2.60 per cent in 2012. Meanwhile, the rural assets share to population share ratio fell from 0.91 in 1991 to 0.66 in 2012, while the same ratio for urban areas raised from 1.28 per cent in 1991 to 1.72 per cent in 2012. The finding clearly shows that, there is a massive increase in wealth inequality since 2002, but urban witnessed a slight decline in wealth inequality between 1991 1nd 2002. Thus, there is clear evidence of a rising rural-urban wealth gap in the post-liberalisation period the Gini-coefficient shows high level of inequality.

Raychaudhuri and Haldar (2009) the study points out the inter-district disparity in West Bengal during 1991-2005 and the finding clearly shows a rising inequalities among the district in the first half of the present decade after a continuous decline in the last decade of the century.

Sakar and Mehta (2010) examine the income inequality across country using the NSSO and the entire study is divided into two periods, pre-reform and post-reform data and concludes that during pre-reform period (1983-1993-94) income inequality decline in rural area but the post-reform period (1993-94 to 2004-05), the inequality in both rural and urban areas had increased substantially mainly due to improvement in education, rise in employment, industrial growth and gender equality.

Ang (2010) the article attempts to study the distributional impact of financial development and income inequality, the data collected were from 1951-2004, during 1950-1960 saw a significant reduction in income inequality as indicated by Gini-coefficient. However, despite this positive development, a significant number of people continued to live below the poverty line, but reduction in income inequality however, slowed in the 1970-1980 due to poor agriculture performance, high rate of inflation. Again income inequality increased sharply following the 1990 balance of payment crises, since then, the strategy for alleviating poverty has been shifted to the accelerating of growth and the creating of jobs for the poor. Although the Indian economy has achieved remarkable growth since the reforms in the early 1990s, the reverse trend in the Gini-coefficient suggests that there reforms have been accompanied by a significant rise in income disparity.

Dubey (2009) this paper examines the intra-state inequalities in five states in India, Gujarat, Haryana, Kerala, Orissa and Punjab. The result shows that Punjab has the highest level of inequalities in poverty incidence followed by Gujarat and Kerala. Haryana has the least inequalities only marginally lower than that in Orissa compare to 1993-94, disparities in poverty incidence have increased in all the states but the highest increase is in Kerala where the Cov of the Head Count Ratio has increased by close to 40 per cent points. The second highest increase is seen in Punjab, by 33 per cent points. The Cov in Gujarat increased by about 25 per cent points, the lowest increase was in Orissa 6 per cent which was lower than the increase in Haryana.

Although so many works has been done on infrastructure, poverty and income inequalities in the country, less work has been done on economic inequality in the state. Thus, this study was done to fill the lacuna of literature in the state.

1.3: Period and Area of Study

Nagaland is a state in the far north-eastern part of India. It is originally a tribe state covering an area of 16,579 sq. km (approx). It borders the state of Assam to the west, Arunachal Pradesh and of Assam to the north, Burma to the east and Manipur to the south. The state of Nagaland has a population of 19, 78,502 as per the 2011 census making it one of the smallest states of India (Census of India, 2011).The state is mostly mountainous except that area bordering Assam valley. It is located 98° and 96 ° East longitude and 26.6° and 27.4° north latitude of the equator. Nagaland, the 16th state of the India Union, was established on December 1, 1963. It is divided into twelve districts, Kohima, Phek, Mokokchung, Wokha, Zunheboto, Tuensang, Mon, Peren, Longleng, Dimapur, Kiphire and Noklak. Now, taking the geo-cultural similarities of the districts, Kohima and Longleng districts were chosen for the study. The data were collected from these two districts during 2015-16.

1.4: Statement of the Problem

India is a large federal nation and it is well known that there are widespread disparities in the levels of economic and of social development between the different regions of the Indian nation. It is generally recognized that interregional economic disparities increases, at least in the initial stages of national economic development (Nair G.R.K 2004). The World Bank updated poverty line of $1.90 a day, the estimated for 2012 put in light the number of extremely poor people at about 900 million or 12.7% of

global population based on 2011 purchasing power parity. (Global Monitoring Report 2015-16). About 1.5 billion people in the 91 countries covered by the multidimensional poverty index, more than a third of their population live in multidimensional poverty index reflecting acute deprivation in health, education, standard of living (World Bank 2014). As a result, governments everywhere including India used to initiate deliberate policy measures to reduce these disparities. With an aim to reduce income disparities in India, the 'Garibi Hatao' (removal of poverty) and the "growth with social justice" become the main objective of Fifth plan. Thus, Fifth plan gave importance to the problems of unemployment and under-employment only to reduce poverty and inequality in the country. From then on various programmes, such as Mahatma Gandhi National Employment Guarantee Act (NREGA), Sampoorna Grameen Rogzar Yojana (SGRY), Jawarhar Rogzar Yojana (JRY), Sarva Siksha Abhiyan (SSA) etc., were implemented throughout the country so as to reduce disparities in income, employment and education.

Nagaland, the 16th state of Indian union is no exception to other state when it comes to economic inequalities. The state has 14 per cent i.e., 2.8 lakhs of the population is found to be living below poverty line during 2011-12 as per report submitted by Rangarajan committee (Government of India 2014). Moreover, there are disparities among districts with regards to education, literacy rate, availability of medical practitioners, etc, in the state. However, no researcher or government agencies have estimated the level of inequalities that exist among the districts and villages of the state. Therefore, becomes vital to bring out a study on economic inequalities of the state as that would throw light on whether the state is progressing or not.

1.5: Objective of the Study

1. To assess the inequalities in Infrastructural development among the sample districts.
2. To measure the extent of inequalities using head count ratio and multidimensional poverty index.
3. To assess inter and intra economic inequalities among the districts.
4. To study the impact of education on employment, income and poverty.

1.6: Hypothesis

1. The level of infrastructure development is higher in urban areas than that of rural areas.
2. The degree of income inequalities among the rural population is higher than that of the urban population.
3. Higher the education level higher is the employment, income and lower is the poverty rate.

1.7: Methodology

Kothari (2004) defines that the research is an original contribution to the existing stock of knowledge making for its development. In short, the search for Knowledge through objective and systematic method of finding solution to a problem is research. As such the term 'research' refers to the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the data, analyzing the facts and reaching certain conclusions either in the form of solutions(s) towards the concerned problem or in certain generation for some theoretical formulation.

a. Source of Data

The study is primarily dependent on both primary and secondary data. The primary data have been collected through sample survey using well-prepared questionnaires and interview methods. The Secondary data was collected from both published and

unpublished sources such as, government official records, statistical hand books, census reports, journals etc.

b. ***Sample Design***

The primary data were collected using stratified random sampling method during 2015-16. The areas were stratified according to geographical division of East, West, North and South zone. Then from each zone, one village and ward were selected for the study. Thus, four villages and four wards from each district were selected and more over 5 per cent of the total household from each village and ward was interviewed. A total of 301 household were interviewed from the sample village and ward of the two districts. For Kohima district rural area of Jakhama, Kijumetouma, Mezoma and Tsiese Bawe were selected. For Kohima district urban areas of Daklane, Lower Chandmari, Sepfuozou and Upper Agri ward were selected. For Longleng district rural areas of Bura Namsang, Nian, Sakshi and Yachem were selected. For Longleng urban areas of High School, Leinak, Shauli, Shayung were selected for study.

c. Data Analysis: The collected data were analyzed at the households and individual levels using the following statistical tools, such as

c.1. Mean: Its value is obtained by adding together all the items and by dividing this total by the number of items.

$$X = \frac{\Sigma X}{N}$$

c.2. Correlation: Correlation analysis deals with the association between two or more variable. If the variable move in the same direction, correlation is said to be positive, if it move in the opposite direction, correlation is said to be negative (Gupta, 1997 and Radin, 1929). The formula is as follows:

$$R = \frac{N\sum dxdy - \sum dx \sum dy}{\sqrt{N\sum dx^2 - (\sum dx)^2}\sqrt{N\sum dy^2 - (\sum dy)^2}}$$

c.3. Regression: Regression is the measure of the average relationship between two or more variables in term of the original units of the data. In regression there are two variables. The variable whose value influenced or is to be predicted is called dependent variable and the variable which influences the values or is used for prediction is called independent variable (Dagenais, 1969 and Davison and Tsai, 1992). Regression equation of Y on X is as

$$Y = a + bx$$

Where a is the intercept, Y is the dependent variables, x is the independent variables and b is the regression coefficient

$$b_{xy} = \frac{N\sum YX - (\sum Y)(\sum X)}{N\sum X^2 - (\sum X)^2}$$

d. Measure of Infrastructure Inequalities through Principal Component Analysis

The Principal components analysis (PCA) is a branch of factor analysis. This is a straight forward method in which a pre defined set of variables or indicators is reduced to a new set of composite variables or principal components that are orthogonal (un-correlated) to each other. In fact, by this technique a large number of variables taken for analysis have been reduced to components, which retain the maximum amount of descriptive ability. An empirical method for the variance was first proposed by Pearson and later on fully developed as the method of principal components analysis by Harorld Hotelling.

The first principal component is the best linear combination which explains the maximum variance, 2nd principal component is the 2nd best linear combination explaining 2nd largest variance such that the first component is orthogonal to the second component so on. On another word, 2nd component explains the parts of the variance unexplained by the first principal. Thus, 3rd component will explain the part of the variance not explained by first and second components respectively. The process will continue till all the variance in the data matrix is explained completely in the order. The sum of the variance of all principal components is equal to the sum of the variance of the original variables (Hotelling, 1993 and Tarpey, 1999).

Mathematical formulation of Principal Component Model:

A full-fledged principal component model may be put as follows:

$Z_j = a_{j1}P_1 + a_{j2}P_2 + \ldots\ldots\ldots\ldots + a_{ji}P_n$ where

- Z_j = standardized variable

$$= \frac{Xj - X}{\sigma Xj}$$

- $P_{i's}$ are the principal components, $1 \leq I \leq n$
- aji's are the co-efficient or factor loading of j^{th} variable with respect to i^{th} component,
- $1 \leq j \leq m$,
- $1 \leq j \leq n\sigma$

Thus, we can see that each component explain certain portion of variance of i^{th} variable.

In this model, it may be mention that the coefficients ($a_{ji's}$) of the principal components ($P_{i's}$) are the correlation with the observed/standardized variables

(Z_j). Thus, a_{jk} is correlation of P_kth principal component with Z_j^{th} observed variable. Hence, we can see that Z_j^{th} observe variable has n correlation with P_k ($1 \leq k \leq n$) principal components.

The principal components are the linear combination of the standardized a variables with weights in terms of factor loading. Thus, we can put pi = $\sum_{i=1}$ aji Zj.

That is the score for the unit is

$CCSi = W_1S_1I + W_2S_2I$

Where, $W_1 = V_1/ (V_1+V_2)$ = Proportion of variance explained by the first Component with a variance value V_1

$W_2 = V_2/ (V_1+V_2)$ = Proportion of variance explained by the first Component with a variance value V_2

S_1I and S_2I = First and Second Factor Scores for the i^{th} unit.

The CCSi (Combine Component Scores) thus worked out is considered as composite index of development. Village and ward were then ranked according to the combined component scores (CCS). The indices of development or component scores have been calculated with the help of first and second component using XL Stat software.

Standardization of the variables: The Theory of adoption of principal component analysis bis mainly focused on the variance of the data-matrix. Since, the data matrix is made up of composite entries with different units, the moderation o f the data is necessary to be comparable to ensure the removal of scale effect. Thus, we need to make the data comparable with the help of some adjustment. There are many techniques for such moderation. Few methods worth- mentioning are (i) division by mean, (ii) division by

standard deviation, (iii) normalization, (iv) division by an arbitrary chosen value and (v) standardization which is adopted to remove the scale effects etc.

Among all these methods, the standardization method is most popular and is commonly used for reducing the scale effects from a pooled data matrix. A brief description, as appeared above, is given below:

$$Zij = \frac{Xij - Xj}{\sigma Xj}$$

Where Z_{ij} = standardized variable of x_{ij} variable,

Xj = Mean of the x_j variable, and

σ_{xj} = Standard deviation of x_j th variable.

Similarly, for other columns also, we can prove in the same way. Without loss of generality, we can show that variance of each column is 1. Thus, n Columns together has n variances

Further, from algebra we know that trace of a matrix is the sum of in the main diagonal, the trace of the matrix is n (i.e., 1+……+1, n times). Further, sum of eigen to the total eigen value of the matrix under consideration.

In view of the above, in the present study to find first principal component means finding the components which explain maximum variance of the data matrix or which accounts the maximum Eigen value of the matrix. The most commonly used method is the variance method, which attempts to minimize the number of variables that have loading on a factor.

e. Measure of Poverty and Income Inequality

e.1. Head Count Ratio: This measures give the proportion of the total population deemed to be (i.e., those below poverty line). Let Z be the poverty line and Y be the income/calorie intake of the person with income/calorie intake arrange in ascending order so that $Y_i \leq Y_{i+1}$ for all I, let 'n' denote the total number of people in the community and 'q' the number of people below poverty line.

The Head Count Ratio (H) if then

$$H = \frac{q}{n}$$

But Sen observed in 1976 that Head Count Ratio (H) is very crude index. This is highly insensitive to the extent of the aggregate short fall of the income from the poverty line as well as to the distribution of income amongst the poor.

e.2. Lorenz Curve: Income intake inequalities in different group have been examined with the help of Lorenz Curve. The Lorenz Curve shows the percentage of income intake received by X percent of population, X varying from 0 to 100 (Thon, 1983 and Satchell, 1987). The advantage of Lorenz curve comparison is that we can say something about the comparative levels of social welfare without specifying anything very particular about the exact welfare function. The degree to which a line Lorenz Curve deviates from the line of equal distribution is a measure of inequality of distribution of income. The further the curve moves away from this line the greater is the inequality. The degree of this inequality at any stage is indicated by the distance from the equal distribution line. But sometimes distribution does not have this property. Thus in the study on the distribution of income intake, references is frequently made to the Gini-coefficient

e.3. Gini-coefficient Model: Gini-Coefficient is used to attach some absolute measures to the degree of inequality or gives some idea whether the inequality is large or small. Gini-coefficient not purely statistical and it embodies implicit judgment about the weight to be attached to inequality at different points on the income scale (Gini, 1912). This co-efficient may be interpreted in two ways. First, it may be seen geometrically terms of Lorenz Curve

$$\text{Gini-coefficient} = \frac{\text{Area between Lorenz Curve and Diagonal}}{\text{Total Area under Diagonal}}$$

The co-efficient may be seen to range from zero when income intake is equal (Lorenz Curve follows the Diagonal) to one and at the other extreme (The Lorenz Curve have > Shape). Secondly, it may be computed mathematically using Rao's definition as follows area between Lorenz Curve and Diagonal (G) is given by

$$G = \sum_{i=1}^{n-1} (F_i Q_{i+1} - F_{i+1} Q_i)$$

f. Multidimensional Poverty Index: Multidimensional Poverty Index is an index designed to measure acute poverty. The MPI measures those experiencing multiple deprivations on year of schooling, school attendance, nutrition, child mortality, cooking fuel, sanitation, water supply, electricity, housing floor and assets. The MPI combines two key pieces of information: the proportion or incidence of people (within a given population) who experience multiple deprivations and the intensity of their deprivation: the average proportion of (weight) deprivations they experience. Formally, the first component is term as multidimensional headcount Ratio (H) (Alkire and Santos 2010, Atkinson, 2003).

$$H = \frac{q}{n}$$

Here q is the number of people who are multidimensional poor and *n* is the total population. The second component called the intensity (or breadth) of poverty (A). It is the average deprivation score of the multidimensional poor people and can be expressed as:

$$A = \frac{\sum_{i=1}^{n} ci(k)}{q}$$

Where $c_i\ (k)$ is the censor deprivation score of individual *i* and q is the number of people who are multidimensional poor.

The MPI is the product of both MPI = H×A.

CHAPTER II

INEQUALITIES IN INFRASTRUCTURAL DEVELOPMENT IN NAGALAND

This chapter deals firstly with district-wise socio-economic infrastructure of Nagaland during 2015-16 followed by inter district inequalities in terms of absolute values of indicators with the help of Principal Component Analysis (PCA) commonly called Factor Analysis. Secondly, district wise rural-urban study was undertaken on economic as well as social infrastructure of selected indicators. To calculate the values of social and economic infrastructure, inverse of the value have been done which are indicated in table 1.

2.1: Infrastructure Development in Nagaland

The inequality in terms of both physical and social infrastructure development among the rural and urban areas of Kohima and Longleng districts of Nagaland are shown in table 1. The variables used to measure the disparities in infrastructure development are given below.

X_1= Education, where the literacy rate of each village and ward taken.

$X_{2=}$ Distance from medical facilities, where the inverse of the distance from each village and ward to medical centre is taken.

X_3= Distance from banking facilities, where the inverse of the distance from each village and ward to banking centre are taken.

X_4= Distance from postal service, where the inverse of the distance from each village and ward to postal centre is taken.

X_5= Distance covered by surface road with-in the villages and wards are taken.

X_6= Distance from water supply, where the inverse of the distance from each village and ward to water supply is taken.

X_7= Electricity connection of each household in the village and ward are taken

Table 1: Inequalities in Infrastructure Development in Nagaland

Rural/Urban		X_1 -*Education (Literacy)*	X_2 -*Distance from medical facilities*	X_3 - *Distance from banking*	X_4 - *Distance from postal service*	X_5 - *Surface road covered*	X_6- *Distance from water supply*	X_7 -*Electricity*
Nagaland	**Overall**	69.56	1.09	0.66	1.16	1.02	2.23	100
	Rural	59.72	1.55	0.10	1.26	1.15	2.34	100
	Urban	79.39	0.63	1.22	1.06	0.89	2.11	100
Kohima	**Overall**	73.31	1.01	0.58	0.88	1.50	2.38	100
	Rural	65.42	1.55	0.14	1.23	1.50	2.90	100
	Jakhama	75.48	1.11	0.40	1.25	3.00	5.00	100
	Kijumetouma	58.3	2.00	0.02	0.02	1.50	1.25	100
	Mezoma	76.43	1.43	0.06	1.67	0.50	3.33	100
	Tsiese Bawe	51.46	1.67	0.08	2.00	1.00	2.00	100
	Urban	81.20	0.48	1.02	0.52	1.50	1.85	100
	Daklane	78.2	0.67	1.67	0.67	1.50	1.67	100
	Lower Chandmari	84.9	0.50	1.11	0.50	2.00	1.25	100
	Sepfuozou	81.3	0.33	0.67	0.40	0.50	2.00	100
	Upper Agri	80.4	0.40	0.63	0.50	2.00	2.50	100
Longleng	**Overall**	65.81	1.17	0.73	1.44	0.54	2.08	100
	Rural	54.03	1.55	0.05	1.29	0.80	1.78	100
	Bura Namsang	62.49	1.11	0.06	0.06	1.00	1.11	100
	Nian	39.97	1.67	0.07	2.00	0.00	1.25	100
	Sakshi	45.93	2.00	0.03	1.67	0.20	3.33	100
	Yachem	67.72	1.43	0.06	1.43	2.00	1.43	100
	Urban	77.59	0.79	1.42	1.60	0.28	2.38	100
	High School	79.36	0.83	2.50	3.33	0.50	2.50	100
	Leinak	76.3	0.40	0.67	0.71	0.10	2.00	100
	Shauli	84.16	1.25	1.67	1.43	0.40	1.67	100
	Shayung	70.52	0.67	0.83	0.91	0.10	3.33	100

Source: Calculation based on Field Survey, 2015-16

2.1.a: X_1=Education (Literacy Rate)

Education acts as the catalyst for human resource development which encompasses better health, nutrition and improves socio-economic opportunities. It is one of the most important social infrastructure variables which are having direct link with the level of income, productive manpower (i.e., human capital) and standard of living (Yabiku and Schlabach, 2009; Emmerij, 1972). Table 1 show that the literacy rate of Nagaland is 69.56 per cent with 59.72 per cent literacy rate in rural areas and 79.39 per cent in urban areas. Lower Chandmari ward (Kohima) has the highest literacy rate with 84.90 per cent, whereas Nian village (Longleng) has the lowest literacy rate with 39.97 per cent.

For Kohima district the average literacy rate is 73.31 per cent. The rural and urban literacy rate is 65.42 per cent and 81.20 per cent respectively. It was found that Lower Chandmari ward has the highest literacy rate with 84.90 per cent, while Tsiese Bawe village has the lowest literacy rate with 51.46 per cent. Among the villages, Mezoma village has the highest literacy rate with 76.43 per cent, while the lowest is Tsiese Bawe with 51.46 per cent. Among the urban areas Lower Chandmari ward has the highest literacy rate with 84.90 per cent, while Daklane ward has the lowest literacy rate with 78.2 per cent.

For Longleng district the average literacy rate is 65.81 per cent. The highest literacy rate is exhibit by Shauli ward with 84.16 per cent and the lowest is Nian village with 39.97 per cent. The literacy rate in rural areas of Longleng is 54.03 per cent. Among the villages it was found that Yachem village has the highest literacy rate with 67.72 per cent and the Nain village has the lowest rate with 39.97 per cent. The literacy rate in

urban areas of Longleng is 77.59 per cent. Among the wards it was found that Shauli ward has the highest literacy rate with 84.16 per cent and the lowest literacy rate is shown by Shayung ward with 70.52 per cent.

In comparison the literacy rate of Kohima district is far better than Longleng district in both rural and urban areas.

2.1.b: X_2=Distance from Medical Facilities

Health, like education, is a very important factor in the socio-economic production function. Health is one of the major determinants of labour productivity and efficiency. Since health as a social good provides externalities, large scale health facilities can only be provided with public resources (Wel, and Birkelund 2010). The average inverse distance from medical facilities for Nagaland as a whole comes out to be 1.09 points. Among the different areas of Nagaland, Kijumetouma village (Kohima) and Sakshi village (Longleng) exhibit better medical facilities with 2 points each, while the worst medical facilities were exhibited by Upper Agri ward (Kohima) and Leinak ward (Longleng) with 0.40 points each. For rural Nagaland the average point is 1.55. Among the villages, Kijumetouma village (Kohima) and Sakshi village (Longleng) exhibit better medical facilities with 2 points each, while both Jakhama (Kohima) and Bura Namsang (Longleng) with 1.11 points each show least availability of medical facilities. For urban areas of Nagaland the average is 0.63 points. Among the urban areas High School ward (Longleng) has the best availability of medical facilities with 0.83 points, while sepfuozou ward (Kohima) shows the least availability of medical facilities with 0.33 points.

For Kohima district the average inverse distance from medical facilities comes out to be 1.01 points. Among villages and wards, Kijumetouma village exhibits best availability of medical facilities with 2 points, while Sepfuozou ward exhibits the least availability of medical facilities with 0.33 points. For rural areas of Kohima district it is 1.55 points, with Kijumetouma village exhibiting the best availability of medical facilities with 2 points and Jakhama village showing the least availability of medical facilities with 1.11 points. For urban areas the average inverse distance from medical facilities is 0.48 points, Among the wards, Daklane exhibits best availability of medical facilities with 0.67 points, while Sepfuozou ward exhibits the least availability of medical facilities with 0.33 points.

For Longleng district the average inverse distance from medical facilities comes out to be 1.17 points. Among the villages and wards, Sakshi village exhibits best availability of medical facilities with 2 points, while Leinak ward exhibits the least availability of medical facilities with 0.40 points. For rural areas of Longleng district the average inverse distance from medical facilities is 1.55 points. Among the villages, Sakshi exhibits better availability of medical facilities with 2 points, while Bura Namsang village exhibits poor availability of medical facilities with 1.11 points. For urban areas of Longleng district the average inverse distance from medical facilities is 0.79 points. Among the wards, Shauli ward exhibits better availability of medical facilities with 1.25 points, while Leinak exhibits the least availability of medical facilities with 0.40 points.

Thus, in comparison the availability of medical facilities of Kohima district is better than Longleng district in both terms of rural and urban areas.

2.1.c: X_3=Distance from Banking Facilities

Banks plays an important role in stimulating economic growth by strengthening agricultural, industrial and self-employment activities. Banks are also credited for designing social banking policies and programmes, which supports vital sectors of the economy. It aims at alleviating poverty by benefiting number of farmers, artisans, by strengthening professional and self-employment activities. The average inverse distance from banking facilities for Nagaland as a whole comes out to be 0.66 points. Among the different areas of Nagaland, High School ward (Longleng) exhibits the best banking facilities with 2.5 points, while the worst banking facilities was exhibited by Kijumetouma village (Kohima) with 0.02 points. For rural areas of Nagaland it is 0.10 points. Among the villages, Jakhama (Kohima) exhibits better banking facilities with 0.40 points, while Kijumetouma village (Kohima) with 0.02 points shows poor availability of banking facilities. For urban areas of Nagaland the average inverse distance from banking facilities is 1.22 points. Among the urban areas High School ward (Longleng) has better availability of banking facilities with 2.50 points, while Upper Agri ward (Kohima) shows the poor availability of banking facilities with 0.63 points.

For Kohima district the average inverse distance from banking facilities is 0.58 points. Among the villages and wards, Daklane ward exhibits the best availability of banking facilities with 1.67 points, while Kijumetouma village exhibits the worst availability of banking facilities with 0.02 points. For rural areas of Kohima district it is 0.14 points. Among the villages, Jakhama exhibits better availability of banking facilities with 0.40 points and Kijumetouma exhibits worst availability of banking facilities with 0.02 points. For urban areas the average inverse distance from banking facilities is 1.02

points where Daklane ward exhibits the best availability of banking facilities with 1.67 points, while Upper Agri ward exhibits the worst availability of banking facilities with 0.63 points.

For Longleng district the average inverse distance from banking facilities comes out to be 0.73 points. Among the wards and villages, High School ward exhibits better availability of banking facilities with 2.5 points, while Sakshi village exhibits the worst availability of banking facilities with 0.03 points. For rural areas of Longleng district it is 0.05 points. Among the villages, Nain exhibits better availability of banking facilities with 0.07 points and Sakshi exhibits worst availability of banking facilities with 0.03 points. For urban areas, the average inverse distance from banking facilities is 1.42 points. Among the wards High School exhibits the best availability of banking facilities with 2.5 points, while Leinak ward exhibits the worst availability of banking facilities with 0.67 points.

Thus, in comparison, the availability of banking facilities in Kohima district is far better than Longleng district both in terms of rural and urban areas.

2.1.d: X_4=Distance from Postal Service

The state has a wide postal network with post offices spread througout the state offering a wide range of services. The services on offer can be broadly classified into four categories: communication services (letters, post cards, etc.), transportation services (parcel, logistic post), financial services (saving bank, money order, international money transfer services, postal life insurance), and premium value-added services (speed post, business post, etc.). The average inverse distance from postal facilities for Nagaland as a whole comes out to be 1.16 points. Among the different areas of Nagaland, High School

ward (Longleng) exhibits the best postal facilities with 3.33 points, while the worst postal facilities is exhibited by Kijumetouma village (Kohima) with 0.02 points. For rural areas of Nagaland it is 1.26 points. Both Tsiese Bawe village (Kohima) and Nian village (Longleng) exhibit the best postal facilities with 2 points each while, Kijumetouma village (Kohima) with 0.02 points shows the worst availability of postal facilities. For urban areas of Nagaland it exhibits 1.06 points. Among the urban areas, High School ward (Longleng) shows better availability of postal facilities with 3.33 points, while Upper Agri ward (Kohima) shows lesser availability of postal facilities with 0.63 points.

For Kohima district the average inverse distance from postal facilities comes out to be 0.88 points. Among the villages and wards, Tsiese Bawe village exhibits better availability of postal facilities with 2.00 points, while Kijumetouma village exhibits the worst availability of postal facilities with 0.02 points. For rural areas of Kohima district it is 1.23 points. Among the villages, Tsiese Bawe exhibits better availability of postal facilities with 2.00 points, while Kijumetouma exhibits worst availability of postal facilities with 0.02 points. For urban areas the average inverse distance from postal facilities is 0.52 points, where Daklane ward exhibits better availability of postal facilities with 0.67 points, while Upper Agri ward exhibits the poor availability of postal facilities with 0.40 points.

For Longleng district the average inverse distance from postal facilities comes out to be 1.44 points. Among the wards and villages, High School ward exhibits better availability of postal facilities with 3.33 points, while Bura Namsang village exhibits the worst availability of postal facilities with 0.06 points. For rural areas of Longleng district the average inverse distance from postal facilities is 1.29 points. Among the villages,

Nain village exhibits better availability of postal facilities with 2.00 points, while Sakshi village exhibits worst availability of postal facilities with 0.06 points. For urban areas the average inverse distance from postal facilities is 1.60 points, where High School exhibits better availability of postal facilities with 3.33 points, while Leinak ward exhibits the worst availability of postal facilities with 0.71 points.

In comparison the distance from postal facilities in Longleng district is better than Kohima district in both terms of rural and urban area.

2.1.e: X_5=Surface Road Covered

The importance of good roads and transport networks in accelerating the pace of economic development of a state cannot be belittled (Straub, 2008). The emergence of Nagaland as a state in 1963 brought great changes and improvement to the road condition of Nagaland with surface transport as the main method of communication in this land-locked hilly state. One of the significant achievements of Nagaland has been the consistent expansion of roads as the construction of roads has been given the highest priority from the beginning of the planning in the state. The average surface road covered for Nagaland is 1.02 km. Among the different areas of Nagaland, Jakhama village (Kohima) exhibits the highest surface road cover with 3.00 km, while there is no surface road cover in Nian village (Longleng). For rural areas of Nagaland, average the surface road covered is 1.15 km. Among the rural areas, Jakhama village (Kohima) exhibits highest surface road cover with 3 km, while Nian village (Longleng) shows no surface road cover. For urban areas of Nagaland it exhibits 0.89 km. Among the urban areas both Lower Chandmari ward (Kohima) and Upper Agri ward (Kohima) have the highest

surface road cover with 2.00 km each, while both Shayung ward and Leinak ward (Longleng) show the lowest surface road cover with 0.10 km each.

For Kohima district the average surface road covered is 1.50 km. Among the villages and wards, Jakhama village has the highest surface road with 3.00 km whereas Mezoma village and Sepfuozou ward exhibit the lowest surface road cover with 0.50 km each. For rural areas of Kohima district the average surface road covered is 1.50 km, with Jakhama village exhibiting the highest and Mezoma village exhibiting the lowest with 3.00 km and 0.50 km respectively. For urban areas of Kohima district it is 1.50 km, where both Lower Chandmari and Upper Agri wards have the highest surface road with 2.00 km each and Sepfuozou ward exhibits the lowest surface road cover with only 0.50 km.

For Longleng district the average surface road covered is 0.54 km. Among the villages and wards, Yachem village has the highest surface road with 2 km, while Nian village (Longleng) has no surface road. For rural areas of Longleng district, the average surface road covered is 0.80 km whereas Yachem village has the highest surface road with 2 km, while Nian village (Longleng) has no surface road. For urban areas of Longleng district the average road surface was 0.27 km, whereas High School ward has the highest surface road with 0.50 km and both Leinak and Shayung wards exhibit the lowest surface road cover with 0.10 km each.

Thus the level of infrastructure development with regard to surface road cover is far better in Kohima district compare to Longleng district in both rural and urban areas.

2.1.f: X_6=Distance from Water Supply

Availability of safe drinking water forms an important component of health. Thus, the supply of potable drinking water was identified as one of the thrust areas of development in the state since such amenity contributes significantly in the maintenances of health care (Kundu, Bagchi and Kundu 1999). The average inverse distance from water supply for Nagaland as a whole comes out to be 2.23 points. Among the different areas of Nagaland, Jakhama village (Kohima) exhibits the best water supply with 5 points, while the poorest water supply was exhibited by Bura Namsang village (Longleng) with 1.11 points. For rural areas of Nagaland the average is 2.34 points, the best being Jakhama village (Kohima) with 5 points and Bura Namsang village (Longleng) with only1.11 points shows poorest water supply. For urban areas of Nagaland the average was 2.11 points. Among the urban areas Shayung ward (Longleng) has the best availability of water supply with 3.33 points, while Lower Chandmari ward (Kohima) shows the least availability of water supply with 1.25 points.

For Kohima district the average inverse distance from water supply comes out to be 2.38 points. Among the villages and wards, Jakhama village exhibits the best availability of water supply with 5.00 points. Both Lower Chandmari ward and Kijumetouma village exhibit the worst availability of water supply with an average of 1.25 points. For rural areas of Kohima district the average is 2.90 points, the best being Jakhama village with 5.00 points, while Kijumetouma village exhibiting the worst with 1.25 points. For urban areas, the average inverse distance from water supply facilities is 1.85 points, Upper Agri ward exhibits the best availability of water supply with 2.50 points, while both Upper Agri and Lower Chandmari ward exhibits worst availability of water supply with 1.25 points each.

For Longleng district the average inverse distance from water supply comes out to be 2.08 points. Both Sakshi and Shayung village exhibit best availability of water supply with 3.33 points each and Bura Namsang village exhibits the worst availability of water supply with 1.11 points. For rural areas of Longleng district the average is 1.78 points, where Sakshi village exhibits best availability of water supply with 3.33 points and Bura Namsang village exhibits worst of water supply with 1.11 points. For urban areas, the average inverse distance from water supply facilities was 2.38 points. Among the wards Shayung exhibits the best availability of water supply with 3.33 points and Shauli exhibits the worst availability of water supply with 1.67 points.

Thus, the above results clearly show that the level of infrastructure development with regard to distance from water supply is equal for both the districts.

2.1.g: X_7=Electricity

The most important factor which can act as catalyst for economic growth of a country is that of energy. There is a direct correlation between the degree of economic growth and the level of energy consumption (Sazama, 1991). From the study, it has been found that there is 100 per cent electrification of Kohima and Longleng districts. Thus, there is equal development in terms of power.

2.2: Inequalities in Infrastructure Development in Nagaland: A Principal Component Analysis

The Principal Component Analysis using 'Factor Analysis' has been used to analyze the inequalities in infrastructure development in Nagaland, Factor analysis seeks to identify a relative small number of factors that can be used to represent relationship among sets of many inter-related variables. Factor analysis assumes that some underlying factors, also known as hypothetical or unobservable factors, are responsible for the co-

variation among the observed variable. The factor analysis is based on the assumption that the observed variables are linear combination of some underlying or hypothetical factors. To measure PCA all the variables from X_1 to X_6 were used except X_7 which was left out from assessment because all the sample villages and wards are equally distributed in terms of power.

Table 2: Correlation Matrix of Infrastructure Development in Nagaland

Variables	X_1	X_2	X_3	X_4	X_5	X_6
X_1	1	**-0.768****	**0.628****	-0.200	0.286	0.116
X_2	**-0.768****	1	**-0.523****	0.292	-0.095	-0.013
X_3	**0.628****	**-0.523****	1	0.314	-0.082	-0.041
X_4	-0.200	0.292	0.314	1	-0.296	0.265
X_5	0.286	-0.095	-0.082	-0.296	1	0.165
X_6	0.116	-0.013	-0.041	0.265	0.165	1

*Source: Own calculation. ** refers to 5 per cent significant level (except diagonal).*

The factor analysis starts with the correlation matrix of the original set of six development variables. Table 2 reveals that there is a negative correlation between X_1 (Education) and X_2 (Distance from medical facilities) and positive correlation between X_1 (Education) and X_3 (Distance from banking facilities) both statistically significant at 5 per cent. There is also a negative correlation between X_2 (Distance from medical facilities) and X_3 (Distance from banking facilities) which is statistically significant at 5 per cent.

Table 3: Eigen value of Infrastructure Development in Nagaland

Category	F1	F2	F3	F4	F5	F6
Eigen value	2.34	1.48	1.18	0.63	0.20	0.14
% variance	38.99	24.77	19.77	10.62	3.41	2.42
Cumulative %	38.99	63.76	83.53	94.15	97.57	100

The Eigen value of infrastructure development in Nagaland is shown in table 3. It is seen from the table that factor (F1) explains 38.99 per cent of the variation in the variable, factors (F2) explains 24.77 per cent of the variation and F3 explain 19.77 per

cent of the variation. Since, the factors explain 83.55 per cent of the variation in the sample; the first three factors are enough to explain Principal Component Analysis.

Table 4: Factor Loading of Infrastructure Development in Nagaland

Variables	*F1*	*F2*	*F3*	*Communalities* h^2
X1	0.946	-0.017	0.079	0.901
X2	-0.892	0.060	0.131	0.816
X3	0.723	0.561	-0.161	0.863
X4	-0.216	0.884	0.222	0.877
X5	0.276	-0.576	0.555	0.715
X6	0.060	0.234	0.883	0.838
% variance	38.993	24.770	19.773	83.536
Cumulative %	38.993	63.763	83.536	

Table 4 presents Factor loading results of infrastructure development in Nagaland for the year 2015-16. Three Principal Components came out from six selected variables. The table also reveals that three factors have been retained based on Kaiser's Criterion of Eigen-value greater than unity. The first factor explained 38.993 per cent of the total variance while the second factor explained 24.77 per cent and the third factor explained only 19.77 per cent. The three factors taken together explained 83.536 per cent of observed variance. The Factor loadings revealed that the communality value of all the variables varies between 0.715 and 0.901 suggesting that the three factors retained were sufficient to account for most of the variation. It was further supported by the fact that 83.53 per cent was explained by the three factors taken together. The Principal Component Analysis (PCA) of factor 1(F1) loads heavily on education (X_1) and distance from banking facilities (X_3), whereas the PCA of factor 2 (F2) is loaded heavily on distance from postal facilities (X_4). The PCA of factor 3 (F3) is loaded heavily on distance from medical facilities (X_2), surface road cover (X_5) and distance from water supply (X_6). Thus F1, explain the level of development with regard to education and

banking facilities, F2 explained with regard to postal services and F3 explained the level of development with regard to distance from medical facilities, surface road covered and distance from water supply.

Wards and villages having the higher factor scores depict a better performance in terms of infrastructural status, while those with lower factor score show poor performance or low level of infrastructural development. The score of factor 1 (F1), factor 2 (F2) and factor 3 (F3) and combine component score (CCS) are shown in table 5.

Table 5: Factor Scores of Infrastructure Development in Nagaland

Rural/Urban	*F1*	*F2*	*F3*	*Combine Component Score (CCS)*
Jakhama	0.586	-0.661	3.464	0.898
Kijumetouma	-1.634	-1.746	-0.493	-1.398
Mezoma	-0.589	0.572	0.919	0.112
Tsiese Bawe	-1.969	0.395	0.163	-0.763
Daklane	1.665	-0.190	-0.525	0.596
Lower chandmari	1.901	-1.069	-0.487	0.454
Sepfuozou	1.358	-0.486	-0.774	0.306
Upper Agri	1.533	-1.148	0.549	0.505
Bura Namsang	-0.595	-1.521	-1.068	-0.982
Nian	-2.737	0.809	-1.078	-1.293
Sakshi	-2.664	0.799	0.707	-0.839
Yachem	-0.703	-0.803	0.207	-0.517
High School	1.468	3.356	0.054	1.695
Leinak	0.920	0.012	-0.947	0.208
Shauli	0.967	1.116	-0.832	0.585
Shayung	0.493	0.565	0.142	0.431

2.2.1: Principal Component Analysis of Factor 1 (Level of Development with regard to Education, Distance from Banking Facilities)

The level of infrastructure development with regard to education and distance from banking facilities for Nagaland is given in table 6.

Table 6: Factor Score for Infrastructure Development in Nagaland (Factor 1)

Developed	*Score*	*Moderately Developed*	*Score*	*Less Developed*	*Score*	*Backward*	*Score*
Lower Chandmari (KW)	0.888	Sepfuozou (KW)	0.634	Shayung (LW)	0.230	Kijumetouma (KV)	-0.763
Daklane (KW)	0.778	Shauli (LW)	0.451	Mezoma (KV)	-0.275	Tsiese Bawe (KV)	-0.920
Upper Agri (KW)	0.716	Leinak (LW)	0.429	Bura Namsang (LV)	-0.277	Sakshi (LV)	-1.244
High School (LW)	0.686	Jakhama (KV)	0.273	Yachem (LV)	-0.328	Nian (LV)	-1.278
KW: Kohima Ward; LW: Longleng Ward; KV: Kohima Village; LV: Longleng Village							

From the above table 6 it shows that Lower Chandmari, Daklane, Upper Agri ward (Kohima) and High School ward (Longleng) are highly developed with regard to education and distance from banking facilities. The moderately developed areas are Sepfuozou (Kohima), Shauli and Leinak (Longleng) and Jakhama (Kohima), while the less developed areas are Shayung ward (Longleng), while Mezoma village (Kohima), Bura Namsang and Yachem (Longleng). The backward areas are Kijumetouma, Tsiese Bawe (Kohima), Sakshi and Nian (Longleng).

The PCA of F1 shows that 6.25 per cent of rural areas of Nagaland are in developed and moderately developed areas, while 43.75 per cent of urban areas are in developed and moderately developed areas.

Thus, the above results clearly show that the level of infrastructure development with regard to education and distance from banking facilities is higher in urban areas than in rural areas.

2.2.2. *Principal Component Analysis of Factor 2 (Level of Infrastructure Development with regard to Distance from Postal Facilities)*

The Principal Component Analysis of Factor 2 scores are shown in table 7 below which depicts the level of infrastructure development among the wards and villages with regard to distance from postal facilities for Nagaland.

Table 7: Factor Score of Infrastructure Development in Nagaland (Factor 2)

Developed	*Score*	*Moderately Developed*	*Score*	*Less Developed*	*Score*	*Backward*	*Score*
High School (LW)	0.997	Mezoma (KV)	0.169	Daklane (KW)	-0.056	Lower Chandmari (KW)	-0.317
Shauli (LW)	0.331	Shayung (LW)	0.167	Sepfuozou (KW)	-0.144	Upper Agri (KW)	-0.341
Nian (LV)	0.24	TsieseBawe (KV)	0.117	Jakhama (KV)	-0.196	Bura Namsang (LV)	-0.452
Sakshi (LV)	0.237	Leinak (LW)	0.003	Yachem (LV)	-0.238	Kijumetouma (KV)	-0.519

From the above table it is clearly seen that the developed areas are High School, Shauli, Nian and Sakshi (Longleng) with regard to distance from postal facilities. The moderately developed areas are Mezoma, Tsiese Bawe (Kohima), Shayung and Leinak (Longleng). The less developed areas are Daklane, Sepfuozou, Jakhama (Kohima) and Yachem (Longleng), Lower Chandmari, Upper Agri (Kohima) Bura Namsang (Longleng) and Kijumetouma (Kohima) fall in the category of backward areas.

The PCA of F2 shows that 25 per cent of rural areas of Nagaland are in developed and moderately developed areas, while 25 per cent of urban areas of Nagaland are in developed and moderately developed areas.

Thus, the results clearly show that the level of infrastructure development with regard to distance from postal facilities is equal for both urban and rural areas.

2.2.3: *Principal Component Analysis of Factor 3 (Level of Infrastructure Development with regard to Distance from Medical Facilities, Surface Road cover and Distance from Water Supply)*

Table 8 presents the level of infrastructure development with regard to distance from medical facilities, surface road cover and distance from water supply for Nagaland.

Table 8: Factor Score of Infrastructure Development in Nagaland (Factor 3)

Developed	*Score*	*Moderately Developed*	*Score*	*Less Developed*	*Score*	*Backward*	*Score*
Jakhama (KV)	0.821	Yachem (KV)	0.049	Lower Chandmari (KW)	-0.115	Shauli (LW)	-0.197
Mezoma (KV)	0.218	Tsiese Bawe (KV)	0.038	Kijumetouma (KV)	-0.116	Leinak (LW)	-0.224
Sakshi (LV)	0.168	Shayung (LW)	0.033	Daklane (KW)	-0.124	Bura Namsang (KV)	-0.253
Upper Agri (KW)	0.13	High School (LW)	0.012	Sepfuozou (KW)	-0.183	Nian (LV)	-0.255

From the above table Jakhama, Mezoma and Upper Agri (Kohima) and Sakshi (Longleng) are the developed with regard to distance from medical facilities, surface road cover and water supply. The moderately developed areas are Shayung, High School (Longleng), Yachem (Longleng) and Tsiese Bawe (Kohima). The less developed areas were Daklane, Sepfuozou, Lower Chandmari and Kijumetouma village (Kohima). Sahauli, Leinak, Bura Namsang and Nian (Longleng) fall in the category of backward areas.

The PCA of F3 shows that 31.25 per cent of rural Nagaland was in developed and moderately developed areas, while 18.75 per cent of urban areas are in developed and moderately developed region.

Thus, the results clearly show that the level of infrastructure development with regard to distance from medical facilities, surface road cover and distance from water supply is higher in urban areas than in rural areas.

2.2.4: Inequalities in overall Level of Infrastructure Development in Nagaland (Combine Component Score)

Table 9 shows the combine component scores of overall infrastructure development in Nagaland and is calculated by taking the value of F1 (education and distance from banking facilities), F2 (distance from postal facilities) and F3 (distance from medical facilities, surface road covered and distance from water supply).

Table 9: Combine Component Score of Infrastructure Development in Nagaland

Developed	*C.C.S*	*Moderately Developed*	*C.C.S*	*Less Developed*	*C.C.S*	*Backward*	*C.C.S*
High School (LW)	1.695	Upper Agri (KW)	0.505	Leinak (LW)	0.209	Sakshi (LV)	-0.839
Jakhama (KV)	0.898	Lower Chandmari (KW)	0.455	Mezoma (KV)	0.113	Bura Namsang (LV)	-0.983
Daklane (KW)	0.597	Shayung (LW)	0.432	Yachem (LV)	-0.518	Nian (LV)	-1.293
Shauli (LW)	0.586	Sepfuozou (KW)	0.306	Tsiese Bawe (LV)	-0.764	Kijumetouma (KV)	-1.398

From the above table it is clearly seen from the combine component score that the developed areas are Jakhama, Daklane (Kohima), High school and Shauli (Longleng) with regard to education, distance from distance from medical facilities, banking facilities, postal facilities,water supply and surface road cover. The moderately developed areas are Upper Agri, Lower Chandmari, Sepfuozou (Kohima) and Shayung (Longleng). The less developed areas was Leinak and Yachem (Longleng), Mezoma and Tsiese Bawe (Kohima). Sakshi, Bura Namsang, Nian (Longleng) and Kijumetouma (Kohima) came in the category of backward areas.

The combine component score shows that 6.25 per cent of rural areas of Nagaland are in developed and moderately developed areas, while 43.75 per cent of urban areas are in developed and moderately developed region.

Thus, the above results and fig. 1 clearly show that the level of infrastructure development is higher in urban areas than that of rural areas. Hence, the hypothesis which

states that the level of infrastructure development is higher in urban areas than that of rural areas is proved.

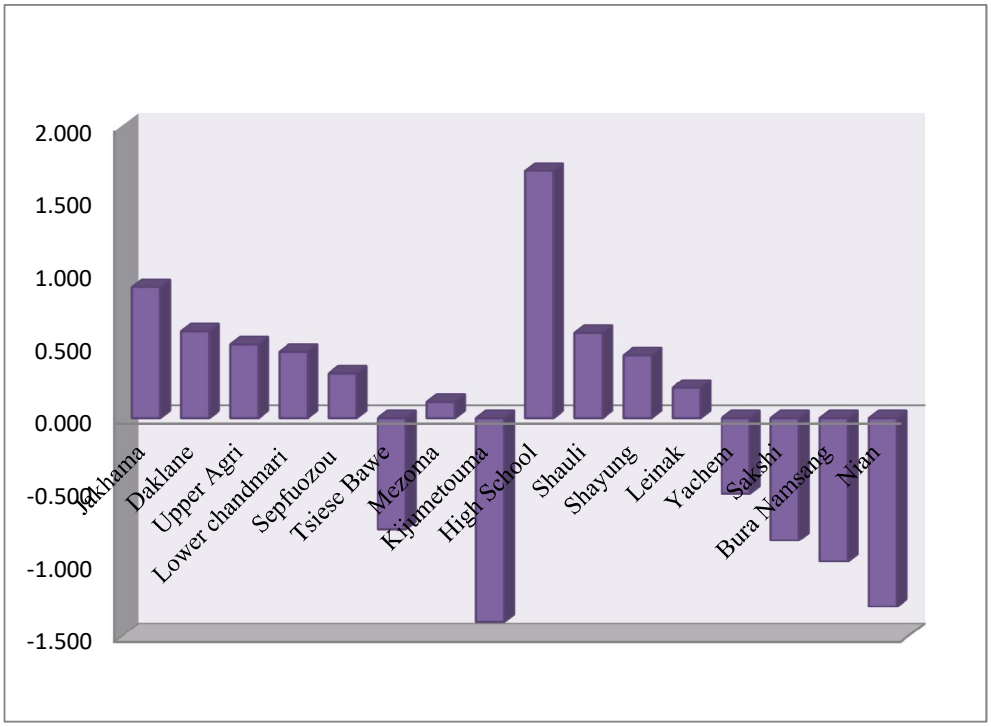

Figure 1: Combine Components Scores of Nagaland

2.3: Inter-District Inequalities in Kohima and Longleng

The inequality in terms of infrastructure development for Kohima and Longleng district is highlighted taking education, distance from medical facilities, distance from postal facilities, distance from banking facilities, surface road covered and distance from water supply

2.3.1: *Principal Component Analysis of Factor 1 (Level of Development with regard to Education, Distance from Banking Facilities)*

Table 10 below presents the level of infrastructure development with regard to education and distance from banking facilities for Kohima and Longleng districts.

Table 10: Inter-District Disparities in the Level of Infrastructure Development (F1)

Indicators	*Kohima*	*Score*	*Longleng*	*Score*
Developed	Lower Chandmari(KW)	0.888	High School (LW)	0.686
	Daklane(KW)	0.778	-	-
	Upper Agri(KW)	0.716	-	-
Moderately Developed	Sepfuozou(KW)	0.634	Leinak(LW)	0.430
	Jakhama(KV)	0.274	Shauli (LW)	0.452
Less Developed	-	-	Shayung(LW)	0.230
	-	-	Bura Namsang (LV)	-0.278
	Mezoma (KV)	-0.275	Yachem(LV)	-0.328
Backward	Tsiese Bawe(KV)	-0.920	-	-
	Kijumetouma(KV)	-0.763	Nian(LV)	-1.278
	-	-	Sakshi(LV)	-1.244

From the above table 10 it is clearly seen that the highly developed areas are Lower Chandmari, Daklane, Upper Agri (Kohima) and High School (Longleng) with regard to education and distance from banking facilities. Jakhama, Sepfuozou (Kohima) Shauli and Leinak (Longleng) are accounted for moderately developed areas. Mezoma (Kohima), Shayung, Bura Namsang and Yachem (Longleng) are accounted as less developed areas. Tsiese Bawe, Kijumetouma (Kohima) Sakshi and Nian (Longleng) fall in the category of backward areas.

Thus, the above results from Factor 1 shows that 62.5 per cent of Kohima district are in developed and moderately developed areas, while in Longleng district only 37.5 per cent are in developed and moderately developed areas.

Thus, it has been found that Kohima district is better than Longleng district with regard to education and distance from banking facilities.

2.3.2: Principal Component Analysis of Factor 2 (Level of Infrastructure Development with regard to Distance from Postal Facilities)

The Principal Component Analysis of Factor 2 scores are shown in table 11 which depict the level of infrastructure development among the wards and villages of Kohima and Longleng district with regard to distance from postal facilities.

Table 11: Inter-District inequalities in the Level of Infrastructure Development (F2)

Indicators	*Kohima*	*Score*	*Longleng*	*Score*
Developed	-	-	High School (LW)	0.996
	-	-	Shauli (LW)	0.331
	-	-	Nian(LV)	0.240
	-	-	Sakshi (LV)	0.237
Moderately Developed	Mezoma(KV)	0.169	Shayung (LW)	0.167
	Tsiese Bawe(KV)	0.117	Leinak (LW)	0.003
Less Developed	Daklane (KW)	-0.056	Yachem(LV)	-0.238
	Sepfuozou(KW)	-0.144	-	-
	Jakhama(KV)	-0.196	-	-
Backward	Lower Chandmari (KW)	-0.317	Bura Namsang (LV)	-0.451
	Upper Agri (KW)	-0.340	-	-
	Kijumetouma (KV)	-0.518	-	-

From the above table it is clearly seen that there is no developed area in Kohima district with regard to distance from postal facilities whereas in Longleng district, High School, Shauli, Nian and Sakshi (Longleng) fall in the category of developed areas. The moderately developed areas are Mezoma and Tsiese Bawe in Kohima and Shayung and Leinak in Longleng. Jakhama, Daklane, Sepfuozou in Kohima and Yachem village in Longleng fall in the category of less developed areas. In Kohima district Lower Chandmari, Upper Agri and Kijumetouma falls in the backward area, while in Longleng district Bura Namsang falls in the category of backward areas.

The results from Factor 2 shows that 25 per cent of Kohima district are in developed and moderately developed areas, while in Longleng district 75 per cent are in developed and moderately developed areas.

Thus, it has been found that Longleng district is better developed than Kohima district with regard to distance from postal facilities.

2.3.3: *Principal Component Analysis of Factor 3 (Level of Infrastructure Development with regard to Distance from Medical Facilities, Surface Road Cover and Distance from Water Supply)*

The below table 12 presents the level of infrastructure development with regard to distance from medical facilities, surface road cover and distance from water supply among the wards and villages of Kohima and Longleng districts.

Table 12: Inter-District Inequalities in the Level of Infrastructure Development (F3)

Indicators	*Kohima*	*Score*	*Longleng*	*Score*
Developed	Jakhama(KV)	0.820	Sakshi(LV)	0.167
	Mezoma(KV)	0.217	-	-
	Upper Agri (KW)	0.130	-	-
Moderately Developed	Tsiese Bawe (KV)	0.038	Yachem(LV)	0.049
	-	-	Shayung (LW)	0.033
	-	-	High School (LW)	0.012
Less Developed	Lower Chandmari(KW)	-0.115	-	-
	Kijumetouma (KV)	-0.116	-	-
	Daklane(KW)	-0.124	-	-
	Sepfuozou (KW)	-0.183	-	-
Backward	-	-	Shauli (LW)	-0.197
	-	-	Leinak (LW)	-0.224
	-	-	Bura Namsang (LV)	-0.253
	-	-	Nian (LV)	-0.255

From the above table it is clearly seen that Jakhama, Mezoma, Upper Agri in Kohima and Sakshi in Longleng are found to be developed with regard to distance from medical facilities, surface road cover and distance from water supply. The moderately developed areas are Tsiese Bawe (Kohima), High School, Yachem and Shayung (Longleng). Lower Chandmari, Kijumetouma, Daklane and Sepfuozou ward (Kohima) fall in the less developed areas category, while no such regions was found in Longleng

district. Bura Namsang, Nian, Shauli and Shayung (Longleng) are accounted as backward areas.

The above results from Factor 3 show that 50 per cent of Kohima district and 50 per cent of Longleng district are in developed and moderately developed areas. Thus, the level of infrastructure development with regard to distance from medical facilities, surface road cover and distance from water supply is equal for both the districts.

2.3.4: *Inequalities in overall Level of Infrastructure Development in Kohima and Longleng (Combine Component Score)*

Table 13 shows the combine component scores of overall infrastructure development in rural and urban areas of Kohima and Longleng and is calculated by taking the value of F1 (education and distance from banking facilities), F2 (distance from postal facilities) and F3 (distance from medical facilities, surface road covered and distance from water supply).

Table 13: Inter-District Inequalities in the Level of Infrastructure Development: Combine Component Score (CCS)

Indicators	*Kohima*	*C.C.S*	*Longleng*	*C.C.S*
Developed	Jakhama (KV)	0.898	High School(LW)	1.695
	Daklane(KW)	0.596	Shauli(LW)	0.585
Moderately Developed	Upper Agri(KW)	0.505	Shayung(L W)	0.431
	Lower Chandmari(KW)	0.454	-	-
	Sepfuozou (KW)	0.306	-	-
Less Developed	Tsiese Bawe (KV)	-0.763	Leinak(LW)	0.208
	Mezoma (KV)	0.112	Yachem(LV)	-0.517
Backward	Kijumetouma (KV)	-1.398	Sakshi (LV)	-0.839
	-	-	Bura Namsang(LV)	-0.982
	-	-	Nian (LV)	-1.293

From the above table it is clearly seen from the combine component score the Jakhama, Daklane (Kohima), High School and Shauli (Longleng) fall in the developed areas with regard to education, distance from medical facilities, distance from banking

facilities, distance from postal facilities, surface road cover and distance from water supply. The moderately developed areas are Upper Agri, Lower Chandmari, Sepfuozou (Kohima) and Shayung (Longleng). Mezoma, Tsiese Bawe (Kohima), Leinak (Longleng) and Yachem (Longleng) are accounted as less developed areas, while Sakshi, Bura Namsang, Nian (Longleng) and Kijumetouma (Kohima) fall in the category of backward region.

The above results from combine component score from table 13 and fig. 2 and 3 shows that 62.5 per cent of Kohima district are in developed and moderately developed areas, while in Longleng district only 37.5 per cent are in developed and moderately developed areas.

Thus, it has been found that Kohima district is better developed than Longleng district with regard to education, distance from medical facilities, distance from banking facilities, distance from postal facilities, surface road cover and distance from water supply.

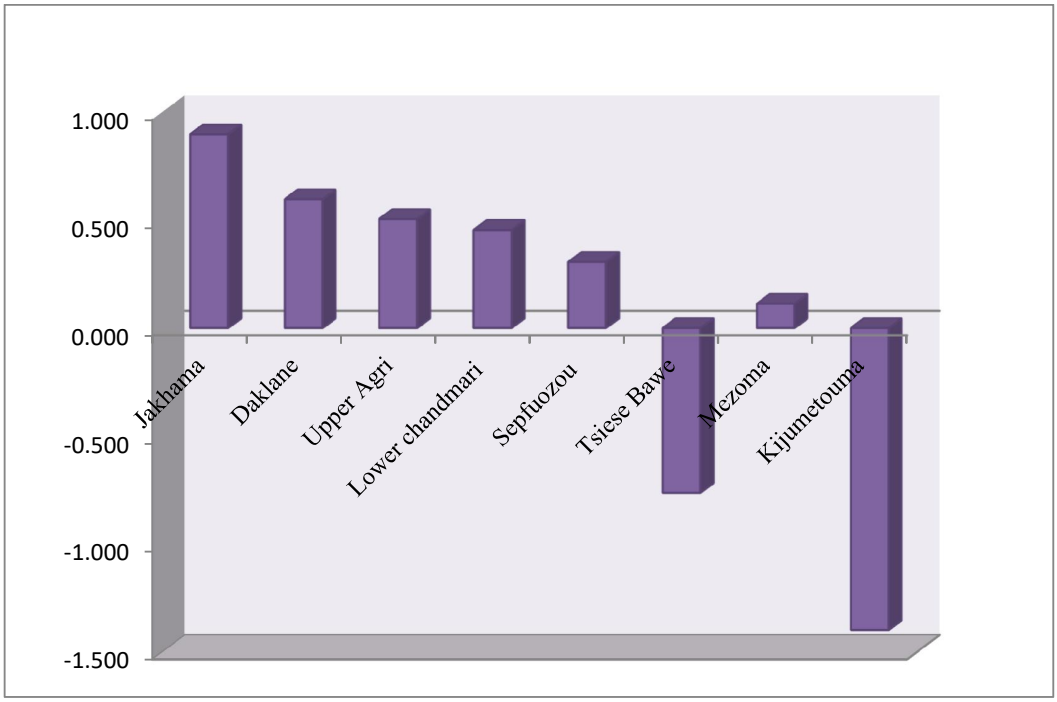

Figure 2: Combine Components Scores of Kohima District

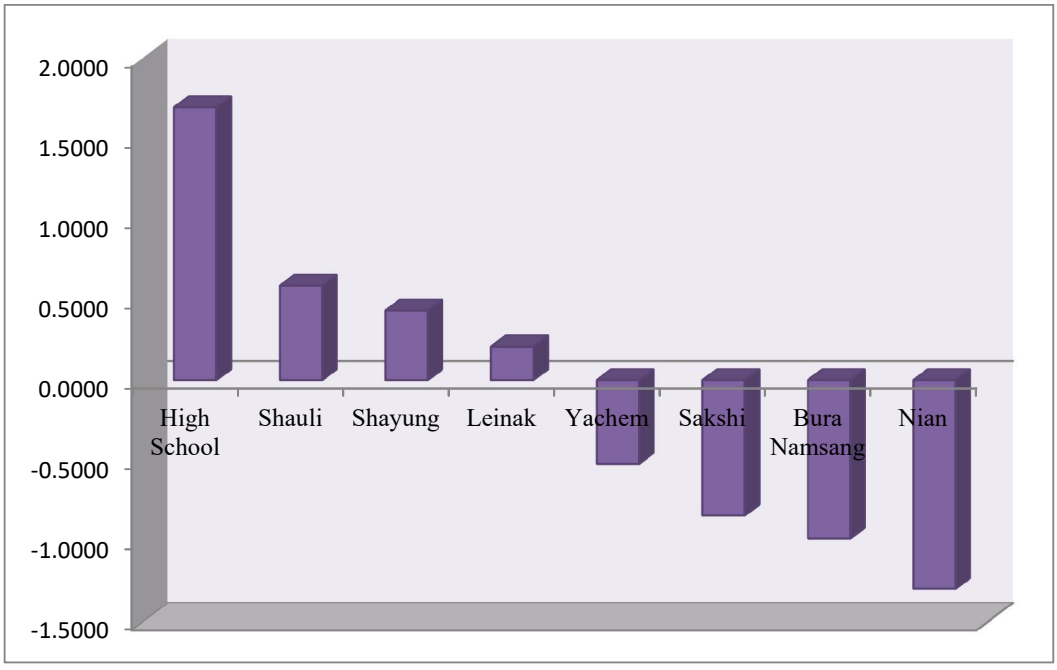

Figure 3: Combine Components Scores of Longleng District

2.4: Intra-District Inequalities in the Level of Infrastructure Development

2.4.1: Intra-District Inequalities in the Level of Infrastructure Development for Kohima

The inequalities in terms of infrastructure development for Kohima district is highlighted below taking level of education, distance from medical facilities, postal facilities, banking facilities, surface road covered and distance from water supply.

2.4.2: Principal Component Analysis of Factor 1 (Level of Development with regard to Education, Distance from Banking Facilities)

The table 14 below presents the level of infrastructure development with regard to education and distance from banking facilities of Kohima district.

Table 14: Intra-District Inequalities in the level of Infrastructure Development in Kohima (F1)

Indicators	*Kohima*	*Score*
Developed	Lower Chandmari (KW)	0.888
	Daklane (KW)	0.778
	Upper Agri (KW)	0.716
Moderately Developed	Sepfuozou (KW)	0.634
	Jakhama (KV)	0.274
Less Developed	Mezoma (KV)	-0.275
Backward	Tsiese Bawe (KV)	-0.920
	Kijumetouma (KV)	-0.763

From the above table 14 it can be clearly seen that Lower Chandmari, Daklane, and Upper Agri in Kohima are developed with regard to education and distance from banking facilities. Jakhama village and Sepfuozou ward are in the category of moderately developed areas, while Mezoma village is considered as less developed region. Tsiese Bawe and Kijumetouma villages fall in the category of backward areas.

Thus, it is very clear from the above PCA of F1 for Kohima district that Lower Chandmari ward is the most developed area, whereas Tsiese Bawe village is the most backward area with regard to education and distance from banking facilities.

2.4.3: Principal Component Analysis of Factor 2 (Level of Infrastructure Development with regard to Distance from Postal Facilities)

The Principal Component Analysis of Factor 2 scores are shown in table 15 below which depicts the level of infrastructure development among the wards and villages of Kohima district with regard to distance from postal facilities.

Table 15: Intra-District Inequalities in the Level of Infrastructure Development in Kohima (F2)

Indicators	*Kohima*	*Score*
Developed	-	-
Moderately Developed	Mezoma (KV)	0.169
	Tsiese Bawe (KV)	0.117
Less Developed	Daklane(KW)	-0.056
	Sepfuozou (KW)	-0.144
	Jakhama (KV)	-0.196
Backward	Lower Chandmari (KW)	-0.317
	Upper Agri (KW)	-0.340
	Kijumetouma (KV)	-0.518

From the above table it is clearly seen that there is no developed area in Kohima district with regard to distance from postal facilities. The moderately developed areas are Mezoma and Tsiese Bawe villages. Daklane, Sepfuozou and Jakhama village falls in the category of less developed area. Lower Chandmari, Upper Agri ward and Kijumetouma village fall in the category of backward areas.

Thus, it is very clear from the above PCA of F2 for Kohima district that Mezoma village is moderately developed area, whereas Kijumetouma village is considered as the most backward area with regard to distance from postal facilities.

2.4.4: Principal Component Analysis of Factor 3 (Level of Infrastructure Development with regard to Distance from Medical Facilities, Surface Road Cover and Distance from Water Supply)

Table 16 presents the level of infrastructure development with regard to distance from medical facilities, surface road cover and distance from water supply among the wards and villages of Kohima district.

Table 16: Intra-District Inequalities in the Level of Infrastructure Development in Kohima (F3)

Indicators	*Kohima*	*Score*
Developed	Jakhama (KV)	0.820
	Mezoma (KV)	0.217
	Upper Agri (KW)	0.130
Moderately Developed	Tsiese Bawe (KV)	0.038
Less Developed	Lower Chandmari (KW)	-0.115
	Kijumetouma (KV)	-0.116
	Daklane(KW)	-0.124
	Sepfuozou(KW)	-0.183
Backward	-	-

From the above table it is clearly seen that Jakhama, Mezoma and Upper Agri are developed with regard to distance from distance from medical facilities, surface road cover and distance from water supply. The moderately developed area is Tsiese Bawe village. Kijumetouma village, Lower Chandmari, Daklane and Sepfuozou ward, fall in the less developed category.

Thus, it is very clear from the above PCA of F3 for Kohima district that Jakhama village is more developed area, while Sepfuozou ward is the least developed area with

regard to distance from medical facilities, surface road cover and distance from water supply.

2.4.5: Inequalities in overall level of Infrastructure Development in Kohima district (Combine Component Score)

Table 17 shows the combine component scores of overall infrastructure development in rural and urban areas of Kohima and is calculated by taking the values of F1 (education and distance from banking facilities), F2 (distance from postal facilities) and F3 (distance from medical facilities, surface road covered and distance from water supply).

Table 17: Intra-District Inequalities in the Level of Infrastructure Development Combine Component Score

Indicators	*Kohima*	*C.C.S*
Developed	Jakhama (KV)	0.8983
	Daklane (KW)	0.5967
Moderately Developed	Upper Agri (KW)	0.5050
	Lower Chandmari(KW)	0.4548
	Sepfuozou (KW)	0.3064
Less Developed	Tsiese Bawe (KV)	-0.7635
	Mezoma (KV)	0.1126
Backward	Kijumetouma (Kv)	-1.3984

The combine component scores show that Jakhama village and Daklane ward are developed areas with regard to education, distance from medical facilities, distance from banking facilities, distance from postal facilities surface road cover and distance from water supply. The moderately developed wards are Upper Agri, Lower Chandmari and Sepfuozou. The less developed areas are Mezoma and Tsiese Bawe villages, while Kijumetouma village comes under backward area.

The results of combine component score from table 17 and fig. 4 show that 25 per cent of Kohima district are in developed areas, while 12.5 per cent of the district are in backward areas.

Thus, it is very clear that higher percentage of areas lies in the developed and moderately developed region as compared to backward areas. It is also seen that rural areas are more backward compared to urban areas.

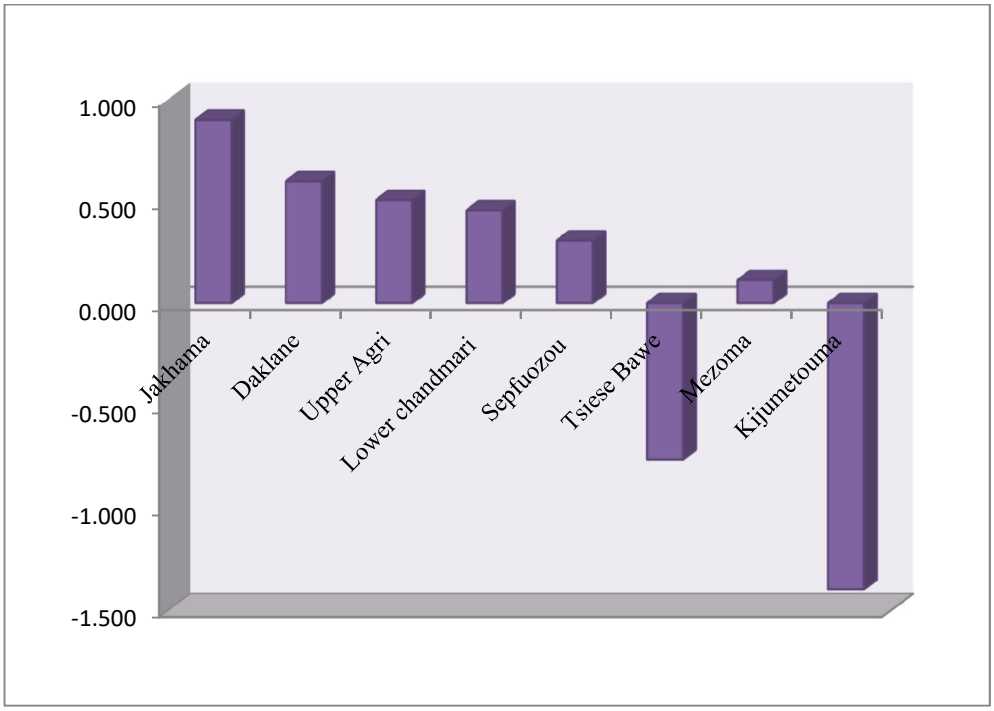

Figure 4: Combine Components Scores of Kohima District

2.5: Intra-District Inequalities in the Level of Infrastructure Development for Longleng

The inequalities in terms of infrastructure development for Longleng is highlighted taking education level, distance from medical facilities, distance from postal

facilities, distance from banking facilities, surface road covered and distance from water supply.

2.5.1: Principal Component Analysis of Factor 1 (Level of Development with regard to Education, Distance from Banking Facilities)

Table 18 presents the level of infrastructure development with regard to education and distance from banking facilities for Longleng district.

Table 18: Intra-District Inequalities in the Level of Infrastructure Development in Longleng (F1)

Indicators	*Longleng*	*Score*
Developed	High School (LW)	0.686
Moderately Developed	Leinak (LW)	0.430
	Shauli(LW)	0.452
Less Developed	Bura Namsang(LV)	-0.278
	Shayung(LW)	0.230
	Yachem(LV)	-0.328
Backward	Nian (LV)	-1.278
	Sakshi (LV)	-1.244

It can be seen that the highly developed area is High School with regard to education and distance from banking facilities. The moderately developed areas are Leinak and Shauli. While Shayung , Bura Namsang and Yachem village are accounted as less developed areas. Sakshi and Nian villages fall in the category of backward areas.

Thus, it is very clear from the above PCA of F1 for Longleng district that High School ward is the most developed area, whereas Nian village is the most backward areas with regard to education and distance from banking facilities.

2.5.2: Principal Component Analysis of Factor 2 (Level of Infrastructure Development with regard to Distance from Postal Facilities)

The Principal Component Analysis of Factor 2 score are shown in table 19 below which depicts the level of infrastructure development among the wards and villages of Longleng district with regard to distance from postal facilities.

Table 19: Intra-District Inequalities in the Level of Infrastructure Development in Longleng (F2)

Indicators	*Longleng*	*Score*
Developed	High School (LW)	0.996
	Shauli (LW)	0.331
	Nian (LV)	0.240
	Sakshi (LV)	0.237
Moderately Developed	Shayung (LW)	0.167
	Leinak (LW)	0.003
Less Developed	Yachem (LV)	-0.238
Backward	Bura Namsang (LV)	-0.451

From the above table 19 it is clearly seen that High School, Shauli, Nian, and Sakshi are developed areas with regard to distance from postal facilities. Shayung and Leinak ward are moderately developed, while Yachem and Bura Namsang villages fall in the less developed and backward areas respectively.

Thus, it is very clear from the above PCA of F2 for Longleng district that High School ward is the most developed area, whereas Bura Namsang village is in backward area with regard to distance from postal facilities.

2.5.3: Principal Component Analysis of Factor 3 (Level of Infrastructure Development with regard to Distance from Medical Facilities, Surface Road Cover and Distance from Water Supply)

Table 20 presents the level of infrastructure development with regard to distance from medical facilities, surface road cover and distance from water supply among the wards and villages of Longleng district.

Table 20: Intra-District Inequalities in the Level of Infrastructure Development in Longleng (F3)

Indicators	*Longleng*	*Score*
Developed	Sakshi (LV)	0.167
Moderately Developed	Yachem (LV)	0.049
	Shayung (LW)	0.033
	High School (LW)	0.012
Less Developed	-	-
Backward	Shauli (LW)	-0.197
	Leinak (LW)	-0.224
	Bura Namsang (LV)	-0.253
	Nian (LV)	-0.255

From the above table it is clearly seen that the only developed area is Sakshi village. The moderately developed areas are Yachem village, Shayung ward and High School ward. Bura Namsang village, Nian village, Leinak ward and Shauli ward fall in the backward areas.

Thus, it is clear from the above PCA of F3 for Longleng district that Sakshi village is more developed area, whereas Nian village is most the backward areas with regard to distance from medical facilities, surface road cover and distance from water supply.

2.5.4: Inequalities in overall Level of Infrastructure Development in Longleng District (Combine Component score)

Table 21 shows the combine component scores of overall infrastructure development in rural and urban areas of Longleng and is calculated by taking the values of F1 (education and distance from banking facilities), F2 (distance from postal facilities) and F3 (distance from medical facilities, surface road covered and distance from water supply).

Table 21: Intra-District Inequalities in the level of Infrastructure Development in Longleng (Combine Component Score)

Indicators	*Longleng*	*C.C.S*
Developed	High School(LW)	1.695
	Shauli(LW)	0.585
Moderately	Shayung(LW)	0.431
Less Developed	Leinak(LW)	0.208
	Yachem(LV)	-0.517
Backward	Sakshi(LV)	-0.839
	Bura Namsang(LV)	-0.982
	Nian(LV)	-1.293

From the above table the combine component score show that High School and Shauli are considered as developed with regard to education, distance from medical facilities, distance from banking facilities, distance from postal facilities surface road cover and distance from water supply. The moderately developed area is Shauyung ward. Leinak ward and Yachem village are accounted as less developed, while Sakshi, Bura Namsang and Nian fall in the category of backward areas.

The above results from combine component score from table 21 and fig. 5 show that 25 per cent of Longleng district are in developed areas while 37.5 per cent of the district are in backward region.

Thus, it is clear that higher percentage of areas lies in the less developed and backward area compared to developed and moderately developed area in Longleng district. It is also seen that rural areas are more backward compared to urban areas in district.

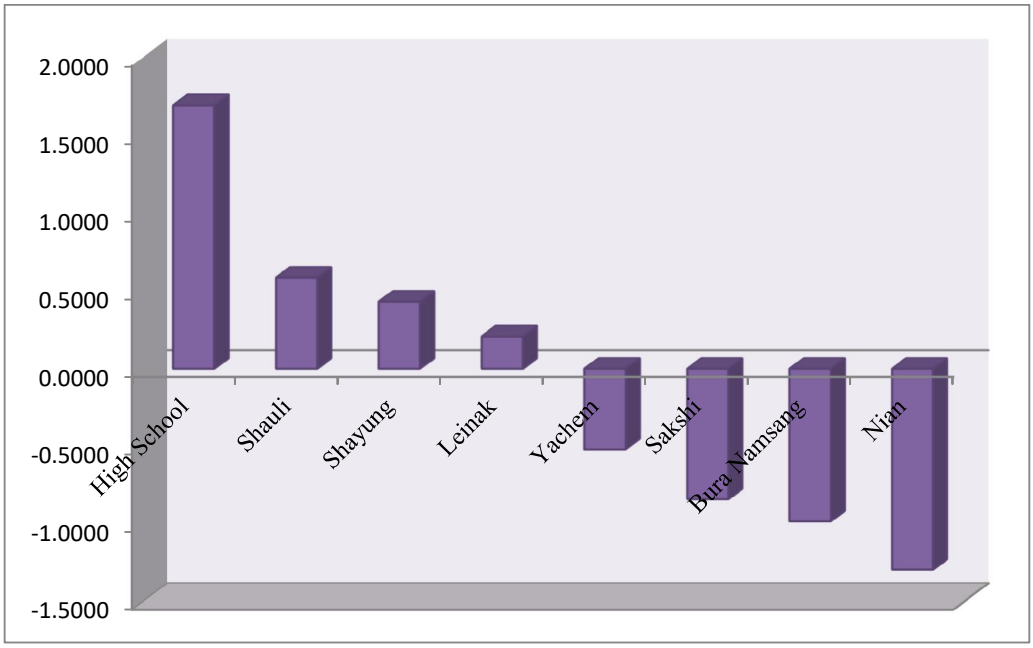

Figure 5: Combine Components Scores of Longleng District

CHAPTER III

MEASURING INEQUALITY THROUGH POVERTY AND INCOME

This chapter firstly analyses the monthly per capita consumption expenditure for both rural and urban areas of Nagaland and then compares with that published by NSSO (National Sample Survey Organization) for India and Nagaland. Then, analysis was made to understand the existence of poor proportion in Nagaland. Thirdly, inequality in the distribution of income among the people was measured through Gini-coefficient and Lorenz curve. Fourthly, multi-dimensional poverty index was used to measure the extent of deprivation in the society.

3.1: Estimated average Monthly Per-capita Consumption Expenditure (MPCE)

The monthly per capita consumption expenditure at the national level was Rs 972 for rural areas and Rs 1407 for urban areas during 2011-12 and the average per capita consumption expenditure per person per day was Rs 32.4 for rural areas and Rs 46.9 for urban areas at 2011-12 prices which are shown in table 22 below. For Nagaland the average monthly per capita consumption expenditure was Rs 1229.83 for rural areas and Rs 1615.78 for urban areas during the same period, and the average per capita expenditure per day was Rs 40.99 and Rs 53.85 for rural areas and for urban area. The sample survey estimates of monthly per capita consumption came out to be Rs 1832.44 for rural areas and Rs 3153.04 for urban areas during 2015-16, and the average per capita expenditure per person per day was Rs 61.08 for rural areas and Rs 105.10 for urban areas during the same period, i.e., 2015-16. The sample data show that the average MPCE for rural areas of Nagaland is higher than the national rural average by 46.95 percent. Moreover, the average MPCE of sample survey for rural areas of Nagaland is

higher than the NSSO estimate for rural areas of Nagaland by 32.85 per cent. The average MPCE of sample survey for urban areas of Nagaland is higher than the national urban average by 55.38 per cent, whereas the average MPCE of sample survey for urban areas of Nagaland is 48.76 per cent higher than Nagaland average MPCE as provided by NSSO.

Table 22: Estimation of Monthly Per-capita Consumption Expenditure

Category	*Rural Income*	*Urban Income*	*Average per-capita in Rural*	*Average per-capita in Urban*
National MPCE (at 2011-12 prices)	972.00	1407.00	32.40	46.90
Nagaland MPCE (at 2011-12 prices)	1229.83	1615.78	40.99	53.85
Sample Survey MPCE (at 2015-16 prices)	1832.44	3153.04	61.08	105.10

S*ource: NSSO Report 2010 and Field Survey Report, 2015-16*

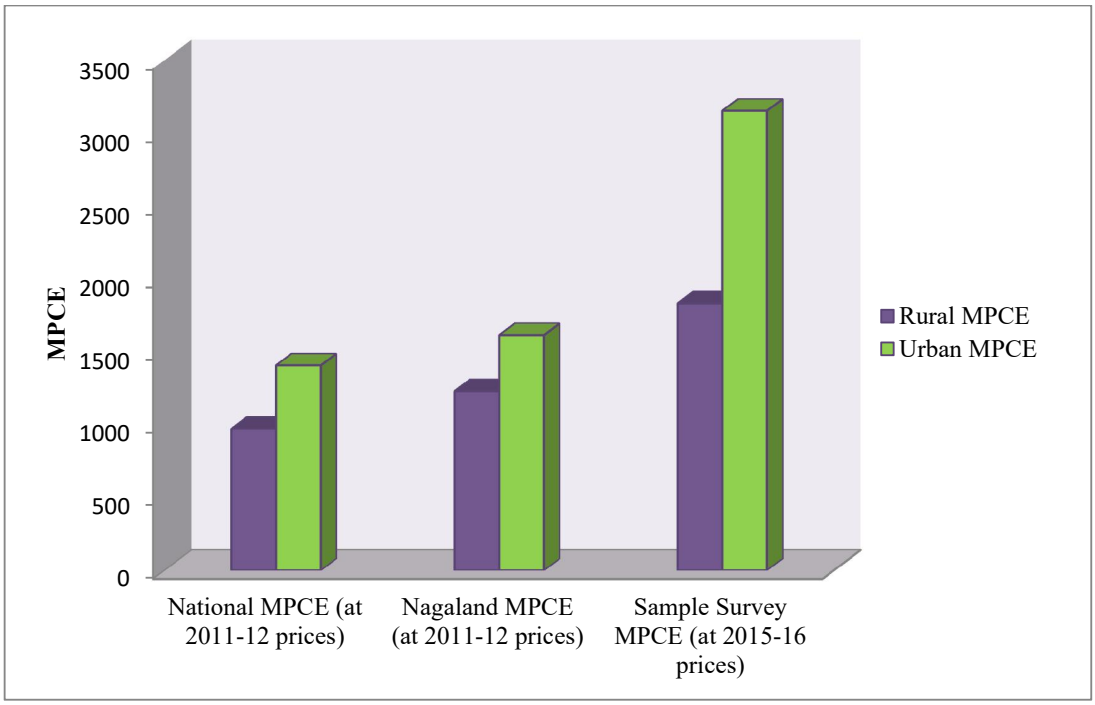

Figure 6: Rural-Urban Comparison of Income of Nagaland

3.2: Estimated Poverty of Nagaland

The Report of the Expert Group maintains that the household consumer expenditure is more reliable than income and hence more suitable for measuring poverty. The reliability of the consumption expenditure is well recognized. Thus, monthly per-capita consumption expenditure is used as a proxy for the actual income while determining poverty (Ezung, 2011).The proportion of poor in Nagaland has been estimated using average MPCE. The estimated results of head count ratio (HCR) are depicted in table 23.

3.2.1: Head Count Ratio: The head count ratio of Nagaland based on the sample survey shows the proportion of poor as 0.3383, i.e., 33.83 per cent population of Nagaland was still living below the poverty line. The proportion of poor for the whole Nagaland is calculated by adding up the number of poor in both rural and urban areas and then dividing it by the total number of population. The proportion of poor for the whole of Nagaland comes out to be 33.83 per cent.

The head count ratio for rural areas of Nagaland based on the sample survey shows the proportion of poor as 0.3682 i.e., 36.82 per cent of rural population in Nagaland were still living below the poverty line. For urban areas of Nagaland the head count ratio (HCR) based on the sample survey poverty line shows 0.2939 i.e., 29.39 per cent of urban population in Nagaland were living below the poverty line. In comparison the poverty level of rural Nagaland is higher than Nagaland and urban Nagaland.

This shows the existence of higher inequality and income deprivation among the population of rural areas than Nagaland and urban area in Nagaland.

Table 23: Estimated Poverty of Nagaland

Category	*HCR*
Nagaland	0.3383
Rural	0.3682
Urban	0.2939

Source: Field Survey Report, 2015-16

3.3: Inter-Districts Poverty Estimates

In this section an attempt has been made to examine the extent of poverty through head count ratio for Kohima and Longleng districts. The estimated results of HCR are shown in table 24.

3.3.1: Head Count Ratio: The analysis of head count ratio for Kohima district come out to be 0.2277 i.e., 22.77 per cent of Kohima district population were living below the poverty line. For Longleng district the head count ratio comes out to be 0.4589, i.e., 45.89 per cent of Longleng district population were living below the poverty line. In comparison, the poverty level of Longleng district is higher than that of Kohima district which means poverty is severe and chronic in Longleng district.

The head count ratio for rural areas of Kohima district is estimated at 0.177, i.e., 17.7 per cent of rural population of Kohima district were living below the poverty line. The head count ratio for rural areas of Longleng district is estimated at 0.5008, i.e., 50.08 per cent of rural population of Longleng district was living below the poverty line. Even the poverty level of rural areas of Longleng is higher than that of Kohima which means higher proportion of people were still living under poverty level as compared to Kohima district.

For urban areas of Kohima district the head count ratio comes out to be 0.271, i.e., 27.1 per cent of urban population of Kohima district were living below the poverty

line. For urban areas of Longleng district the head count ratio comes out to be 0.342, i.e., 34.2 per cent of urban population of Longleng district were living below the poverty line.

Thus, it is found that the poverty level in the urban area of Longleng district is higher than that of urban Kohima. This shows higher existence of inequality in Longleng compared to Kohima.

In other words, income deprivation among the population of Longleng district is higher than Kohima in both rural and urban areas.

Table 24: Estimated Poverty of Kohima and Longleng District

Kohima	*HCR*	*Longleng*	*HCR*
Over all	0.2277	Over all	0.4589
Rural	0.177	Rural	0.5008
Urban	0.271	Urban	0.342

Source: Field Survey Report, 2015-16

3.4: Intra-District Poverty Estimation

Intra-district proportion of poor in rural areas of Kohima district using averages income, the estimated of head count ratio (HCR) are explained below.

3.4.1: Kohima District Rural Head Count Ratio: The estimated head count ratio shows that Kijumetouma village has the highest number of poor people living below poverty line with 33.33 per cent, while Jakhama village exhibits the lowest percentage of people living below poverty line with 9.78 per cent.

In other words income deprivation among the population of Kijumetouma village is highest, while Jakhama village has the lowest level of income deprivation.

Table 25: Estimated Poverty of Rural Kohima district

Rural	*HCR*
Jakhama	0.0978
Kijumetouma	0.3333
Mezoma	0.2592
Tsiese Bawe	0.2682

Source: Field Survey Report, 2015-16

3.4.2: Kohima District Urban Head Count Ratio: The estimated head count ratio shows that Daklane ward has the highest number of poor people living below poverty line with 31.81 per cent, while Upper Agri exhibits the lowest percentage of people living below poverty line with 10.44 per cent.

In other words income deprivation among the population of Daklane ward is highest, while Upper Agri ward has the lowest level of income deprivation.

Table 26: Estimated Poverty of Urban Kohima district

Urban	*HCR*
Daklane	0.3181
Lower Chandmari	0.2953
Sepfuozou	0.2307
Upper Agri	0.1044

Source: Field Survey Report, 2015-16

3.4.3: Longleng District Rural Head Count Ratio: The estimated head count ratio shows that Sakshi village has the highest number of poor people living below poverty line with 78.84 per cent, while Yachem village exhibits the lowest percentage of people living below poverty line with 23.31 per cent.

In other words income deprivation among the population of Sakshi village is highest, while Yachem village has the lowest level of income deprivation.

Table 27: Estimated Poverty of Rural Longleng district

Rural	*HCR*
Bura Namsang	0.2692
Nian	0.6987
Sakshi	0.7884
Yachem	0.2331

Source: Field Survey Report, 2015-16

3.4.4: Longleng District Urban Head Count Ratio: The estimated head count ratio shows that Shayung ward has the highest number of poor people living below poverty line with 59.67 per cent. High School exhibits the lowest percentage of people living below poverty line with 18.51 per cent.

In other words income deprivation among the population of Shayung ward is highest and High School ward has the lowest level of income deprivation.

Table 28: Estimated Poverty of Urban Longleng district

Urban	*HCR*
High School	0.1851
Leinak	0.2400
Shauli	0.3018
Shayung	0.5967

Source: Field Survey Report, 2015-16

3.5: Estimated of Income Inequality

To measure the proportion of poor in Nagaland the average MPCE is used as a proxy of income. Here MPCE is used as a proxy of Income. The overall income inequality of Nagaland has been measured using Lorenz curve and Gini-coefficient.

3.5.1: Disparity in the Distribution of Income among the Population of Nagaland

The distribution of income among the population of Nagaland is shown in table 29. It was found that the bottom 44.19 per cent of the population is sharing about 26.22 per cent of the total income at one end, which is lower than the average sample

population. However on the other end, about 13.77 per cent of the total income is shared by the top 7.08 per cent of the population which is higher than the percentage of the sample population.

Thus, 92.94 per cent of the population shares 86.23 per cent of the total income that is lower than the sample population percentage. This shows that majority of people are sharing lesser proportion of income, while smaller percentage of population are enjoying higher income.

The value of Gini-coefficient for monthly per capita consumption expenditure of Nagaland has been estimated as 0.2535. The inequality in the distribution of monthly per capita consumption expenditure among the population of Nagaland stands at 25.35 percent, both the value of Gini-coefficient and the shape of Lorenz curve in figure 7 shows high inequality of income distribution among the household of Nagaland.

3.5.2: Disparity in the Distribution of Income among the Rural Nagaland

The distribution of income among the population of rural area of Nagaland is shown in table 30. It reveals that the bottom 62.22 percent of the population is sharing about 45.81 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 6.12 per cent of the total income is share by the top 2.51 per cent of the population which is higher than the average percentage of the sample population.

Thus, 94.68 per cent of population shares 88.21 per cent of total income that is lower than the average sample population. This means that in rural areas majority of the population are sharing lesser income while handful of people are enjoying higher income level.

The value of Gini-coefficient for monthly per capita consumption expenditure of rural areas of Nagaland has been estimated at 0.223. The inequality in the distribution of monthly per capita consumption expenditure among the population of rural area of Nagaland stands at 22.3 percent, both the value of Gini-coefficient and the shape of Lorenz curve in figure 7 shows higher inequality of income among the rural household of Nagaland. However, the Gini-coefficient shows that the distribution of income is lower in rural areas compared to Nagaland but higher than urban areas.

3.5.3: Disparity in the Distribution of Income among the Urban Nagaland

The distribution of income among the population of urban areas of Nagaland has shown in table 31 and reveals that the bottom 19.15 percent of the population is sharing about 9.27 per cent of the total income at one end, which is lower than the sample population. However on the other end, about 4.35 per cent of the total income is shared by the top 2.44 per cent of the population which is higher than the percentage of the sample population.

Thus, 97.56 per cent of population shares 95.65 per cent of total income that is lower than the sample population. This shows that majority of the people are sharing lesser proportion of income, while smaller percentage of population are enjoying higher income.

The value of Gini-coefficient for monthly per capita consumption expenditure of urban areas of Nagaland has been estimated at 0.1596. The inequality in the distribution of monthly per capita consumption expenditure among the population of urban area of Nagaland stands at 15.96 percent. Both the value of Gini-coefficient and the shape of

Lorenz curve in figure. 7 show that higher inequality of income among the urban areas of Nagaland.

Thus, Gini-coefficient and Lorenz curve show higher existence of income inequality in rural areas of Nagaland than urban areas.

Table 29: Distribution of Income among the Population of Nagaland

MPCE	*No. of Person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	231	174498.7	13.39	4.28	13.39	4.28
1000-2000	544	894697.66	31.52	21.94	44.91	26.22
2000-3000	401	957345.66	23.24	23.47	68.15	49.69
3000-4000	428	1490515.31	24.79	36.54	92.94	86.23
4000-5000	105	467152.29	6.08	11.45	99.02	97.68
5000-6000	14	73354.89	0.81	1.79	99.83	99.47
6000-7000	-	-	-	-	99.83	99.47
7000-8000	3	21736.65	0.17	0.53	100	100
Total	1726	4079301.16	100	100		

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

Table 30: Distribution of Income among the Population of Rural Nagaland

MPCE	*No. of Person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	217	161852.1	21.03	8.56	21.03	8.56
1000-2000	425	704491.7	41.19	37.25	62.22	45.81
2000-3000	335	801890.9	32.46	42.4	94.68	88.21
3000-4000	29	107039	2.81	5.67	97.49	93.88
4000-5000	26	115811.1	2.51	6.12	100	100
Total	1032	1891085	100	100		

Source Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

Table 31: Distribution of Income among the Population of Urban Nagaland

MPCE	*No. of Person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	14	12646.6	2.02	0.58	2.02	0.58
1000-2000	119	190205.95	17.13	8.69	19.15	9.27
2000-3000	66	155454.77	9.54	7.1	28.69	16.37
3000-4000	399	1383476.3	57.49	63.23	86.18	79.6
4000-5000	79	351341.16	11.38	16.05	97.56	95.65
5000-6000	14	73354.89	2.01	3.36	99.57	99.01
6000-7000	-	-	-	-	99.57	99.01
7000-8000	3	21736.65	0.43	0.99	100	100
Total	694	2188216.32	100	100		

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

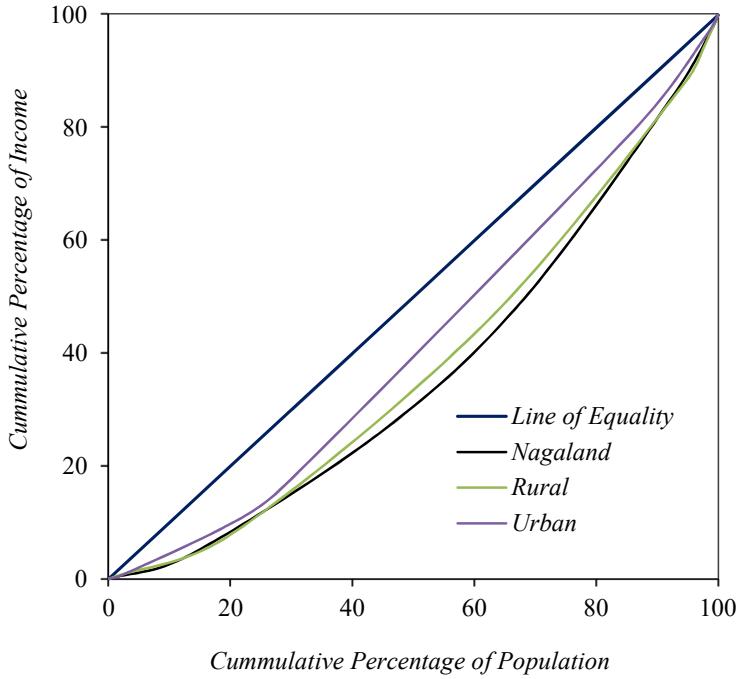

Figure 7: Population wise distribution of Income of Nagaland, Rural and Urban Nagaland

3.6: Inter-District Income Inequality

Inter-district inequality measures the income inequalities among the population of both Kohima and Longleng districts.

3.6.1: Overall inter-district inequalities of income of Kohima and Longleng

The inter-district disparities in the distribution of income among the population have been explained firstly by covering the overall disparities among the two districts, followed by explain the rural and urban disparities in both the districts.

3.6.1.a: Disparity in the Distribution of Income among the Population of Kohima

The distribution of income inequality among the population of Kohima is shown in table 32. It reveals that the bottom 29.05 percent of the population is sharing about 16.44 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 13.06 per cent of the total income is shared by the top 21.5 per cent of the population which is higher than the percentage of the sample population. Thus, 86.94 per cent of population shares 78.5 per cent of total income that is lower than the sample population.

The value of Gini-coefficient for monthly per capita consumption expenditure for Kohima district has been estimated at 0.2064. The inequality in the distribution of monthly per capita consumption expenditure among the population for Kohima stands at 20.64 percent. Both the Gini-coefficient and shape of Lorenz curve is shown in figure 8

3.6.1.b: Disparity in the Distribution of Income among the Population of Longleng

The distribution of income inequality among the population of Longleng is shown in table 33. It reveals that the bottom 62.07 percent of the population is sharing about 41.9 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 34.1 per cent of the total income is shared by the top 19.45 per cent of the population which is higher than the percentage of the sample population. Thus, 80.55 per cent of population shares 65.09 per cent of total income that is lower than the sample population.

The value of Gini-coefficient for monthly per capita consumption expenditure for Longleng has been estimated at 0.2660. The inequality in the distribution of monthly per

capita consumption expenditure among the population of Longleng stands at 26.60 percent.

Thus, both the Gini-coefficient and Lorenz curve shows the existence of higher inequality in Longleng district than Kohima. Both the Gini-coefficient and shape of Lorenz curve is shown in figure 8.

Table 32: Distribution of Income among the Population of Kohima District

MPCE	*No. of person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	20	16906.3	2.22	0.68	2.22	0.68
1000-2000	241	395962	26.83	15.76	29.05	16.44
2000-3000	248	593941	27.61	23.64	56.66	40.08
3000-4000	272	965230	30.28	38.42	86.94	78.5
4000-5000	100	445397	11.13	17.73	98.07	96.23
5000-6000	14	73354.9	1.6	2.91	99.67	99.14
6000-7000	-	-	-	-	99.67	99.14
7000-8000	3	21736.7	0.33	0.86	100	100
Total	898	2512528	100	100		

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

Table 33: Distribution of Income among the Population of Longleng District

MPCE	*No. of Person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	211	157589.45	25.48	10.06	25.48	10.06
1000-2000	303	498732.34	36.59	31.84	62.07	41.9
2000-3000	153	363404.28	18.48	23.19	80.55	65.09
3000-4000	156	525285.5	18.85	33.53	99.4	98.62
4000-5000	5	21754.97	0.6	1.38	100	100
Total	828	1566766.5	100	100		

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

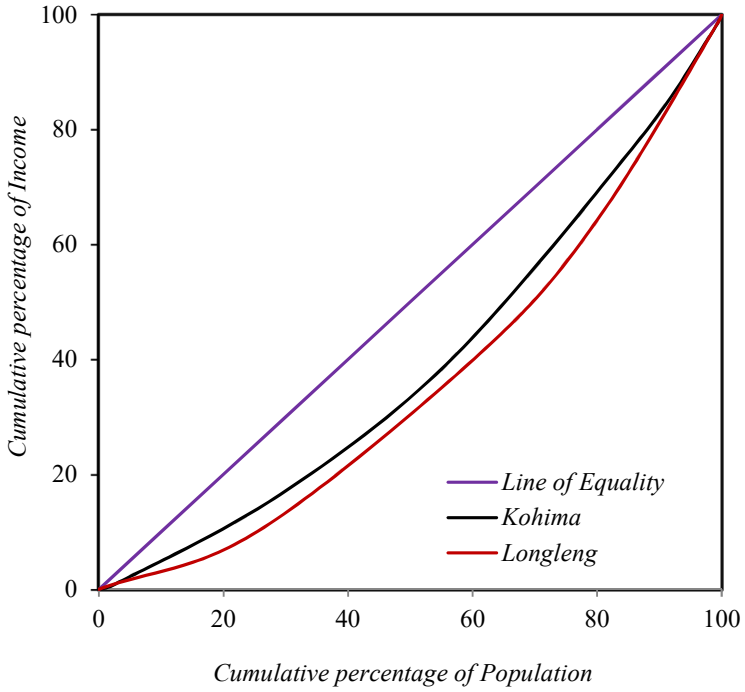

Figure 8: Population wise distribution of Income for Kohima and Longleng

3.6.2: Income Inequality in Rural areas

Inequalities in the distribution of income among the population of rural areas of Kohima and rural areas of Longleng have been explained below using Lorenz curve and Gini-coefficient.

3.6.2.a: Disparity in the Distribution of Income among the Rural Population of Kohima

The distribution of income inequality among the population for rural areas of Kohima district is given in table 34 below. It shows that the bottom 40.44 percent of the population is sharing about 28.56 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 12.13 per cent of the total income is shared by the top 6.14 per cent of the population which is higher than

the percentage of the sample population. Thus, 93.86 per cent of population shares 87.87 per cent of total income that is lower than the sample population.

The value of Gini-coefficient for monthly per capita consumption expenditure of rural Kohima district has been estimated at 0.165. The inequality in the distribution of monthly per capita consumption expenditure among the population of rural Kohima district stands at 16.5 percent. Both the Gini-coefficient and shape of Lorenz curve is shown in figure 9.

3.6.2.b: Disparity in the Distribution of Income among the Rural Population of Longleng

The distribution of income inequality among the population for rural areas of Longleng is shown in table 35 and reveals that the bottom 77.33 percent of the population is sharing about 63.41per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 4.32 per cent of the total income is shared by the top 1.98 per cent of the population which is higher than the percentage of the sample population. Thus, 98.02 per cent of population shares 95.68 per cent of total income that is lower than the sample population.

The value of Gini-coefficient for monthly per capita consumption expenditure of rural Longleng district has been estimated at 0.229. The inequality in the distribution of monthly per capita consumption expenditure among the population of rural Longleng district stands at 22.9 percent. Both the Gini-coefficient and shape of Lorenz curve is shown in figure 9.

Thus, both the Gini-coefficient and Lorenz curve shows the existence of higher inequality in rural areas of Longleng district than rural areas of Kohima district.

Table 34: Distribution of Income among the Rural Kohima District

MPCE	*No. of person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	14	11582.96	3.3	1.22	3.3	1.22
1000-2000	157	260979.06	37.14	27.34	40.44	28.56
2000-3000	209	499622.88	49.4	52.34	89.84	80.9
3000-4000	17	66622.41	4.02	6.97	93.86	87.87
4000-5000	26	115811.13	6.14	12.13	100	100
Total	423	954618.44	100	100		

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

Table 35: Distribution of Income among the Rural Longleng District

MPCE	*No. of Person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	203	150269.14	33.33	16.04	33.33	16.04
1000-2000	268	443512.65	44	47.37	77.33	63.41
2000-3000	126	302268.01	20.69	32.27	98.02	95.68
3000-4000	12	40416.6	1.98	4.32	100	100
Total	609	936466.4	100	937175.4		

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

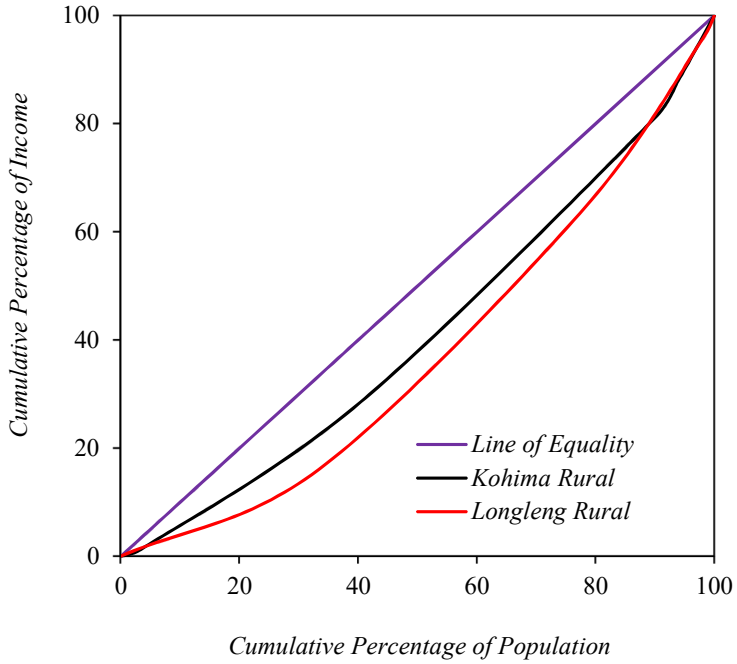

Figure 9: Population wise distribution of Income for Rural areas of Kohima and Longleng

3.6.3: Income Inequality in Urban areas

The inequalities in the distribution of income among the population of urban areas have been explained below using Lorenz curve and Gini-coefficient.

3. 6.3.a: Disparity in the Distribution of Income among the Urban Population of Kohima

The distribution of income inequality among the population for urban areas of Kohima district is shown in table 36 below and reveals that the bottom 18.95 percent of the population is sharing about 9.01 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 6.09 per cent of the total income is shared by the top 3.58 per cent of the population which is higher than the percentage of the sample population. Thus, 96.42 per cent of population shares 93.91 per cent of total income that is lower than the sample population.

The value of Gini-coefficient for monthly per capita consumption expenditure of urban Kohima district has been estimated at 0.163. The inequality in the distribution of monthly per capita consumption expenditure among the population of urban Kohima district stands at 16.3 percent. Both the Gini-coefficient and shape of Lorenz curve is shown in figure 10

3.6.3.b: Disparity in the Distribution of Income among the Urban Population of Longleng

The distribution of income inequality among the population for urban areas of Longleng is shown in table 37 below and reveals that the bottom 19.64 percent of the population is sharing about 9.93 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 3.45 per cent of the total income is shared by the top 2.28 per cent of the population which is higher than the percentage of the sample population. Thus, 97.75 per cent of population shares 96.55 per cent of total income that is lower than the sample population.

The value of Gini-coefficient for monthly per capita expenditure of urban Longleng district has been estimated at 0.137. The inequality in the distribution of monthly per capita expenditure among the population of urban Longleng district stands at 13.7 percent. Both the Gini-coefficient and shape of Lorenz curve is shown in figure 10

Thus, both the Gini-coefficient and Lorenz curve shows the existence of higher inequality in urban areas of Kohima district than urban areas of Longleng district.

Table 36: Distribution of Income among the Urban Kohima district

MPCE	*No. of Person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	6	5323.29	1.27	0.34	1.27	0.34
1000-2000	84	134983.36	17.68	8.67	18.95	9.01
2000-3000	39	94318.3	8.22	6.06	27.17	15.07
3000-4000	255	898607.1	53.68	57.69	80.85	72.76
4000-5000	74	329586.19	15.57	21.15	96.42	93.91
5000-6000	14	73354.89	2.94	4.7	99.36	98.61
6000-7000	-	-	-	-	99.36	98.61
7000-8000	3	21736.65	0.64	1.39	100	100
Total	475	1557909.8	100	100		

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

Table 37: Distribution of Income among the Urban Longleng district

MPCE	*No. of Person*	*Total MPCE (Q)*	*% of Person (F)*	*% of MPCE (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	8	7323.31	3.66	1.17	3.66	1.17
1000-2000	35	55222.59	15.98	8.76	19.64	9.93
2000-3000	27	61136.47	12.33	9.69	31.97	19.62
3000-4000	144	484869.2	65.75	76.93	97.75	96.55
4000-5000	5	21754.97	2.28	3.45	100	100
Total	219	630307	100	100		

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

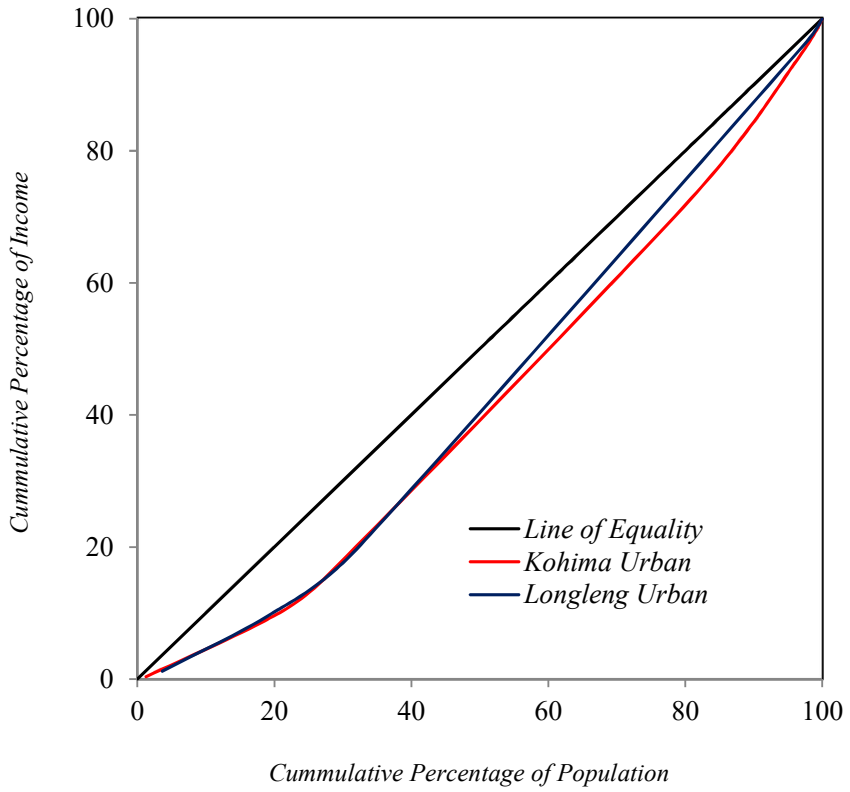

Figure 10: Population wise distribution of Income for Urban Kohima and Urban Longleng

3.7: Intra-District Income Inequality within Kohima

The intra-district inequalities of income among the population of both rural and urban Kohima district have been highlighted below.

3.7.1: Income Inequality of Kohima

The estimated inequalities in the distribution of income among the rural population of Kohima district have been explained below.

3.7.1.a: Income Inequality for Rural Kohima

The distribution of income inequality among the village population of rural Kohima is shown in table 38. The table reveals that in Jakhama village the bottom 29.78

percent of the population is sharing about 20.89 percent of the total income at one end, which is lower than the sample population average. However on the other end, about 3.83 per cent of the total income is shared by the top 7.48 percent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Jakhama village has been estimated at 0.1408. Both the value of Gini-coefficient and the shape of Lorenz curve in figure 11 shows higher inequality of income among the rural household of Jakhama village.

The distribution of income inequality among the population Kijumetouma village is shown in table 38 and reveals that in Kijumetouma village the bottom 64.11 percent of the population is sharing about 51.95 percent of the total income at one end, which is lower than the sample population average. However on the other end, about 48.05 percent of the total income is shared by the top 35.89 percent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Kijimetouma village has been estimated at 0.1787, both the value of Gini-coefficient and the shape of Lorenz curve in figure 11 shows higher inequality of income among the rural household of Kijimetouma village.

The distribution of income inequality among the population of Mezoma village is shown in the table 38 and reveals that the bottom 53.7 per cent of the population is sharing about 39.49 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 11.12 per cent of the total income is shared by the top 21.99 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Mezoma village has been estimated at 0.1766, both the value of Gini-

coefficient and the shape of Lorenz curve in figure 11 shows higher inequality of income among the rural household of Mezoma village.

The distribution of income inequality among the population of Tsiese Bawe village is shown in table 38 and reveals that the bottom 43.91 per cent of the population is sharing about 29.01 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 12.19 per cent of the total income is shared by the top 24.04 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Tsiese Bawe village has been estimated at 0.1973 and both the value of Gini-coefficient and the shape of Lorenz curve shows higher inequality of income among the rural household of the village.

Thus, for rural areas of Kohima district both the Gini-coefficient and Lorenz curve shows that highest income inequality in Tsiese Bawe village and it is lowest in Jakhama village.

Table 38: Distribution of Income among the Population of Rural Kohima

MPCE	*Jakhama*		*Kijumetouma*		*Mezoma*		*Tsiese Bawe*	
	C.F of % (F)	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	2.13	0.8	23.64	10.25	0.00	0.00	0.00	0.00
1000-2000	29.78	20.89	64.11	51.95	53.7	39.49	43.91	29.01
2000-3000	88.93	80.55	100	100	88.88	78.01	87.81	75.96
3000-4000	96.17	92.52			88.88	78.01	87.81	75.96
4000-5000	100	100			100	100	100	100

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

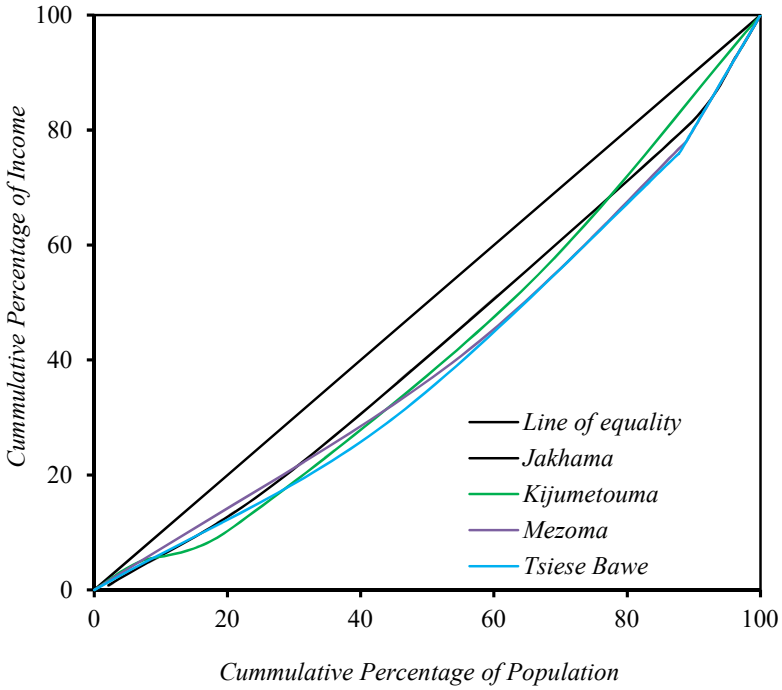

Figure 11: Population wise distribution of Income for Rural Kohima

3.7.1.b: Income Inequality for Urban Kohima District

The distribution of income inequality among the ward population of urban Kohima is shown in table 39. The table reveals that in Daklane ward the bottom 17.04 percent of the population is sharing about 9.74 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 3.86 per cent of the total income is shared by the top 1.7 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Daklane ward has been estimated at 0.1458, both the

value of Gini-coefficient and the shape of Lorenz curve in figure 12 show higher inequality of income among the population of Daklane ward of Kohima.

The distribution of income inequality among the ward population of urban Kohima is shown in table 39. The table reveals that in Lower Chandmari ward the bottom 27.47 percent of the population is sharing about 12.04 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 4.98 per cent of the total income is shared by the top 3.1 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Lower Chandmari ward has been estimated as 0.1993, and both the value of Gini-coefficient and the shape of Lorenz curve in figure 12 show higher inequality of income among the population of the ward.

The distribution of income inequality among the ward population of urban Kohima is shown in the table 39. The table reveals that in Sepfuozou ward the bottom 69.22 percent of the population is sharing about 60.89 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 19.25 per cent of the total income is shared by the top 12.84 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Sepfuozou ward has been estimated at 0.1182, both the value of Gini-coefficient and the shape of Lorenz curve shows higher inequality of income among the population of Sepfuozou ward of Kohima.

The distribution of income inequality among the ward population of urban Kohima is shown in table 39. The table reveals that in Upper Agri ward the bottom 10.44 percent of the population is sharing about 4.95 per cent of the total income at one end,

which is lower than the sample population average. However on the other end, about 43.07 per cent of the total income is share by the top 35.83 per cent of the population which is higher than the percentage of the sample population. Thus 64.17 per cent of population shared 56.93 per cent of total income which is lower than the sample population. The value of Gini-coefficient for monthly per capita expenditure of Upper Agri ward has been estimated as 0.1001, i.e., inequality in the distribution of monthly per capita expenditure among the population of Upper Agri ward stands at 10.01 percent, both the value of Gini-coefficient and the shape of Lorenz curve in figure 12 shows higher inequality of income among the population of Upper Agri ward of Kohima.

Thus, for urban areas of Kohima district both the Gini-coefficient and Lorenz curves show that inequality is highest in Lower Chandmari ward and lowest in Upper Agri ward.

Table 39: Distribution of Income among the Population of Urban Kohima

MPCE	*Daklane*		*Lower Chandmari*		*Sepfuozou*		*Upper Agri*	
	C.F of % (F)	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	-	-	3.1	0.86	-	-	-	-
1000-2000	17.04	9.74	27.47	12.04	-	-	10.44	4.95
2000-3000	31.81	20.88	29.55	13.36	23.07	16.56	10.44	4.95
3000-4000	88.06	81.74	82.4	73.48	69.22	60.89	64.17	56.93
4000-5000	96.6	93.39	96.9	95.02	87.16	80.75	100	100
5000-6000	98.3	96.14	100	100	100	100		
6000-7000	98.3	96.14						
7000-8000	100	100						

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

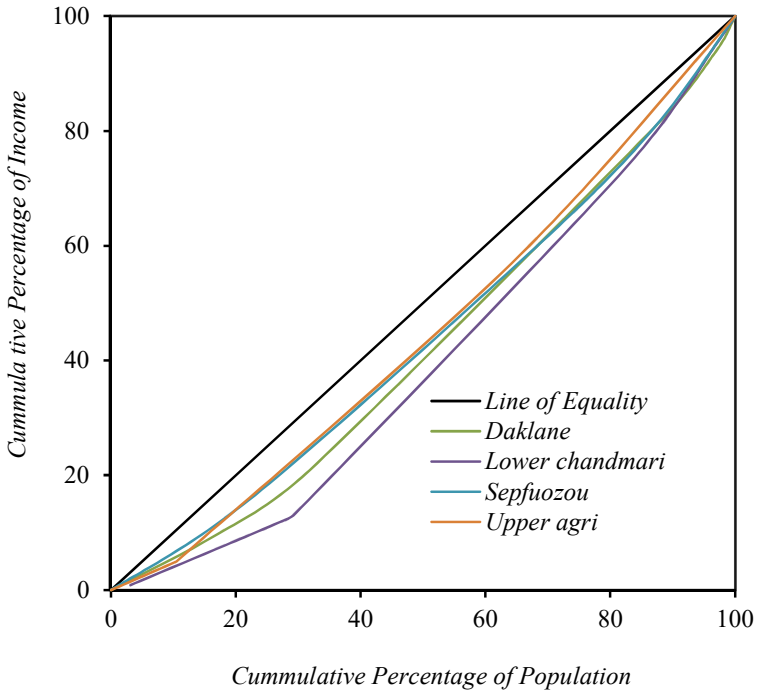

Figure 12: Population wise distribution of Income for Urban Kohima

3.7.2: Income Inequality of Longleng district

The intra-district disparities in the distribution of income among the population of Longleng district have been explained below.

3.7.2.a: Income Inequality of Rural Longleng district

The distribution of income inequality among the village population of rural Longleng is shown in the table 40 and it reveals that in Bura Namsang village the bottom 63.47 per cent of the population is sharing about 52.15 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 47.85 per cent of the total income is shared by the top 36.53 per cent of the population which is higher than the percentage of the sample population. The value of Gini-

coefficient for monthly per capita expenditure of Bura Namsang village has been estimated at 0.1636, both the value of Gini-coefficient and the shape of Lorenz curve in figure 13 shows higher inequality of income among the rural household of Bura Namsang village.

The distribution of income inequality among the village population of rural Longleng is shown in the table 40. In Nian village the bottom 30.76 per cent of the population is sharing about 17.11 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 82.89 per cent of the total income is shared by the top 69.24 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Nian village has been estimated at 0.1365 and both the value of Gini-coefficient and the shape of Lorenz curve in figure 13 shows higher inequality of income among the rural household of Nian village.

The distribution of income inequality among the village population of rural Longleng is shown in table 40. In Sakshi village the bottom 65.38 per cent of the population is sharing about 43.37 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 6.63 per cent of the total income is shared by the top 2.56 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Sakshi village has been estimated at 0.2286, both the value of Gini-coefficient and the shape of Lorenz curve shows higher inequality of income among the rural households of Sakshi village.

The distribution of income inequality among the village population of rural Longleng is shown in table 40. The table reveals that in Yachem village the bottom 50.25 per cent of the population is sharing about 37.84 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 10.39 per cent of the total income is shared by the top 6.23 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Yachem village has been estimated at 0.1595 and both the value of Gini-coefficient and the shape of Lorenz curve shows higher inequality of income among the rural household of Yachem village.

Thus, the Gini-coefficient and Lorenz curve in figure 13 show the existence of highest inequality in Sakshi village and lowest inequality in Nian village in rural areas of Longleng district.

Table 40: Distribution of Income among the Population of Rural Longleng

MPCE	*Bura Namsang*		*Nian*		*Sakshi*		*Yachem*	
	C.F of % (F)	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	24.03	11.8	30.76	17.11	65.38	43.37	14.5	6.45
1000-2000	63.47	52.15	100	100	97.44	93.37	50.25	37.84
2000-3000	100	100			100	100	93.77	89.61
3000-4000							100	100
4000-5000								

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

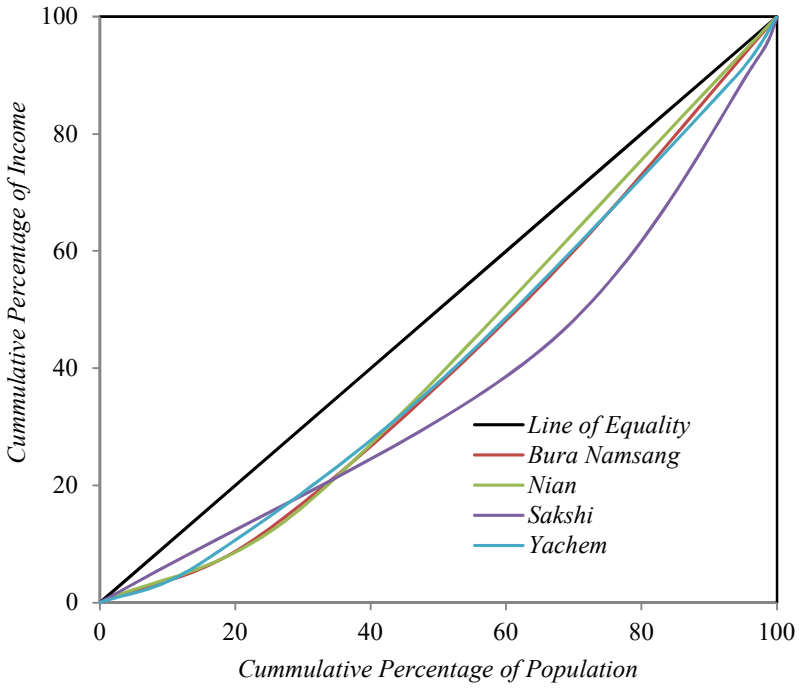

Figure 13: Population wise distribution of Income for Rural Longleng

3.7.2.b: Income Inequality for Urban Longleng

The distribution of income inequality among the ward population of urban Longleng is shown in table 41. The table reveals that in High School ward the bottom 18.5 percent of the population is sharing about 11.2 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 12.24 per cent of the total income is shared by the top 9.26 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of High school ward has been estimated at 0.0923 and both the value of Gini-coefficient and the shape of Lorenz curve in figure 14 shows higher inequality of income among the population of High school ward.

The distribution of income inequality among the ward population of urban Longleng is shown in table 41. In Leinak ward the bottom 10 percent of the population is sharing about 4.28 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 84.39 per cent of the total income is shared by the top 76 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Leinak ward has been estimated at 0.0892 and the value of Gini-coefficient and the shape of Lorenz curve in figure 14 shows higher inequality of income among the population of Leinak ward.

The distribution of income inequality among the ward population of urban Longleng is shown in table 41. In Shauli ward the bottom 11.33 percent of the population is sharing about 5.09 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 88.57 per cent of the total income is shared by the top 79.24 per cent of the population which is higher than the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Shauli ward has been estimated at 0.0957 and both the value of Gini-coefficient and the shape of Lorenz curve show higher inequality of income among the population of Shauli ward.

The distribution of income inequality among the ward population of urban Longleng is shown in table 41. In Shayung ward the bottom 43.54 percent of the population is sharing about 26.94 per cent of the total income at one end, which is lower than the sample population average. However on the other end, about 57.06 per cent of the total income is shared by the top 40.33 per cent of the population which is higher than

the percentage of the sample population. The value of Gini-coefficient for monthly per capita expenditure of Shayung ward has been estimated at 0.2064 and both the value of Gini-coefficient and the shape of Lorenz curve in figure 14 show higher inequality of income among the population of Shayung ward.

Thus, for urban areas of Longleng district both the Gini-coefficient and Lorenz curves show that inequality is highest in Shayung ward and lowest in Leinak ward.

Table 41: Distribution of Income among the Population of Urban Longleng

MPCE	*High School*		*Leinak*		*Shauli*		*Shayung*	
	C.F of % (F)	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*	*C.F of % (F)*	*C.F of % (Q)*
0 -1000	-	-	-	-	-	-	12.9	5.02
1000-2000	9.25	4.96	10	4.28	11.33	5.09	43.54	26.94
2000-3000	18.5	11.12	24	15.61	20.76	11.43	59.67	42.94
3000-4000	100	100	100	100	100	100	100	100

Source: Field Survey Report, 2015-16, C.F indicates the Cumulative Frequency

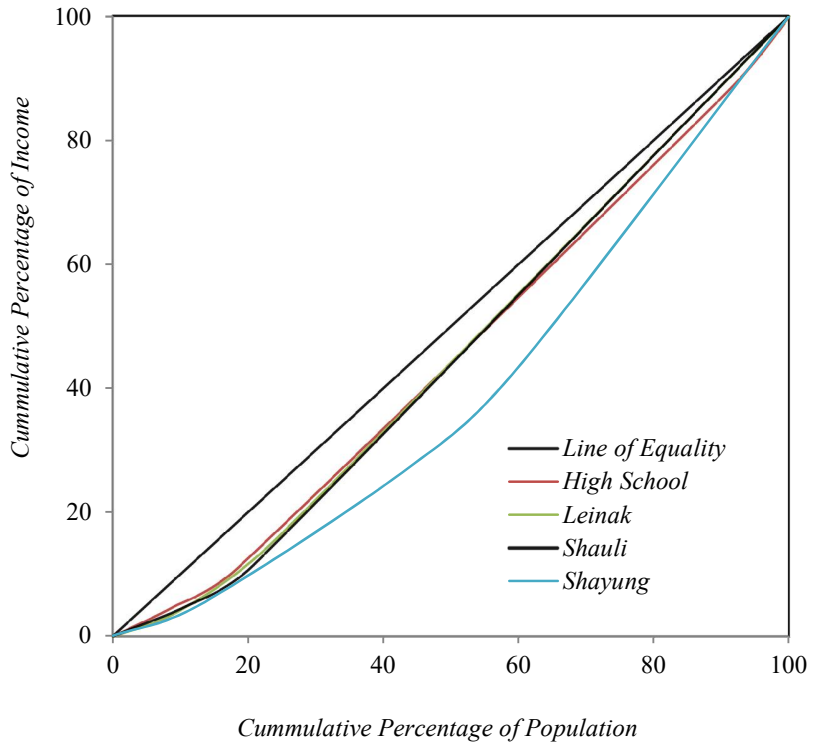

Figure 14: Population wise distribution of Income for Urban Longleng

3.8: Multidimensional Poverty Index (MPI)

Multidimensional Poverty Index is used for measuring acute poverty in Nagaland. MPI includes people living under condition where they do not reach the minimum standards in several aspects such as years of schooling, school attendance, nutrition, child mortality, cooking fuel, sanitation, water supply, electricity, floor, and assets. The analysis of MPI for Nagaland is discussed below.

3.8.1: Dimensions of Multidimensional Poverty Index for Nagaland

For analysing the Multidimensional Poverty Index, three dimensions were taken, namely education, health and living standards. The values of each dimension are highlighted below in table 42.

Education:

Table 42 shows that the education deprivation in Nagaland comes out to be 17.28 per cent and non deprivation is 82.72 per cent. The education deprivation for rural areas of Nagaland comes is 19.60 per cent and non deprivation is 80.40 per cent. For urban areas the education deprivation and non deprivation are 14.00 per cent and 86.00 per cent respectively.

Health:

The health deprivation in Nagaland comes out to be 10.13 per cent and non deprivation is 89.87 per cent. The health deprivation for rural areas of Nagaland comes out to be 13.63 per cent and non deprivation is 86.37 per cent respectively, while that of urban is 5.20 and 94.80 per cent respectively.

Living Standards:

The living standards deprivation in Nagaland comes out to be 45.34 per cent and non deprivation is 54.66 per cent. The total deprivation in all the three dimensions such as education, health and living standards comes out to be 32.69 per cent and non deprivation is 67.31 per cent. The living standards deprivation for rural areas of Nagaland comes out to be 50.56 per cent and non deprivation is 49.44 per cent. The total deprivation for rural areas of Nagaland in all the three dimensions such as education, health and living standards comes out to be 36.98 per cent and non deprivation is 63.02 per cent. The percentage of living standards deprivation for urban area of Nagaland

comes out to be 38.00 per cent and non deprivation is 62.00 per cent. The total deprivation for urban areas of Nagaland in all the three dimensions such as education, health and living standard comes out to be 26.64 per cent and non deprivation is 73.36 per cent.

Thus, it was found that the rural population of Nagaland has the higher percentage of deprivation as compared to the urban areas in terms of availability of education, health and living standards.

Table 42: Percentage value of Multidimensional Poverty Index

Dimensions	*Nagaland*		*Rural Nagaland*		*Urban Nagaland*	
	% of deprivation	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*
Education	17.28	82.72	19.60	80.40	14.00	86.00
Health	10.13	89.87	13.63	86.37	5.20	94.80
Living Standards	45.34	54.66	50.56	49.44	38.00	62.00
Total	32.69	67.31	36.98	63.02	26.64	73.36

Source: Field Survey Report, 2015-16

3.8.1.a: Estimation of Multidimensional Poverty Index for Nagaland

Table 43 shows that the head count ratio for Nagaland is 0.464 per cent of people were multidimensionally poor. This means that 46.4 per cent of the household are deprived in atleast one indicator or all the indicators. The intensity of poverty (A) comes out to be 0.50. This means that the average poor persons are deprived in 50 per cent of the indicators. The calculated value of MPI comes out to be 23.2. In other words, 23.2 percent of the population is multidimensionally poor.

The head count ratio for rural areas of Nagaland is 0.608 per cent of people is multidimensionally poor. This means that 60.8 per cent of the household are deprived in atleast one indicator or all the indicators. The intensity of poverty (A) comes out to be

0.508. This means that the average poor persons are deprived in 50.8 per cent of the indicators. The calculated value of MPI comes out to be 30.8 In other words, 30.8 percent of the population is multidimensionally poor.

The head count ratio for urban areas of Nagaland is 0.25 per cent of people is multidimensionally poor. This means that 25 per cent of the household are deprived in atleast one indicator or all the indicators. The intensity of poverty (A) comes out to be 0.477. This means that the average poor persons are deprived in 47.7 per cent of the indicators. The calculated value of MPI comes out to be 0.119. In other words, 11.9 percent of the population is multidimensionally poor.

Thus, it was found that the rural population of Nagaland has higher number of MPI poor as compared to Nagaland and urban Nagaland population.

Table 43: Estimated Multidimensional Poverty Index

Category	*Head Count Ratio (H)*	*Intensity of Poverty (A)*	*MPI=H×A*
Nagaland	0.464	0.50	0.232
Rural Nagaland	0.608	0.508	0.308
Urban Nagaland	0.25	0.477	0.119

Source: Field Survey Report, 2015-16

3.9: Inter-District Multidimensional Poverty Index (MPI)

A comparison between Kohima and Longleng district in terms of percentage of deprivation and non-deprivation of education, health and standards of living has been made which is explained below.

3.9.1: Overall Multidimensional Poverty Index of Kohima and Longleng Districts

The dimensions of multidimensional poverty for Kohima and Longleng districts are given in table 44 below.

Education

The results in table 44 show that the education deprivation and non deprivation for Kohima district are 14.54 per cent and 85.46 per cent respectively. The deprivation in education dimension for Longleng district is 20.58 per cent and non deprivation is 79.42 per cent. In comparison the deprivation of education dimension is higher in Longleng district as compared to Kohima district.

Health

The health deprivation for Kohima district is 4.54 per cent and non-deprivation is 95.45 per cent. The health deprivation for Longleng district is 16.91 per cent and non-deprivation is 83.09 per cent. In comparison the deprivation of the health dimension is higher in Longleng that of Kohima district.

Living Standards

The deprivation of living standards comes out to be 32.72 per cent and non-deprivation is 67.28 per cent for Kohima district. The total deprivation in all the three dimensions such as education, health and living standards comes out to be 23.44 per cent and non deprivation is 76.55 per cent for Kohima district.

The deprivation of living standards comes out to be 60.66 per cent and non-deprivation is 39.34 per cent for Longleng district. The total deprivation in all the three dimensions such as education, health and living standards comes out to be 43.89 per cent and non deprivation is 56.11 per cent for Longleng district. In comparison the living standards of Kohima district is far better than Longleng district.

Thus, it was found that the Longleng district has the higher percentage of deprivation as compared to Kohima district.

Table 44: Percentage value of Multidimensional Poverty Index

Dimensions	*Kohima*		*Longleng*	
	% of deprivation	*% of Non-deprivation*	*% of deprivation*	*% of Non-deprivation*
Education	14.54	85.46	20.58	79.42
Health	4.54	95.46	16.91	83.09
Living Standards	32.72	67.28	60.66	39.34
Total	23.45	76.55	43.89	56.11

Source: Field Survey Report, 2015-16

3.9.1.a: Estimation of the overall MPI of Kohima and Longleng District

The below table 45 shows that the head count ratio for Kohima district is 0.23.9, that is, 23.9 per cent of the population are multidimensionally poor, where households are deprived either in one or all the indicators. The intensity of poverty (A) is 0.497 which shows that the average poor persons are deprived in 49.7 per cent of the indicators. Thus 11.8 per cent of population is multidimensionally poor in Kohima.

The head count ratio for Longleng district shows 58.5 per cent of the population are multidimensionally poor, where household are deprived either in one or all the indicators. The intensity of poverty (A) is 0.502 per cent which shows that the average poor persons are deprived in 50.2 per cent of the indicators. Thus, 29.3 per cent of Longleng population is still multidimensionally poor.

From the above results it is clear that more poor population live in Longleng district than Kohima district. Thus, Longleng district has the higher number of multidimensionally poor persons as compared to Kohima district.

Table 45: Estimated Multidimensional Poverty Index

Districts	*Head Count Ratio (H)*	*Intensity of Poverty (A)*	*MPI=H×A*
Kohima	0.239	0.497	0.118
Longleng	0.585	0.502	0.293

Source: Field Survey Report, 2015-16

3.9.2: Dimensions of Multidimensional Poverty Index for Rural areas

The dimensions of multidimensional poverty index for rural Kohima and rural Longleng districts are highlighted in table 46 below.

Education

The results in the table show that the education deprivation and non deprivation for rural Kohima district are 16.66 per cent and 83.34 per cent respectively. The deprivation in education dimension for Longleng district is 21.87 per cent and non deprivation is 78.13 per cent. In comparison the deprivation of education dimension is higher in rural Longleng district than rural Kohima district.

Health

The health deprivation for rural Kohima district is 6.00 per cent and non-deprivation is 94.00 per cent. On the other hand, the health deprivation for Longleng district is 19.30 per cent and non-deprivation is 80.70 per cent. In comparison the deprivation of the health dimension is higher in rural Longleng district than rural Kohima district.

Living Standards

The deprivation of living standards for rural Kohima district comes out to be 34.00 per cent and non-deprivation is 66.00 per cent. The total deprivation in all the three dimensions such as education, health and living standard comes out to be 24.93 per cent and non deprivation is 75.07 per cent.

The deprivation of living standards for rural Longleng comes out to be 62.87 per cent and non-deprivation is 37.13 per cent. The total deprivation in all the three dimensions such as education, health and living standards comes out to be 45.94 per cent and non deprivation is 54.06 per cent. In comparison the living standards for rural Kohima district is far better than rural Longleng district.

Thus, it was found that the rural areas of Longleng district have the higher percentage of deprivation as compared to rural areas of Kohima district.

Table 46: Percentage value of Multidimensional Poverty Index

Dimensions	*Rural Kohima*		*Rural Longleng*	
	% of deprivation	*% of Non-deprivation*	*% of deprivation*	*% of Non-deprivation*
Education	16.66	83.34	21.87	78.13
Health	6.00	94.00	19.30	80.70
Living Standards	34.00	66.00	62.87	37.13
Total	24.93	75.07	45.94	54.06

Source: Field Survey Report, 2015-16

3.9.2.a: Estimation of MPI for Rural Kohima and Rural Longleng District

Table 47 shows the head count ratio index for rural Kohima district comes out to be 0. 241 per cent that is, 24.1 per cent of the households are deprived either in one or all the indicators. The intensity of poverty (A) is 0.484 which shows that the average poor persons are deprived in 48.4 per cent of the indicators. Thus, 11.6 per cent of rural population of Kohima district is multidimensionally poor.

The head count ratio index for rural Longleng district shows 69.6 per cent of the households are deprived either in one indicator or all the indicators. The intensity of poverty (A) shows that the average poor persons are deprived in 51.3 per cent of the indicators. Thus, 35.7 per cent of rural population of Longleng is multidimensionally poor.

Thus, it was found that the rural areas of Longleng district have the higher number of MPI poor as compared to rural areas of Kohima district.

Table 47: Estimated Multidimensional Poverty Index

District	*Head Count Ratio (H)*	*Intensity of Poverty (A)*	*MPI=H×A*
Kohima (Rural)	0.241	0.484	0.116
Longleng (Rural)	0.696	0.513	0.357

Source: Field Survey Report, 2015-16

3.9.3: Dimensions of Multidimensional Poverty Index for Urban areas

The dimensions multidimensional poverty index for urban areas for both Kohima and Longleng districts are highlighted in table 48 below.

Education

The percentages of deprivation and non-deprivation in education dimension are depicted in table 48. The result shows the education deprivation for urban area of Kohima district is 12.77 per cent and non deprivation is 87.23 per cent. Whereas, the deprivation in education dimension for Longleng district is 17.14 per cent and non deprivation is 82.86 per cent. In comparison the deprivation of education dimension is higher in urban area of Longleng district than that of Kohima district.

Health

The health deprivation for urban Kohima district is 3.33 per cent and non-deprivation is 96.67 per cent, while the health deprivation and non-deprivation for urban Longleng district are 4.11 per cent and 95.89 per cent and respectively. In comparison the deprivation of the health dimension is higher in urban Longleng than urban Kohima district.

Living Standards

The deprivation of living standards for urban Kohima district comes out to be 31.66 per cent and non-deprivation is 68.34 per cent. The total deprivation in all the three dimensions such as education, health and living standards comes out to be 22.22 per cent and non deprivation is 77.78 per cent.

The deprivation of living standards comes out to be 54.28 per cent and non-deprivation is 45.72 per cent for urban Longleng district. In comparison the living standards for urban Kohima district is far better than urban Longleng district. The total deprivation in all the three dimensions such as education, health and living standard comes out to be 38.00 per cent and non deprivation is 62.00 per cent for urban Longleng district. In comparison the deprivation of standards of living is higher in urban Longleng than urban Kohima district. In others words urban areas of Longleng district has the highest percentage of deprivation as compared to urban areas of Kohima.

Table 48: Percentage value of Multidimensional Poverty Index

Dimensions	*Urban Kohima*		*Urban Longleng*	
	% of deprivation	*% of Non-deprivation*	*% of deprivation*	*% of Non-deprivation*
Education	12.77	87.23	17.14	82.86
Health	3.33	96.67	4.11	95.89
Living Standards	31.66	68.34	54.28	45.72
Total	22.22	77.78	38.00	62.00

Source: Field Survey Report, 2015-16

3.9.3.a: Estimation of MPI for Urban Kohima and Urban Longleng District

The head count ratio for urban Kohima district in table 49 shows that 23.7 per cent of the households are deprived either in one or all the indicators. The intensity of poverty (A) is 0.508 which shows that the average poor persons are deprived in 50.8 per

cent of the indicators. Thus, 12 per cent of urban population in Kohima is multidimensionally poor.

The headcount ratio index for urban Longleng district shows 27.8 per cent of the households are deprived either in one or all the indicators. The Intensity of Poverty (A) is 0.419 per cent which shows that the average poor persons are deprived in 41.9 per cent of the indicators. Thus, 11.6 per cent of urban population in Longleng is multidimensionally poor.

Thus, it was found that the urban areas of Kohima district have the higher number of MPI poor as compared to Longleng district.

Table 49: Estimated Multidimensional Poverty Index

District	*Head Count Ratio (H)*	*Intensity of Poverty (A)*	*MPI=H×A*
Kohima (Urban)	0.237	0.508	0.12
Longleng (Urban)	0.278	0.419	0.116

Source: Field Survey Report, 2015-16

3.10: Intra-district Multidimensional Poverty Index

The multidimensional poverty index and its dimensions such as education, health and standards of living for both Kohima and Longleng have been explained below.

3.10.1: Multidimensional Poverty Index for Rural Kohima district

The dimensions of multidimensional poverty index for rural areas of Kohima district are given in table 50 below

3.10.1.a: Overall Multidimensional Poverty Index for rural areas of Kohima district

From the table 50 show the percentage of deprivation and non-deprivation in education, health and living standards and out of four sample villages, the percentage of deprivation in education is highest in Kijumetouma village with 57.14 per cent, while it is lowest in Mezoma village with 23.52 per cent. Therefore, the percentage of non

deprivation in education is highest in Mezoma village with 74.42 per cent and is lowest in Kijumetouma village with 42.86 per cent.

The deprivation in health is highest in Tsiese Bawe village with 12.5 per cent, whereas deprivation in health is lowest in Mezoma village with 2.94 per cent. Therefore, non deprivation in health is highest in Mezoma village with 97.06 per cent and non deprivation is lowest in Tsiese Bawe village with 87.5 per cent.

The deprivation in standards of living is highest in Tsiese Bawe village with 35.41 per cent, while the lowest is Mezoma village with 31.37 per cent and lowest. The percentage of non deprivation in standard of living is highest in Mezoma village with 68.63 per cent and lowest is Tsiese Bawe village with 64.59 per cent.

The overall deprivation in all the three dimensions is highest in Kijumetouma village which comes out to be 31.42 per cent and the lowest percentage of deprivation is Mezoma village with 24.11 per cent. The overall non deprivation is highest in Mezoma village with 75.89 per cent and the lowest is in Kijumetouma village with 68.58 per cent.

Thus, Kijumetouma village has the highest percentage of deprivation and the lowest percentage of deprivation was found to be Mezoma village.

Table 50: Percentage value of Multidimensional Poverty Index for Rural Kohima

Dimensions	*Jakhama*		*Kijumetouma*		*Mezoma*		*Tsiese Bawe*	
	% of deprivation	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*
Education	25.58	74.42	57.14	42.86	23.52	76.48	25.00	75.00
Health	5.81	94.19	7.14	92.86	2.94	97.06	12.5	87.5
Living Standards	34.88	65.12	33.33	66.67	31.37	68.63	35.41	64.59
Total	27.2	72.8	31.42	68.58	24.11	75.89	28.75	71.25

Source: Field Survey Report, 2015-16

3.10.1.a.i: Estimation of MPI for Rural Kohima District

From the table 51 below, it can be seen that Kijumetouma village has the highest head count ratio with 48.7 per cent, while Jakhama village exhibits the lowest head count ratio with 19.1per cent. Kijumetouma village has the highest intensity of poverty with 49.3 per cent. Mezoma village has the lowest intensity of poverty with 47.8 per cent. Kijumetouma village has the highest number of multidimensionally poor persons with 24 per cent, while Jakhama village has the lowest with of 9.24 per cent.

Thus, Kijumetouma village has the highest number of MPI poor and the lowest number of MPI poor was found to be Jakhama village.

Table 51: Estimated Multidimensional Poverty Index for Rural Kohima

Rural	*Head Count Ratio (H)*	*Intensity of Poverty (A)*	*MPI=H×A*
Jakhama	0.191	0.484	0.0924
Kijumetouma	0.487	0.493	0.240
Mezoma	0.222	0.478	0.106
Tsiese Bawe	0.341	0.487	0.166

Source: Field Survey Report, 2015-16

3.10.1.b: Overall Multidimensional Poverty Index for Urban areas of Kohima District

Table 52 shows the percentages of deprivation and non-deprivation in education, health and living standards of the four sample ward. The deprivation in education is highest in Daklane ward with 28.57 per cent, while the deprivation in education is lowest in Sepfuozou ward with 12.5 per cent. The non deprivation in education is highest in Sepfuozou ward with 87.5 per cent. The deprivation in education is lowest in Daklane ward with 71.43 per cent.

The percentage of deprivation in health is highest in Upper Agri ward with 7.69 per cent. The deprivation in health is lowest in Sepfuozou ward with 0.00 per cent. The

percentage of non deprivation is highest in Sepfuozou ward with 100 per cent. The deprivation is lowest in Upper Agri ward with 92.31 per cent.

The percentage of deprivation in standards of living is highest in Lower Chandmari ward with 44.11 per cent. The deprivation in standards of living is lowest in Upper Agri ward with 19.23 per cent. The non deprivation in standards of living is highest in Upper Agri ward with 80.77 per cent. The non deprivation in standard of living is lowest in Lower Chandmari ward with 55.89 per cent. The overall deprivation in all the three dimensions is highest in Lower Chandmari ward which comes out to be 31.47 per cent and the lowest is in Sepfuozou with 27.2 per cent. The overall non deprivation is highest in Sepfuozou ward with 83.75 per cent and the lowest is in Lower Chandmari ward with 68.53 per cent.

Thus, Lower Chandmari ward has the highest percentage of deprivation whereas Sepfuozou ward has the lowest percentage of deprivation in all the three dimensions.

Table 52: Percentage value of Multidimensional Poverty Index for Urban Kohima

Dimensions	*Daklane*		*Lower Chandmari*		*Sepfuozou*		*Upper Agri*	
	% of deprivation	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*
Education	28.57	71.43	20.58	79.42	12.5	87.5	23.07	76.93
Health	1.42	98.58	4.41	95.59	0.00	100	7.69	92.31
Living Standards	26.19	73.81	44.11	55.89	22.91	77.09	19.23	80.77
Total	21.71	78.29	31.47	68.53	16.25	83.75	17.69	82.31

Source: Field Survey Report, 2015-16

3.10.1.b.i: Estimation of MPI for Urban Kohima District

From the table 53 below, it can be seen that Daklane ward has the highest head count ratio with 28.4 per cent, and Sepfuozou ward exhibits the lowest head count ratio

with 15.3 per cent. Lower Chandmari has the highest intensity of poverty with 55.8 per cent. Daklane has the lowest intensity of poverty with 45.3 per cent. In terms of MPI Upper Agri has the highest value with 14.8 per cent. Sepfuozou ward has the lowest value with 7.6 per cent. In other words Upper Agri ward has the highest number of multidimensionallly poor and the lowest was found to be Sepfuozou ward.

Table 53: Estimated Multidimensional Poverty Index for Urban Kohima

Urban	*Head Count Ratio (H)*	*Intensity of Poverty (A)*	*MPI=H×A*
Daklane	0.284	0.453	0.128
Lower Chandmari	0.202	0.558	0.112
Sepfuozou	0.153	0.499	0.076
Upper-Agri	0.268	0.554	0.148

Source: Field Survey Report, 2015-16

3.10.2: Intra-district Multidimensional Poverty Index for Rural Longleng District

The dimension of multidimensional poverty index for rural areas of Longleng districts are given in table 54.

3.10.2.a: Overall Multidimensional Poverty Index for rural areas of Longleng district

The table 54 shows the percentages of deprivation and non-deprivation in education, health and living standards for the four sample villages. The percentage of deprivation in education is highest in Nian village with 76.92 per cent. The deprivation in education is lowest in Yachem village with 22.85 per cent. The percentage of non deprivation in education is highest in Yachem village with 77.15 per cent. The non deprivation in education is lowest in Nian village with 23.08 per cent.

The percentage of deprivation in health is highest in Sakshi village with 22.72 per cent and deprivation in health is lowest in Bura Namsang village with 13.88 per cent. The percentage of non deprivation in is highest in Bura Namsang village with 86.12 per cent and non deprivation is lowest in Sakshi village with 77.28 per cent.

The percentage of deprivation in standards of living is highest in Nian village with 68.58 per cent and deprivation in standards of living is lowest in Sakshi village with 50.00 per cent. The percentage of non deprivation in standard of living is highest in Sakshi village with 50.00 per cent and non deprivation in standards of living is lowest in Nian village with 31.42 per cent. The overall deprivation in all the three dimensions is highest in Nian village which comes out to be 60.00 per cent and the lowest percentage of deprivation is Yachem village with 40.85 per cent. The overall non deprivation is highest in Yachem village with 59.15 per cent and the lowest is in Nian village with 40.00 per cent.

Thus, Nain village has the highest percentage of deprivation and the lowest percentage of deprivation was found to be Yachem village.

Table 54: Percentage value of Multidimensional Poverty Index for Rural Longleng

Dimensions	*Bura Namsang*		*Nian*		*Sakshi*		*Yachem*	
	% of deprivation	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*	*% of deprivation*	*% of Non deprivation*
Education	44.44	55.56	76.92	23.08	68.18	31.82	22.85	77.15
Health	13.88	86.12	17.3	82.7	22.72	77.28	21.42	78.58
Living Standards	60.18	39.82	68.58	31.42	50.00	50.00	53.33	46.67
Total	47.77	52.23	60.00	40.00	48.18	51.82	40.85	59.15

Source: Field Survey Report, 2015-16

3.10.2.a.i: Estimation of MPI for Rural Longleng District

Table 55 below show that Nian village has the highest head count ratio with 90.3 per cent, Yachem village exhibits the lowest head count ratio with 48.1 per cent. Nian village has the highest intensity of poverty with 54.8 per cent and Bura Namsang village has the lowest intensity of poverty with 44.2 per cent. Nian village has the highest

percentage of MPI i.e., 49.4 per cent. Yachem village exhibits the lowest percentage of 22.7 per cent.

Thus, Nain village has the highest number of MPI poor and the lowest number of MPI poor was found to be Yachem village.

Table 55: Estimated Multidimensional Poverty Index for Rural Longleng

Rural	*Head Count Ratio (H)*	*Intensity of Poverty (A)*	*MPI=H×A*
Bura namsang	0.663	0.442	0.293
Nian	0.903	0.548	0.494
Sakshi	0.858	0.535	0.459
Yachem	0.481	0.473	0.227

Source: Field Survey Report, 2015-16

3.10.2.b: Overall Multidimensional Poverty Index for urban areas of Longleng district

Table 56 below shows the percentages of deprivation and non-deprivation in education, health and living standards of the four sample wards, the deprivation in education is highest in Leinak ward with 22.22 per cent and the deprivation in education is lowest in both High School and Shayung ward with 11.1 per cent each. Therefore, the non deprivation in education is highest in both High School and Shayung ward ward with 88.89 per cent each and non deprivation in education is lowest in Leinak ward with 77.78 per cent.

The percentage of deprivation in health is highest in Shayung ward with 16.66 per cent and deprivation in health is lowest in both High School and Leinak ward with 5.55 per cent. The percentage of non deprivation is highest in both High School and Leinak ward with 94.45 per cent each and non deprivation is lowest in Shayung ward with 83.34 per cent.

The percentage of deprivation in standards of living is highest in Leinak ward with 64.81 per cent and deprivation in standards of living is lowest in High School ward with 33.33 per cent. The percentage of non deprivation in standards of living is highest in High School ward with 66.67 per cent and percentage of non deprivation in standards of living is lowest in Leinak ward with 35.19 per cent. The overall deprivation in all the three dimensions is highest in Shayung ward which comes out to be 46.25 per cent and the lowest is in High School ward with 23.33 per cent and non deprivation is highest in High School ward with 76.67 per cent and the lowest is in Shayung ward with 53.75 per cent.

Thus, Shayung ward has the highest percentage of deprivation and the lowest percentage of deprivation was found to be High School ward.

Table 56: Percentage value of Multidimensional Poverty Index for Urban Longleng

Dimensions	*High School*		*Leinak*		*Shauli*		*Shayung*	
	% of deprivation	*% of Non*	*% of deprivation*	*% of Non*	*% of deprivation*	*% of Non*	*% of deprivation*	*% of Non*
Education	11.11	88.89	22.22	77.78	12.5	87.5	11.11	88.89
Health	5.55	94.45	5.55	94.45	12.5	87.5	16.66	83.34
Living Standards	33.33	66.67	64.81	35.19	60.41	39.59	59.25	40.75
Total	23.33	76.67	44.44	55.56	41.25	58.75	46.25	53.75

Source: Field Survey Report, 2015-16

3.10.2.b.i: Estimation of MPI for Urban Longleng District

Table 57 shows that Shayung ward has the highest head count ratio with 40.3 per cent. High School ward exhibits the lowest head count ratio with 9.2 per cent. High School ward has the highest intensity of poverty with 49.9 per cent, while Shayung ward has the lowest intensity of poverty with 36.1 per cent. Shauli ward has the highest MPI value with 16.1 per cent. High School ward has the lowest MPI value with 4.5 per cent.

In other words Shauli ward has the highest number of MPI poor, while High School ward has the lowest number of MPI poor.

Table 57: Estimation Multidimensional Poverty Index for Urban Longleng

Urban	*Head Count Ratio (H)*	*Intensity of Poverty (A)*	*MPI=H×A*
High School	0.092	0.499	0.045
Leinak	0.22	0.494	0.108
Shauli	0.377	0.429	0.161
Shayung	0.403	0.361	0.145

Source: Field Survey Report, 2015-16

CHAPTER IV

IMPACT OF EDUCATION ON EMPLOYMENT INCOME AND POVERTY IN NAGALAND

4.1: Education, Employment, Income and Poverty in Nagaland

Education is an important determinant of employment, income and specifying the standard of living for the people (poverty). Thus, this chapter analyse the impact of education on income, employment and poverty. Lastly, analysis was made to measure the relationship between education, employment, poverty and income using correlation and regression.

4.1.a: Education, Household, Population, Employment, Poverty and Income of Nagaland

The education level of head of household, household size and total population is shown below table 58, the illiterate head of households constitute 19.93 per cent of the total household and it constitutes 19.24 per cent of the total population. Education level of those head of household having education below-10 standard comprises of 41.86 per cent and its population constitute 42.41 per cent of the total population. The head of the household of those who has passed class 10 comprises of 17.28 per cent and its population constitutes 18.71 per cent. The head of the household of those who has passed class 12 comprises of 10.30 per cent and its population constitutes 9.50 per cent. The education level of those head of household having degree comprises of 6.64 per cent and its population constitute of 6.37 per cent. The education level of those head of household having Master degree and others comprises of 3.99 per cent and its population constitute of 3.77 per cent. Thus, it was found that majority of the household and its population was below class-10 passed.

Table 58: Percentage of Household and Population for Nagaland

Education Level	*Household*	*Population*
1	19.93	19.24
2	41.86	42.41
3	17.28	18.71
4	10.3	9.5
5	6.64	6.37
6	3.99	3.77

Source: Field Survey Report, 2015-16
Note: 1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others.

4.1.a.i: Proportion of Employed, Poor and Income for Nagaland:

The proportion of employed, poor and income of the head of household are shown in table 59. The illiterate household has the proportion of employment as 43.33 per cent. The proportion of household below poverty line is 54.1 per cent and the average income is Rs 1669.94. The household whose education level is below class 10 standard has the proportion of employment as 73.02 per cent and the proportion of people living below poverty line is 41.39 per cent with an average income of Rs 2150.30. The head of household having education level of class 10 passed has the proportion of employment as 82.69 per cent and the proportion of people living below poverty line is 22.91 per cent with an average income of Rs 2773.05. The head of the household having education level upto class 12 standard has the proportion of employment as 93.55 per cent and the proportion of people living below poverty line is 15.24 per cent with an average income of Rs 3291.27. The household whose education upto degree level has the proportion of employment as 95.00 per cent and the proportion of people living below poverty line is 0.00 per cent with an average income is 3448.15. The head of the household having education level upto Master degree and others has the proportion of employment as 83.33 per cent and the proportion of people having below poverty line is 0.00 per cent with an

average income of Rs 3657.13. It is evident from the table below shows that those household having higher literacy rate have higher income and higher employment. It also shows that household having higher literacy rate have low poverty level. The relationship that exists between education, employment, income and poverty in Nagaland are shown in table 58.

Table 59: Proportion of Employed, Poor and Income for Nagaland

Education Level	*Employed*	*Poor*	*Average Income*
1	43.33	54.81	1669.94
2	73.02	41.39	2150.3
3	82.69	22.91	2773.05
4	93.55	15.24	3291.27
5	95.00	00.00	3448.15
6	83.33	0.00	3657.13

Source: Field Survey Report, 2015-16
Note: 1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others

4.1.a.ii: Relationship between Education, Employment, Poverty and Income for Nagaland

This section analyses the relationship between education, employment, poverty and income of Nagaland covering both Kohima and Longleng using correlation and regression analysis.

Education and Employment - The estimated correlation between education and employment comes out to be 0.77. This means that there is a positive correlation between education and employment. It means higher level of education leads to higher level of employment. The calculated 't' value comes out to be 2.41 which is higher than the table value. This shows that the correlation between education and employment is statistically significant at 5 per cent level for 4 degree of freedom. Therefore, the hypothesis is accepted which means higher the education higher is the employment. The coefficient of

determination i.e., R^2 value shows that 0.60 per cent of variation in the employment has been explained by education.

To measure the effect on employment from change in education level has been analyzed using Linear-regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 50.80+7.90X$$

Where, y is the employment and x is the education level. This result shows that the regression co-efficient 'byx' of Y on X is 7.90 times. The positive value of the regression coefficient indicates that the relation between y and x direct. This shows that a change in education level will have a positive impact on employment by 7.90 times. To see whether the regression analysis is significant or not, t-test is undertaken. The result shows that the calculated value of 't' is higher than the table value. Therefore, the value of b is statistically significant at 5 per cent for 4 degree of freedom. Hence change in educational level will have a large positive impact in increasing employment level.

Education and Income - The estimated correlation between education and income comes out to be 0.97. This means that there is a positive correlation between education and income. It means higher level of education contribute to higher level of income. The calculated 't' value comes out to be 7.98 which is higher than the table value. This shows the correlation between education and income is statistically significant at 1 per cent level for 4 degree of freedom. Therefore, the hypothesis is accepted which means higher the education higher is the income level. The coefficient of determination i.e., R^2 value shows that 0.95 per cent of variation in the income has been explained by education.

To measure the effect on income from change in education level has been analyzed using Linear-regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 1396.86+409.93X$$

Where, y is the income and x is the education level. This result shows that the regression co-efficient 'byx' of Y on X is 409.93 times. The positive value of the regression co-efficient indicates that the relationship between y and x direct. This shows that a change in education level will have a positive impact on income (Y) by 409.93 times. To see whether the regression analysis is significant or not, t-test is undertaken. The result shows that the calculated value of 't' is higher than the table value. Therefore, the value of b is statistically significant at 1 per cent for 4 degree of freedom. Hence additional increase in educational level will have a positive impact in increasing income level.

Education and Poverty - The estimated correlation between education and poverty comes out to be -0.97. This means that there is a negative correlation between education and poverty. It means higher level of education leads to lower the poverty. The calculated value of 't' comes out to be |7.98| which is higher than the table value. This shows the correlation between education and poverty is statistically significant at 1 per cent level for 4 degree of freedom. Therefore, the hypothesis is accepted which means higher the education lower is the poverty level. The coefficient of determination i.e., R^2 value shows that 0.95 per cent of variation in the poverty has been explained by education.

To measure the effect on poverty from change in education level has been analyzed using Linear-regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 62.98 - 11.59X$$

Where, y is the poverty and x is the education level. This result shows that the regression co-efficient 'byx' of Y on X is −11.59 times. The negative value of the regression co-efficient indicates that the relation between y and x indirect. This shows that a change in education level will have a negative impact on poverty (Y) by −11.59 times. To see whether the regression analysis is significant or not, t-test is undertaken. The result shows that the calculated value of 't' is higher than the table value. Therefore, the value of b is statistically significant at 1 per cent for 4 degree of freedom. Hence change in educational will have a large negative impact in reducing poverty level.

Table 60: Relationship between Education, Employment, Poverty and Income

	Variables	*Correlation*		*Regression*				
		r	*'t' value*	R^2	*a*	*b*	*'t' value*	*S.E*
Nagaland	Education & Employment	0.77	2.41**	0.60	50.80	7.90	2.48**	3.18
	Education & Income	0.97	7.98*	0.95	1396.86	409.93	8.88*	46.16
	Education & Poverty	-0.97	-7.98*	0.95	62.98	-11.59	-9.14*	1.26

Source: Calculation based on field survey report, 2015-16
Note 't' values., ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta SE is Standard Error.*

4.1.b: Education, Household, Population, Employment, Income and Poverty for rural Nagaland

The education level of head of the household, household size and total population are shown below table 61. The illiterate head of households constitute 31.25 per cent of the total household and it constitutes 30.23 per cent of the total population. The education level of those head of the household having education below-10 standard comprises of 41.48 per cent and its population constitute 41.18 per cent of the total population. The head of the household of those who has passed class 10 comprises of 16.48 per cent and its population constitutes 17.54 per cent. The head of the household of those who has

passed class 12 comprises of 5.68 per cent and its population constitutes 5.72 per cent. The education level of those head of household having degree comprises of 4.55 per cent and its population constitute of 4.94 per cent. The education level of those head of household having Master degree and others comprises of 0.57 per cent and its population constitute of 0.39 per cent.

Table 61: Percentage of Household and Population for rural Nagaland

Education level	*Household*	*Population*
1	31.25	30.23
2	41.48	41.18
3	16.48	17.54
4	5.68	5.72
5	4.55	4.94
6	0.57	0.39

Source: Field Survey Report, 2015-16
Note: 1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others.

4.1.b.i: Proportion of Employed, Poverty and Income for rural Nagaland:

The proportion of employed, poverty and income for head of the household are shown in table 62. The illiterate household has the proportion of employment as 40 per cent. The proportion of household below poverty line is 56.41 per cent and the average income is Rs 1571.43. The head of the household whose education level is below class 10 standard has the proportion of employment as 54.79 per cent and the proportion of people living below poverty line is 38.12 per cent with an average income as 1634.15. The head of the household having education level of class 10 passed has the proportion of employment as 72.41 per cent and the proportion of people living below poverty line is 19.34 per cent with an average income of Rs 2412.75. The head of the household having education level upto class 12 standard has the proportion of employment as 70 per cent and the proportion of people living below poverty line is 11.86 per cent with an average

income of Rs 2325.89. The head of the household whose education level upto degree level has the proportion of employment as 87.5 per cent and the proportion of people living below poverty line is 0.00 per cent with an average income of Rs 2652.16. The head of the household having education level upto Master degree and others has the proportion of employment as 100 per cent and the proportion of people living below poverty line is 0.00 per cent with an average income of Rs 2362.47. It is evident from the table below household having higher literacy rate have higher income and higher employment opportunity. It also shows that household having higher literacy rate have low poverty level. The relationship that exists between education, employment, income and poverty in rural Nagaland are shown in table 62.

Table 62: Proportion of Employed, Poor and Income for rural Nagaland

Education level	*Employment*	*Poor*	*Income*
1	40.00	56.41	1571.43
2	54.79	38.12	1634.15
3	72.41	19.34	2412.75
4	70.00	11.86	2325.89
5	87.50	0.00	2652.16
6	100	0.00	2362.47

Source: Field Survey Report, 2015-16
Note: 1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others.

4.1.b.ii: Relationship between Education, Employment, Poverty and Income for Rural Nagaland:

This section analyses the relationship between education, employment, poverty and income of rural Nagaland covering both rural Kohima and rural Longleng using correlation and regression analysis.

Education and Employment - The estimated correlation between education and employment comes out to be 0.97. This means that there is a positive correlation between

education and employment. It means higher level of education leads to higher level of employment. The calculated value of 't' comes out to be 7.98 which is higher than the table value. This shows the correlation between education and employment is statistically significant at 1 per cent level for 4 degree of freedom. Therefore, the hypothesis is accepted which means higher the education higher is the employment. The coefficient of determination i.e., R^2 value shows that 0.95 per cent of variation in the employment has been explained by education.

To measure the effect on employment from change in education level has been analyzed using Linear-regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 31.21+11.30X$$

Where, y is the employment and x is the education level. This result shows that the regression co-efficient 'byx' of Y on X is 11.30 times. The positive value of the regression coefficient indicates that the relation between y and x direct. This shows that a change in education level will have a positive impact on employment (Y) by 11.30 times. To see whether the regression analysis is significant or not, t-test is undertaken. The result shows that the calculated value of 't' is higher than the table value. Therefore, the value of b is significant at 1 per cent for 4 degree of freedom. Hence change in educational level will have a large positive impact in increasing employment level.

Education and Income - The estimated correlation between education and income comes out to be 0.82. This means that there is a positive correlation between education and income. It means higher level of education leads to higher level of income. The calculated 't' value comes out to be 2.86 which is higher than the table value. This shows

the correlation between education and income is statistically significant at 5 per cent level for 4 degree of freedom. Therefore, the hypothesis is accepted which means higher level of education higher is the income level. The coefficient of determination i.e., R^2 value shows that 0.68 per cent of variation in the income has been explained by education.

To measure the effect on income from change in education level has been analyzed using Linear-regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 1467.57+197.78X$$

Where, y is the income and x is the education level. This result shows that the regression co-efficient 'byx' of Y on X is 197.78 times. The positive value of the regression co-efficient indicates that the relation between y and x direct. This shows that a change in education level will have a positive impact on income (Y) by 197.78 times. To see whether the regression analysis is significant or not, t-test is undertaken. The result shows that the calculated value of 't' is higher than the table value. Therefore, the value of b is significant at 5 per cent for 4 degree of freedom. Hence change in educational level will have a large positive impact in increasing income level.

Education and Poverty - The estimated correlation between education and poverty comes out to be -0.96. This means that there is a negative correlation between education and poverty. It means higher level of education leads to lower level of poverty. The calculated 't' value comes out to be |6.85| which is higher than the table value. This shows the correlation between education and poverty is statistically significant at 1 per cent level for 4 degree of freedom. Therefore, the hypothesis is accepted which means higher the

education lower is the poverty level. The coefficient of determination i.e., R^2 value shows that 0.92 per cent of variation in the poverty has been explained by education.

To measure the effect on poverty from change in education level has been analyzed using Linear-regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 61.34 - 11.54X$$

Where, y is the poverty and x is the education level. This result shows that the regression co-efficient 'byx' of Y on X is −11.54 times. The negative value of the regression co-efficient indicates that the relation between y and x indirect. This shows that a change in education level will have a negative impact on poverty (Y) by −11.54 times. To see whether the regression analysis is significant or not, t-test is undertaken. The result shows that the calculated value of 't' is higher than the table value. Therefore, the value of b is significant at 1 per cent for 4 degree of freedom. Hence change in educational level will have a large positive impact in lowering poverty level.

Table 63: Relationship between Education, Employment, Poor and Income

	Variables	*Correlation*		*Regression*				
		r	*'t' value*	*R^2*	*a*	*b*	*'t' value*	*S.E*
Rural Nagaland	Education & Employment	0.97	7.98*	0.95	31.21	11.30	9.33*	1.21
	Education & Income	0.82	2.86**	0.68	1467.57	197.78	2.95**	66.86
	Education & Poverty	-0.96	-6.85*	0.92	61.34	-11.54	-7.10*	1.62

Source: Calculation based on field survey report, 2015-16
Note: 't' values., ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta SE is Standard Error.*

4.1.c: Education, Household, Population, Employment, Income and Poverty for urban Nagaland

The education level of head of the household, household size and total population are shown below table 64. The illiterate head of households constitute 4 per cent of the

total household and it constitutes 2.88 per cent of the total population. The education level of those head of the household having education below-10 standard comprises of 42.4 per cent and its population constitute 44.24 per cent of the total population. The head of the household of those who has passed class 10 comprises of 18.4 per cent and its population constitutes 20.46 per cent. The education level of those head of the household having educational qualification upto 12 standards comprises of 5.68 per cent and its population constitutes 15.13 per cent. The educational level of those head of the household having educational qualification upto degree level constitute of 9.6 per cent and its population constitutes 8.50 per cent. The education level of those head of household having Master degree comprises of 8.8 per cent and its population constitute of 8.79 per cent.

Table 64: Percentage of Household and Population for urban Nagaland

Education level	*Household*	*Population*
1	4.00	2.88
2	42.4	44.24
3	18.4	20.46
4	5.68	15.13
5	9.60	8.50
6	8.80	8.79

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others.

4.1.c.i: Proportion of Employed, Poverty and Income for urban Nagaland

The proportion of employed, poverty and income for head of the household are shown in table 65. The illiterate household has the proportion of employed as 80 per cent. The proportion of household below poverty line is 30 per cent and the average income is Rs 2753.57. The head of the household whose education level is below class 10 standard has the proportion of employment as 98.11 per cent and the proportion of people living

below poverty line of 45.93 per cent with an average income is Rs 2861.23. The head of the household having education level of class 10 passed has the proportion of employment as 95.65 per cent and the proportion of people living below poverty line is 27.46 per cent with an average income of Rs 3227.34. The head of the household having education level upto class 12 standard has the proportion of employment as 100 per cent and the proportion of people living below poverty line is 17.14 per cent with an average income of Rs 3750.98. The head of the household whose education level upto degree level has the proportion of employment as 100 per cent and the proportion of people living below poverty line is 0.00 per cent with an average income of Rs 3978.82. The head of the household having education level upto Master degree and others has the proportion of employment as 81.81 per cent, the proportion of people living below poverty line is 0.00 per cent with an average income of Rs 3774.83.

Table 65: Proportion of Employed, Poor and Income for urban Nagaland

Education level	*Employment*	*Poor*	*Average Income*
1	80.00	30.00	2753.57
2	98.11	45.93	2861.23
3	95.65	27.46	3227.34
4	100.00	17.14	3750.98
5	100.00	0.00	3978.82
6	81.81	0.00	3774.83

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others.

4.1.c.ii: Relationship Education, Employment, Poverty and Income for urban Nagaland

This section analyses the relationship between education, employment, poverty and income of urban Nagaland covering both urban Kohima and urban Longleng using correlation and regression analysis.

Education and Employment - The estimated correlation between education and employment comes out to be 0.12. This means that there is a positive correlation between education and employment. It means higher level of education leads to higher level of employment. The calculated 't' value comes out to be 0.24 which is lower than the table value. This shows the correlation between education and employment is not statistically significant for 4 degree of freedom. Therefore, the hypothesis is accepted which means higher the education higher is the employment. The coefficient of determination i.e., R^2 value shows that 0.016 per cent of variation in the employment has been explained by education.

To measure the effect on employment from change in education level has been analyzed using Linear- regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 91.00+.67X$$

Where, y is the employment and x is the education level. This result shows that the regression coefficient 'byx' of Y on X is .67 times. The positive value of the regression coefficient indicates that the relation between y and x direct. This shows that a change in education level will have a positive impact on employment (Y) by .67 times. The result shows that the calculated value of 't' is lower than the table value. Therefore the value of b is not statistically significant for 4 degree of freedom.

Education and Income - The estimated correlation between education and income comes out to be 0.92. This means that there is a positive correlation between education and income. It means higher level of education leads to higher level of income. The calculated 't' value comes out to be 4.69 which is higher than the table value. This shows

the correlation between education and income is statistically significant at 1 per cent level for 4 degree of freedom. Therefore, the hypothesis is accepted which means higher the education higher is the income. The coefficient of determination i.e., R^2 value shows that 0.86 per cent of variation in the income has been explained by education.

To measure the effect on income from change in education level has been analyzed using Linear-regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 2492.85+256.64X$$

Where, y is the income and x is the education level. This result shows that the regression co-efficient 'byx' of Y on X is 256.64 times. The positive value of the regression co-efficient indicates that the relation between y and x direct. This shows that a change in education level will have a positive impact on income (Y) by 256.64 times. To see whether the regression analysis is significant or not, t-test is undertaken. The result shows that the calculated value of 't' is much higher than the table value. Therefore, the value of b is significant at 1 per cent for 4 degree of freedom. Hence change in educational level will have a large positive impact in increasing income level.

Education and Poverty - The estimated correlation between education and poverty comes out to be -0.88. This means that there is a negative correlation between education and poverty. It means higher level of education leads to lower level of Poverty. The calculated 't' value comes out to be |3.70| which is higher than the table value. This shows the correlation between education and poverty is statistically significant at 1 per cent level for 4 degree of freedom. Therefore, the hypothesis is accepted which means

higher the education lower is the poverty. The coefficient of determination i.e., R^2 value shows that 0.77 per cent of variation in the poverty has been explained by education.

To measure the effect on poverty from change in education level has been analyzed using Linear-regression model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 49.89 - 8.51X$$

Where, y is the poverty and x is the education level. This result shows that the regression co-efficient 'byx' of Y on X is −8.51 times. The negative value of the regression co-efficient indicates that the relation between y and x indirect. This shows that a change in education level will have a negative impact on poverty by −8.51 times. To see whether the regression analysis is significant or not, t-test is undertaken. The result shows that the calculated value of 't' is higher than the table value. Therefore, the value of b is significant at 1 per cent for 4 degree of freedom. Hence increasing in educational level will have a large negative impact in reducing poverty level.

Table 66: Relationship between Education, Employment, Poor and Income

	Variables	*Correlation*		*Regression*				
		r	*'t' value*	R^2	*a*	*b*	*'t' value*	*S.E*
Urban Nagaland	Education & Employment	0.12	0.24	0.016	91.00	.679	0.25	2.68
	Education & Income	0.92	4.69*	0.86	2492.85	256.64	5.01*	51.20
	Education & Poverty	-0.88	-3.70*	0.77	49.89	-8.51	-3.72*	2.28

Source: Calculation based on field survey report, 2015-16
Note: 't' values., ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta SE is Standard Error.*

4.2: Inter-district Inequalities in terms of Education, Household, Population, Employment, Poverty and Income

This part will focus on education level, percentage of household, percentage of population, percentage of employment poverty and income. Here study is done across social groups both in rural and urban areas of Kohima and Longleng districts.

4.2.a: Overall Inter-district inequalities of household and population:

For Kohima district the illiterate head of households constitute 15.15 per cent of the total household and it constitutes 13.47 per cent of the total population which is shown in the table 67. For Longleng district the illiterate head of households constitute 25.74 per cent of the total household and it constitutes 25.48 per cent of the total population. For Kohima district the education level of those head of the household having education below-10 standard comprises of 38.18 per cent and its population constitute 39.20 per cent of the total population. For Longleng the education level of those head of the household having education below-10 standard comprises of 46.32 per cent and its population constitute 45.89 per cent of the total population. For Kohima district the head of the household of those who has passed class 10 comprises of 19.39 per cent and its population constitutes 20.82 per cent. The head of the household of those who has passed class 10 comprises of 14.71 per cent and its population constitutes 16.42 per cent. The head of the household of those who has passed class 12 comprises of 10.30 per cent and its population constitutes 10.02 per cent. The head of the household of those who has passed class 12 comprises of 10.29 per cent and its population constitutes 8.93 per cent. The education level of those head of household having degree comprises of 10.90 per cent and its population constitute of 10.91 per cent. The education level of those head of household having degree comprises of 1.47 per cent and its population constitute of 1.44 per cent. The education level of those head of household having Master degree and others

comprises of 6.06 per cent and its population constitute of 5.77 per cent. The education level of those head of household having Master degree and others comprises of 1.47 per cent and its population constitute of 1.81 per cent.

Table 67: Percentage of Household and Population

Education Level	*Kohima District*		*Longleng District*	
	Household	*Population*	*Household*	*Population*
1	15.15	13.47	25.74	25.48
2	38.18	39.2	46.32	45.89
3	19.39	20.82	14.71	16.42
4	10.30	10.02	10.29	8.93
5	10.90	10.91	1.47	1.44
6	6.06	5.57	1.47	1.81

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others.

4.2.a.i: Inter-district Proportion on Education, Employed, Poor and Income:

For Kohima district the above table 68 shows that the illiterate head of the household has a proportion of employed as 56.00 per cent, the proportion of household below poverty line as 26.44 per cent with an average income of Rs 2175.13.For Longleng district the illiterate head of the household has a proportion of employed as 34.29 per cent and the proportion of household below poverty line as 72.51 per cent with an average income of Rs 1309.09.

For Kohima district the head of the household whose education level is below class 10 standard has the proportion of employment as 84.13 per cent, the proportion of people living below poverty line as 39.77 per cent with an average income of Rs. 2582.49. For Longleng district the head of the household whose education level is below class 10 standard has the proportion of employment as 61.90 per cent, the proportion of people living below poverty line is 42.89 per cent with an average income as Rs 1718.11.

For Kohima district the head of the household having education level upto class 10 standard has the proportion of employment as 84.38 per cent and the proportion of people living below poverty line as 14.43 per cent with an average income of Rs 2895.33. For Longleng district the head of the household having education level upto class 10 standard has the proportion of employment as 80 per cent and the proportion of people living below poverty line as 34.56 per cent with an average income of Rs 2577.41.

For Kohima district the head of the household having education level upto class 12 standards has the proportion of employment as 100 per cent, the proportion of people living below poverty line as 8.88 per cent with an average income of Rs 3848.58. For Longleng district the head of the household having education level upto class 12 standard has the proportion of employment as 85.71 per cent, the proportion of people living below poverty line as 22.97 per cent with an average income of Rs 2614.53.

For Kohima district the head of the household whose educational level upto degree has the proportion of employment as 94.44 per cent, the proportion of people living below poverty line as 0.00 per cent with an average income of Rs 3613.41. For Longleng district the head of the household whose educational level upto degree has the proportion of employment as 100 per cent, the proportion of people living below poverty line as 0.00 per cent with an average income of Rs 1960.82.

For Kohima district the head of the household having educational level upto Master degree and others has the proportion of employment as 100 per cent, the proportion of people living below poverty line as 0.00 per cent with an average income of Rs 3728.32. For Longleng district the head of the household having educational level upto Master degree has the proportion of employment as 100 per cent, the proportion of

people living below poverty line is 0.00 per cent with an average income of Rs 3301.20. It is evident from the table above that the literacy is universally linked with poverty reduction. The literacy rate appears lower among the poor and higher among the richer. In other words the higher extent of illiteracy corresponds to higher level of poverty and vice versa.

Table 68: Proportion of Employed, Poor and Income

Education Level	*Kohima District*			*Longleng District*		
	Employed	*Poor*	*Average Income*	*Employed*	*Poor*	*Average Income*
1	56.00	26.44	2175.13	34.29	72.51	1309.09
2	84.13	39.77	2582.49	61.90	42.89	1718.11
3	84.38	14.43	2895.33	80.00	34.56	2577.41
4	100.00	8.88	3848.58	85.71	22.97	2614.53
5	94.44	00.00	3613.41	100.00	0.00	1960.82
6	100.00	00.00	3728.32	100.00	0.00	3301.20

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others

4.2.a.ii: Relationship between Education, Employment, Poverty and Income for Kohima and Longleng

This section analyses the relationship between education, employment, poverty and income for Kohima and Longleng district covering both rural and urban areas

Education and Employment - The analysis of correlation as shown by table 69 depicts a positive correlation between education and employment in both the districts. The correlation 'r' value was estimated to be 0.86 for Kohima district and 0.94 for Longleng district. The t-test shows that the values of 'r' in both the districts are statistically significant at 5 per cent for Kohima district and 1 per cent for Longleng district for 4 degree of freedom. The R^2 for Kohima and Longleng comes out to be 0.74 and 0.90. Further, the estimated regression coefficient shows that an additional increase in

educational level in the district will increase the employment level by 7.61 times for Kohima district and 12.82 times for Longleng district. The t-test analysis has shown that the impact of education on employment is statistically significant at 5 per cent for Kohima and 1 per cent for Longleng district.

Education and Income - The above analysis of correlation as shown by table 69 depicts a positive correlation between education and income in both the districts. The correlation 'r' value was estimated to be 0.91 for Kohima and 0.79 for Longleng district. The t-test shows that the values of 'r' in both the districts are statistically significant at 1 per cent for Kohima and 5 per cent for Longleng district for 4 degree of freedom. The R^2 for Kohima and Longleng comes out to be 0.84 and 0.63. Further, the estimated regression coefficient shows that an additional increase in educational level in district will increase the income level by Rs 337.5 times for Kohima and Rs 306.5 times for Longleng district. The t-test analysis has shown that the impact of education on income is statistically significant at 1 per cent for Kohima and 5 per cent for Longleng district.

Education and Poverty - The analysis of correlation as shown by table 69 depicts a positive correlation between education and poverty in both the districts. The correlation 'r' value was estimated to be -0.87 for Kohima and -0.97 for Longleng district. The t-test shows that the value of 'r' is statistically significant at 5 per cent for Kohima and 1 per cent for Longleng for 4 degree of freedom. The R^2 for Kohima and Longleng comes out to be 0.76 and 0.94. Further, the estimated regression coefficient shows that an additional increase in educational will reduces the poverty level by -7.34 times for Kohima and -14.37 per cent for Longleng district. The t-test analysis has shown that the impact of

education on poverty is statistically significant at 5 per cent for Kohima and 1 per cent Longleng district.

Table 69: Relationship between Education, Employment, Poor and Income

Districts	Variables	*Correlation*		*Regression*				
		r	*'t' value*	R^2	*a*	*b*	*'t' value*	*S.E*
Kohima	Education & Employment	0.86	3.37**	0.74	59.83	7.616	3.39**	2.245
	Education & Income	0.91	4.38*	0.84	1959.34	337.5	4.57*	73.75
	Education & Poverty	-0.87	-3.52**	0.76	40.63	-7.35	-3.62**	2.02
Longleng	Education & Employment	0.94	5.51*	0.90	32.12	12.82	5.98*	2.14
	Education & Income	0.79	2.57**	0.63	1174.30	306.5	2.62**	116.7
	Education & Poverty	-0.97	-7.98*	0.94	79.10	-14.4	-8.04*	1.787

Source: Calculation based on field survey report, 2015-16
Note: 't' values., ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta SE is Standard Error*

4.2.b: Inter-district Inequalities for rural Kohima and rural Longleng district

This part will focus on education level, percentage of household, percentage of population, percentage of employment poverty and income. Here study is done across both in rural areas of Kohima and Longleng districts.

4.2.b.i: Overall Inter-district inequalities of household and population

The below table 70 shows the education level of head of household, household size and total population. For rural Kohima district the illiterate head of households constitute 29.33 per cent of the total household and it constitutes 25.53 per cent of the total population. For rural Longleng district the illiterate head of households constitute 32.67 per cent of the total household and it constitutes 33.50 per cent of the total population. For rural Kohima district the education level of those head of the household having education below-10 standard comprises of 32 per cent and its population constitute 32.38 per cent of the total population. For rural Longleng district the education level of those head of the household having education below-10 standard comprises of

48.51 per cent and its population constitute 47.29 per cent of the total population. For rural Kohima the head of the household of those who has passed class 10 comprises of 25.33 per cent and its population constitutes 27.18 per cent. For rural Longleng the head of the household of those who has passed class 10 comprises of 9.90 per cent and its population constitutes 10.84 per cent. For rural Kohima district the head of the household of those who has passed class 12 comprises of 4 per cent and its population constitutes 4.72 per cent. For rural Longleng the head of the household of those who has passed class 12 comprises of 6.93 per cent and its population constitutes 6.40 per cent. For rural Kohima district the education level of those head of household having degree comprises of 8 per cent and its population constitute of 9.22 per cent. For rural Longleng district the education level of those head of household having degree comprises of 1.98 per cent and its population constitute of 1.97 per cent. For rural Kohima district the education level of those head of household having Master degree and others of 1.33 per cent and its population constitute of 0.99 per cent. For rural Longleng district the education level of those head of household having Master degree and others comprises of 0.00 per cent and its population constitute of 0.00 per cent.

Table 70: Percentage of Household and Population

Education Level	*Rural Kohima District*		*Rural Longleng District*	
	Household	*Population*	*Household*	*Population*
1	29.33	25.53	32.67	33.50
2	32.00	32.38	48.51	47.29
3	25.33	27.18	9.90	10.84
4	4.00	4.72	6.93	6.40
5	8.00	9.22	1.98	1.97
6	1.33	0.94	0.00	0.00

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others

4.2.b.ii: Inter-district Proportion on Education, Employed, Poor and Income

For rural Kohima district the above table 71 shows that the illiterate head of the household, has a proportion of employed as 54.55 per cent, the proportion of people living below poverty line as 21.30 per cent with an average income of Rs 2165.23. For rural Longleng district the illiterate head of the household has a proportion of employed as 30.30 per cent and the proportion of poverty as 75 per cent with an average income of Rs 1175.57.

For rural Kohima district the head of the household whose education level is below class 10 standard has the proportion of employment as 58.33 per cent, the proportion of people living below poverty line as 25.55 per cent with an average income of 1981.61. For rural Longleng the head of the household whose education level is below class 10 standard has the proportion of employment as 53.06 per cent, the proportion of people living below poverty line as 44.10 per cent with an average income of Rs 1463.96.

For rural Kohima district the head of the household whose education level upto class 10 standard has the proportion of employment as 78.95 per cent, the proportion of people living below poverty line as 14.78 per cent with an average income of RS 2474.02. For rural Longleng district the head of the household whose education level upto class 10 standard has the proportion of employment as 60 per cent, the proportion of people living below poverty line as 27.27 per cent with an average income of Rs 2296.35.

For rural Kohima district the head of the household having education level upto class 12 standard has the proportion of employment as 100 per cent, the proportion of people living below poverty line is 0.00 per cent with an average income of Rs 3166.85. For rural Longleng district the head of the household having education level upto class 12

standards has the proportion of employment as 57.14 per cent, the proportion of people living below poverty line as 17.95 per cent with an average income of Rs 1965.48.

For rural Kohima district the head of the household whose education level upto degree level has the proportion of employment as 83.33 per cent, the proportion of people living below poverty line as 0.00 per cent with an average income of Rs 2882.61. For rural Longleng district the head of the household whose education level upto degree level has the proportion of employment as 100 per cent, the proportion of people having below poverty line as 0.00 per cent with an average income of Rs 1960.82.

For rural Kohima district the head of the household having education level upto Master degree and others has the proportion of employment as 100 per cent, the proportion of people living below poverty line as 0.00 per cent with an average income of Rs 2362.47. For rural Longleng district the head of the household having education level upto Master degree and others has the proportion of employment as 0.00 per cent, the proportion of people having below poverty line as 0.00 per cent with an average income of 0.00.

Table 71: Proportion of Education, Employed, Poor and Income

Education Level	*Rural Kohima district*			*Rural Longleng district*		
	Employed	*Poor*	*Average Income*	*Employed*	*Poor*	*Average Income*
1	54.55	21.30	2165.23	30.30	75.00	1175.57
2	58.33	25.55	1981.61	53.06	44.10	1463.96
3	78.95	14.78	2474.02	60.00	27.27	2296.35
4	100.00	0.00	3166.85	57.14	17.95	1965.48
5	83.33	0.00	2882.61	100.00	0.00	1960.82
6	100.00	0.00	2362.47	0.00	0.00	0.00

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others

4.2.b.iii: Relationship Education, Employment, Poverty and Income for rural Kohima and rural Longleng

This section analyses the relationship between education, employment, poverty and income for rural areas of Kohima and rural areas of Longleng district using correlation and regression analysis.

Education and Employment - The analysis depicts a positive correlation between education and employment shown in table 72. The correlation 'r' value was estimated to be 0.88 for rural Kohima and 0.90 for rural Longleng district. The t-test shows that the value of 'r' for both the rural Kohima and rural Longleng district is statistically significant at 1 per cent for 4 degree of freedom. The R^2 for rural Kohima and rural Longleng comes out to be 0.77 and 0.81. The regression coefficient shows that an additional increase in educational level will increase the employment level by 9.23 times for rural Kohima and 14.34 times for rural Longleng district. The t-test analysis has shown that the impact of education on employment is statistically significant at 1 per cent for rural Kohima and 5 per cent for rural Longleng district.

Education and Income - The analysis depicts a positive correlation between education and income. The correlation 'r' value was estimated to be 0.52 for rural Kohima and 0.73 for rural Longleng district. The t-test shows that the value of 'r' for rural Kohima districts is not statistically significant for 4 degree of freedom and is statistically significant at 5 per cent for rural Longleng district. The R^2 for rural Kohima and rural Longleng comes out to be 0.27 and 0.53.

Further, the estimated regression coefficient has shows that an additional increase in educational level in the district will increase the income level by Rs 125.2 times for rural Kohima and 207.20 times for rural Longleng district. The t-test analysis has shown

that the impact of education on income is not statistically significant for rural Kohima district and is statistically significant at 10 per cent for rural Longleng district.

Education and Poverty - The analysis depicts a negative correlation between education and poverty for rural Kohima and rural Longleng district. It means higher level of education leads to lower level of poverty. The correlation 'r' value was estimated to be -0.89 for rural Kohima and -0.97 for rural Longleng district. The t-test shows that the value of 'r' for rural Kohima and rural Longleng districts is statistically significant at 1 per cent for 4 degree of freedom. The R^2 for rural Kohima and rural Longleng comes out to be 0.80 and 0.95.

Further, the estimated regression coefficient shows that an additional increase in educational level reduces the poverty level by -5.66 times for rural Kohima and -17.61 times for rural Longleng district. The t-test analysis has shown that the impact of education on poverty is statistically significant at 1 per cent for both rural Kohima and rural Longleng.

Table 72: Relationship between Education, Employment, Poor and Income

Districts	*Variables*	*Correlation*		*Regression*				
		r	*'t' value*	*R^2*	*a*	*b*	*'t' Value*	*S.E*
Rural Kohima	Education & Employment	0.88	3.70*	0.77	46.86	9.23	3.71*	2.48
	Education & Income	0.52	1.21	0.27	2067.3	125.2	1.23	101.2
	Education & Poverty	-0.89	-3.90*	0.80	30.06	-5.66	- 4.11*	1.374
Rural Longleng	Education & Employment	0.90	4.12*	0.81	17.05	14.34	3.58**	3.99
	Education & Income	0.73	2.13**	0.53	1150.8	207.20	1.86***	110.95
	Education & Poverty	-0.97	-7.98*	0.95	85.70	-17.61	- 8.38*	2.102

Source: Calculation based on field survey report, 2015-16
Note: 't' values., ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta, SE is Standard Error.*

4.2.c: Inter-district inequalities comparison on Education, Household and Population for urban Kohima and urban Longleng

The above table 73 shows the education level of head of household, household size and total population. For urban Kohima district the illiterate head of households constitute 3.33 per cent of the total household and it constitutes 2.74 per cent of the total population. For urban Longleng district illiterate head of households constitute 5.71 per cent of the total household and it constitutes 3.20 per cent of the total population. For urban Kohima district the education level of those head of the household having education below-10 standard comprises of 43.33 per cent and its population constitute 45.26 per cent of the total population. For urban Longleng district the education level of those head of the household having education below-10 standard comprises of 40.00 per cent and its population constitute 42.01 per cent of the total population. For urban Kohima district the head of the household of those who has passed class 10 comprises of 14.44 per cent and its population constitutes 15.16 per cent. For urban Longleng district the head of the household of those who has passed class 10 comprises of 28.57 per cent and its population constitutes 31.96 per cent. For urban Kohima district the head of the household of those who has passed class 12 comprises of 15.55 per cent and its population constitutes 14.74 per cent. For urban Longleng district the head of the household of those who has passed class 12 comprises of 20.00 per cent and its population constitutes 15.98 per cent. For urban Kohima district the education level of those head of household having degree comprises of 13.33 per cent and its population constitute of 12.42 per cent. For urban Longleng district the education level of those head of household having degree comprises of 0.00 per cent and its population constitute of 0.00 per cent. For urban Kohima district the education level of those head of household

having Master degree and others comprises of 10.00 per cent and its population constitute of 9.68 per cent. For urban Longleng district the education level of those head of household having Master degree and others comprises of 5.7 per cent and its population constitute of 6.85 per cent.

Table 73: Percentage of Household and Population

Education Level	*Urban Kohima District*		*Urban Longleng District*	
	Household	*Population*	*Household*	*Population*
1	3.33	2.74	5.71	3.20
2	43.33	45.26	40.00	42.01
3	14.44	15.16	28.57	31.96
4	15.55	14.74	20.00	15.98
5	13.33	12.42	0.00	0.00
6	10.00	9.68	5.7	6.85

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others.

4.2.c.i: Inter-district Inequalities on Education, Employed, Poor and Income for urban areas of Kohima District

For urban Kohima district the above table 74 shows that the illiterate head of the household has a proportion of employed as 66.67 per cent, the proportion of household living below poverty line as 69.23 per cent and the average income of Rs 2247.77. For urban Longleng district the illiterate head of the household has a proportion of employed as 100 per cent, the proportion of household living below poverty line as 0.00 per cent with an average income of Rs 3512.27.

For urban Kohima district the head of the household whose education level is below class 10 standard has the proportion of employment as 100 per cent, the proportion of people living below poverty line as 48.84 per cent with an average income of Rs 2952.27. For urban Longleng district the head of the household whose education level is

below class 10 standard has the proportion of employment as 92.9 per cent, the proportion of people living below poverty line as 39.1 per cent with an average income of Rs 2607.63.

For urban Kohima district the head of the household having education level upto class 10 standards has the proportion of employment as 92.31 per cent, the proportion of people having below poverty line as 13.89 per cent with an average income of Rs 3511.09. For urban Longleng district the head of the household having education level upto class 10 standards has the proportion of employment as 100 per cent, the proportion of people having below poverty line as 41.4 per cent with an average income of Rs 2858.42.

For urban Kohima district the head of the household having education level upto class 12 standards has the proportion of employment as 100 per cent, the proportion of people having below poverty line as 11.43 per cent with an average income of Rs 3994.67. For urban Longleng district the head of the household having education level upto class 12 standards has the proportion of employment as 100 per cent, the proportion of people having below poverty line as 28.6 per cent with an average income of Rs 3263.58.

For urban Kohima district the head of the household whose education level upto degree level has the proportion of employment as 100 per cent, the proportion of people having below poverty line as 0.00 per cent with an average income of Rs 3978.82. For urban Longleng district the head of the household whose education level upto degree level has the proportion of employment as 0.00 per cent, the proportion of people having below poverty line as 0.00 per cent with an average income of Rs 0.00.

For urban Kohima district the head of the household having education level upto Master degree and others has the proportion of employment as 100 per cent, the proportion of people having below poverty line as 0.00 per cent with an average income of Rs 3880.09. For urban Longleng district the head of the household having education level upto Master degree and others has the proportion of employment as 100 per cent, the proportion of people having below poverty line as 0.00 per cent with an average income of Rs 3301.20.

Table 74: Proportion of Employed, Poor and Income

Education Level	*Urban Kohima district*			*Urban Longleng district*		
	Employed	*Poor*	*Income*	*Employed*	*Poor*	*Income*
1	66.67	69.23	2247.77	100.0	0.00	3512.27
2	100.00	48.84	2952.27	92.9	39.1	2607.63
3	92.31	13.89	3511.09	100.0	41.4	2858.47
4	100.00	11.43	3994.67	100.0	28.6	3263.58
5	100.00	0.00	3978.82	0.00	0.00	0.00
6	100.00	0.00	3880.09	100.0	0.00	3301.20

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others.

4.2.c.ii: Relationship between Education, Employment, Poverty and Income for urban areas of Kohima and Longleng

This section analyses the relationship between education, employment, poverty and income for urban areas of Kohima and urban areas Longleng district using correlation and regression analysis.

Education and Employment - The analysis of as shown by table 75 depicts a positive correlation between education and employment for urban Kohima and urban Longleng. The corresponding correlation 'r' value was estimated to be 0.69 for urban Kohima and 0.35 for urban Longleng district. The t-test shows that the value of 'r' for urban Kohima

districts is statistically significant at 10 per cent for 4 degree of freedom and is not statistically significant for urban Longleng. The R^2 for urban Kohima and urban Longleng comes out to be 0.48 and 0.12. Further, the estimated regression coefficient shows that an additional increase in education increases the employment level by 4.98 times for urban Kohima and by 0.71times for urban Longleng district. The t-test analysis has shown that the impact of education on employment is statistically significant at 10 per cent for urban Kohima and is not statistically significant for urban Longleng district.

Education and Income - The analysis of as shown by table 75 depicts a positive correlation between education and income for both urban Kohima and urban Longleng. The correlation 'r' values are estimated to be 0.89 for urban Kohima district and 0.10 for urban Longleng district. The t-test shows that the value of 'r' for urban Kohima districts is statistically significant at 1 per cent for 4 degree of freedom and is not statistically significant for urban Longleng. The R^2 for urban Kohima and urban Longleng comes out to be 0.80 and 0.01. Further, the estimated regression coefficient has estimated that an additional increase in education in the district increase the income level by Rs 335 times for urban Kohima and Rs 23.38 times for urban Longleng district. The t-test analysis has shown that the impact of education on income is statistically significant at 1 per cent for urban Kohima district and is not statistically significant for urban Longleng district.

Education and Poverty - The analysis of correlation as shown by table 75 depicts a correlation coefficient is negative between education and poverty in both the districts. The correlation 'r' value was estimated to be -0.92 for urban Kohima and -0.08 for urban Longleng district. The t-test shows that the value of 'r' for urban Kohima districts is statistically significant at 1 per cent for 4 degree of freedom and is not statistically

significant for urban Longleng. The R^2 for urban Kohima and urban Longleng comes out to be 0.85 and 0.007. Further, the estimated regression coefficient shows that an additional increase in educational level reduces the poverty level by -14.2 times for urban Kohima and -1.05 times for urban Longleng district. The t-test analysis has shown that the impact of education and poverty is statistically significant at 1 per cent for urban Kohima and is not statistically significant for urban Longleng district.

Table 75: Relationship between Education, Employment, Poor and Income

Districts	*Variable*	*Correlation*		*Regression*				
		r	*'t' value*	*R^2*	*a*	*b*	*'t' value*	*S.E*
Urban Kohima	Education & Employment	0.69	1.90***	0.48	75.72	4.98	1.95***	2.55
	Education & Income	0.89	3.90*	0.8	2255	335	3.99*	83.77
	Education & Poverty	-0.92	-4.69*	0.85	73.41	-14.2	-4.95*	2.86
Urban Longleng	Education & Employment	0.35	0.74	0.12	96.45	0.71	0.65	1.08
	Education & Income	0.1	0.2	0.01	3038.48	23.38	0.17	133.18
	Education & Poverty	-0.08	-0.16	0.007	24.97	-1.05	-0.14	7.459

Source: Calculation based on field survey report, 2015-16
***Note:**'t' values.*, ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta SE is Standard Error*

4.3: Intra-district Inequalities in terms of Education, Employment, Income and Poverty for rural Kohima District:

This part will focus on education level, percentage of household, percentage of population, percentage of employment poverty and income. The study is done across social groups in rural of Kohima district.

4.3.a: Intra-district Inequalities of Education, Household, Population, Employed, Poor and Income

From the table 76 below shows the village having the highest percentage of household with illiterate are concentrated in Jakhama village i.e., 39.53 per cent and the lowest percentage of illiterate household is in Mezoma village i.e.,11.76 per cent.

Kijumetouma village has the highest percentage of household having educational level below class 10 i.e., 57.14 per cent and the lowest percentage of household having educational level below class 10 is Jakhama village. Jakhama village has the highest percentage of household having educational level upto class 10 i.e., 30.23 per cent and the lowest percentage of household having educational level upto class 10 is Kijumetouma village i.e., 14.29 per cent. Kijumetouma village has the highest percentage of household having educational level upto class 12 i.e., 14.29 per cent and the lowest percentage of household having educational level upto class 12 is Jakhama village i.e., 2.33 per cent. Mezoma village has the highest percentage of household having educational level upto degree i.e., 23.53 per cent and the lowest percentage of household having educational level upto class degree is Jakahama village i.e., 4.65 per cent.

Jakhama village has the highest percentage of illiterate population with 34.46 per cent, Mezoma village has the lowest percentage of illiterate population as 12.04 per cent. Tsiese Bawe village has the highest percentage of population with educational level below class 10 standard as 53.66 per cent. Jakhama village has the lowest percentage of population with educational level below class 10 standards as 22.55 per cent. Jakhama village has the highest percentage of population with educational level upto class 10 standards as 33.61 per cent. Mezoma village has the lowest percentage of population with educational level upto class 10 standards as 15.74 per cent. Kijumetouma village has the highest percentage of population with 17.95 per cent for household with educational level upto class 12 standards. Jakhama village has the lowest percentage of population with educational level upto class 12 standards (3.40 per cent). Mezoma village has the highest percentage of population among the household with educational level upto degree

level with 23.15 per cent, Jakhama village has the lowest percentage of population with educational level upto degree standards (5.95 per cent). Mezoma village has the highest percentage of population (3.70 per cent) with educational level upto Master degree leveland others, Jakhama, Kijumetouma, Tsiese Bawe village has no population with educational level upto Master degree and others.

Jakhama village has the highest percentage with 58.82 per cent among the illiterate population who were employed, while it has been found that Kijumetouma village has no illiterate population who is employed. Jakhama village has the highest percentage of employed head of the household whose educational level is below class 10 standards with 70 per cent, Kijumetouma, Mezoma and Tsiese Bawe village has the lowest percentage of employed head of the hosehold whose educational level is below class 10 standards with 50 per cent. Kijumetouma and Tsiese Bawe village has the highest percentage of employed head of the household whose educational level is upto class 10 standards with 100 per cent, Mezoma village has the lowest percentage of employed head of the household whose educational level is upto class 10 standarda as 33.33 per cent. It has been found that all the sample villages whose head of the household having educational level upto 12 standards were employed except Tsiese Bawe village. Mezoma village has the highest percentage of employed head of the household whose educational level is upto degree (100 per cent employment) followed by Jakhama with 50 per cent employment, Kijumetouma and Tsiese village shows 0.00 per cent of employment for head of the household whose educational level is upto degree level. Mezoma village has the highest percentage of employed head of the household whose educational level is upto Master degree and others level as 100 per cent. Jakhama,

Kijumetouma and Tsiese village shows 0.00 per cent of employment for head of the household whose educational level is upto Master degree and others.

Tsiese Bawe village has the highest percentage of illiterate poor with 66.67 per cent. Kijumetouma and Mezoma village shows 0.00 per cent poor among the illiterate household. Mezoma village has the highest percentage of poor with 45.45 per cent among the household whose educational level is below class 10, Jakhama village has the lowest percentage of poor with 11.32 per cent. Kijumetouma village has the highest percentage of poor with 100 per cent, whose household educational level is upto class 10, Jakhama and Tsiese Bawe village shows 0.00 per cent poor. It has been found that there is no household with poverty whose education level is from class 12 till Master degree and others.

`Mezoma village has the highest percentage of average income of Rs 2413.63 among the illiterate household. Tsiese Bawe village has the lowest average income of Rs 1658.46. Jakhama village has the highest percentage of average income of Rs 2190.15 among the household whose are below class 10. Tsiese Bawe has the lowest average income of Rs 1763.60. Tsiese Bawe village has the highest average income of Rs 3528.82 among the household whose educational level is upto class 10. Kijumetouma village has the lowest average income of Rs 786.10. Jakhama village has the highest average income of Rs 3988.63 whose educational level upto class 12. Kijumetouma village has the lowest percentage of average Income as Rs 2732.61 whose educational level upto class 12. The Mezoma village has the highest average income of Rs 3211.32 whose educational level upto degree. Jakhama village has the lowest average income of Rs 2225.20. The Mezoma village has the highest average income of Rs 2362.47 whose

educational level upto M.A degree and others. Jakhama, Kijumetouma and Tsiese Bawe village has no average income whose educational level is M.A degree and others.

Table 76: Percentage and Proportion of Household, Population, Employed, Poor and Income

Village	*Education level*	*Household*	*Population*	*Employed*	*Poor*	*Average Income*
Jakhama	1	39.53	34.46	50.00	20.99	2209.50
	2	23.26	22.55	70.00	11.32	2190.15
	3	30.23	33.61	84.62	0.00	2579.81
	4	2.33	3.40	100.0	0.00	3988.63
	5	4.65	5.95	50.00	0.00	2225.20
	6	0.00	0.00	0.00	0.00	0.00
Kijumetouma	1	14.29	12.82	0.00	0.00	1929.32
	2	57.14	46.15	50.00	22.22	1814.23
	3	14.29	23.08	100.00	100.00	786.10
	4	14.29	17.95	100.00	0.00	2732.61
	5	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00
Mezoma	1	11.76	12.04	50.00	0.00	2413.63
	2	35.29	40.74	50.00	45.45	1763.60
	3	17.65	15.74	33.33	47.06	1875.06
	4	5.88	4.63	100.00	0.00	2779.32
	5	23.53	23.15	100.00	0.00	3211.32
	6	5.88	3.70	100.00	0.00	2362.47
Tsiese Bawe	1	25.00	21.95	50.00	66.67	1658.46
	2	50.00	53.66	50.00	22.73	1954.70
	3	25.00	24.39	100.00	0.00	3528.82
	4	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others

4.3.a.i: Relationship between Education, Employment, Poor and Income for rural Kohima

This section analyse the relationship between education, employment, poverty and income for rural areas of Kohima district covering Jakhama, Kijumetouma, Mezoma, and Tsiese Bawe.

Education and Employment - From the below table 77 it has been found that there is a positive correlation between education and employment (r=0.217) for Jakhama, 0.94 for Kijumetouma, 0.80 for Mezoma and 0.86 for Tsiese Bawe village. The calculated 't' value comes out to be 0.42 for Jakhama and is not statistically significant. For Kijumetouma the calculated value of 't' comes out to be 5.51 and is statistically significant at 1 per cent for 4 degree of freedom. Mezoma and Tsiese Bawe the calculated value of 't' comes out to be 2.66 and 3.37 which is statistically significant at 5 per cent and 1 per cent for 4 degree of freedom. The coefficient of determination i.e., R^2 value shows that 0.047 per cent of variation in the employment has been explain by education for Jakhama. Kijumetouma village R^2 value shows that 0.089 per cent of variation in the employment has been explained by education. For Mezoma village R^2 value shows that 0.64 per cent of variation in the employment has been explain by education. For Tsiese Bawe village R^2 value shows that 0.75 per cent of variation in the employment has been explain by education.

The regression coefficient of education on employment for Jakhama village shows b= 3.00 and is not statistically significant. For Kijumetouma village regression coefficient is b= 35.00 and is statistically significant at 1 percent for 4 degree of freedom. For Mezoma village regression coefficient is b= 13.33 and is statistically significant at 5

per cent. For Tsiese Bawe village regression coefficient is b=25.00 and is statistically significant at 10 per cent.

Education and Income - The correlation between education and income comes out to be 0.37 for Jakhama, 0.22 for Kijumetouma, 0.49 for Mezoma and 0.93 for Tsiese Bawe. For Jakhama village the calculated 't' value is 0.79 which is not statistically significant. For Kijumetouma the calculated value of 't' comes out to be 0.45 and is not statistically significant. Mezoma village shows the calculated value of 't' comes out to be 1.12 which is not statistically significant for 4 degree of freedom and Tsiese Bawe shows the calculated value of 't' comes out to be 5.06 which is statistically significant at 1 per cent. The coefficient of determination i.e., R^2 value shows that 0.14 per cent of variation in the income has been explain by education for Jakhama. For Kijumetouma village R^2 value shows that 0.05 per cent of variation in the income has been explain by education. For Mezoma village R^2 value shows that 0.24 per cent of variation in the income has been explain by education. For Tsiese Bawe village R^2 value shows that 0.86 per cent of variation in the income has been explain by education.

The regression coefficient of education on income for Jakhama village come out to be b= 182.98 which is not statistically significant. For Kijumetouma village regression coefficient is b= 138.17 and is not statistically significant for 4 degree of freedom. For Mezoma village regression is b= 142.62 which is not statistically significant. For Tsiese Bawe village regression coefficient is b= 935.18 and is statistically significant at 5 per cent for 4 degree of freedom.

Education and Poverty - The correlation between education and poverty comes out to be -0.88 for Jakhama, 0.21 for Kijumetouma and -0.41 for Mezoma and -0.98 for Tsiese

Bawe village. For Jakhama village the calculated 't' value comes out to be |3.70| and is statistically significant at 1 per cent. For Kijumetouma the calculated value of 't' comes out to be |0.42| and is not statistically significant, Mezoma village shows the calculated value of 't' comes out to be |0.89| which is not statistically significant and Tsiese Bawe shows the calculated value of 't' comes out to be |9.84| which is statistically significant at 1 per cent. The coefficient of determination i.e., R^2 value shows that 0.78 per cent of variation in the poverty has been explain by education for Jakhama. For Kijumetouma village R^2 value shows that 0.045 per cent of variation in the poverty has been explain by education. For Mezoma village R^2 value shows that 0.16 per cent of variation in the poverty has been explain by education. For Tsiese Bawe village R^2 value shows that 0.96 per cent of variation in the poverty has been explain by education.

The regression coefficient of education on poverty for Jakhama is b= -5.33 and it is statistically significant at 1 per cent. For Kijumetouma village regression coefficient is b= 7.77 and is not statistically significant for 4 degree of freedom. For Mezoma village regression coefficient is b= -5.24 and the t-test is not statistically significant. For Tsiese Bawe village regression coefficient is b= -33.33 and the 't' test is statistically significant at 1 per cent for 4 degree of freedom.

Table 77: Relationship between Education, Employment, Poor and Income

Village	Variables	*Correlation*		*Regression*				
		r	*'t' value*	*R^2*	*a*	*b*	*'t' value*	*S.E*
Jakhama	Education & Employment	0.21	0.42	0.047	61.92	3.00	0.385	7.78
	Education & Income	0.37	0.79	0.14	2089.69	182.98	0.7	261.23
	Education & Poverty	-0.88	-3.70*	0.78	22.45	-5.33	-3.75*	1.59
Kijumetouma	Education & Employment	0.94	5.51*	0.89	-25	35	4.04*	8.66
	Education & Income	0.22	0.45	0.05	1470.13	138.17	0.32	426.41
	Education & Poverty	0.21	0.42	0.045	11.11	7.778	0.3	25.41
Mezoma	Education & Employment	0.80	2.66**	0.64	25.55	13.33	2.70**	4.93
	Education & Income	0.49	1.12	0.24	1901.73	142.62	1.12	126.96
	Education & Poverty	-0.41	-0.89	0.16	33.759	-5.24	-0.9	5.82
Tsiese Bawe	Education & Employment	0.86	3.37*	0.75	16.66	25	1.73***	14.43
	Education & Income	0.93	5.06*	0.86	510.3	935.18	2.53**	368.89
	Education & Poverty	-0.98	-9.84*	0.96	96.47	-33.33	-5.44*	6.12

Source: Calculation based on field survey report, 2015-16
Note:'t' values., ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta SE is Standard Error*

4.3.b: Intra-district Inequalities in terms of Education, Employment, Income and Poverty for urban Kohima

This part will focus on education level, percentage of household, percentage of population, percentage of employment poverty and income. The study is done across social groups in urban of Kohima district.

4.3.b.i: Intra-district Inequalities of Education, Household, Population, Employed, Poor and Income

From the table 78 shows that Daklane ward has the highest percentage of household with illiterate i.e., 5.71 per cent whereas, Sepfuozou and Upper Agri ward has no household with illiterate population. The Daklane ward has the highest percentage of household having educational level below class 10 i.e., 54.29 per cent whereas, Sepfuozou ward has no household having educational level below class 10. The Sepfuozou ward has the highest percentage of household having educational level upto class 10 i.e., 37.5 per cent and the lowest percentage of household having educational

level upto class 10 is Daklane ward i.e., 11.43 per cent. The Sepfuozou ward has the highest percentage of household having educational level upto class 12 i.e., 25 per cent and the lowest percentage of household having educational level upto class 12 is upper Agri ward i.e., 7.69 per cent. The Upper Agri ward has the highest percentage of household having educational level upto degree i.e., 30.77 per cent and the lowest percentage of household having educational level upto class degree is Daklane ward i.e., 8.57per cent. The Upper Agri ward has the highest percentage of household having educational level upto Master degree and others i.e., 23.08 per cent and the lowest percentage of household having educational level upto class Master degree and others is Daklane ward i.e., 5.71 per cent.

The Daklane ward has the highest percentage of illiterate population as 3.98 per cent, Sepfuozou ward and Upper Agri ward has no illiterate population. The Daklane ward has the highest percentage of population with educational level below class 10 standard as 61.36 per cent; Sepfuozou ward has no population with educational level below class 10 standards. Sepfuozou ward has the highest percentage of population with educational level upto class 10 standards as 38.46 per cent, while Daklane ward has the lowest percentage of population with educational level upto class 10 standards as 10.80 per cent. Sepfuozou ward has the highest percentage of population with educational level upto class 12 standards as 23.08 per cent. Upper Agri has the lowest percentage of population with educational level upto class 12 standards as 4.48 per cent. Upper Agri has the highest percentage of population with educational level upto degree level as 32.84 per cent and Daklane ward has the lowest percentage of population with educational level upto degree standards as 4.55 per cent. The Upper Agri has the highest percentage of

population with educational level upto Master degree level as 23.88 per cent, while Daklane ward has the lowest percentage of population with educational level upto Master degree and others as 5.11 per cent.

The Lower Chandmari has the highest percentage of illiterate population as 100 per cent who were employed and it has been found that Sepfuozou ward has no illiterate population. Upper Agri has the highest percentage of employed head of the household whose educational level is below class 10 standards as 100 per cent and it has been found that Sepfuozou ward has no population below class 10 standards. Lower Chandmari ward, Sepfuozou ward and Upper Agri ward has the highest percentage of employed head of the household whose educational level is upto class 10 standards as 100 per cent, Daklane ward has the lowest percentage of employed head of the household whose educational level is upto class 10 standards as 75 per cent. It has been found that all the wards whose head of the household having educational level from 12 standards till Master degree and other were all employed.

The Lower Chandmari has the highest percentage of illiterate poor as 100 per cent and it has been found that Sepfuozou and Upper Agri ward has no household who are actually poor. The Lower Chandmari ward has the highest percentage of poor with 51.09 per cent, whose educational level is below class 10 and it has been found that there is no poor household in Sepfuozou ward whose educational level is below class 10 standards. Sepfuozou ward has the highest percentage of poor as 20 per cent, whose educational level is upto class 10. It has been found that there is no poor household in Upper Agri ward whose educational level is upto class 10 standards. The Sepfuozou ward has the highest percentage of poor as 66 per cent, whose educational level is upto class

12. It has been found that there is no poor household in Lower Chandmari and Upper Agri ward whose educational level is upto class 12 standards. It has been found that higher education level from degree till Master degree and others there is no poor house in the wards.

Daklane has the highest percentage of average income with Rs 2691.28 for illiterate household. It has been found that there both Sepfuozou and Upper Agri ward has no household in that category. Upper Agri ward has the highest percentage of average income as Rs 3214.73 for educational level below class 10 and Sepfuozou ward has no household whose qualification is below 10 standards. Upper Agri ward has the highest percentage of average income as Rs 4076 for educational level upto class 10 and Sepfuozou ward has the lowest percentage of average income which is accounted Rs 3146.68. Upper Agri ward has the highest percentage of average income which is accounted as Rs 4946.65 for educational level upto class 12. Sepfuozou ward has the lowest percentage of average income as 3095.92. Sepfuozou ward has the highest percentage of average income as Rs 4530.27 for educational level upto degree and Upper Agri has the lowest percentage of average income as Rs 3660.19. Sepfuozou ward has the highest percentage of average income as Rs 4041.33 for educational level upto Master degree and others. Lower Chandmari ward has the lowest percentage of average income of Rs 3667.90.

Table 78: Percentage and Proportion of Household, Population, Employed, Poor and Income

Ward	*Education level*	*Household*	*Population*	*Employed*	*Poor*	*Average Income*
Daklane	1	5.71	3.98	50.00	42.86	2691.28
	2	54.29	61.36	94.74	47.22	3005.70
	3	11.43	10.80	75.00	15.79	3843.43
	4	14.29	14.20	100.00	8.00	3959.14
	5	8.57	4.55	100.00	0.00	4246.68
	6	5.71	5.11	100.00	0.00	3667.90
Lower Chandmari	1	2.94	3.11	100.00	100.00	1360.77
	2	50.00	47.67	94.12	51.09	2846.24
	3	11.76	13.99	100.00	14.81	3169.60
	4	17.65	17.10	100.00	0.00	4165.21
	5	8.82	10.88	100.00	0.00	3768.16
	6	8.82	7.25	100.00	0.00	4030.91
Sepfuozou	1	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00	0.00
	3	37.5	38.46	100.00	20.00	3146.68
	4	25.00	23.08	100.00	66.67	3095.92
	5	25.00	20.51	100.00	0.00	4530.27
	6	12.5	17.95	100.00	0.00	4041.33
Upper Agri	1	0.00	0.00	0.00	0.00	0.00
	2	23.08	22.39	100.00	46.67	3214.73
	3	15.38	16.42	100.00	0.00	4076.00
	4	7.69	4.48	100.00	0.00	4946.65
	5	30.77	32.84	100.00	0.00	3660.19
	6	23.08	23.88	100.00	0.00	3816.97

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others

4.3.b.ii: Relationship between Education, Employment, Poor and Income for urban Kohima

This section analyses the relationship between education, employment, poverty and income for urban areas of Kohima district covering Daklane, Lower Chandmari, Sepfuozou and Upper Agri.

Education and Employment - From the above table 79 it has been found that there is a positive correlation between education and employment (r =0.76) for Daklane, 0.39 for Lower Chandmari, 0.77 for Sepfuozou and 0.70 for Upper Agri. The calculated 't' value comes out to be 2.33 and is statistically significant at 5 per cent for Daklane, For Lower Chandmari the calculated value of 't' comes out to be 0.84 and is not statistically significant. For Sepfuozou the calculated value of 't' comes out to be 2.41 which is statistically significant at 5 per cent for 4 degree of freedom and Upper Agri the calculated value of 't' comes out to be 1.96 which is statistically significant at 10 per cent for 4 degree of freedom. The coefficient of determination i.e., R^2 value shows that 0.58 per cent of variation in the employment has been explain by education for Daklane. For Lower Chandmari R^2 value shows that 0.15 per cent of variation in the employment has been explain by education. For Sepfuozou R^2 value shows that 0.60 per cent of variation in the employment has been explain by education. For Upper Agri village R^2 value shows that 0.50 per cent of variation in the employment has been explain by education.

The regression coefficient for Daklane that b= 8.30 and it is statistically significant at 5 per cent. For Lower Chandmari the regression is b= .504 and the 't' test is not statistically significant. For Sepfuozou the regression coefficient is b= .300 and the 't' test is statistically significant at 10 per cent. For Upper Agri the regression coefficient is b =.200 and the 't' test is statistically significant at 10 per cent.

Education and Income - The correlation between education and income comes out to be 0.78 for Daklane, 0.87 for Lower Chandmari, 0.75 for Sepfuozou and 0.19 for Upper Agri. For Daklane the calculated 't' value is 2.49 which statistically significant at 5 per cent for 4 degree of freedom. For Lower Chandmari the calculated value of 't' comes out

to be 3.52 and is statistically significant at 5 per cent. Sepfuozou shows the calculated value of 't' comes out to be 2.26 which is statistically significant at 5 per cent and for Upper Agri shows the calculated value of 't' comes out to be 0.38 which is not statistically significant for 4 degree of freedom. The coefficient of determination i.e., R^2 value shows that 0.60 per cent of variation in the income has been explain by education for Daklane. For Lower Chandmai R^2 value shows that 0.76 per cent of variation in the income has been explain by education. For Sepfuozou ward R^2 value shows that 0.57 per cent of variation in the income has been explain by education. For Upper Agri ward R^2 value shows that 0.038 per cent of variation in the income has been explain by education.

The regression coefficient for Daklane ward comes out to be b= 249.19 which is statistically significant at 5 per cent. For Lower Chandmari the regression coefficient is b= 488.91 and the 't' value is statistically significant at 5 per cent. For Sepfuozou ward the regression coefficient is b= 411.83 which is statistically significant at 10 per cent. For Upper Agri regression coefficient is b= 78.86 which is not statistically significant.

Education and Poverty - The correlation between education and poverty comes out to be -0.92 for Daklane, -0.88 for Lower Chandmari, and -0.52 for Sepfuozou and -0.70 for Upper Agri. For Daklane the calculated 't' value comes out to be |4.76| and is statistically significant at 1 per cent. For Lower Chandmari the calculated value of 't' comes out to be |3.70| and is statistically significant at 1 per cent, while Sepfuozou shows the calculated value of 't' comes out to be |1.21| which is not statistically significant and for Upper Agri shows the calculated value of 't' comes out to be |1.96| which is statistically significant at 10 per cent for 4 degree of freedom. The coefficient of determination i.e., R^2 value shows that 0.85 per cent of variation in the poverty has been explain by education for Daklane.

For Lower Chandmari R^2 value shows that 0.77 per cent of variation in the poverty has been explain by education. For Sepfuozou R^2 value shows that 0.27 per cent of variation in the poverty has been explain by education. For Upper Agri R^2 value shows that 0.50 per cent of variation in the poverty has been explain by education.

The regression coefficient of education and poverty is b= -10.39 and it is statistically significant at 1 per cent. For Lower Chandmari the regression coefficient b= -19.08 and it is statistically significant at 5 per cent. For Sepfuozou the regression coefficient is b= -12.66 and the 't' test shows that it is not statistically significant. For Upper Agri the regression coefficient b= -9.33 and the 't' test is statistically significant at 10 per cent.

Table 79: Relationship between Education, Employment, Poor and Income

Wards	Variables	*Correlation*		*Regression*				
		r	*'t' value*	*R^2*	*a*	*b*	*'t' value*	*S.E*
Daklane	Education & Employment	0.76	2.33**	0.58	57.454	8.30	2.35**	3.52
	Education & Income	0.78	2.49**	0.60	2696.84	249.19	2.49**	99.82
	Education & Poverty	-0.92	-4.76*	0.85	55.35	-10.39	-4.79*	2.16
Lower Chandmari	Education & Employment	0.39	0.84	0.15	97.25	.504	0.84	.590
	Education & Income	0.87	3.52**	0.76	1512.27	488.91	3.63**	134.54
	Education & Poverty	-0.88	-3.70*	0.77	94.45	-19.08	-3.79**	5.16
Sepfuozou	Education & Employment	0.77	2.41**	0.60	99.00	.300	1.73***	.173
	Education & Income	0.75	2.26**	0.57	2673.97	411.83	1.64***	250
	Education & Poverty	-0.52	-1.21	0.27	53.33	-12.66	-0.86	14.713
Upper Agri	Education & Employment	0.70	1.96***	0.50	99.20	.200	1.73***	.115
	Education & Income	0.19	0.38	0.038	3706.30	78.86	0.34	230.14
	Education & Poverty	-0.70	-1.96***	0.50	37.336	-9.33	-1.73***	5.38

Source: Calculation based on field survey report, 2015-16
***N**ote: 't' values.*, ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta SE is Standard Error.*

4.3.c: Intra-district Inequalities in terms of Education, Employment, Income and Poverty for rural Longleng:

This part will focus on education level, percentage of household, percentage of population, percentage of employment poverty and income. The study is done across social groups in rural areas of Longleng district.

4.3.c.i: Intra-district Inequalities of Education, Household, Population, Employed, Poor and Income:

From the table 80 below shows the highest percentage of illiterate household is concentrated in Nian village i.e., 50 per cent and the lowest percentage of illiterate household is Bura Namsang village i.e., 16.67 per cent. Bura Namsang village has the highest percentage of household having educational level below class 10 i.e., 72.22 per cent and the lowest percentage of household having educational level below class 10 is Sakshi village i.e., 40.91 per cent. Yachem village has the highest percentage of household having educational level upto class 10 i.e., 20 per cent and the lowest percentage of household having educational level upto class 10 is Bura Namsang village i.e., 0.00 per cent. Yachem village has the highest percentage of household having educational level upto class 12 i.e., 11.43 per cent and the lowest is Nian village i.e., 0.00 per cent. Yachem village has the highest percentage of household having educational level upto degree i.e., 5.71 per cent and Bura Namsang, Nian and Sakshi village has no household having degree level.

Nian village has the highest percentage of illiterate population with 50.64 per cent. Yachem village has the lowest percentage of illiterate population as 17.10 per cent. Bura Namsang village has the highest percentage of population with educational level below class 10 standard as 70.19 per cent and Sakshi village has the lowest percentage of

population with educational level below class 10 standards as 38.46 per cent. The Yachem village has the highest percentage of population with educational level upto class 10 standards as 22.80 per cent. Bura Namsang village has no population whose educational level upto class 10 standards. The Yachem village has the highest percentage of population with educational level upto class 12 standards as 11.92 per cent and Nian village has no population whose educational level upto class 12 standards. The Yachem village has the highest percentage of population with educational level upto degree level as 6.22 per cent and Bura Namsang, Nian and Sakshi village has no population whose educational level upto degree standards. Bura Namsang, Nian, Sakshi and Yachem village has no population whose educational level upto Master degree and others

The Yachem village has the highest percentage of illiterate population as 57.14 per cent who were employed and Sakshi village has the lowest percentage of illiterate population as 10 per cent who were employed. Bura Namsang village has the highest percentage of employed head of the household whose educational level is below class 10 standard as 69.23 per cent and Sakshi village has the lowest percentage of employed head of the household whose educational level is below class 10 standards as 11.11 per cent. The Nian village has the highest percentage of employed head of the household whose educational level is upto class 10 standards as 100 per cent. Bura Namsang, and Sakshi village has no employed head of the household whose educational level is upto class 10. Bura Namsang village has the highest percentage of employed head of the household whose educational level is upto class 12 standards as 100 per cent. Nian, and Sakshi village has no employed head of the household whose educational level is upto class 12 standards. Yachem village has the highest percentage of employed head of the household

whose educational level is upto degree standards as 100 per cent. Bura Namsang and Nian, and Sakshi village has no employed head of the household whose educational level up degree standards.

The Sakshi village has the highest percentage of illiterate poor as 100 per cent and it has been found that Bura Namsang village has the lowest percent of illiterate poor with 27.7 per cent. Nian village has the highest percentage of poor as 63.51 per cent, whose educational level is below class 10 standards and Yachem village has the lowest percentage of poor as 27.16 per cent. Sakshi village has the highest percentage of poor as 52.63 per cent, whose educational level is upto class 10. Bura Namsang and Nian village found 0.00 per cent poor whose educational level is upto class 10. Sakshi village has the highest percentage of poor as 100 per cent, whose educational level is upto class 12, Bura Namsang, Nian and Yachem village found 0.00 per cent poor whose educational level is upto class 12. It has been found that higher level of education from degree till Master degree and others there is no poor population in the sample villages.

The Yachem village has the highest percentage of average income as Rs 1756.33 for illiterate household and Sakshi village has the lowest percentage of average income as Rs 733.9. The Yachem village has the highest percentage of average income as Rs 1846.03 for educational level below class 10 and Bura Namsang village has the lowest percentage of average income as Rs 1133.98. Yachem village has the highest percentage of average income as Rs 2592.20 for educational level upto class 10 and Bura Namsang village has no average income upto class10. Bura Namsang village has the highest percentage of average income as Rs 2189.36 for educational level upto class 12 and Nian village has no average income upto class 12. Yachem village has the highest percentage

of average income as Rs 1960 for educational level upto degree and Bura Namsang, Nian and Sakshi village has no average income whose educational level is upto degree. The Bura Namsang, Nian, Sakshi and Yachem village no average income for educational level upto Master degree and others.

Table 80: Percentage and Proportion of Household, Population, Employed, Poor and Income

Village	*Education level*	*Household*	*Population*	*Employed*	*Poor*	*Average Income*
Bura Namsang	1	16.67	21.15	33.33	27.27	1555.25
	2	72.22	70.19	69.23	30.14	1133.98
	3	0.00	0.00	0.00	0.00	0.00
	4	11.11	8.65	100.00	0.00	2189.36
	5	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00
Nian	1	50.00	50.64	30.77	78.48	1115.00
	2	46.15	47.44	66.67	63.51	1405.60
	3	3.85	1.92	100	0.00	1988.86
	4	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00
Sakshi	1	45.45	44.87	10.00	100.00	733.9
	2	40.91	38.46	11.11	60.00	1381.6
	3	9.09	12.18	0.00	52.63	1414.6
	4	4.55	4.49	0.00	100.00	746.4
	5	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00
Yachem	1	20.00	17.10	57.14	45.45	1756.33
	2	42.86	41.97	53.33	27.16	1846.03
	3	20.00	22.80	71.43	18.18	2592.20
	4	11.43	11.92	50.00	0.00	2158.31
	5	5.71	6.22	100.00	0.00	1960.82
	6	0.00	0.00	0.00	0.00	0.00

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others

4.3.c.ii: Relationship between Education, Employment, Poor and Income for rural Longleng

This section analyses the relationship between education, employment, poverty and income for rural areas of Longleng district covering Bura Namsang, Nian, Sakshi and Yachem.

Education and Employment: From the below 81 it has been found that the correlation between education and employment (r=-0.97) for Bura Namsang, 0.99 for Nian and -0.86 Sakshi and 0.63 for Yachem. The calculated 't' value comes out to be 7.98 and is statistically significant at 1 per cent for Bura Namsang for 4 degree of freedom, For Nian the calculated value of 't' comes out to be 14.03 and is statistically significant at 1 per cent, while Sakshi the calculated value of 't' comes out to be |3.37| and is statistically significant at 5 per cent. Yachem the calculated value of 't' comes out to be 1.64 and is statistically significant at 10 per cent for 4 degree of freedom. The coefficient of determination i.e., R^2 value shows that 0.94 per cent of variation in the employment has been explain by education for Bura Namsang village. For Nian village R^2 value shows that 0.98 per cent of variation in the employment has been explain by education. For Sakshi village R^2 value shows that 0.75 per cent of variation in the employment has been explain by education. Yachem village R^2 value shows that 0.40 per cent of variation in the employment has been explained by education.

The regression coefficient of education on employment for Bura Namsang village shows that b= 21.24 and it is statistically significant at 1 per cent. For Nian village regression coefficient is b= 34.61 and the 't' test is statistically significant at 1 per cent. For Sakshi village regression coefficient is b= -4.11 and the 't' test shows is statistically

significant at 5 per cent. For Yachem village regression coefficient is b= 8.23 and the 't' test is statistically significant at 10 per cent for 4 degree of freedom.

Education and Income: The correlation between education and income comes out to be 0.73 for Bura Namsang, 0.98 for Nian and 0.024 for Sakshi and 0.34 for Yachem. For Bura Namsang village the calculated 't' value is 2.13 which is statistically significant at 5 per cent. For Nian the calculated value of 't' comes out to be 9.84 and is statistically significant at 1 per cent, Sakshi village shows the calculated value of 't' comes out to be 0.04 which is not statistically significant for 4 degree of freedom and Yachem shows the calculated value of 't' comes out to be 0.72 which is not statistically significant. The coefficient of determination i.e., R^2 value shows that 0.54 per cent of variation in the income has been explain by education for Bura Namsang. For Nian village R^2 value shows that 0.96 per cent of variation in the income has been explain by education. For Sakshi village R^2 value shows that 0.001 per cent of variation in the income has been explain by education. For Yachem village R^2 value shows that 0.11 per cent of variation in the income has been explain by education.

The regression coefficient education on income for Bura Namsang village has come out to be b= 256.55 which is statistically significant at 10 per cent. For Nian village regression coefficient b= 436.93 which is statistically significant at 1 per cent. For Sakshi village regression coefficient b= 7.050 and the 't' test shows that it is not statistically significant. For Yachem village regression coefficient b= 72.12 and the 't' test is not statistically significant.

Education and Poverty: The correlation between education and poverty comes out to be -0.91 for Bura Namsang, -0.94 for Nian and -0.037 for Sakshi and -0.96 for Tsiese Bawe

village. For Bura Namsang village the calculated 't' value comes out to be |4.38| and is statistically significant at 1 per cent. For Nian the calculated value of 't' comes out to be |5.51| and is statistically significant at 1 per cent. Sakshi village shows the calculated value of 't' comes out to be |0.07| and is not statistically significant for 4 degree of freedom and Yachem shows the calculated value of 't' comes out to be |6.85| which is statistically significant at 1 per cent. The coefficient of determination i.e., R^2 value shows that 0.83 per cent of variation in the poverty has been explain by education for Bura Namsang. For Nian village R^2 value shows that 0.88 per cent of variation in the poverty has been explain by education. For Sakshi village R^2 value shows that 0.001 per cent of variation in the poverty has been explain by education. For Yachem village R^2 value shows that 0.93 per cent of variation in the poverty has been explain by education.

The regression coefficient of education on poverty for Bura Namsang village b= -9.94 and the 't' test value is statistically significant at 5 per cent. For Nian village regression coefficient b= -39.24 and the 't' test is statistically significant at 5 per cent. For Sakshi village regression coefficient b= -.737 and the 't' test is not statistically significant. For Yachem village regression coefficient b= -11.80 and the 't' test is statistically significant at 1 per cent.

Table 81: Relationship between Education, Employment, Poor and Income

Village	*Variables*	*Correlation*		*Regression*				
		R	*'t' value*	R^2	*a*	*b*	*'t' value*	*S.E*
Bura Namsang	Education &Employment	0.97	7.98*	0.94	17.94	21.24	4.18*	5.07
	Education & Income	0.73	2.13**	0.54	1027.56	256.55	1.59***	234.80
	Education & Poverty	-0.91	-4.38*	0.83	42.34	-9.944	-2.24**	4.43
Nian	Education & Employment	0.99	14.03*	0.98	-3.41	34.615	46.65*	.742
	Education & Income	0.98	9.84*	0.96	629.29	436.93	5.17*	84.48
	Education & Poverty	-0.94	-5.51*	0.88	125.81	-39.240	-2.80**	14.01
Sakshi	Education & Employment	-0.86	-3.37**	0.75	15.55	-4.111	-2.47**	1.659
	Education & Income	0.024	0.04	0.001	1051.50	7.050	0.03	208.15
	Education & Poverty	-0.037	-0.07	0.001	80.00	-.737	-0.05	13.90
Yachem	Education & Employment	0.63	1.64***	0.404	41.66	8.239	1.52***	5.77
	Education & Income	0.34	0.72	0.11	1846.36	72.126	0.63	113.82
	Education & Poverty	-0.96	-6.85*	0.93	53.57	-11.806	-6.76*	1.746

Source: Calculation based on field survey report, 2015-16
***Note:** 't' values.*, ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent. b is beta SE is Standard Error.*

4.3.d: Intra-district Inequalities in terms of Education, Employment, Income and Poverty for urban Longleng:

This part will focus on education level, percentage of household, percentage of population, percentage of employment poverty and income. The study is done across social groups in urban areas of Longleng district.

4.3.d.i: Intra-district Inequalities of Education, Household, Population, Employed, Poor and Income:

From the table 82 shows that Shauli ward has the highest percentage of household with illiterate i.e., 12.5 per cent and the household with no illiterate was found in High School and Shayung ward. Both Leinak and Shayung ward has the highest percentage of household having educational level below class 10 i.e., 55.56 per cent and the lowest percentage of household having educational level below class 10 is High School i.e., 0.00 per cent. Both High School and Shayung ward has the highest percentage of household

having educational level upto class 10 i.e., 33.33 per cent and the lowest percentage of household having educational level upto class 10 is Leinak ward i.e., 22.22 per cent. The High School has the highest percentage of household having educational level upto class 12 i.e., 44.44 per cent and the lowest is found in both Leinak and Shayung ward i.e., 11.11 per cent. High School, Leinak, Shauli and Shayung ward has no population with educational level upto degree. The High School ward has the highest percentage of household having educational level upto Master degree and other i.e., 22.22 per cent and the lowest percentage of household having educational level upto class Master degree is Leinak, Shauli and Shayung ward i.e., 0.00 per cent.

The Shauli ward has the highest percentage of illiterate population as 9.43 per cent. High School and Shayung ward has no illiterate population. The Shauli ward has the highest percentage of population with educational level below class 10 standard as 56.60 per cent and High School ward has no population with educational level below class 10 standards. Shayung ward has the highest percentage of population with educational level upto class 10 standards as 38.71 per cent and Shauli ward has the lowest percentage of population with educational level upto class 10 standards as 24.53 per cent. The High School ward has the highest percentage of population with educational level upto class 12 standards as 38.89 per cent and Shayung ward has the lowest percentage of population with educational level upto class 12 standards as 6.45 per cent. High School, Leinak, Shauli and Shayung ward has no population with educational level upto degree. The High School ward has the highest percentage of population with educational level upto Master degree level as 27.78 per cent and Leinak, Shauli and Shayung ward has no population with educational level upto Master degree and other.

The Leinak and Shauli ward has the highest percentage of illiterate population as 100 per cent who were employed. High School and Shayung ward has no illiterate population. The Leinak and Shauli ward has the highest percentage of employed head of the household whose educational level is below class 10 standard as 100 per cent and High School has no employed head of the household whose educational level is below class 10 standards. High School, Leinak, Shauli and Shayung has the highest percentage of employed head of the household whose educational level is upto class 10 standards as 100 per cent. The High School, Leinak, Shauli and Shayung has the highest percentage of employed head of the household whose educational level is upto class 12 standards as 100 per cent. The High School, Leinak, Shauli and Shayung have no head of the household who is employed and whose educational level is upto degree standards. The High School has the highest percentage of employed head of the household whose educational level is upto Master degree and others as 100 per cent and Leinak, Shauli and Shayung has no head of the household who is employed and whose educational level is upto degree standards.

It has been found that High School, Leinak, Shauli and Shayung ward shows 0.00 per cent poor who are illiterate. The Shayung ward has the highest percentage of poor as 58.82 per cent, whose educational level is below class 10 standards and High School has no poor whose educational level is below class 10 standard. The Shayung ward has the highest percentage of poor as 70.83 per cent whose educational level is upto class 10. Shauli ward found as 0.00 per cent of poor. Shauli ward has the highest percentage of poor as 100 per cent whose educational level is upto class 12. Leinak and Shayung ward

found as 0.00 per cent of poor. It has been found that higher level of education from degree till Master degree there is no poor person in the sample ward.

The Leinak ward has the highest percentage of average income as Rs 3845.55 for illiterate household. Leinak has the highest percentage of average income as Rs 2874.44 for educational level below class 10. Shauli ward has the highest percentage of average income as Rs 3331.27 for educational level upto class 10. Shayung ward has the lowest percentage of average income of 2318.30. Shayung has the highest percentage of average income as Rs 3379.14 for educational level upto class 12. Shauli ward has the lowest percentage of average income as Rs 3019.32. The High School has the highest percentage of average income as Rs 3301.2 for educational level upto Master degree and others. Leinak, Shauli and Shayung ward has no average income.

Table 82: Percentage and Proportion of Household, Population, Employed, Poor and Income

Wards	*Education level*	*Household*	*Population*	*Employed*	*Poor*	*Average Income*
High School	1	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00	0.00
	3	33.33	33.33	100	27.77	3098.18
	4	44.44	38.89	100	23.80	3306.40
	5	0.00	0.00	0.00	0.00	0.00
	6	22.22	27.78	100	0.00	3301.2
Leinak	1	11.11	4	100	0.00	3845.55
	2	55.56	56	100	17.85	2874.44
	3	22.22	30	100	46.66	2836.37
	4	11.11	10	100	0.00	3220.99
	5	0.00	0	0.00	0.00	0.00
	6	0.00	0	0.00	0.00	0.00
Shauli	1	12.5	9.43	100	0.00	3178.99
	2	50	56.60	100	36.66	2571.43
	3	25	24.53	100	0.00	3331.27
	4	12.5	9.43	100	100.	3019.32
	5	0	0.00	0.0	0.00	0.00

	6	0	0.00	0	0.00	0.00
Shayung	1	0.00	0.00	0.00	0.00	0.00
	2	55.56	54.84	80.00	58.82	2369.78
	3	33.33	38.71	100.00	70.83	2318.30
	4	11.11	6.45	100.00	0.00	3379.14
	5	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00

Source: Field Survey Report, 2015-16
Note: In Education level,1 refer to illiterate, 2 refer to below class 10 standard, 3 refer to HSLC, 4 refer to HSSLC, 5 refer to Degree and 6 refer to Master degree and others

4.3.d.ii: Relationship between Education, Employment, Poor and Income for urban Longleng:

This section analyses the relationship between education, employment, poverty and income for urban areas of Longleng district covering High School, Leinak, Shauli and Shayung wards.

Education and Employment - From the below table 83 it has been found that the positive correlation between education and employment comes out to be 0.86 for High School, 0.77 for Leinak, 0.77 for Shauli and 0.86 for Shayung. The calculated 't' value comes out to be 3.37 and is statistically significant at 5 per cent for High school. For Leinak the calculated value of 't' comes out to be 2.41 and is statistically significant at 5 per cent. Shauli the calculated value of 't' comes out to be 2.41 which is statistically significant at 5 per cent for 4 degree of freedom. Shayung the calculated value of 't' comes out to be 3.37 which is statistically significant at 5 per cent for 4 degree of freedom. The coefficient of determination i.e., R^2 value shows that 0.75 per cent of variation in the employment has been explain by education for High School. For Leinak R^2 value shows that 0.60 per cent of variation in the employment has been explain by education. For Shauli R^2 value shows that 0.60 per cent of variation in the employment has been explain

by education. For Shayung ward R^2 value shows that 0.75 per cent of variation in the employment has been explain by education.

The regression coefficient of education on employment for High School is b=.500 and the 't' test is statistically significant at 10 per cent. For Leinak the regression coefficient b=.300 and the 't' test is statistically significant at 10 per cent. For Shauli the regression coefficient b= .300 and the 't' test value is statistically significant at 10 per cent. Shayung the regression coefficient b= 10 and the 't' test is statistically significant at 10 per cent.

Education and Income - The correlation between education and income comes out to be 0.85 for High School, 0.11 for Shauli and 0.84 for Shayung and the negative correlation comes out to be -0.52 for Leinak. For High School the calculated 't' value comes out to be 3.22 and is statistically significant at 5 per cent. For Leinak the calculated value of 't' comes out to be |1.2| and is not statistically significant. Shauli shows that the calculated value of 't' comes out to be 0.22 and is not statistically significant and Shayung shows the calculated value of 't' comes out to be 3.09 which is statistically significant at 5 per cent for 4 degree of freedom. The coefficient of determination i.e., R^2 value shows that 0.73 per cent of variation in the income has been explain by education for High School. For Leinak R^2 value shows that 0.27 per cent of variation in the income has been explain by education. Shauli R^2 value shows that 0.012 per cent of variation in the income has been explained by education. Shayung R^2 value shows that 0.71 per cent of variation in the income has been explained by education.

The regression coefficient education on income for High School ward comes out to be b= 101.51 and the 't' test value is statistically significant at 10 per cent. For Leinak

ward the regression coefficient b= -191.17 and the 't' test is not statistically significant. For Shauli the regression coefficient b= 28.08 and the 't' test value is statistically not significant . For Shayung regression coefficient b= 504.68 and the 't' test is statistically significant at 10 per cent for 4 degree of freedom.

Education and Poverty - The correlation between education and poverty comes out to be -0.92 for High School and -0.77 for Shayung. The positive correlation comes out to be 0.72 for Shauli and 0.16 for Leinak. For High School the calculated 't' value comes out to be |4.60| and is statistically significant at 1 per cent for 4 degree of freedom. For Leniak the calculated value of 't' comes out to be |0.32| and is statistically not significant. For Shauli the calculated value of 't' comes out to be 2.07 which is statistically significant at 5 per cent and for Shayung shows the calculated value of 't' comes out to be |2.41| which is statistically significant at 5 per cent. The coefficient of determination i.e., R^2 value shows that 0.85 per cent of variation in the poverty has been explain by education for High School. For Leinak R^2 value shows that 0.029 per cent of variation in the poverty has been explain by education. For Shauli R^2 value shows that 0.51 per cent of variation in the poverty has been explain by education. For Shayung R^2 value shows that 0.60 per cent of variation in the poverty has been explain by education.

The regression coefficient of education on poverty for High School b= -13.88 and the 't' test is statistically significant at 5 per cent. For Leinak the regression coefficient b= 2.88 and the 't' test is not statistically significant. For Shauli the regression coefficient b= 26.33 and the 't' test value is statistically significant 10 per cent. For Shayung the regression coefficient b= -29.41 and the 't' test is statistically significant at 10 per cent.

Table 83: Relationship between Education, Employment, Poor and Income

Ward	*Variables*	*Correlation*		*Regression*				
		R	*'t' value*	R^2	*a*	*b*	*'t' value*	*S.E*
High School	Education & Employment	0.86	3.37**	0.75	98.66	.500	1.73***	.289
	Education & Income	0.85	3.22**	0.73	3032.24	101.51	1.64***	61.60
	Education & Poverty	-0.92	-4.60*	0.85	44.96	-13.88	-2.42**	5.72
Leinak	Education & Employment	0.77	2.41**	0.60	99.00	.300	1.73***	.173
	Education & Income	-0.52	-1.2	0.27	3672.27	-191.17	-0.87	217.37
	Education & Poverty	0.16	0.32	0.029	8.925	2.88	0.24	11.89
Shauli	Education & Employment	0.77	2.41**	0.60	99.00	.300	1.73***	.173
	Education & Income	0.11	0.22	0.012	2955.04	28.08	0.15	178.69
	Education & Poverty	0.72	2.07**	0.51	-31.67	26.33	1.53***	17.91
Shayung	Education & Employment	0.86	3.37**	0.75	73.33	10.00	1.73***	5.77
	Education & Income	0.84	3.09**	0.71	1679.71	504.68	1.57***	321.09
	Education & Poverty	-0.77	-2.41**	0.60	102.03	-29.410	-1.73***	23.91

Source: Calculation based on field survey report, 2015-16
***N**ote: 't' values.*, ** and *** indicates significant level at 1 per cent, 5 per cent and 10 per cent.*
b is beta SE is Standard Error.

CHAPTER V

FINDINGS AND CONCLUSION

The findings of the study:

5.1.1: Inequalities of Infrastructure Development in Nagaland

(i) The Principal Compound Analysis of F1 shows that 6.25 per cent of rural areas of Nagaland are in developed and moderately developed areas, while 43.75 per cent of urban areas are in developed and moderately developed region. Thus, the results reveal the level of infrastructure development with regard to education and distance from banking facilities are higher in urban areas than in rural areas.

(ii) The of Principal Compound Analysis F2 shows that 25 per cent of rural areas of Nagaland are in developed and moderately developed areas, while 25 per cent of urban areas of Nagaland are in developed and moderately developed region. Thus, the result reveals the levels of infrastructure development with regard distance from postal facilities are equal for both urban and rural areas.

(iii) The Principal Compound Analysis of F3 shows that 31.25 per cent of rural areas of Nagaland are in developed and moderately developed areas, while 18.75 per cent of urban areas of Nagaland are in developed and moderately developed region. Thus, the results show that the level of infrastructure development with regard to distance from medical facilities, surface road cover and distance from water supply are higher in rural areas than in urban areas.

(iv) The combine component score shows that 6.25 per cent of rural areas of Nagaland are in developed moderately developed areas, while 43.75 per cent of urban areas are in developed and moderately developed region. Thus, the levels of infrastructure

development are higher in urban areas than that of rural areas which supports the hypothesis.

5.I.2: Inter-District Inequalities in the level of Infrastructure Development for Kohima and Longleng

(i) The Principal Compound Analysis of F1 shows that 62.5 per cent of Kohima district are in developed and moderately developed areas, while in Longleng district only 37.5 per cent are in developed and moderately developed areas. Thus, it has been found that Kohima district is better than Longleng district with regard to education, distance from banking facilities.

(ii) The Principal Compound Analysis of F2 shows that 25 per cent of Kohima district are in developed and moderately developed areas, while in Longleng district only 75 per cent are in developed and moderately developed areas. Thus, it has been found that Longleng district is better developed than Kohima district with regard to distance from postal facilities.

(iii) The Principal Compound Analysis of F3 shows that 50 per cent of Kohima district and 50 per cent of Longleng district are in developed and moderately developed areas. Thus, the level of infrastructure development with regard to distance from medical facilities, surface road cover and distance from water supply is equal for both the districts.

(iv) The results from combine component score shows that 62.5 per cent of Kohima district are in developed and moderately developed areas, while in Longleng district only 37.5 per cent are in developed and moderately developed areas. Thus, the result shows that Kohima district is better developed than Longleng district with regard to education,

distance from medical facilities, distance from banking facilities, and distance from postal facilities, distance from water supply and surface road cover.

5.1.3: Intra-District Inequalities in the level of infrastructure Development for Kohima

(i) The result from Principal Compound Analysis of F1 for Kohima district that Lower Chandmari ward is the most developed area, whereas Tsiese Bawe village is the most backward area with regard to education and distance from banking facilities.

(ii) The result from Principal Compound Analysis of F2 for Kohima district that Mezoma village is moderately developed area, whereas Kijumetouma village is considered as the most backward area with regard to distance from postal facilities.

(iii) The results from Principal Compound Analysis of F3 for Kohima district that Jakhama village is the more developed area while, Sepfuozou ward is the least developed area with regard to distance from medical facilities, surface road cover and distance from water supply

(iv) The results of combine component score shows that 25 per cent of Kohima district are in developed areas, while 12.5 per cent of the district are in backward areas. Thus, it is clear that higher percentage of areas lies in the developed and moderately developed areas compared to backward area. It is also seen that rural areas are more backward compared to urban areas.

5.1.4: Intra-District Inequalities in the level of Infrastructure Development in Longleng

(i) The analysis of Principal Compound Analysis of F1 for Longleng district that High School ward is the most developed area, whereas Nian village is the most backward area with regard to education and distance from banking facilities.

(ii) The analysis of Principal Compound Analysis of F2 for Longleng district that High School ward is the most developed areas, whereas Bura Namsang village is in backward area with regard to postal facilities.

(iii) The analysis of Principal Compound Analysis of F3 for Longleng district that Sakshi village is more developed area, whereas Nian village is most backward areas with regard to distance from medical facilities, surface road cover and distance from water supply.

(iv) The result from combine component score shows that 25 per cent of Longleng district are in developed areas while, 37.5 per cent of the areas are in backward region. Thus, it is very clear that higher percentage of areas lies in the less developed and backward area compared to developed and moderately developed areas in Longleng district.

5.2: Infrastructure Development and Poverty level in Nagaland

The correlation between poverty rate and combine components scores of infrastructure development for various wards and villages comes out to be -0.489. This correlation explains that the areas that are highly developed in terms of infrastructure has lower incidence of poverty, while the area that are backward in terms if infrastructure development have higher existence of poverty level. The 't'-test shows that correlation is statistically significant at 5 per cent.

5.3: Inequality through poverty:

(i) The result of head count ratio in Nagaland shows that 33.83 per cent of sample population was still living below the poverty line. For rural areas of Nagaland shows that 36.82 per cent was still living below the poverty line. For urban areas of Nagaland the results shows that 29.39 was still living below poverty line. In comparison the poverty

level of rural is higher than urban poverty level. Thus, there are more inequalities in rural than urban areas in Nagaland.

(ii) The result of head count ratio in Kohima shows that 22.77 per cent of sample population was still living below the poverty line. For rural areas of Kohima shows that 17.7 per cent was still living below the poverty line. For urban areas of Kohima reveals that 27.1 per cent was still living below poverty line. In comparison the poverty level of rural areas is higher than urban areas.

The results of head count ratio in Longleng shows that 45.89 per cent of sample population was still living below the poverty line. For rural areas of Longleng shows that 50.08 per cent was still living below the poverty line. For urban areas of Kohima reveals that 34.2 per cent was still living below poverty line. In comparison the poverty level of rural areas is higher than urban areas.

(iii) The result of head count ratio for rural areas of Kohima district shows that the existence of highest poverty level was Kijumetouma followed by Tsiese Bawe, Mezoma and Jakhama. Thus the poverty level is shown by HCR as 33.33 per cent, 26.82 per cent, 25.92 per cent and 9.78 per cent.

(vi) The result of head count ratio for urban areas of Kohima district shows that the existence of highest poverty level was Daklane, Lower Chandmari, Sepfuozou and Upper Agri. Thus the poverty level is shown by HCR as 31.81per cent, 29.53per cent, 23.07 per cent and 10.44 per cent.

(v) The result of head count ratio for rural areas of Longleng district shows that the existence of highest poverty level was Sakshi, Nian, Bura Namsang and Yachem. Thus,

the poverty level is shown by HCR as 78.84 per cent, 69.87 per cent, 26.92 per cent and 23.31 per cent.

(vi) The result of head count ratio for urban areas of Longleng district shows that the existence of highest poverty level was Shayung, Shauli, Leinak and High School. Thus the poverty level is shown by HCR as 59.67 per cent, 30.18 per cent, 24 per cent and 18.51 per cent.

5.4: Estimation of Income Inequality

(1) The income inequality in Nagaland as measured by Gini-Coefficient was 0.253. It is also found that the inequality in income distribution was higher in rural Nagaland than in urban Nagaland which is shown by Gini-coeffieient of 0.223 and 0.159 respectively.

(2) The income inequality in Kohima and Longleng as measured by Gini-Coefficient was 0.2064 and 0.2660. The finding show income inequality is higher in Longleng than Kohima.

(3) The income inequality in rural Kohima and rural Longleng as measured by Gini-Coefficient was 0.165 and 0.229. The finding show income inequality is higher in rural Longleng than rural Kohima.

(4) The income inequality in urban Kohima and urban Longleng as measured by Gini-Coefficient was 0.163 and 0.137. The finding show income inequality is higher in urban Kohima than urban Longleng.

(5) Among the rural areas of Kohima, income inequality was highest in Tsiese Bawe village followed by Kijumetouma village, Mezoma village and Jakhama village with Gini-coefficient of 0.197, 0.178, 0.176, and 0.140 respectively.

(6) Among the urban areas of Kohima, income inequality was highest in Lower Chandmari ward followed by Daklane ward, Sepfuozou ward and Upper Agri ward with Gini-coefficient value of 0.199, 0.145, 0.118 and 0.100 respectively.

(4) Among the rural areas of Longleng, income inequality was highest in Sakshi village followed by Bura Namsang village, Yachem village and Nian Village with Gini-coefficient of 0.228, 0.163, 0.159 and 0.136 respectively.

(5) Among the urban areas of Longleng, income inequality was highest in Shayung ward followed by Shauli ward, High School and Leinak ward with Gini-coefficient of 0.206, 0.0957, 0.0923 and 0.0892 respectively.

5.5 Estimation of Multidimensional Poverty Index in Nagaland

(i) The findings show that 23.2 percent of the population is multidimensionally poor in Nagaland. For rural areas of Nagaland the result shows that 30.8 percent of the population is multidimensionally poor. For urban areas of Nagaland the result shows that 11.9 percent of the population is multidimensionally poor.

(ii) The results show that 11.8 per cent of population in Kohima is multidimensionally poor. For Longleng district the results found that 29.3 per cent of population is multidimensionally poor. From the above it shows that more poor population lives in Longleng than Kohima district. It was found that 11.6 per cent of rural population in Kohima district is multidimensionally poor. For rural Longleng it was found that 35.7 per cent is still living under multidimensional poor. In comparison the deprivation of MPI is higher in rural areas of Longleng than rural areas of Kohima district. For urban areas of Kohima district the MPI results shows that 12 per cent of urban population are multidimensionally poor. For urban areas of Longleng the MPI results shows that 11.6

per cent of urban population is still living under multidimensional poor. Thus, it was found that the urban population of Kohima district has the higher number of MPI poor as compared to Longleng.

(iii) The MPI for rural Kohima show that Kijumetouma has the highest number of poor population followed by Tsiese Bawe, Mezoma and Jakhama village and the corresponding MPI value is 24.00 per cent, 16.6 per cent, 10.6 per cent and 9.24 per cent respectively.

(iv) The MPI for urban Kohima shows that Upper Agri has the highest number of poor population followed by Daklane, Lower Chandmari and Sepfuozou ward and the corresponding MPI is 14.8 per cent, 12.8 per cent, 11.2 per cent and 7.6 per cent respectively.

(v) The MPI for rural areas of Longleng shows that Nian has the highest number of poor followed by Sakshi, Bura Namsang and Yachem village and the corresponding MPI is 49.4 per cent, 45.9 per cent, 29.3 per cent and 22.7 per cent respectively.

(vi) The MPI for urban areas of Longleng shows that Shauli has the highest number of poor followed by Shayung, Leinak and High School ward and the corresponding MPI is 16.1 per cent, 14.5 per cent, 10.8 per cent and 4.5 per cent respectively.

5.6: Impact of Education on Employment, Income and Poverty in Nagaland:

(i) The analysis has shown that the correlation between education and employment is 0.77. The coefficient of determination i.e., R^2 shows that 60 per cent of variation in the employment has been explained by education. Thus the correlation is significant. The regression of education on employment shows that a unit increase in employment level by 7.90 times. The impact is statistically significant at 5 per cent. It means higher level of

education leads to higher level of employment. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The estimated result of correlation between education and income comes out to be 0.97. The coefficient of determination i.e., R^2 shows that 95 per cent of variation in the income has been explained by education. Thus, the correlation is significant. The regression of education on income shows that a unit increase in educational level lead to an increase in income level by 409.93 times. The impact is statistically significant at 1 per cent. It means higher level of education leads to higher level of income. Therefore, the hypothesis is accepted which means higher the level of education, higher is the income.

(iii) The estimated result of correlation between education and poverty is -0.97. The coefficient of determination i.e., R^2 shows that 95 per cent of variation in the poverty has been explained by education. Thus, the correlation is significant. The regression of education on poverty shows that a unit increase in educational level will have a negative impact on poverty by −11.59 times. The impact is statistically significant at 1 per cent. It means higher level of education leads to lowering the poverty level. Therefore, the hypothesis is accepted which means higher the level of education, lower is the poverty level.

5.7: Education on Employment, Income and Poverty in rural Nagaland:

(i) The analysis found that the correlation between education and employment comes out to be 0.97. The coefficient of determination i.e., R^2 shows that 95 per cent of variation in the employment has been explained by education. Thus, the correlation is significant. The regression of education on employment shows that a unit increase in educational level

lead to an increase in employment level by 11.30 times. The impact is statistically significant at 1per cent. It means higher level of education leads to higher level of employment. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The estimated correlation between education and income comes out to be 0.82. The coefficient of determination i.e., R^2 shows that 68 per cent of variation in the income has been explained by education. Thus, the correlation is significant. The regression of education on income shows that a unit increase in educational level lead to an increase in income level by 197.78 times. The impact is statistically significant at 5 per cent. It means higher level of education leads to higher level of income. Therefore, the hypothesis is accepted which means higher the level education, higher is the income.

(iii) The estimated correlation between education and poverty comes out to be -0.96. The coefficient of determination i.e., R^2 shows that 92 per cent of variation in the poverty has been explained by education. Thus, the correlation is significant. The regression of education on poverty shows that a unit increase in educational level will have a negative impact on poverty by ─11.54 times. The impact is statistically significant at 1per cent. It means higher level of education leads to lowering the poverty level. Therefore, the hypothesis is accepted which means higher the level education lower, is the poverty level.

5.8: Education on Employment, Income and Poverty in urban Nagaland:

(i) The estimated correlation between education and employment comes out to be 0.12. The coefficient of determination i.e., R^2 shows that 1.6 per cent of variation in the employment has been explained by education. Thus, the correlation is not significant. The regression of education on employment shows that a unit increase in educational

level lead to an increase in employment level by .679 times. Therefore the impact is not statistically significant. Therefore, the hypothesis is accepted which means higher the level of education higher, is the employment.

(ii) The estimated correlation between education and income comes out to be 0.92. The coefficient of determination i.e., R^2 shows that 86 per cent of variation in the income has been explained by education. Thus, the correlation is significant. The regression of education on income shows that a unit increase in educational level lead to an increase in income level by 256.64 times. The impact is statistically significant at 1 per cent. It means higher level of education leads to higher level of income. Therefore, the hypothesis is accepted which means higher the level of education higher, is the income.

(iii) The estimated correlation between education and poverty comes out to be -0.88. The coefficient of determination i.e., R^2 shows that 77 per cent of variation in the poverty has been explained by education. Thus, the correlation is significant. The regression of education on poverty shows that a unit increase in educational level will have a negative impact on poverty by ─8.51 times. The impact is statistically significant at 1per cent. It means higher level of education leads to lowering the poverty level. Therefore, the hypothesis is accepted which means higher the level of education lower, is the poverty level.

5.9: Education on Employment, Income and Poverty in Kohima and Longleng:

(i) The results show a positive correlation between education and employment in both the districts. The correlation 'r' value was estimated to be 0.86 for Kohima district and 0.94 for Longleng district. Thus, the correlation is statistically significant. The R^2 for Kohima and Longleng comes out to be 0.74 and 0.90. The regression of education on employment

shows that a unit increase in educational level will increase the employment level by 7.61 times for Kohima and 12.82 times for Longleng district. The impact of education on employment is statistically significant at 5 per cent for Kohima and 1 per cent for Longleng district. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The analysis shows a positive correlation between education and income in both the districts. The correlation 'r' value was estimated to be 0.91 for Kohima and 0.79 for Longleng district. Thus, the correlation is significant. The R^2 for Kohima and Longleng comes out to be 0.84 and 0.63. The regression of education on income shows that a unit increase in educational will increase the income level by Rs 337.5 times for Kohima and 306.5 times for Longleng district. The impact of education on income is statistically significant at 1 per cent for Kohima and 5 per cent for Longleng district. Therefore, the hypothesis is accepted which means higher the level of education, higher is the income.

(iii) The analysis of correlation depicts a positive correlation between education and poverty in both the districts. The correlation 'r' value was estimated to be -0.87 for Kohima and -0.97 for Longleng district. Thus, the correlation is significant. The R^2 for Kohima and Longleng comes out to be 0.76 and 0.94. Thus the regression of education on poverty shows that a unit increase in educational will reduces the poverty level by -7.34 times for Kohima and -14.37 per cent for Longleng district. The impact of education on poverty is statistically significant at 5 per cent for Kohima and 1 per cent Longleng district. Therefore, the hypothesis is accepted which means higher the level of education, lower is the poverty level.

5.10: Education on Employment Income and Poverty in rural Kohima and rural Longleng:

(i) The results show a positive correlation between education and employment for both the rural Kohima and rural Longleng district. The correlation 'r' was estimated to be 0.88 for rural Kohima and 0.90 for rural Longleng district. Thus, the correlation is statistically significant. The R^2 for rural Kohima and rural Longleng comes out to be 0.77 and 0.81. The regression of education on employment shows that a unit increase in educational level will increase the employment level by 9.23 times for rural Kohima and 14.34 times for rural Longleng district. The impact of education on employment is statistically significant at 1 per cent for rural Kohima and 5 per cent for rural Longleng district. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The results show a positive correlation between education and income for rural Kohima district and rural Longleng district. The correlation 'r' was estimated to be 0.52 for rural Kohima and 0.73 for rural Longleng district. Thus, the correlation is not statistically significant for rural Kohima and is statistically significant for rural Longleng. The R^2 for rural Kohima and rural Longleng comes out to be 0.27 and 0.53.The regression of education on income shows that a unit increase in educational level will increase the income level by Rs 125.2 times for rural Kohima and Rs 207.20 times for rural Longleng district. The impact of education on income is not statistically significant for rural Kohima district and is statistically significant at 10 per cent for rural Longleng district. Therefore, the hypothesis is accepted which means higher the level of education, higher is the income.

(iii) The analysis shows a negative correlation between education and poverty for rural Kohima and rural Longleng district. The correlation 'r' was estimated to be -0.89 for rural Kohima and -0.97 for rural Longleng district. Thus, the correlation is statistically significant. The R^2 for rural Kohima and rural Longleng comes out to be 0.80 and 0.95. The regression of education on poverty shows that a unit increase in educational level reduces the poverty level by -5.66 times for rural Kohima and -17.61 times for rural Longleng district. The impact of education on poverty is statistically significant at 1 per cent for both rural Kohima and rural Longleng. Therefore, the hypothesis is accepted which means higher the level of education, lower is the poverty level.

5.11: Education on Employment Income and Poverty in urban Kohima and urban Longleng:

(i) The analysis shows a positive correlation between education and employment for urban Kohima and urban Longleng. The correlation 'r' is estimated to be 0.69 for urban Kohima district and 0.35 for urban Longleng district. Thus, the correlation is statistically significant urban Kohima and is not statistically significant for urban area of Longleng district. The R^2 for urban Kohima and urban Longleng comes out to be 0.48 and 0.12. The regression of education on employment shows that a unit increases in education level will increases the employment level by 4.98 times for urban areas of Kohima and by 0.71times for urban areas of Longleng district. The impact of education on employment is statistically significant at 10 per cent for urban Kohima and is not statistically significant for urban area of Longleng district. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The analysis shows a positive correlation between education and income for both urban Kohima and urban Longleng. The correlation 'r' was estimated to be 0.89 for urban

Kohima district and 0.10 for urban Longleng district. Thus, the correlation is statistically significant for urban areas of Kohima district and is not statistically significant for urban area of Longleng district. The R^2 for urban Kohima and urban Longleng comes out to be 0.80 and 0.01. The regression of education on income shows that a unit increase in education level increases the income level by Rs 335 times for urban area of Kohima and Rs 23.38 times for urban area of Longleng district. The impact of education on income is statistically significant at 1 per cent for urban areas of Kohima district and is not statistically significant for urban area of Longleng district. Therefore, the hypothesis is accepted which means higher the level of education, higher is the income.

(iii) The analysis shows a negative correlation education and poverty in both the districts. The correlation 'r' are estimated to be -0.92 for urban areas of Kohima and -0.08 for urban areas of Longleng district. Thus, the correlation is statistically significant for urban Kohima and is not statistically significant for urban Longleng district. The R^2 for urban Kohima and urban Longleng comes out to be 0.85 and 0.007. The regression of education on poverty shows that a unit increase in educational level reduces the poverty level by -14.2 times for urban Kohima and -1.05 times for urban Longleng district. The impact of education and poverty is statistically significant at 1 per cent for urban Kohima and is not statistically significant for urban Longleng district. Therefore, the hypothesis is accepted which means higher the level of education, lower is the poverty level.

5.12: Education on Employment Income and Poverty in rural Kohima:

(i) The results shows that there is a positive correlation between education and employment r=0.27 for Jakhama, 0.94 for Kijumetouma, 0.80 for Mezoma and 0.86 for Tsiese Bawe village. The coefficient of determination i.e., R^2 shows that 4.7 per cent of

variation in employment has been explain by education for Jakhama. For Kijumetouma village R^2 shows that 8.9 per cent. For Mezoma village R^2 shows that 64 per cent. For Tsiese Bawe village R^2 shows that 0.75 per cent. Thus, the correlation is not significant for Jakhama. For Kijumetouma, Mezoma and Tsiese Bawe village is statistically significant.

The regression of education on employment for Jakhama village shows b=1.23 and is not statistically significant. For Kijumetouma village regression is b= 35.00 and is statistically significant at 1 percent for 4 degree of freedom. For Mezoma village regression coefficient is b= 13.33 and is statistically significant at 5 per cent. For Tsiese Bawe village regression coefficient is b= 25 and is statistically significant at 10 per cent. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The results show a positive correlation between education and income for Jakhama is 0.37, 0.22 for Kijumetouma, 0.48 for Mezoma and 0.93 for Tsiese Bawe. The coefficient of determination i.e., R^2 shows that 14 per cent of variation in the income has been explain by education for Jakhama. For Kijumetouma village R^2 shows 5 per cent. For Mezoma village R^2 shows 24 per cent. For Tsiese Bawe village R^2 shows 86 per cent. Thus, the correlation for Jakhama, Kijumetouma, Mezoma and Tsiese Bawe is not statistically significant. The regression of education on income for Jakhama village is b=182.98 which is not statistically significant. For Kijumetouma village regression is b=138.17 and is not statistically significant. For Mezoma village regression is b=142.62 which is not statistically significant. For Tsiese Bawe village regression coefficient is b=935.18 and is not statistically significant.

(iii) The analysis has shown that the correlation between education and poverty is -0.88 for Jakhama, 0.21 for Kijumetouma and -0.41 for Mezoma and -0.98 for Tsiese Bawe village. The coefficient of determination i.e., R^2 shows that 78 per cent of variation in the poverty has been explain by education for Jakhama. For Kijumetouma village R^2 shows 4 per cent. For Mezoma village R^2 shows 16 per cent. For Tsiese Bawe village R^2 shows 96 per cent. Thus, the correlation is statistically significant for Jakhama, Tsiese Bawe. For Kijumetouma, Mezoma is not statistically significant. The regression of education on poverty for Jakhama is b=-5.33 and is statistically significant at 1 per cent. For Kijumetouma village regression coefficient is b=7.77 and is not statistically significant. For Mezoma village regression coefficient is b=-5.24 and the t-test is not statistically significant. For Tsiese Bawe village regression coefficient is b=-33.33 and the 't' test is statistically significant at 1 per cent. Therefore, the hypothesis is accepted which means higher the level of education, lower is the poverty level.

5.13: Education on Employment Income and Poverty in urban Kohima:

(i) The analysis has shows that the correlation between education and employment is 0.76 for Daklane, 0.39 for Lower Chandmari, 0.77 for Sepfuozou and 0.70 for Upper Agri. The coefficient of determination i.e., R^2 shows 58 per cent of variation in the employment has been explain by education for Daklane. For Lower Chandmari R^2 shows 15 per cent. For Sepfuozou R^2 value shows 60 per cent of variation in the employment has been explain by education. For Upper Agri village R^2 shows that 50 per cent of variation in the employment has been explain by education. Thus, the correlation is statistically significant for Daklane, Sepfuozou and Upper Agri. The correlation is not statistically significant for Lower Chandmari. The regression of education on employment for

Daklane that b = 8.30 and it is statistically significant at 5 per cent. For Lower Chandmari the regression is b =.504 and the 't' test is not statistically significant. For Sepfuozou the regression coefficient is b =.300 and the 't' test is statistically significant at 10 per cent. For Upper Agri the regression coefficient is b =.200 and the 't' test is statistically significant at 10 per cent. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The analysis has shown that the correlation between education and income is 0.78 for Daklane, 0.87 for Lower Chandmari, 0.75 for Sepfuozou and 0.19 for Upper Agri. The coefficient of determination i.e., R^2 shows that 60 per cent of variation in the income has been explain by education for Daklane. For Lower Chandmai R^2 shows 76 per cent. For Sepfuozou R^2 shows 57 per cent. For Upper Agri R^2 shows 3.8 per cent. Thus, the correlation is statistically significant for Daklane, Lower Chandmari, Sepfuozou and is not statistically significant for Upper Agri ward. The regression of education on income for Daklane ward is b=249.19 which is statistically significant at 5 per cent. For Lower Chandmari the regression coefficient is b=488.91 and the 't' value is statistically significant at 5 per cent. For Sepfuozou ward the regression coefficient is b=411.83 which is statistically significant at 10 per cent. For Upper Agri regression coefficient is b=78.86 which is not statistically significant. Therefore, the hypothesis is accepted which means higher the level of education, higher is the income.

(iii) The correlation between education and poverty is be -0.92 for Daklane, -0.88 for Lower Chandmari, and -0.52 for Sepfuozou and -0.70 for Upper Agri. The coefficient of determination i.e., R^2 shows 85 per cent of variation in the poverty has been explain by education for Daklane. For Lower Chandmari R^2 shows 77 per cent. For Sepfuozou R^2

shows 27 per cent. For Upper Agri R^2 value shows 50 per cent. Thus the correlation is statistically for Daklane and Lower Chandmari and is not statistically for Sepfuozou and upper Agri ward. The regression coefficient of education and poverty is b=-10.39 and it is statistically significant at 1 per cent. For Lower Chandmari the regression coefficient is b=-19.08 and it is statistically significant at 5 per cent. For Sepfuozou the regression coefficient is b=-12.66 and the 't' test shows that it is not statistically significant. For Upper Agri the regression coefficient b=-1.73 and the 't' test is not statistically significant. Therefore, the hypothesis is accepted which means higher the level of education, lower is the poverty level.

5.14: Education on Employment Income and Poverty in rural Longleng:

(i) The analysis has shown that the correlation between education and employment -0.97 for Bura Namsang, 0.99 for Nian and -0.86 Sakshi and 0.63 for Yachem. The coefficient of determination i.e., R^2 shows 0.94 per cent of variation in the employment has been explain by education for Bura Namsang village. For Nian village R^2 shows 0.98 per cent. For Sakshi village R^2 shows that 0.75 per cent. For Yachem village R^2 shows that 0.40 per cent. Thus, the correlation is significant for Bura Namsang, Nian, Sakshi and Yachem. The regression of education on employment for Bura Namsang village shows that b=21.24 and it is statistically significant at 1 per cent. For Nian village regression coefficient is b=34.61 and the 't' test is statistically significant at 1 per cent. For Sakshi village regression coefficient is b=-4.11 and the 't' test shows is statistically significant at 5 per cent. For Yachem village regression coefficient is b=8.23 and the 't' test is statistically significant at 10 per cent. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The analysis has shown that the correlation between education and income is 0.73 for Bura Namsang, 0.98 for Nian and 0.024 for Sakshi and 0.34 for Yachem. The coefficient of determination i.e., R^2 shows 54 per cent of variation in income has been explain by education for Bura Namsang. For Nian village R^2 shows 96 per cent. For Sakshi village R^2 shows 0.1 per cent. For Yachem village R^2 shows that 11 per cent. Thus, the correlation is significant for Nian and is not significant for Bura Namsang, Sakshi and Yachem. The regression education on income for Bura Namsang village has come out to be b=256.55 which is not statistically significant. For Nian village regression coefficient b=436.93 which is statistically significant at 1 per cent. For Sakshi village regression coefficient b=7.050 and the 't' test shows that it is not statistically significant. For Yachem village regression coefficient b=72.12 and the 't' test is not statistically significant. Therefore, the hypothesis is accepted which means higher the level of education, higher is the income.

(iii) The analysis has shown that the correlation between education and poverty is -0.91 for Bura Namsang, -0.94 for Nian and -0.037 for Sakshi and -0.96 for Tsiese Bawe village. The coefficient of determination i.e., R^2 shows that 94 per cent of variation in the poverty has been explain by education for Bura Namsang. For Nian village R^2 shows that 98 per cent of variation in the poverty has been explain by education. For Sakshi village R^2 value shows that 75 per cent of variation in the poverty has been explain by education. For Yachem village R^2 value shows that 40 per cent of variation in the poverty has been explain by education. Thus, the correlation is significant for Nian, Bura Namsang, and Yachem and is not significant for Sakshi. The regression coefficient of education on poverty for Bura Namsang village b=-9.94 and the 't' test value is statistically significant

at 5 per cent. For Nian village regression coefficient b-39.24 and the 't' test is statistically significant at 5 per cent. For Sakshi village regression coefficient b=-.737 and the 't' test is not statistically significant. For Yachem village regression coefficient b=-11.80 and the 't' test is statistically significant at 1 per cent. Therefore, the hypothesis is accepted which means higher the level of education, lower is the poverty level.

5.15: Education on Employment Income and Poverty in urban Longleng:

(i) The analysis has shown that the correlation between education and employment is 0.86 for High School, 0.77 for Leinak, 0.77 for Shauli and 0.86 for Shayung. The coefficient of determination i.e., R^2 shows 75 per cent of variation in the employment has been explain by education for High School. For Leinak R^2 show 60 per cent. For Shauli R^2 show 60 per cent For Shayung ward R^2 show 75 per cent. Thus, the correlation is statistically significant for High School, Leinak, Shauli and Shayung. The regression coefficient of education on employment for High School is b=.500 and the 't' test is statistically significant at 10 per cent. For Leinak the regression coefficient b=.300 and the 't' test is statistically significant at 10 per cent. For Shauli the regression coefficient b = .300 and the 't' test value is statistically significant at 10 per cent. For Shayung the regression coefficient b=10 and the 't' test is statistically significant at 10 per cent. Therefore, the hypothesis is accepted which means higher the level of education, higher is the employment.

(ii) The analysis has shown that the correlation between education and income is 0.85 for High School, 0.11 for Shauli and 0.84 for Shayung and the negative correlation comes out to be -0.52 for Leinak. The coefficient of determination i.e., R^2 shows that 73 per cent

of variation in the income has been explain by education for High School. For Leinak R^2 show 27 per cent. For Shauli R^2 shows 1.2 per cent. For Shayung R^2 shows 71 per cent. Thus, the correlation is statistically significant for High School and Shayung and is statistically not significant for Leinak and Shauli. The regression coefficient education on income for High School ward comes out to be b=101.51 and the 't' test value is statistically significant at 10 per cent. For Leinak ward the regression coefficient b=-191.17 and the 't' test is not statistically significant. For Shauli the regression coefficient b=28.08 and the 't' test value is statistically not significant . For Shayung regression coefficient b=504.68 and the 't' test is statistically significant at 10 per cent for 10 degree o f freedom. Therefore, the hypothesis is accepted which means higher the level of education, higher is the income.

(iii) The analysis has shown that the correlation between education and poverty is -0.92 for High School and -0.77 for Shayung. The positive correlation comes is 0.72 for Shauli and 0.16 for Leinak. The coefficient of determination i.e., R^2 shows 85 per cent of variation in the poverty has been explain by education for High School. For Leinak R^2 shows 2.9 per cent. For Shauli R^2 shows 51 per cent. For Shayung R^2 shows 60 per cent. Thus, the correlation is statistically significant for High School, Shauli and Shayung, whereas for for Leinak it is statistically not significant. The regression coefficient of education on poverty for High School b= -13.88 and the 't' test is statistically significant at 5 per cent. For Leinak the regression coefficient b=2.88 and the 't' test is not statistically significant. For Shauli the regression coefficient b= 26.33 the 't' test value is statistically significant 10 per cent. For Shayung the regression coefficient b=-29.41 and

the ‘t’ test is statistically significant at 10 per cent. Therefore, the hypothesis is accepted which means higher the level of education, lower is the poverty level.

5.16. Suggestion and Policy Implication

To step up an overall economic development in the state, it is important to strengthen infrastructure development an engine for economic growth.

1. The literacy rate of Kohima district is far better than Longleng district both in terms of rural and urban areas. So, emphasis should be given more in Longleng district compare d to Kohima.
2. The availability of medical facilities Kohima district is far better than Longleng district both in rural and urban areas. Therefore, it is necessary to take up steps to established and extend better medical facilities in both the districts where there is no access to medical services. The centrally sponsored health programs like universal communitization program, school health program, Ayurveda, Yoga, Unani, Sidha, Homoeopathy (AYUSH), National Rural Health Mission (NRHM), Janani-Shishu Suraksha Karyakar (JSSK) etc. needs to be strengthened. So, that it will improve the health capacity of the people.
3. In terms of the availability of banking facilities Kohima district is far better than Longleng district both in rural and urban areas. So, the government should gave more focus to Longleng district by establishing new banks and also opening more branches of bank both in rural and urban areas.
4. The study shows that distance from postal facilities of Longleng district is better than Kohima district both in rural and urban area. It was also found that there is lack of postal services in most of the study area in Kohima districts. Therefore,

postal service is provided to those villages and wards where there is no postal facility.

5. The study shows that the surface road cover in both the district is very low, the road connectivity to the rural areas be an all weather road. This will improve not only connectivity of rural population but also mobility of goods to urban areas which in turn will raises the purchasing capacity of the people and therefore reducing poverty and income inequality in both Kohima and Longleng districts.
6. It was also found that water scarcity is an acute problem for both districts but the worse situation is observed in Longleng district in both rural and urban areas, therefore the government must accelerate programmes to provide safe drinking water facilities.
7. The study found that the poverty rate of Kohima is 22.77 per cent whereas for Longleng district the poverty rate is 45.89 per cent. Therefore, social assistance and poverty alleviation programmes should be implement effectively in Longleng district through local institution so that weaker section of the society be cover and at the same time strict policy should be adopt to check ramped corruption that exist in both districts.
8. The findings show that the income inequality is higher in Longleng districts than Kohima districts. This has been confirmed by the Gini-coefficient of 0.2064 for Kohima and Gini-coefficient of 0.2660 for Longleng districts. Therefore, the government must implement income and employment generation programmes such as National Rural Employment Guarantee Act (NREGA), Sampoorna Grameen Rogzar Yojana (SGRY) Swarna Jayanati Gram Swaragzar Yojana

(SJGSY) and also promoting agro-based activities like animal husbandry, bee keeping, poultry etc. so that the there will be increase in the level of income and thus help in reducing income inequality in the districts.

9. The finding shows that the Multidimensional Poverty Index (MPI) of Longleng (0.293) is higher than Kohima (0.118). Therefore, special attention must be given to the Longleng district for uplifting the living standards of the people.

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