# EDUCATION AND ECONOMIC DEVELOPMENT IN NAGALAND: A COMPARATIVE STUDY OF KOHIMA AND MON DISTRICTS

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By

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The thesis entitled **"Education and Economic Development in Nagaland:** A Comparative Study of Kohima and Mon Districts" submitted by Mr. Saju Mathew, Research Scholar, Department of Economics, Nagaland University, Head Quarters Lumami, embodies the results of investigation carried out by him under my supervision. It is an original piece of work.

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### Declaration

I, Mr. Saju Mathew, hereby declare that the subject matter of the thesis entitled **"Education and Economic Development in Nagaland: A Comparative Study of Kohima and Mon Districts"** is the work done by me, and that the contents of this thesis did not form the basis of the award of any previous degree to me or to the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other university.

This is being submitted to Nagaland University in partial fulfillment for the degree of Doctor of Philosophy in Economics.

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> Saju Mathew (Research Scholar)

# List of Abbreviations used in the study

AE	: Advance Estimates
AICTE	: All India Council for Technical Education
B. Music	: Bachelor of Music
B.B.A.	: Bachelor of Business Administration
B.Ed.	: Bachelor of Education
BCA	: Bachelor of Computer Applications
CHC	: Community Health Centre
DC	: Deputy Commissioner
GDP	: Gross Domestic Product
GDP	: Gross Domestic Product
GNP	: Gross National Product
GSDP	: Gross State Domestic Product
GSVA	: Gross State Value Added
GVA	: Gross Value Added
HEART	: Health & Education Advice & Resource Team
HSLC	: High School Leaving Certificate
HSSLC	: Higher Secondary School Leaving Certificate
ICAR	: Indian Council of Agricultural Research
IIASA	: International Institute for Applied Systems Analysis
Km.	: Kilometre
LLB	: Bachelor of Law
LP	: Lower Primary
MCA	: Master of Computer Applications
NAAC	: National Assessment and Accreditation Council
NCERT	: National Council of Educational Research and Training
NEC	: National Education Commission
NSDP	: Net State Domestic Product
OLS	: Ordinary Least Squares
Р	: Provisional
РНС	: Primary Health Centres
PG	: Postgraduate
QE	: Quick Estimates

: Rural Development Blocks
: Rupees
: Rashtriya Shiksha Aayog
: Sub Centres
: square kilometre
: Technical and Vocational Education and Training
: United States
: Under Graduate
: University Grants Commission
: Union Minister for Education
: United Nations
: United Nations Educational, Scientific and Cultural Organization
: World Economic Forum
: World Economic Forum

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#### **CHAPTER-1**

#### **INTRODUCTION**

Education in every sense is one of the fundamental factors of development and it promotes and ensures sustainable economic growth. Substantial amount of investment in human capital especially in education is a basic requirement to achieve sustainable economic development. Education helps the people to understand oneself, the society and the world at large. It provides private and social benefits and improves the quality of lives of the people. Education is the prime factor which raises individual's productivity and creativity. It also promotes entrepreneurship and technological advances. In addition to it education plays a very crucial role in securing economic and social progress and improving the equitable income distribution.

Basically, there are two reasons for expecting to find a certain relation between education and economic growth. Firstly, it is reasonable to believe that the living standards of the people in many countries have raised so much over the last few decades because of education. The nature and the extent of growth Europe enjoyed was not observed in the illiterate societies that have gradually merged into the world economy over the last two decades. Usually, there is a correlation between the scientific advancement and the way in which education has aided the development of knowledge as seen by the casual observer. To benefit from the scientific advances as well as to contribute to it, education and knowledge are needed. Normally, people with less education find it difficult to work in advanced societies as they lack the required skill and knowledge demanded from them. Secondly, a broad range of econometric studies point out that the level of income individuals can earn depends on their level of education.

The various ways through which education impacts economic growth are explained by economists. Education impacts economic growth through the creation of a variety of externalities in addition to the private return to individual's greater human capital. The most frequently discussed and elaborated externalities of investment in education in advanced countries are the promotion of technological innovation which make the capital and labour more productive. The increase in the productivity of capital and labour generates more income and leads to economic growth.

In spite of the fact that there is a massive interest to study the relationship between education and growth the evidence is weak due to several reasons. Firstly, the investment in education by the state is non-random. It is easy for the richer and faster growing states with better educational institutions to increase their spending on education. There is a distinct possibility that correlations between investments in education and growth are due to reverse causality (Bils and Klenow, 2000). Secondly, Researchers are often compelled to use crude proxies such as average years of educational attainment in the state due to the poor availability of data on investment in education. Given the states investment in education, average years of schoolings or education are the outcome that people choose. Since the average years of education depends on returns on education and thus it is far more prone to endogeneity than is the investment policy.

#### **1.1. Theoretical Precursors**

It may be a difficult task to explain the existing models of education and growth in a few sentences. So, we are trying to identify some key precursors. Nelson and Phelps (1966) pointed out it is easy for the educated labour force to imitate frontier technology faster. These benefits are higher for the states which are away from the frontier. Benhabib and Spiegal (1994) also had the similar view and pointed out that the labour force with better education would also innovate faster. Lucas (1988) and Mankiw, Romer, and Weil (1992) argued that economic growth can be increased faster by way of increasing the productivity of the factors through the accumulation of human capital. At this juncture, they have different reasons to explain why the accumulation and stock of human capital and the distance to the technological frontier affect growth. Their model analyses the different types of educational spending, the interplay between the composition of spending and the states distance from the frontier. In this way their model integrates all these views.

Population growth is considered as the main source of growth for economies based on traditional agriculture. Later, with industrialization, growth was associated with the increase in labour and physical capital. However, the theory based on the concept of understanding, which regards the technology as a product of knowledge accumulation, is insufficient to explain today's production increases.

In the neoclassical growth theory, growth was linked to an increase in physical capital stock per labour, and technological development was included as an external factor that increases labour productivity (Keskin, 2011). Until the emergence of endogenous growth theories, the dominance of the neo-classical understanding developed by Solow (1956) was observed in the growth models (Kar & Taban, 2003). In the first growth models of neoclassical theory, it was assumed that capital has decreasing income, while it was argued in the endogenous growth theories, that the capital will also contain human capital, there may be an increase in capital growth and therefore long-term growth will not decrease (Sala-i-Martin, 1990). In the theory explaining growth with increase in labour and capital, it is inevitable that the capital grows with the decreasing return on the capital. The concern that the growth will endure a limit has brought to mind the idea that new production factor should be put into effect. In this context, the search for a new production factor that will provide long-term economic growth which brings the concept of human capital to the forefront (Keskin, 2011).

Human capital is considered to be the most important production factor in terms of growth, and education has therefore become the forefront of sustainable growth. Freire-Seren (2001) suggested that education investments contribute to economic growth in two ways. One of them is called level effect while the other is called rate effect. The level effect is expressed as having a direct effect on economic growth because human capital accumulation is a productive factor. The rate effect is defined as the impact of human capital on technological progress and the indirect effect of productivity growth on economic growth.

New theorists of the neoclassical approach (Schultz, 1961; Becker, 1962; and Mincer, 1958) argued that the difference in the quality level is the reason for the difference in the productivity of the individuals. Because of the difference in the productivity of the workforce, it is not homogenous and therefore the demand for and supply of labour will not balance at a single wage level but at different wage levels. They argued that as the educated workers will be more productive than the uneducated workers, it will be more expensive. Since the educated workers are paid

higher wages, workers want to invest in education and training to get higher wages. So, they consider the investment in education not as consumption expenditure but as investment expenditure. Schultz (1961) points out that the difference in the productivity of migrant worker and domestic worker is due to the decline in the capital income- ratio. Champman (1993) states the defeated countries in the World War -II, quickly recovered after the war because of the accumulation of human capital.

Acemoglu, Aghion, and Zilibotti (2003)'s model provides the explanation for the fact that the higher education is more growth enhancing in some states than in other states. According to them if there are strategic complementarities among the highly educated workers, then growth rates of the states in which highly educated workers consisted a major share of the labour force and the states in which the highly educated workers make only a smaller share the labour will not be the same. In this case the growth out of investing in higher education will be higher in those states where the major share of the labour force is consisted of highly educated workers. The strategic complementarity model does not give much importance to the distance to the technological frontier or the nature of technical change in the form of imitation or innovation. However, two problems are noticed with the strategic complementarity model. Firstly, it is not clear about what the complementarity means if they do not correspond to something like innovation or what is the meaning of being highly educated workers if it does not involve things changing at the margin. Secondly, as the model give stress entirely on skill complementarities, it does not predict the convergence in growth rates between frontier states and the states far from frontier. Yet, there is ample evidence that states' growth rates converge.

#### 1. 2. Concepts and Tiers of Education

Etymologically the word education is derived from Latin words *Educare* which means to nourish, to bring up, to train or mould and *educere*, means to lead out, to lead froth, or to draw out. So, the education imparts training to the people and brings out the inherent talent one has.

Education is the process through which human personality develops. Education can be defined or analysed in its wider sense and narrower sense. In a wider sense education is a lifelong process which starts at the time of Conception and continues till the death. The sum total of life experiences one achieves throughout one's life contributes to the formation of the human behaviour and in this sense, it is a part of education. In a narrower sense of education, it is confined to school and university education (Bhatia & Narang, 1968). According to Myrdal (1982) education implies imparting knowledge and skill that facilitate the increase in output and change in attitude towards the life and work. In reality, it is difficult to assess the extent of education one receives in the wider sense of education as there is no common measurement. So, in this study education is taken in the narrow sense that is the education received from schools and colleges.

According to the Compton's Encyclopaedia, "Education is the process through which man endeavours to pass along to his children his hard-won wisdom and his aspirations for a better world" (Mitchell et al., 1980, p.74). According to the New Standard Encyclopaedia, "education is the process by which people's abilities and talents are developed. Education, in this broad sense, is also everything that is learned and acquired in a lifetime: habits, knowledge, skills, interests, attitudes, and personality" (Downey et al, 1988, p. E-35). In this sense the education begins soon after the birth of a child. Education, in this broader meaning not only includes the skill and the knowledge one attains through formal schooling but everything one learns by sight, hearing experience, from parents, teachers, friends, brothers and sisters, neighbours, environment and so on. Psychologists say that the education of the child begins since the child is conceived in the womb of the mother as all the good and bad experiences through which a mother passes during this time will influence the character of the child in the future.

"In a narrow sense, education is the systematic, organized process of teaching and learning that centres largely in some form of school" (Downey et al, 1988, p.E-35). So, in a narrow sense education is something related to a formal way of imparting knowledge and skill where as in broad sense education includes everything that is the formal or informal ways of imparting knowledge.

Formal education can be broadly classified into primary education, Secondary education, Tertiary education and Technical and Vocational Education and Training. The size of enrolment at different levels often forms a pyramid with a broad base in the primary stage and as it goes up the number narrows down. In general, the broader the base of the pyramid, the taller it is. Unless all the children are brought to the preview of primary education a large size of the human talent remain unidentified and therefore underutilized (Sharma, 1991).

Primary education is the first stage of compulsory education between early childhood and secondary education. Secondary education is the second stage of education which take place after the completion of six years of primary education and before the higher education, vocational training or employment. Tertiary Education is the third stage of education which take place after the completion of secondary education. According to the World Bank tertiary education includes the education which is provided by universities and institutions like colleges, technical training institutes, nursing schools, community colleges, research centres, distance learning centres etc. which teach specific capacities of higher learning. Technical and Vocational Education and Training is the education as a technician craft man etc.

World Economic Forum (WEF) defined education as the stock of skills, competencies, and other productivity enhancing characteristics. Education is critical component of a country's human capital. It helps the economies to move up the value chain beyond manual tasks or simple production processes by increasing the efficiency of each individual worker (WEF, 2016). Human capital is considered to be the most distinctive factor of the economic system. Studies have empirically proved the impact of education on productivity and growth.

WEF (2016) has given three ways through which education increases the productivity of a nation. Firstly, education increases the ability of the labour force to perform the existing tasks more quickly and efficiently. Secondly education, especially secondary and tertiary education, helps and facilitates the transfer of knowledge about new information, products, and technologies created by others (Barro and Lee 2010). Finally, Education increases the creativity of the labour and

thereby it enhances nations' capacity to generate new knowledge, technologies and new products.

Economic development may mean different things to different people. In this study the concept economic development is used in the sense of economic growth with structural changes. Economic growth is a narrow concept which means the increase in national income. Structural change means the change in the structure of the economy that is the change in the role of different sectors like the primary, secondary and tertiary sectors in the economy. As the economic development take place the role of primary sector decreases and that of secondary and tertiary sector increases. With the increase in economic development the percentage of people employed in the primary sector that is agriculture and allied activities decreases and the percentage of people employed in the secondary and tertiary sectors that is industrial and service sectors increases. Similarly, the percentage share of the contribution of various sectors to national income also changes with the economic development. In an under developed economy the major contribution to national income comes from the primary sector. This is because in an under developed economy majority of the people depend on the primary sector for their livelihood as the industrial and service sectors are still in underdeveloped stage. As the economic development take place, the industry and service sectors develop and the percentage share of the secondary and tertiary sectors increases more than that of the primary sector. The development of secondary and tertiary sectors attracts more labours from the primary sector, where the marginal productivity of the labour is very low, by providing better employment opportunities and higher remuneration. The secondary and tertiary sectors being more of capital intensive in nature, unlike the primary sector, requires more skilled labours to work with the modern machines and equipment. Formal education and training are the means through which the labours attain the skill and knowledge required to work in the secondary and tertiary sectors. Working with modern machines and equipment with enhanced skill increases the productivity of the labour which in turn increases their remuneration.

According to the Oxford Advanced Learner's Dictionary of Current English, skill means the ability to do something well (Cowie, 1989). It is the special ability to do a task or to perform some activity. The basic skills are literacy that is the ability to read and write and the numerical and arithmetical skill which is essential to meet the daily requirements. This is basically acquired through primary education. However, many jobs require specific skills and technical knowledge like the skill required by a tailor, a carpenter, or a computer technician and so on to perform the specific task. This skill is achieved through work based training or vocational or technical education. The possession of these types of skills enhances one's chances to get employed and even if employed, to get a better pay and benefits. Education not only provides the skills but it also acts as an indicator of the innate capacities of the labour which helps the employer to recruit or select the labour in an imperfectly competitive market.

According to the Oxford Dictionary of Economics, skill is the ability to perform various tasks satisfactorily and it includes physical dexterity and mental ability (Black, 2002). Skilled workers are more secure and paid better than unskilled workers as it would be more difficult to replace them.

Employability means the ability to gain new employment and the capacity to retain the employment by having the necessary skill to perform the task successfully. A set of skills and knowledge a person possess helps him to get a gainful employment and to retain the same. This skill can be acquired through education and training.

Workforce means the number of people engaged or available for work in a country or a region. According to the Oxford Advanced Learner's Dictionary of Current English (Cowie, 1989) workforce means 'total number of workers employed or available for work'. The workforce includes both the employed and unemployed persons. The unemployed labours are the potential labours who are willing and able to work but unable to find a work at the existing wage rate or even at a lower wage. The skill attained by the person by way of education and training helps the person to get employed especially in the case of structural unemployment. The reason for the structural unemployment is the mismatch between the skills the worker possesses and the skill demanded by the industry from the worker. According to the Penguin dictionary of economics, labour force is the total number of people in an economy in work or available for fork which include the total number of people in employment plus the number unemployed (Bannock, 1987).

Education is the one of the most prominent factors of economic growth, employment, and earnings. Economic dimensions of education need to be given due importance and ignoring it would endanger the prosperity of future generations, with widespread repercussions for poverty, social exclusion, and sustainability of social security systems (Woessman, 2016). As much as US\$10 to US\$15 can be generated in economic growth for every US\$1 spent on education (UNESCO 2012). According to UNESCO (2012) economic growth could improve by 2.1% from its baseline and 104 million people could be lifted out of extreme poverty if 75% more 15-year-olds in forty-six of the poorest countries of the world were to reach the lowest OECD benchmark for mathematics.

According to Ohiwerei and Nwosu (2013) "vocational and technical education is an umbrella which covers so many units. They are the Agricultural Education unit. Business Education which is also an umbrella to Secretarial or Office Education, Accounting Education, Computer Education, Distributive or Marketing Education. Another unit is the Industrial and Technology which has Electrical Education, Mechanical Education, Building Education, Woodwork Education and Metal work Education" (p.48).

#### 1.3. Role of Different Tiers of Education in Economic Development

#### **1.3.1. Primary Education**

The first stage of formal education is called primary education. It begins immediately after the pre-school and continues till the secondary education. This stage of education prepares the children mentally, emotionally and socially for formal schooling. According National Council of Educational Research and Training (NCERT) the primary education has two main objectives. Firstly, it helps the children to acquire the tools of formal learning such as literacy, numeracy, and manual skills. Secondly, it helps to acquire the habit of cooperative behaviour within the family, school and community. Primary education in India is divided into two parts. That is lower primary level which includes class one to four and upper primary level which includes from class five to eight. Primary education is generally given to the children between the age group of 6 to 14. A considerable amount of evidence has been generated over the past 40 years on the positive economic effects of a completed primary education, especially for those working in agriculture (UNESCO 2010). It was found in a study which modelled the impact of attainment in fifty countries between 1960 and 2000 that an additional year of schooling can increase a person's earnings by 10% and average GDP by 0.37% annually (Hanushek et al., 2008). Another study has shown that income increases by 10% with each additional year of education (Psacharopoulos and Patrinos, 2004). The economic rate of return of investment in primary education, both for individuals and societies is found to be higher in low-income countries than in high income countries. Similarly, it is higher for primary education than for secondary or tertiary education (UNESCO 2010). According to the Commission on Growth and Development (2008) social returns may exceed private returns through the broader contribution to society of educated individuals.

In another study, which analysed the effects of primary education on agricultural production in 13 countries, 8.7% average annual gain in production associated with four years of schooling was found (Lockheed, Jamison and & Lau, 1980). De Muro and Burchi (2007) conducted a study on the relationship between primary education and food insecurity across 48 countries. In their study it was found that food insecurity level was reduced between 20% and 24% with doubling the attendance rates in primary education for rural populations. Some studies which measured the effect of quality of education on income showed that these are higher than previously understood (Hanushek & Wossman, 2007).

#### **1.3.2. Secondary Education**

Secondary education is the second stage of formal education. It is given after the primary education and before the tertiary education. Secondary education is generally given to the children in the age group of 14 to 18. The last two years of secondary education is generally called higher secondary education in India.

Investment in secondary education is very important and it plays a major role to achieve economic development and it is much more than what can be achieved by universal primary education alone. Therefore, though the focus of the United Nations Millennium Development Goals on universal primary education was important but insufficient to achieve economic development. So, to achieve the goal of economic development the goal of providing universal primary education must be complemented with the goal of giving to broad segments of the population at least a completed junior secondary education (IIASA 2008). This International Institute for Applied Systems Analysis (IIASA) study claimed that data deficiencies were responsible for previous research study findings which showed that changes in educational attainments were mostly not related to economic growth. International Institute for Applied Systems Analysis (IIASA) researchers have done a full reconstruction of the education attainment distribution by age and sex for 120 countries for the years 1970 to 2000. In comparison to the previous data set this dataset was detail, it considered the differential mortality, and was strictly consistent with the definition of educational categories over time. The detailed data set allows the researchers to perform more detailed statistical analyses of the relation between education and economic growth than had previously been possible (Lutz et al 2007).

#### 1.3.3. Tertiary Education

Tertiary education is provided to the students immediately after the higher secondary education. It includes college education, university education and technical and vocational education after the higher secondary education. The objective of Technical and Vocational Education and Training (TVET) is to provide the knowledge and skill for employment.

Tertiary education also provides monetary benefits to the person as it opens the entrance to better paid jobs. These monetary benefits contribute to the enhancement of the living standard of the people through better housing and health care facilities. As the demand for the highly skilled workers are very high in advanced countries it helps the migration of labour to advanced countries and increases the income of the person. Tertiary education of the people is the major driving force behind economic growth and enhancement of personal financial status.

Higher education topic guide produced by Health & Education Advice & Resource Team (HEART) looks at the contribution of higher education to economic growth (Power et al 2015). This higher Education topic guide states that traditionally the relationship between the level of education and earnings and also

the rates of return were analysed to find out the contribution of education to economic development. According to the available estimates, the returns to investment in higher education was least followed by secondary education. The returns to investment in primary education was the highest. As a result of such evidences the investment in higher education was extensively discouraged and attention was almost exclusively diverted to the investment in primary education in the 1980s and 1990s (Power et al 2015).

However, recent evidences suggest that Higher education can produce both social and private benefits (Power et al 2015). In spite of the fact that there were variations in the rates of return to investment in higher education between several countries, in general, they show that investment in higher education yields positive rates of return to the individual (19%) and society (10%) (Psacharopoulos & Patrinos, 2002).

Technical and Vocational Education and Training (TVET) literature gives the view that when comprehensive and complementary training, is offered with links to the labour market, it works.

#### **1.4. Economic Aspects of Education**

#### **1.4.1. Education as Economic Good**

Economic goods are defined as those goods and services which provide utility to the individual or society who uses it and which has exchange value. The value of the goods arises because it is scarce in relation to its demand. Education is considered to be economic goods as it provides utility to the person who possess it and it carries a price or value. Education is not a free service. Normally the beneficiaries of education pay for it and in certain cases government pay for it and make it available to the people at free of cost. Realizing the social value of education, in many countries, primary education is a financed by the government. Education is considered to be both the producers' goods and consumers' goods. Producer's goods help in the process of production of other goods while the consumers goods are used by the consumers directly to satisfy the wants. Education is producers' goods because it helps the production by increasing the efficiency, skill and knowledge of the labour which in turn increase the productivity. Education as consumers' goods helps the consumers to satisfy the wants. In the case of education as consumers' goods, its main purpose is not the increase in productivity of the person but education is used as final consumption and it gives the satisfaction to the person who possess it.

#### 1.4.2. Education as Consumption and Investment

Education is considered to be both consumption and investment. Modern economists treat education as a kind of investment, like the investment in physical capital such as construction of bridges, dams, highways, power plants etc. which yields returns over a period of time in the future. Education becomes an investment when it helps the student to learn new knowledge and skills which increase the productive capacity and enhances the income of the person over a period of time in the future. On the other hand, education is considered to be consumption in the sense that having a degree itself provides utility to the person irrespective of the fact that it is not used for increasing the productivity and income. For example, if a student simply studying courses because it gives name and fame to the person or he or she simply enjoys it, it becomes consumption. In simple words whether education is investment or consumption depends on whether it provides the utility in the future or in the present. If the education provides the utility only in the present, it is considered to be consumption and if it provides utility in the future over a span of time it is considered to be investment. In this sense education can be both consumption and investment.

#### 1.4.3. Education as Industry

Education sector is considered to be an industry, especially growth industry, as it utilizes money, human and material resources to create new output. Education produces intangibles products in the form of services that are valuable but difficult to measure. Investment in education is the investment for the future. Many studies have shown that the growth of the nation depends on the investment in education. Education sector provides large amount of employment to the people and contributes to the creation of human capital in the form of educated and skilled labour force which is a basic input for any industry. Labour or service of the skilled person is a saleable commodity which can be bought and sold in the local, national and international market at a price. However, it is difficult to measure the value added by the education sector to the national income in monetary terms.

#### **1.4.4. Education as Human Capital**

Capital is an asset that involves cost and generate income over a period of time in the future. Human capital is the skills, knowledge and experiences an individual possess that can be used to create economic value. Education is an investment in human capital as it directly contributes to the enhancement of skill, which in turn increases productivity and income of the person over a period of time in the future. Education helps to enhance the social and intellectual capital of the nation. It plays a major role to transform the individuals from the state of mere consumers to human capital by raising the economic value and future earning power.

#### **1.5. Relationship Between Education and Economic Development**

Education and economic development are closely related to each other. However, it is difficult to ascertain as to which one of them is the cause and which is the effect (Sharma, 1991). "A positive correlation was found to exist between the level of education and literacy or some other easily available measure of educational level in different countries and during different periods. Although it was, of course, recognized that statistical correlation does not establish what cause is and what is effect, these calculations served to confirm in a general and vague way the theory that education is a form of investment and a vital value." (Myrdal, 1982, p.1541)

There is no doubt that capital is the key factor of economic development. The labour or population changes from a consumer to human capital with the education and skill development. "Labourers have become capitalists, not from a diffusion of the ownership of corporation stocks, as folklore would have it, but from the acquisition of knowledge and skill that have economic value. To omit them in studying economic growth is like trying to explain Soviet ideology without Marx" (Schultz, 1961. as cited in Sharma, 1991, p.172). It means that education is the means by which the ordinary human being is changed into a human resource which have economic value. Labour or skill is also a saleable commodity and education

adds the value to it by way of increasing the skill. Therefore, education changes the unskilled labour force into capitalists by making them the owners of the skill which have economic value.

There is ample anecdotal and co-relational evidence suggesting that education and economic growth are related, but the evidence points in a variety of directions. For example, if one favours the education-innovation link, then one might compare Europe and the U.S. in recent years, when Europe has grown more slowly. Camdessus (2004) argued that the growth rate of Europe was slower than US, may be because of the relatively less investment of European Union in higher education that is 1.1 per cent of its Gross Domestic product while it was 3 per cent in US. Scherer and Hue (1992), showed in their studies using data on 221 enterprises from 1970 to 1985 that enterprises whose executives had a high level of technical education spend more money on research and development that led to innovations.

If one favours imitation or other channels through which education affects growth, one might note that, in the thirty years after World War II, Europe grew faster than the U.S. even though it invested mainly in primary and secondary education. Similarly, the Asian miracle (high productivity growth in Asian countries like South Korea) was associated more with investments in primary and secondary education than with investments in higher education. Examining crosscountry correlations, Krueger and Lindahl (2001) concluded that overall, education was statistically significant and positively associated with subsequent growth only for the countries with the lowest education. Clearly, the education-growth relationship is not so simple that one can compute average years of education in a state and confidently predict growth. It explains why higher education may be more growth-enhancing in the U.S. or Europe today than in the own past or than in developing countries. It explains why average years of education are not a sufficient statistic to predict growth, two states with the same average years and the same distance from the technological frontier will grow at different rates if the composition (primary, secondary, tertiary) of their education investments differs.

#### 1.6. Relationship Between Education, Skill and Economic Development

According to Wikipedia "Human capital is the stock of habits, knowledge, social and personality attributes including creativity embodied in the ability to perform labour so as to produce economic value". Human resource can be developed through education and training and one of the goals of education is the development of human resource. It is a part of a nations resources and it can be conserved by controlling poverty, disease and unemployment (Downey, et al., 1988). The purpose of education is "to change students in both the cognitive and affective aspects of their personalities and to prepare them for practical affairs" (Bowen, 1977, p. 8). According to Bowen, the chief product of higher education is learning. Learning mainly consists of changes in people's knowledge, characteristics, and behaviour. Production in higher education is not the transformation of resource into tangible products but it is the transformation of resource into tangible qualities of human beings.

According to the Penguin Dictionary of Economics, (Bannock, 1987) human capital is the skill and knowledge embodied in the labour force. Investment in human capital increase the productivity in the same way as the investment in the machinery increases the productivity which in turn contribute to economic development.

# 1.7. Relationship Between Education, Employability and Economic Development

Employability is not same as employment. It is a pre requisite to obtain an employment and to retain it. It is a person's ability to find a job and retain it. Employability is a continuous process of getting the knowledge, skills and experience, that helps to improve one's potential to obtain and maintain employment. The main element of employability is the various types of skills one learns through education, formal or informal, and through practice.

some studies shows that the education level of the workforce may not increase the employability. Hinchliffe (1987) showed a situation where the demand for education increases as a result of the effort of the job seekers to be in the forefront of the employment queue in a country where there is a limited number of highly productive jobs. The immediate consequence of the situation will be that the average education level of the people in the queue increases though their hierarchical positions in the queue may not change. Since the jobs with high productivity are limited the workforce to be created will lead to a lower average wage level within the group. In this situation the social impact of education will be zero if the increase in education level does not lead to an increase in production.

# **1.8. Relationship Between Education, Productivity and Economic Development**

productivity is the relationship between the output of goods and services and the inputs used to produce them. It is usually measured in terms of ratios of change in inputs to change in outputs using the index numbers. Productivity shows the relationship between the amounts of inputs required to produce a given amount of output. Labour productivity is measured by an index of man hours divided into an index of output (Bannock, Baxter & Devan,1987). Increase in labour productivity increases the relative share of labour in comparison to capital. Increase in the labour productivity is necessary to increase the wage level and living standard of the labour. The income of the labour is also an indicator of the productivity of the labour as in a competitive market the income of the labour is always positively correlated to the productivity of the labour and the remuneration of the labour cannot be more than its productivity in the long run. In this study increase in income is taken as an indicator of increase in productivity. Higher income of the labour indicates higher productivity and a lower income of the labour indicates low productivity of the labour.

Productivity of the labour depends on the skill and the knowledge the labour possess. Skill refers to the ability or expertise which has market value, or which helps to get employment and income (Senupta, 2009). For example, a mechanic may repair an engine by tightening a screw but the ninety per cent of his pay goes for knowing which screw is to be tightened and only ten percentages may be the reward for tightening the screw. The knowledge of which screw is to be tightened is gained by the formal education or by practical experience. The skill can be acquired through formal education, informal training or through practice. However, the formal education is the main channel through which the skill is transferred to the individual. Even if the skill is acquired through sources other than formal education, the education acts as the basis which facilitates the acquisition of skill by providing the literacy to the person concerned. Unlike other investment, investment in education is a long-term investment as it may take longer time period to realize the fruits of investment in education.

Increase in the labour productivity and the resultant increases in income of the labour force contribute to the rise in aggregate demand for goods and services. With the increase in demand for goods and services, producers become more optimistic and the economy gets activated which in turn will accelerate the growth and development of the economy.

#### **1.9.** Constitutional Provisions on Education in India

Education has been a major focus area ever since India attained independence in 1947 and the role of education in economic and social development has been realized by the leaders of the state and emphasis was given for its development. Number of constitutional provisions has been made for the development of education. Initially education was a state subject and with the 42<sup>nd</sup> Amendment of the Constitution which received president's assent on 18<sup>th</sup> December, 1976, it was included in the Concurrent List. The amendment was suggested by the committee headed by S. Swaran Singh and the committee said education is of prime importance to country's rapid progress towards achieving desired socio-economic changes and all India policies in relation to it is required.

The constitutional provisions related to education include the following. The Article 21A provides Right to Education, Article-29 (1&2) provides Protection of interests of minorities, Article 30 (1, 1A, & 2) provides Right of minorities to establish and administer educational institutions, Article 45 provides Provision for free and compulsory education for children, Article 46 provides for Promotion of educational and economic interests of Scheduled Castes, Scheduled Tribes and other weaker sections, Article 337 provides Special provision with respect to educational grants for the benefit of Anglo-Indian community, Article 350A provides Facilities for instruction in mother-tongue at primary stage and Article 351 provides Directive for development of the Hindi language. Article 45 of the constitution of India (under the Directive Principles of State Policy) makes a provision for free and compulsory education for the children below the age of 14 years. Article 45 states that "The State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years" (Constitution of India). According to the 86<sup>th</sup> amendment (2002) of the Indian constitution, provisions were made for free and compulsory education for the children of the age group of 6 to 14 years. Right from the inception of planning in India, the crucial role of education in economic and social development has been recognised and emphasised.

## 1.10. Review of Literature

According to Sharma (1991, p.175) "when a large number of students successfully leave the educational institutions at their own "thus far" limits and find appropriate places in the occupational ladder by being fully ready to apply all the knowledge, skills and attitudes that they have learnt while climbing the educational ladder, the contribution of education to economic growth tends to be maximum. On the other hand, if the education system fails to bring all students to their potential limits or if it callously allows many others to go beyond their limits, a lot of valuable time, money and energy would be wasted." So, he stressed the role of education to create knowledge and skill which have economic value and application of the same for a productive purpose and there by contribute to economic development.

Mohan (2012, p.20) rightly pointed out that "the highest function of education is to bring into being an integrated individual, who is capable of dealing with life as a whole". When the education gives excessive importance to the academic performance alone and the grade one attains becomes the measuring yard of the attainment of education it naturally creates a suspicion that whether today's education has forgotten the function of creating an integrated person who is capable of dealing with the life as a whole or it became more of a routine one. Children will go to school, learn to read and write and arithmetic, pass the examination with good marks and get a good job, if possible, a government job. But too much emphasis on the marks which the student secures in the examination neglects the extent of skills and the creativity of the student. Skill development is very often not given a due

importance in our education due to various reasons. It may lead to a situation where a highly successful student in examination with good score or rank may be very poor when it comes to the application in the practical life. As a result, the student may not be able to apply what is studied in the class room in the practical life. If one has not acquired any other skill along with the degree acquired and if he is not able to find a job in his field, may remain unemployed and unproductive. When an educated and qualified person remains unemployed, the productivity decreases. So, a planned and holistic education is required through which the skill is transmitted to the labour.

Mahatma Gandhi's idea on basic education was to make craft as nucleus of the whole instruction and not an extra or additional subject. Others those who had the similar idea are Rousseau, Pestalozzi, Froebel, Dewey and Karl Marx. According to Rousseau the manual work should be added to eliminate the prejudice against it. Pestalozzi advocated that intellectual and industrial training could go side by side. Karl Marx was of the opinion that education should be related with productive process. The essence of adding the work experience in the school education is that education should combine practice in the everyday process of living and working with more formal training (Aggarwal, 1983). The improvement of skill enhances the productivity of the labour as he is able to perform multiple tasks. In the present scenario industry demand people who can perform multiple tasks and not a single task alone.

#### **1.10.1. Education and Economic Development**

Bils and Klenow (2000) found that greater schooling enrolment in 1960 consistent with increase in the years of education was associated with a faster annual growth over 1960-90. According to them, this conclusion was providing a strong support in allowing a positive external benefit from human capital to technology. Their results were consistent with Barro (1995) in which transitional differences in human capital growth rates explain temporary differences in country's growth rates.

Mankiw et al (1992) and Barro (1991) made a study to find the link between education and economic growth. They made a study in both the industrialised and the less developed countries about the variation in school enrolment rates using a single cross-section. The result of the both studies were similar and they found that schooling has a significant and positive impact on the rate of growth of real GDP. Barro and Sala-i-Martin (1995) made a study on the impact of educational expenditures incurred by governments. The result of their study also showed a strong positive impact. Using instrumental variable techniques to control for simultaneous causation, their regressions suggest that the annual rate of return on public education was of the order of twenty percent.

Pritchett (2001), in his study pointed out that the poor policies and institutions in many of the least developed countries have hampered the growth and due to which the skilled labours were forced to relatively unproductive activities. As a result, the statistical relationship between education and growth was disrupted in samples that include less-developed economies

Krueger and Lindahl (2001) pointed out that the problem of unobserved variation in educational quality is exacerbated in panel data. Taking data quality into account, they showed that the short run economic growth was improved with the improvement in schooling. Hanushek and Kimko (2000) affirmed that the labour -force quality from mathematics and science test scores, were strongly related to growth. Temple (2001) found that growth effects of education were positive, but nonlinear.

Ranson (1988) observed that in Japan, the Meiji government used education as a tool of national development. A department of education was created in 1871, consisting of three bureaus: special (higher) education; common education; and technical education, one branch of which dealt with agricultural education.

Herschede (1980) observed that for the development of the Chinese economy Mao Tse-tung believed that the investments in knowledge could produce greater returns than the resources allocated for enlarging physical assets or raising consumption levels. Maoists also believed that, other things remain the same the large increments in basic knowledge or elementary education of the masses would have a greater return on investment than the large increments in the advanced knowledge of a few individual. So, Maoists favoured the education for the mass for economic development. Bennett, Jr. (1967) found that the Asian nations showed a high positive correlation between general education and development.

## 1.10.2. Education and Economic Growth

Education helps to increase productivity, creativity and capacity of the workforce and enables them to contribute positively in enhancing economic growth (Ranis et al, 2000). Though, both physical and human capital are necessary factors of production, human capital tends to be more difficult and time consuming to acquire than physical capital. Therefore, a country that starts with a high ratio of human to physical capital tends to grow rapidly by adjusting upward the quantity of physical capital (Barro, 2001)

Prichett (2001) argued that as the education level of the people increases their income also increases as the average wage for the educated people are high. Similarly, the low-income people may also become capable of finding better economic opportunities as the fraction of educated people increases and this will also contribute to increase their income (Ranis et al, 2000). As the average income of the low-income groups increases, it reduces the economic inequality. Increase in education may contribute to reduce the population growth which in turn contribute to the growth of per capita income (Ranis et al, 2000). The new skills attained by the labour force through education increases the labour force participation and there by helps to foster democracy, good governance and gender parity (Gylfason, 2001). In this way the various positive externalities of education strengthen the economic growth.

The contribution of education to economic growth varies according to different levels of education. Barro (1998) observed that primary education, though statistically insignificant to predict the economic growth as in the case of secondary and tertiary levels of education, it is not less important as it is a prerequisite for higher education. The contribution of primary education to the increase in the productivity of workers by way of increasing basic skills and health can be observed in a short span of time. The existence of skilled labour also invites higher investments and growth in exports. Secondary education facilitates the acquisition of managerial capacity while the tertiary education contributes for the development, selection and adaptation of suitable technology (Self and Grabowski, 2004; Aghion et al, 2009). The secondary and higher education plays a major role for the diffusion of technology. As the law of diminishing returns operate in the case of capital stock,

technological progress has an important role to play in producing intermediate goods that accelerate the economic efficiency and productivity in the long run. Since the industries in the high-income countries have changed the nature of their activities from labour-based industries to knowledge-based industries, tertiary education contributes to the technological innovation and improvement which in turn helps to economic growth. Similarly, the increase in the productivity of some firms due to the technological progress may also increase the productivity of other related firms through externalities (Ranis et al, 2000). Given the level of GDP, a higher initial stock of human capital signifies a higher ratio of human to physical capital (Barro, 2001, P.14). High ratio of human capital to physical capital facilitates the utilization of better technologies from advanced nations. Again, the secondary and tertiary education also influence the major legal and financial government institutions (Ranis et al, 2000). With the different levels of education, poor countries may benefit more from primary education where as in the case of high-income countries tertiary level of education is more important for economic growth (Aghion et al, 2009). Economically poor countries which gave importance to the development of human capital were able to achieve long run sustainable growth while the countries which favoured the growth and neglected the development of human capital performed poorly in the long run (Ranis et al, 2000). So, education should be given priority in national policy to acquire and develop human capital.

Robert Barro is the one of the main researchers on the role of education on economic output. Barro (1991) found in his study that there is a positive correlation between the human capital measured in terms of school enrolment rates and the real Gross Domestic Product (GDP) per capita. In another work of Barro (1999), influence of the schooling quality over economic growth was measured by using test scores. In another work, (Barro and Sala-i-Martin, 1995) pointed out that the average schooling years has a significant positive effect over the economic output.

Khattak (2012), made a study on the contribution of education to economic growth in Pakistan. In this study, he used the Ordinary Least Squares (OLS) and Johansen Cointegration test as analytical techniques. The model is derived from an augmented form of Cobb Douglas Production Function, where real GDP per capita has been used as a measure for economic growth. Physical capital was measured by gross fixed capital formation. The enrolment in secondary and elementary schools have been used as measures for education and labour force participation rate for labour. In this study he argued that elementary as well secondary education contributes to Real GDP per Capita in Pakistan. In the study of (Hanushek and Kimko, 2000) it was pointed out that the results of mathematics and science in 31 countries had a strong positive relation to the growth of macroeconomic indicators.

Ndiyo (2007) observed that, Nigeria was looking to education as the key to socio-economic and political transformation. It was noticed that education has numerous direct benefits to the individual learner in addition to its contribution to the growth of the national income. Education puts the people in a better position with respect to others with lower qualifications.

It was found that in high performing East Asian Economies, called Asian Tigers, Education stimulated the growth and the growth stimulated the education. It was also observed that the high rate of investment in education reduced the inequality and low inequality stimulated both economic growth and investment in education (Booth, 1999).

An excess supply of educated people and educated unemployment is a familiar feature in many under developed countries including India. Lewis (1961) observed that the difficulty to absorb the educated people in the economy arises mainly due to wrong kind of education system followed. There should be a balance between the different levels and kinds of education like primary, secondary and tertiary education, general and vocational education, between language, humanities and science and so on. A right proportion of all these will help to reduce the educated unemployment and contribute more to the economic growth.

Sanders and Barth (1968) observed that Efforts to develop educational policy along human resource development lines proves that the primary link between education and economic growth. It emphasizes in the intervening manpower preparation, the process of preparing persons for the more complicated or sophisticated economic roles they would play in a more industrialized society.

Goel (1974) reiterate that the relationship between education and economic growth is not a causal relationship but it is a seed and flower relationship. In other

words, education seems to be more in the nature of an effect of income and less as a cause of economic growth.

Bennett, Jr. (1967) found an overall low correlation between the absolute level of general secondary education per capita and indicators of economic growth. On the other hand, there was a high positive correlation between growth in technological education and economic development.

Ajakaiye and Kimenyi (2011) observed that Microeconomic approaches to assessing the impact of education often focus on the influence of schooling on the future earnings of the individual. Similarly, most of the macroeconomic approaches employ neoclassical Solow growth models to account for human capital as a determinant of growth but often do not consider the specific role of higher education. However recently, researchers are giving importance to the role played by higher education in economic development. Most of the studies suggested that education is necessary to increase a country's capacity to conduct research and generate new knowledge to develop new products and production technologies.

Diebolt (1999) argued that education makes men and women more productive that it can contribute to economic growth by giving value to the labour if it can adapt labour to new requirements of technology. However, he mentioned that education has a possible causal effect in economic growth but economic growth and the level of development also have an effect on education.

Jorgenson and Fraumeni (1992) argued that one of the most important benefits of education was higher income from participation in the labour market and this higher income from labour market shows the link between investment in education and economic growth.

To quantify the impact of investment on education on economic growth Jorgenson and Fraumeni (1992) used impact of individual's life time labour income as a measure of educational output.

The universal purpose of vocational education is to prepare and equip the youth to apply the current technology into existing occupations. The economic function of the technology is the transmission of technologically relevant skills. Technology is the total stock of human know-how that is applicable to physical phenomena (Ranson, 1988). According to Anosike (1977) formal education is the main avenue to transfer the technological and general skill to the nation's labour force. But the main reason for the educated unemployment is due to the imbalance between the educational structure and the needs of the state.

Education not only provides the ability to reproduce the skills and form human capital but it has many other features which no other kind of capital formation has. It can create the potential for finding new goods, new technologies and new instruments of social policy (Bolino, 1968).

#### **1.10.3. Education - Productivity Link**

The relation between education and productivity is a self-evident fact and apparently a few have questioned it. In the influence of human capital theory on education and manpower, planners throughout the 1960s and 1970s all over the world perpetuated the belief that education will increase the productivity. It is true that the practitioners perpetuated the belief that education increase the productivity and the theorists rarely questioned it. The reason for the higher earnings of the educated was discussed and debated in the mid-1970s by the theorists. Blaug, Wiles, Dore, Bowles, Gintis, Simmons, Psacharopoulos and Carnoy all have given their arguments, some pointed out the role of investment in education plays in the development of cognitive skills while some on the investment on social skills, and others on the screening or filtering role which education plays in sifting out either those with native cognitive skills or those with native social attributes. In their arguments all tried to answer the question why do the educated earn more or why are the educated more productive? Everyone agreed that the educated earn more and are more productive.

Generally, there exists a very strong relation between education, productivity and economic growth. Workers with better skills were more productive than the workers with less skill and greater productivity leads to higher income. Federal Reserve economists conducted a study and examined the factors contributing to greater state prosperity over a 65-year period. In this study it was found that a state's high school and college graduation rates, along with the rate of patents education, were the primary factors explaining which states experienced more rapid growth in per capita income from 1939 to 2004. Another article studying the states from 1967 to 1993 observed a positive correlation between the state expenditure on education and growth in personal income. More the state expenditure on education the greater the growth in personal income.

The economic gains of education to society are not limited to the enhancement of skill and productivity alone. Higher levels of education also associated the better health of the people, lower mortality rate and lower rates of crime. The education of the parents also has a positive correlation with the health, cognitive abilities, academic performance and income of the children. It is less likely that the children of highly educated and paid parents grow up in poverty, and are more likely to be better educated and financially well placed and thereby they are less depending on public assistance. All these factors contribute to increase the productivity of the society not only by merely increasing the productivity of the workers but in a variety of ways like less public and private resources are used to help economically poor people and less resources are invested to take care of the unhealthy population.

Studies shows that the earnings of those with four-year degree are substantially higher than those without such degree. Therefore, it is not surprising that the average earnings in metro areas are higher where the percentage of college graduates are higher. In addition to the higher earnings of the graduates in metro areas, the average earnings of those without graduation degree also increases due to the spill over effect. In short, the productivity is higher in metro areas not only of the graduates but also of others due the presence of higher percentage of graduates

Economic growth can be measured by looking at the increase in the average income of the people. In order to increase the average income of the people, first of all, the productivity need to be increased. Increase in productivity, in turn, leads to the increase in overall income. Secondly the workers should get a share in the increased income generated through the increase in productivity, in the form of increased wages. It is the responsibility of the state to ensure the fair distribution of increased income with the workers in the form of increased wages. It can be done by enacting strong labour laws, fair trade policies, and by ensuring the full employment through monetary and fiscal policies. The measures like maintaining strong labour standards and minimum wage laws which protect the low paid workers will contribute to ensure a fair distribution of income.

Where the state has a key role to play in enhancing the productivity of the people, especially of the poor and disadvantaged people, education is major contributor to it. Other factors like decent health care facility, adequate intake of nutrition, reduction of poverty etc contribute and make the learning possible (Marr, Charite, and Huang 2013).

However, as the debate continued some research findings also emerged which questioned the assumed relationship between education and productivity. The productivity was always measured in terms of income till 1970s. However, as the salaries and wages are so dependent on educational qualifications and age, it was felt that it is normal and therefore unenlightening to argue that the more educated were more productive.

In the early 1970s, Berg combined a number of studies which showed that the people with less years of education performed equal with and even sometimes better than the people with more years of education. He made a study on the relationship within different occupations in USA. For instance, between peace work earnings and years spent at school for 585 female textile workers. Similarly, he made a study on 500 bank clerk's loss of accounts and educational qualification and between research managers estimates of their research scientist's performance and potential and their qualifications. The main feature of Berg's study was that he tried to measure productivity other than earnings. He used the earnings mainly on piecework where the payment is mostly connected with the productivity.

Chaudhri (1974) Conducted a study to find the relationship between education and productivity of farmers in in Uttar Pradesh and measured the gross value of yield of crop per acre in the state, district and household level. In his study it was found that in Uttar Pradesh, farmers with no education frequently produced more output than those with more education. In another study conducted in India by Fuller (1972) made a comparison between the company efficiency ratings for workers in two modern industries. In this study he found a small positive correlation between the number of years spent in formal school education and efficiency ratings in one industry while there was no relation between the two in other industry. Godfrey (1977), from Kenya, conducted a study on the formal educational qualifications of candidates for government trade tests in engineering, woodworking, building, electrical skills and tailoring to their performance on those tests. The result of his study showed a small significance of schooling in explaining the test performance. The result questions the relevance of what is taught and learned in schools to the jobs that most people are doing after the education.

# 1.10.4. Education, Skill Development and Productivity

Bolino (1968) observed that unlike the previous decades where economic progress was thought to be depended upon the wise discovery and deployment of material resources economists now see that man is the essential prerequisite for economic advancement. It is he who shapes the environment to serve the unlimited demands of the human imagination. This study also pointed out that education has so far been considered in terms of its ability to reproduce skills. However, it is more than this; it can create the potential for finding new goods, new technologies, and new instruments of social policy. No other kind of capital formation has all these features. The study was concluded with the following note that education undoubtedly contributes significantly to individual and national wellbeing. Today there is a greater awareness of this contribution, but at the same time, important elements of the nation's manpower are underutilized.

Allen (1978), noticed that Japan's education system was aimed at to facilitate the acquisition and dissemination of technology that foreigners could provide and to train the men who could make use of it and even improve upon it. Japanese education system was successful in this objective. So, the Japanese education was successful in providing and improving the skill of the people.

Bennett (1967) makes a distinction between general and vocational education. Generally vocational education is any course of study directly related to vocational occupations where a large part of the curriculum is devoted to learning specific skills which the student is to use immediately upon graduation. General education has no immediate occupational application but prepares the student in basic skills that can be used to learn many different occupations. Both forms of education are probably related to development variables.

According to UN System Task Team on the Post -2015 UN Development Agenda, foundational skills such as literacy and numeracy have often not been sufficiently recognized but without these fundamentals, learners have difficulty to access vocational learning and can never attain the level of skills that will enable them to make choices with regard to the work. It was also observed in many countries the lack of relevance of instruction, often focusing on traditional root learning and passing of exams, and not adapted to the needs of the labour market. As a result, large segments of educated youth remain unemployed. This huge rate of unemployment is a structural problem in many countries. Therefore, a persistent challenge for education and skills development policies is to assist the youth in learning skills for successful transitions between learning and work. In this context, there is a need to develop more responsive education and skill development policies that allow for the adaptation of skill supply to rapidly changing needs of the economy. This should also include the capacity of education and skills development systems to anticipate the future demand and supply of skills by using labour market information and adapt to the need.

Ajakaiye and Kimenyi (2011) observed that the large estimated human capital externalities associated with tertiary education, implying that increasing the stock of tertiary education has multiplicative effects on the productivity of workers. Similarly, they pointed out that the Empirical evidence has shown that the simple growth models as depicted by the neo-classical production function that specifies growth of output as a function of quantities of capital (K) and labour (L) are quite inadequate in explaining growth of output. They pointed out that it is not just the quantity of labour that is important in the production process but, the quality of labour which is captured by the human capital embodied in the labour. Therefore, Modern theories of growth place a heavy emphasis on higher levels of education as crucial for the generation of skill that is necessary for increasingly knowledgebased economies. In particular, such higher levels of education facilitate the adaptation of existing technologies and innovations. Teal (2001) argued that education is most valuable when it is linked to technology that requires higher skills though historically it was argued that investment in physical capital is more linked to the growth than education.

Jorgenson and Fraumeni (1992) argued that education increases the productivity as the highly educated and better trained people are more productive than the people with less education and training. So, substituting more effective workers for less effective workers increases the output.

#### 1.10.5. Education and Employment

There is a clear relation between education and employment opportunities. In a normal situation the workers with low level of education are usually suited and employed for jobs with less complex in nature or manual labour. On the other hand, workers with higher level of education are capable of handling specialized and more complex task. In times of low demand for labour due to slow economic growth the highly educated workers have more advantage over the less educated workers. The skills of the highly educated workers are more diverse and therefore it is easier for employers to impart specialized and job specific knowledge to the highly educated workers. Educated labours are more valuable to the firm as education increases the skill and productivity of the workers. The level of education and training labour poses is an effective signal of a workers' ability and therefore more educated and trained workers are usually prone to higher wages and low duration of unemployment (Sharma,2016).

According to Sanders and Barth (1968) one of the reasons for the interest of the modern economists in the relation between education, and economic growth is due to the link between education, employment and economic growth desired or planned. The connection extended from education employment link to economic development and change. The quality of the labour force affects the level and composition of national output.

## 1.10.6. Education and Human Resource Development

According to UN System Task Team on the Post -2015 UN Development Agenda, education has positive effects on health, poverty reduction and elimination of hunger, as well as on gender equality, each, in turn, has a positive effect on education. In addition to the socio-economic role, education also plays a major role in the socialization function through the shaping of personal and collective identities, the formation of responsible citizenship and the promotion of critical social participation, based on principles of respect for life, human dignity and cultural diversity. It also helps to promote respect for diversity, facilitate intellectual dialogue and help to prevent conflict and protect the marginalized groups and in this way contributes to achieve the development goals.

Haldar and Mallik (2010) pointed out that the concept of human capital refers to the abilities and skills of the people of a country, while human capital formation refers to the process of acquiring and increasing the skills, good health, education and experience that are critical for economic growth and increase in the number of people who possess it. So, the investment in education and health become a means of human capital formation. They showed that there are correlations between human capital and income (GNP), whereas the interconnections between the specific parts of human capital (education and health) and GNP are of diversified nature. Education - especially in its qualitative fashion, like the number of various types of degrees and less in its quantitative fashion, like schooling or enrolment numbers - is said to be an explanative variable for GNP.

## 1.10.7. Education and Income

Bolino (1968) observed that most economic analyses of the rate of return on education have focused on the contribution of education to earning capacity and to material gains only-the direct returns. These returns are of four kinds. On an average education increases the income of those with higher education, secondly those with more education are subject to less unemployment, thirdly more education helps the labour to become a professional worker, and finally education confers a special status to the person. Even some of these non-monetary benefits can be transferred into monetary benefits. For example, a person with higher education and a good respect in the society may get easy access to credit facility.

Ajakaiye and Kimenyi (2011) found that there is a clear positive relationship between tertiary-level enrolments and GDP per capita. Benavot (1989) observed that many economists and sociologists predict that the education increases the earning power of the women based on the premise that education provide a strong inducement to seek employment, increases the desire for new and better occupation, changes their attitude toward the role of women in the household and in the workplace and finally education provides the women necessary credentials for employment in many jobs.

# 1.11. Statement of the Problem

Nagaland has the literacy rate higher than national average and the literacy rate is increasing at a faster rate. At the same time the disparities in the level of education between different districts in the state is very high. The literacy rate in some districts is higher than national level while in some other districts it is below national average. For example, the literacy rate of Kohima district is 85.23 which includes the male literacy rate of 88.69 per cent and female literacy rate of 81.48 per cent. The literacy rate of Mon district is 56.99 per cent which includes the male literacy of 60.94 per cent and female literacy is 52.58 per cent. The level of economic development is also closely related to educational level and type of education people receive. Secondly the level of educated unemployment is also rising in Nagaland. The under development of human resource due to illiteracy and underutilization of human resource due to unemployment is of a great concern and it has great impact on the economic development. So far, no comprehensive study has been made on the growth of education and its contribution to economic development in Nagaland. This study is an attempt to empirically analyse the growth of education in Nagaland and its contribution in skill development, employability, income and economic development.

# **1.12.** Objective s of the Study

1. To study the socio-economic profile of the two districts and respondents.

2. To examine the growth and magnitude of education in the sample study area.

3. To analyse the contribution of education to increase in productivity of human capital.

4. To study the role of education in skill development and employability of the work force.

5. To examine the impact of education on economic development.

#### 1.13. Area of Study

This study is based on two sample districts of Kohima and Mon. The rationale for the selection of these two districts is that Kohima is an advanced district where the state capital is situated whereas Mon is considered to be a backward and district in terms of education.

Kohima is the state capital and educationally and economically advanced district in the state. According to 2011 census, the total population of Kohima district was 267988 which consisted of 138966 males and 129022 females. The density of population of Kohima district is 183 per square km. The sex ratio of Kohima district is 928 females per 1000 male. The literacy rate of Kohima district is 85.23 where the male literacy is 88.69 and female literacy rate is 81.48.

Mon is one of the most backward districts of Nagaland with respect to education and economic development. The total population of Mon district as per 2011 census was 250260 persons which consisted of 131753 male and 118507 females. The density of population in the district is 140 per square km. The sex ratio is 899 females per 1000 men. The literacy rate of the district is 56.99 where the male literacy is 60.94 per cent and female literacy is 52.58 per cent.

#### 1.14. Relevance of the Study

The educational backwardness and economic under-development appear to be complimentary to each other. Mon is an educationally and economically backward district where as Kohima is comparatively advanced in both education and economic development. The present scenario of rapidly increasing educated unemployment in Nagaland and under utilizations of human resource is of great concern. The mismatch between the demand and supply of labour leads to the underutilization of labour and wastage of human resources. So, the proposed study will look into the contribution of education to the skill development employability, productivity and economic development. This study will benefit the decision makers, planners and academia for the formulation of educational policies in the state.

#### 1.15. Research Objectives

i) To study the socio-economic profile of the two sample districts and respondents.

ii) To examine the growth and magnitude of education in the sample study area.

iii) To analyse the contribution of education to increase in productivity of human capital.

iv) To study the role of education in skill development and employability of the work force.

v) To examine the impact of education on economic development.

# 1.16. Hypothesis

i) Education has impact on employability, skill and productivity of human capital.ii) Education is an instrument for achieving economic development.

## 1.17. Methodology

This study is limited to the contribution of education in economic development in Kohima and Mon Districts. This study is based on primary and secondary data. The primary data was collected through structured questionnaire sent through enumerators.

To study the growth and magnitude of education at national, state level and in the sample study area of Kohima and Mon districts secondary data was collected from both published and unpublished sources like economic surveys, census reports, statistical handbooks, journals, and magazines and other government records and bulletins.

## **1.17.1. Method of Sample Data Collection**

Multistage stratified random sampling techniques were used for data collection for this study. Structured questionnaire was prepared and send through enumerators for the collection of data.

## 1.17.2. Source of Data

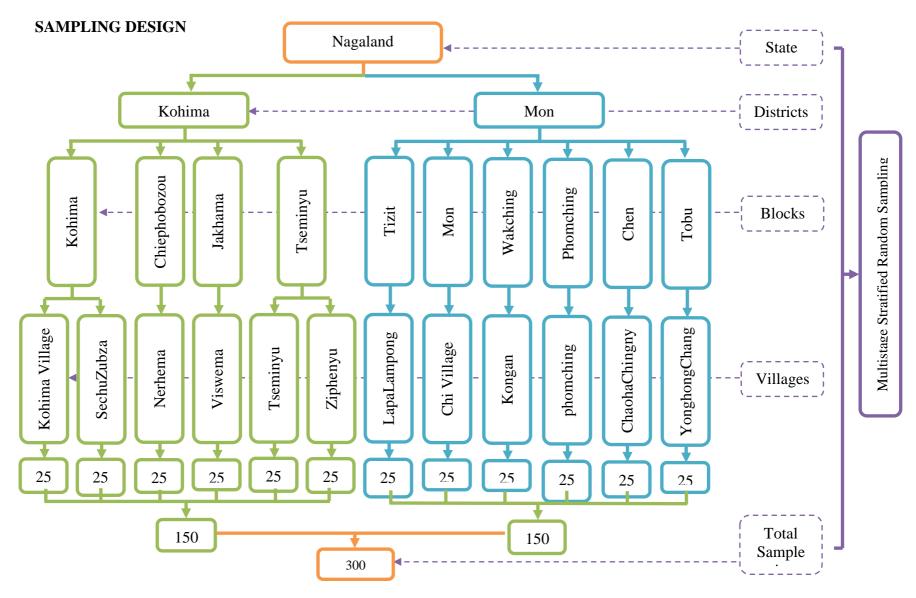
This study was based on both primary and secondary data. The primary data was collected through survey method using structured questionnaire send through enumerators.

The secondary data was collected from both published and unpublished sources like economic surveys, national sample surveys, census reports, statistical handbooks, journals, magazines and other private and government records and bulletins.

# 1.17.3. Sample Design

The population of this study was two districts of Nagaland namely Kohima and Mon. The sample consisted of 300 respondents from 300 households from 12 villages of two districts i.e., 6 villages each from both districts. For the selection of sample villages from Kohima district all the four Blocks of the district were selected. Since there were only four blocks in Kohima districts, two villages each were selected at random from Kohima and Tseminyu blocks and one each village was selected at random from Chiephobozou and Jakhama blocks. In this way all together six villages were selected at random and from each village 25 households were selected at random. So, a total of 150 households were selected from Kohima district for data collection.

Similarly, in Mon districts there were six blocks and one each village were selected at random from all the six blocks. Twenty-five households were selected at random from each village and in that way altogether 150 households were selected from Mon district. So, all together 300 households were selected for primary data collection i.e., 150 households each from Kohima and Mon Districts



## 1.17.4. Statistical Tools

The statistical tools of SPSS and Microsoft Excel were used in this study to analyze the data.

## 1.17.5. Variables Used

The variables used in the analysis were age of the respondents, Gender of the respondents, type of house in which the respondent live, educational level of the respondent, employment and income of the respondent.

## 1.17.6. Period of Primary Household Survey

The primary data is collected during the period of November 2017 to July, 2018.

## 1.18. Chapterisation of the Study

Chapter-1: Introduction

Chapter-2: Socio Economic Profile of Sample Study area and Respondents

Chapter-3: Growth and Magnitude of Education in Sample Study Area

Chapter-4: Contribution of Education to Economic Development

Chapter-5: Summary and Conclusion

### 1.19: Conclusion

In this chapter first we have given a brief explanation of the various concepts used in this study like education, different tiers of education, economic development, skill, employability and workforce followed by the role of different tiers of education in economic development. The economic aspects of education were discussed under the headings such as education as economic Good, education as consumption and investment, education as industry, and education as human capital. This chapter also shows the relationship between education and economic development through the change in skill, employability and productivity. A brief discussion on various constitutional provisions of education in India is also provided. The review of literature gives a brief description of the previous studies made in the related areas. The last part of the chapter has given the research objectives, hypothesis, methodology, and chapteriszation of the study.

#### **CHAPTER-2**

# SOCIO ECONOMIC PROFILE OF SAMPLE STUDY AREA AND RESPONDENTS

# 2.1: Socio Economic Profile of the Sample Study Area

Nagaland is mainly inhabited by people belongs to various Naga tribes. Scholars have expressed several views regarding the origin of the word Naga. According to some scholars the word originated from Burmese language. In Burma (present Myanmar) the Naga tribes are called *Na-Ka* which means (in Burmese language) people or men or flock with pierced ear-lobes. In fact, piercing of the ear-lobes was a widespread practice among the Naga tribes and the piercing ceremony formed a very important initiation rite for young boys who are about to enter the manhood. The piecing ceremony marks the attainment of manhood by these boys. Most of the Naga tribes migrated from Burma (Myanmar) to India and therefore the name Naga was given to them even before they reached in India. Moreover, it was from the Burmese that the British first came to know about the '*Nagas*' soon after their earliest wars with Burma 1795-1826 (Sema, 1986).

Another view with regard to the origin of the word Naga is related to Assamese people. Assamese people were the immediate neighbours of *Nagas* and also the first group of people to come in contact with the *Nagas*. In Assamese, the word *Noga* means naked. So, some scholars feel that originally the word *Noga* is used for the naked people of the hills who often came in contact with the people of Assam. Gradually, this name was used for greater number of people and ultimately it became a common name for many tribes. Now, the name Naga is accepted by many tribal inhabited in Nagaland, Assam, Manipur, Arunachal Pradesh and Burma (Sema, 1986).

Another view about the origin of the word Naga is that word Naga is evolved from the Sanskrit word *Nagna* which means naked. It is because *Nagas* were known by their paucity of cloths – in fact they used to cover their private parts with a loin cloth and so were practically naked or nude (Ghosh,1982).

For the safety and security of the people and properties, Naga villages are mostly established on hill tops as there was the practice of headhunting in the past. There are 14 major Naga tribes in Nagaland, namely Angami, Ao, Sumi, Lotha, Rengma, Chakhesang, Khiamniungan, Chang, Konyak, phom, Sangtam, Yimchungru, Pochury, Zeliang and numerous sub tribes (Nagaland State Human Development Report, 2016, p.15). Even though all the tribes have their own separate language, and unique in their own way they have similar culture and traditions. This chapter deals with the socio-economic profile of Nagaland and the two districts of Kohima and Mon. The topics discussed in this chapter include the geographic nature of the area, population, workforce, literacy rate, educational attainment and the number of educational institutions.

# 2.1.1: Geography of Nagaland

The state of Nagaland was inaugurated as the sixteenth state of India on 1st December, 1963. The state of Nagaland covers an area of 16579 sq. km. and it is bounded by Manipur in the South, Assam in the North and West, Arunachal Pradesh on the North East. Nagaland also shares a common international boundary with Myanmar in the East. The state is presently divided into 12 districts. At the time of the formation of the state it was divided into three districts, namely: (1) Kohima, (2) Mokokchung and (3) Tuensang. In December, 1973 (4) Wokha and (5) Zunheboto districts were formed out of Mokokchung, (6) Mon District from Tuensang, and (7) Phek District from Kohima District. Dimapur District (8) was formed out of Kohima district in 1997. In January, 2004 (9) Kiphire and (10) Longleng Districts were formed out of Tuensang Districts and (11) Peren District was formed from Kohima District. In December, 2017 (12) Noklak District was formed out of Tuensang District. The new district has the same boundaries as the former Noklak sub-division of Tuensang district. Nagaland is a mountainous state and the altitude varies approximately between 194 meters and 3048 meters above sea level. Villages in Nagaland are mostly established on the hill tops and at a higher elevation on security reasons on earlier days.

#### 2.1.2: Population of Nagaland

According to 2011 census total population of Nagaland was 1978502 out of this 1024649 were male and 953853 were female. The Density of population according to 2011 census was 119 people per square kilometre (sq. km.). The sex

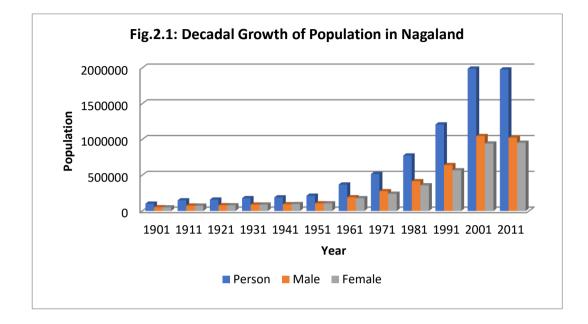
ratio of Nagaland, according to 2011 census was 931 females per 1000 male. Though the total population of Nagaland was comparatively very less the growth rate of population was quite high. The table No. 2.1 shows the decadal growth rate of population and the growth rate of male and female population separately from 1901 to 2011.

Year	Person	Decadal	%Decadal	Male	Female
		variation	Variation		
1901	101550			51473	50077
1911	149038	(+) 47488	(+) 46.76	74796	74242
1921	158801	(+) 9763	(+) 6.55	79738	79063
1931	178844	(+) 20043	(+) 12.62	89536	89308
1941	189641	(+) 10797	(+) 6.04	93831	95810
1951	212975	(+) 23334	(+) 12.30	106551	106424
1961	369200	(+) 156225	(+) 73.35	191027	178173
1971	516449	(+) 147249	(+) 39.88	276084	240365
1981	774930	(+) 258481	(+) 50.05	415910	359020
1991	1209546	(+) 434616	(+) 56.08	641282	568264
2001	1990036	(+) 780490	(+) 64.53	1047141	942895
2011	1978502	(-) 11534	(-)0.58	1024649	953853

**Table No.2.1: Population and Decadal Variation** 

Source: Statistical Handbook of Nagaland-2018

Table 2.1 gives the decadal growth of male, female and total population from 1901 to 2001. Nagaland was inaugurated as the sixteenth state of the Indian Union on 1<sup>st</sup> December, 1963. The first census of Population was done in 1971 after the formation of the state of Nagaland. Since the formation of the state, the population was increasing at an increasing rate from 1971 to 2001 but the population decreased for the first time after the formation of the state in 2011 census. In 1991, the population was 1209546 which increased to 1990036 in 2001 that is 64.53% increase in population in a decade. From 2001 to 2011 the population growth was negative that is there was 0.58% of decrease in population during this



period. From 1971 to 2011 male population was always higher than female population in Nagaland.

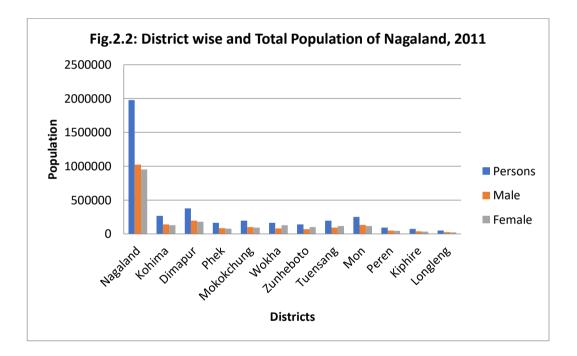
The Figure-2.1 clearly shows that during the first five decades starting from 1901 to 1951 the growth rate of population was at a very low. However, from the year 1951 to 1991 the growth rate of population got accelerated and from the year 1991 to 2001 there was a rapid jump in the growth rate of population. From the census period 2001 to 2011, for the first time there was a fall in the total population in Nagaland. The figure also shows that the male population was always higher than female population in Nagaland.

Sl. No.	State/ District	Total Population			Child Popu	Child Population (Age group 0-6)			Population (Age 7 and above)		
		Person	Male	Female	Person	Male	Female	Person	Male	Female	
	Nagaland	1978502	1024649	953853	291071	149785	141286	1687431	874864	812567	
1	Kohima	267988	138966	129022	36286	18279	18007	231702	120687	111015	
2	Dimapur	378811	197394	181417	50898	25889	25009	327913	171505	156408	
3	Phek	163418	83743	79675	27752	14505	13247	135666	69238	66428	
4	Mokokchung	194622	101092	93530	20536	10534	10002	174086	90558	83528	
5	Wokha	166343	81838	128208	20138	10298	9840	146205	74207	71998	
6	Zunheboto	140757	69540	102881	20093	10316	9777	120664	60901	59763	
7	Tuensang	196596	94663	117511	35790	18516	17274	160806	83417	77389	
8	Mon	250260	131753	118507	40342	21099	19243	209918	110654	99264	
9	Peren	95219	49714	45505	15415	7967	7448	79804	41747	38057	
10	Kiphire	74004	37830	36174	14711	7550	7161	59293	30280	29013	
11	Longleng	50484	26502	23982	9110	4832	4278	41374	21670	19704	

# Table No. 2.2: District –Wise Population of 0-6 Age Group and Population of Age 7 and Above According to 2011 Census

Source: Statistical Handbook of Nagaland-2018

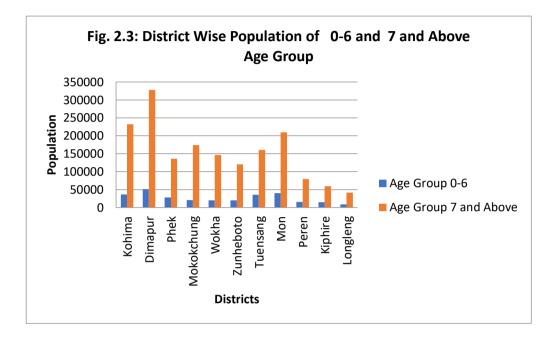
According to the 2011 census, Dimapur district had the highest population (378811) followed by Kohima (267988) and Mon (250260) districts respectively. Longleng had the lowest population i.e., 50484 (Noklak district was not included as it was formed after 2011 census). A comparison between Kohima and Mon Districts shows that total population of Kohima district was higher than Mon district. However, in case of population between the age group of zero to six Mon district had higher population than Kohima district. It is a sign that the growth rate of population was higher in Mon district than Kohima district. The higher number of people in Kohima district between the age group of seven and above can be partially due to the migration of people from other districts to Kohima in search of employment and other facilities as the Kohima is the state capital.



The Figure 2:2 shows the total population of Nagaland and the district wise population. The figure clearly shows that Dimapur district has the highest population followed by Mon district and Kohima district.

The Figure 2:3: shows that both the age group 0-6 and the age group 7 and above were highest in Dimapur District. Though Kohima district had the 2<sup>nd</sup> highest population in the age group of 7 and above, in the case of the age group of 0-6 Kohima district was in the third position. In the case of Mon District, it was in the

 $3^{rd}$  position in terms of the age group of population 7 and above but in the case of the age group of population 0-6 Mon district was in  $2^{nd}$  position. The higher number of the population in the age group 0-6 indicates that the growth rate of population is higher in that district.



# 2.1.3: Workforce

Work force means total workers which include the people employed as well as unemployed as the unemployed people are the potential workers who are able and willing to work but presently not employed.

State/ District	Total Population			Total Workers			Total Non- Workers		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
Nagaland	1978502	1024649	953853	974122	547357	426765	1004380	477292	527088
Kohima	267988	138966	129022	114825	68140	46685	153163	70826	82337
Dimapur	378811	197394	181417	151350	99645	51705	227461	97749	129712
Phek	163418	83743	79675	80277	41556	38721	83141	42187	40954
Mokokchung	194622	101092	93530	100067	57084	42983	94555	44008	50547
Wokha	166343	84505	81838	78412	42096	36316	87931	42409	45522
Zunheboto	140757	71217	69540	79466	41178	38288	61291	30039	31252
Tuensang	196596	101933	94663	98154	52931	45223	98442	49002	49440
Mon	250260	131753	118507	147654	79425	68229	102606	52328	50278
Peren	95219	49714	45505	61390	32249	29141	33829	17465	16364
Kiphire	74004	37830	36174	31959	16780	15179	42045	21050	20995
Longleng	50484	26502	23982	30568	16273	14295	19916	10229	9687

Table No.2.3: Distribution of Workers and Non- Workers According to 2011 Census

Source: Statistical Handbook of Nagaland-2018

The table 2.3 shows that out of the total population of 1978502 people in Nagaland 974122 were workers and 1004380 were non-workers. In other words, only 49.24 per cent were workers and 50.76 per cent were non-workers. It shows that the number of workers was less than the non-workers in Nagaland as per 2011 census. All Persons who participated in any economically productive activity for any length of time during the reference period were defined as workers. Normally production for self-consumption is not treated as economic activity. But for the purpose of census exception has been made and persons engaged in growing of crops except plantation crops, raring of animals, and milk production for selfconsumption has been treated as economic activity. Here the reference period for determining a person as worker and non-worker was one year preceding the date of enumeration. A person who has not performed any economically productive activity during the period of one year preceding the date of enumeration of census was treated as non-worker. Non worker category includes students, persons engaged in household activities, dependents, pensioners beggars etc if they were not engaged in any economically productive activity during the period of one year preceding the date of enumeration (Census of India 2011, Meta Data).

Among the total workers in Nagaland 547357 were male and 426765 are female. The table clearly shows that among the workers male population was higher than the female population. Out of 1004380 non-workers in Nagaland 477292 were male and 527088 were female which means among the non-workers female population was more than male population.

Among the workers in Nagaland 56.19 percentage were male while 43.81 percentage were female. On the other hand, among the non- workers, 47.52% were male while 52.48% were female. It shows that among the workers majority of them were male while among the non-workers majority were female.

The Table No. 2.3 shows that in Kohima District, out of 2,67,988 people, 1,14,825 were workers and 1,53,163 were non-workers. In Kohima district the total number of workers was less than the non-workers. In Mon district, out of 2,50,260 people 1,47,654 were workers and 1,02,606 were non-workers. In Mon district, the number of workers was more than non-workers.

In Kohima district, among the workers 59.34 percentage was male and 40.66 percentage was female. On the other hand, among the non-workers in Kohima district only 46.24 percentage was male where as 53.76 percentage was female. It shows that in Kohima District in line with the state trend among workers higher percentage was male whereas among non-workers higher percentage was female.

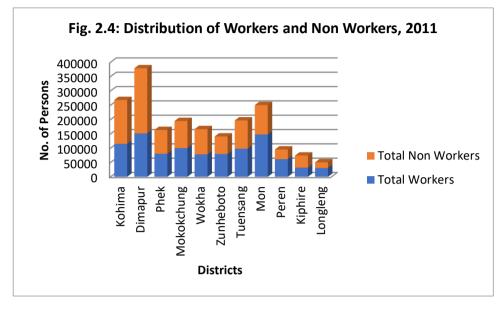
In the case of Mon district among the workers 53.79 percentage was male while 46.21 percentage was female. Among the non-workers 51.00 percentages was male and 49.00 percentages was female. It shows that in the case of Mon District, unlike the Kohima district, the percentage of male population was higher than female population among workers and non-workers.

In Nagaland the percentage of workers in total population was 49.24 out of which 27.67 per cent was male and 21.57 per cent was female. The percentage of non-workers to total population of Nagaland was 50.76 out of which 24.12 per cent was male and 26.64 was female. It shows that the percentage of non-workers were more than the workers in Nagaland.

In Kohima district the percentage of workers to the total population was 42.85 per cent whereas the non-workers were 57.15 per cent which shows that the percentage of workers were much less than non-workers here. On the other hand, in Mon district, 59.00 per cent of the population was workers and only 41 per cent was non-workers. Again, in Kohima district 25.43 per cent of the total population was male workers and only 17.42 percentage was female workers. Where as in Mon district 31.74 per cent of the total population was male workers. It shows that the percentage of male, female and total workers in the population was higher in Mon district in comparison to Kohima district.

In the case of non-workers in Kohima district out of 57.15 per cent, 26.43 per cent was male and 30.72 per cent was female. On the other hand, in Mon district out of 41.00 per cent of non-workers, 20.91 per cent was male and 20.09 per cent was female. It clearly indicates that between these two districts, the percentage of non-workers in total population was higher in Kohima than Mon. Another

important fact observed was that in Mon district there was only less than one per cent difference between the male and female population among the non- workers whereas the difference was higher in Kohima district.



The Figure 2.4 shows that in Mokokchung, Zunheboto, Tuensang, Mon, Peren and Longleng districts the workers were more than the non-workers and in all other districts the non-workers were more than the workers.

		Percentage of male	Percentage of	Percentage of	Percentage of	Percentage of
		and female in total	male and Female	male and female	workers in total	non-workers in
		population	in Workers	in Non-workers	Population	total population
Nagaland	Male	51.79	56.19	47.52	27.67	24.12
	Female	48.21	43.81	52.48	21.57	26.64
	Total	100.	100.00	100.00	49.24	50.76
Kohima	Male	51.86	59.34	46.24	25.43	26.43
	Female	48.14	40.66	53.76	17.42	30.72
	Total	100.00	100.00	100.00	42.85	57.15
Mon	Male	52.65	53.79	51.00	31.74	20.91
	Female	47.35	46.21	49.00	27.26	20.09
	Total	100.00	100.00	100.00	59.00	41.00

# Table No. 2.4: Percentage of Male and Female in Total Population, Workers and Non- Workers

Source: calculated based on the data from the table No.2.3

#### 2.1.4: Literacy Rate in Nagaland

In India, a person who can both read and write with understanding in any language is considered as literate. While calculating the literacy rate in India, presently, the population below the age of 7 is excluded. Accordingly, the literacy rate in India as per 2011 census was 72.98 while that of Nagaland was 79.55.

Table No. 2.5: District-wise Literate Population and Literacy Rate inNagaland According to 2011 Census

Sl.	State/ District	Total	Literate Po	opulation	Literacy Rate (%)			
No.		Population						
			Person	Male	Female	Person	Male	Female
	India					72.98		
	Nagaland	1978502	1342434	723957	618477	79.55	82.75	76.11
1	Kohima	267988	197489	107038	90451	85.23	88.69	81.48
2	Dimapur	378811	278037	150142	127895	84.79	87.54	81.77
3	Phek	163418	105893	57926	47967	78.05	83.66	72.21
4	Mokokchung	194622	159494	83497	76015	91.62	92.18	91.01
5	Wokha	166343	128208	67385	60823	87.69	90.81	84.48
6	Zunheboto	140757	102881	53504	49377	85.26	87.85	82.62
7	Tuensang	196596	117511	63653	53858	73.08	76.31	69.59
8	Mon	250260	119626	67432	52194	56.99	60.94	52.58
9	Peren	95219	62204	34584	27620	77.95	82.84	72.58
10	Kiphire	74004	41232	22675	18557	69.54	74.88	63.97
11	Longleng	50484	29859	16139	13720	72.17	74.48	69.63

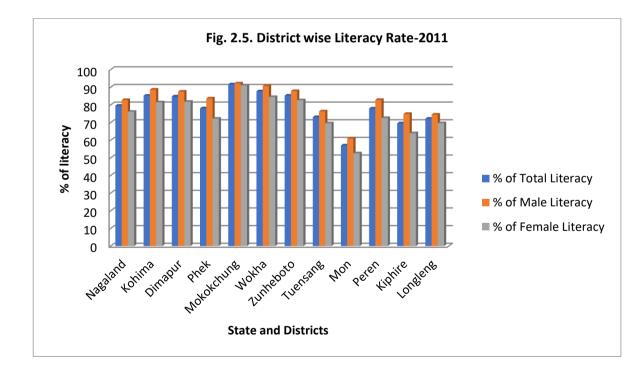
Source: Statistical Handbook of Nagaland- 2014 & 2018

According to 2011 census total population of Nagaland was 1978502 out of which the literate population was 1342434. Among the literate population 723957 were male and 618477 were female. The literacy rate of Nagaland as per 2011 census was 79.55 per cent in which 82.75 per cent was male and 76.11 was female.

As per 2011 census, in Kohima district the literate population was 197489 in which 107038 were male and 90451 were female. The literacy rate of Kohima district was 85.23 per cent. The male literacy rate in Kohima district was 88.69 per cent which was higher than female literacy rate which was only 81.48 per cent. The literate population of Mon district, as per 2011 census, was 119626 in which 67432 were male and 52194 were female. The literacy rate of Mon district was 56.99 per cent. In Mon district the male literacy rate was 60.94 per cent and female literacy rate was 52.58 per cent.

The data shows that in comparison to all other districts of Nagaland, literacy rate of Mon district was the lowest and the Kohima district was in 4<sup>th</sup> position below Mokokchung, Wokha, and Zunheboto districts. The literacy rate of Kohima district was higher than the state literacy rate but that of Mon district was much lower than the state literacy rate. In the state as well as in all the districts the female literacy rate was below the male literacy rate.

For the calculation of literacy rate the formula used in India is  $\frac{Number \ of \ Lietrates}{Population \ age \ 7+}$  × 100. It is called the effective literacy rate. In the table No.2.5, the total population includes the population below the age of 7 also.



The Figure 2.5 shows the literacy rate of Nagaland and the literacy rate of each districts. The Figure shows that the literacy rate was highest in Mokokchung district and least in Mon District. Similarly, the male literacy in all the districts was higher than the female literacy. In a comparison between the Kohima and Mon

Districts it is clear that the Kohima district had the literacy rate higher than the state level and the Mon district had the literacy rate below the state level.

# 2.1.5: Enrolment of School Students in Nagaland

Sl.	District	Primary	Upper	Secondary	Higher	Total
No		(CL.1-5)	Primary	(CL.9-10)	Secondary	
			(CL. 6-8)		(CL.11-12)	
1	Dimapur	57975	31771	18763	14493	123002
2	Kiphire	7875	3835	1831	212	13753
3	Kohima	26427	14049	9262	6445	56183
4	Longleng	4551	2223	1517	124	8415
5	Mokokchung	13756	6939	3897	2205	26797
6	Mon	26134	10851	4962	1661	43608
7	Peren	11861	5163	2661	953	20638
8	Phek	15511	7326	4317	1349	28503
9	Tuensang	16717	8551	4111	1198	30577
10	Wokha	7837	4085	2766	997	15685
11	Zunheboto	15124	6099	3477	978	25678
Nagaland		203768	100892	57564	30615	392839

 Table No. 2. 6: District Wise Enrolment in School during 2017-18

Source: Statistical Handbook of Nagaland-2018

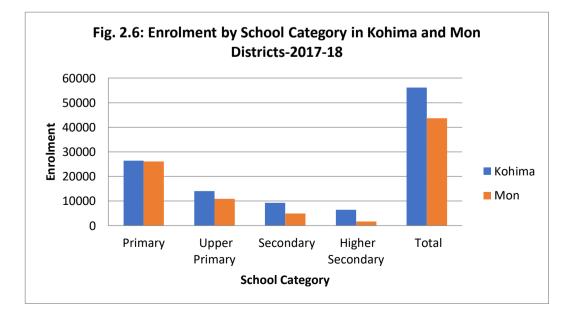
The table 2.6 shows the enrolment of students in schools in Nagaland in 2017-18. In Nagaland, total enrolment of students in schools from class one to Higher Secondary in the year 2017-18 were 392839. Out of these 203768 students were in primary school i.e., from class 1 to 5, 100892 students were in Upper Primary School, i.e., from class 6 to 8 level, 57564 students in Secondary School i.e., from class 9 to10 and 30615 students in Higher Secondary School i.e., from class 11 to 12.

In Kohima district the total enrolment of students in schools from class one to 12 in 2017-18 were 56183. The enrolment in Primary section (class 1-5) was

26427 students, in Upper primary section (class 6-8) was 14049 students, in Secondary Section (Class 9-10) was 9262 students, and in Higher Secondary section (Class-11-12) was 6445 students.

In Mon district total enrolment of students in class 1 to 12 in the academic year 2017-18 was 43608. Out of this the maximum number of students were enrolled in the primary section (class-1-5) i.e., 26134, in Upper Primary section (Class-6-8) 10851 students, in Secondary Section (Class 9-10) 4962 students, and in Higher Secondary section (Class 11-12) 1661 students.

A comparison between the districts of Kohima and Mon clearly indicates that in the primary section the enrolments of students were close to each other with marginal number of 293 students more enrolled in Kohima district. As it moves to higher classes the difference in enrolment between the two districts showed an increase. In upper primary level the enrolment in Kohima district was higher by 3198 students. At the secondary level Kohima district had 4300 students more enrolled than Mon district. At higher Secondary level the enrolment of students in Kohima district was higher than Mon district by 4784 students. The decreasing difference in the enrolment of students in smaller classes, between Kohima and Mon districts, clearly indicates that the enrolment of students in Mon district is increasing at a faster rate in the recent years though it was much behind Kohima district in earlier years.



The Figure 2.6 shows that the enrolment in primary schools in Kohima and Mon Districts were more or less equal but as it proceeds to higher class the difference between the two districts increased at an increasing rate. In Higher Secondary Schools the enrolment in Mon District was less than half of the enrolment in Kohima district. It shows that there was high rate of dropout in Mon District in comparison to the Kohima district. The data also shows that the enrolment of students at the primary level was higher in Kohima district than Mon district but the difference was larger in higher classes

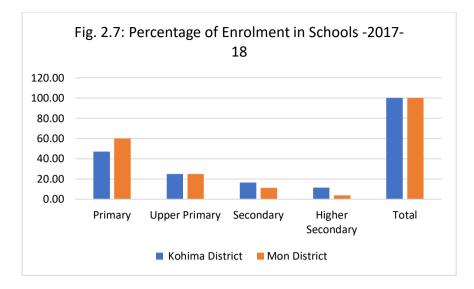
	Kohima District		Mon District	
	Enrolment	Percentage	Enrolment	Percentage
Primary	26427	47.04	26134	59.93
Upper Primary	14049	25.0	10851	24.88
Secondary	9262	16.5	4962	11.38
Higher Secondary	6445	11.5	1661	3.81
Total	56183	100.0	43608	100.00

 Table No. 2. 7: Percentage of Enrolment in Schools in Kohima and Mon

 districts -2017-18

Source: Percentage is calculated based on the data from table number 2.6

The table 2.7 shows the percentage of enrolment of student in schools in the sample study area of two districts namely Kohima and Mon. It shows that in Kohima district 47.04 per cent of students enrolled in primary section, 25.00 per cent in upper primary section, 16.50 per cent in secondary and 11.50 per cent in higher secondary section. Similarly, in Mon district, 59.93 per cent was enrolled in primary section, 24.88 per cent in upper primary. 11.38 per cent in secondary and 3.81 per cent in higher secondary section. The data shows that in Mon district more than half of the students were enrolled in primary level and there was a sharp decline in the enrolment at higher levels.



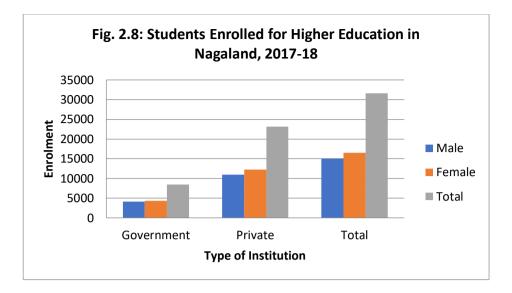
The figure 2.7 shows that in the primary level the percentage of students enrolled in Mon district was higher than that of Kohima district while in all other higher classes the percentage of students enrolled in Mon district was less than that of Kohima district. Similarly, the percentage of enrolment was sharply decreasing in higher sections but the decrease was higher in Mon district than Kohima district.

 Table No. 2.8: Students Enrolled for Higher Education in Nagaland-2017-18

Government/	Male	Female	Total
private			
Government	4112	4328	8440
Private	10944	12219	23163
Total	15056	16547	31603

Source: Office of the Department of Higher Education, Kohima, Nagaland

Table No. 2.8 shows that the private education institutions played a major role in the development of education in Nagaland as the major portion of the students' study in private institutions in comparison to the government institutions. Again, the data shows that presently the enrolment of girl students was higher than boys in higher education.



The figure 2.8 shows that enrolment of girls was more than boys in both government and private schools. Similarly, the figure clearly shows that contribution of private sector was much higher than the government sector in case of higher education in Nagaland.

# 2.1.6: Academic Performance

Category	Enrolled	Appeared	Qualified	Percentage of Qualified
	I	Governme	nt Schools	
Male	2992	2711	985	36.33
Female	3546	3509	1056	30.09
Total	6538	6220	2041	32.81
	I	Private	Schools	
Male	8101	8074	6333	78.43
Female	8128	8114	6530	80.47
Total	16229	16188	12863	79.46
	I	Repe	aters	
Male	621	286	59	20.62
Female	667	276	64	21.18
Total	1288	562	123	21.88
Grand Total	24055	22970	15027	65.42

Table No. 2.9: Result of HSLC Examination, Nagaland-2016

Source: Report of the Nagaland Board of School Education, 2009-2016

The Table No. 2:9 shows the result of High School Leaving Certificate (HSLC) examination of Nagaland in the year 2016. The total enrolment in the year 2016 was 24055 students out of which 22970 students appeared for the examination. Out of 22970 students appeared for the examination 15027 students qualified the examination with a pass percentage of 65.42. A comparison between the government schools and private schools shows that the pass percentage in government schools was less than half of the private schools. Due to the better result produced by the private schools in the previous years, good students who can afford the expenses would opt for the private schools. The low pass percentage in the past would keep the good students, who can afford, away from the government schools which may further lower the result of the government schools.

Again, the table shows that enrolment of girls was higher than boys in both government and private schools. The pass percentage of boys was 49.09 and that of girls was 50.91 per cent. The pass percentage also showed that girl students were performing better than boys.

Category	Appeared	Passed	Pass Percentage
		Arts Stream	
Male	4894	3319	67.82
Female	5492	4169	75.91
Total	10386	7488	72.10
	Con	nmerce Stream	1
Male	892	605	67.83
Female	505	426	84.36
Total	1397	1031	73.80
	Sc	cience Stream	L
Male	1510	1193	79.01
Female	1215	1053	86.66
Total	2725	2246	82.42
Grand Total			

Table No. 2.10: Students appeared and Passed in HSSLC examination,Nagaland- 2016

Source: Pass percentage is Calculated based on the data from the Report of the Nagaland Board of School Education, 2009-2016

The table No. 2.10 shows the result of the Higher Secondary School Leaving Certificate (HSSLC) Examination, 2016 in Nagaland. In the Arts stream total pass percentage was 72.10. The data shows that the number of girl students appeared in Arts stream (5492) was higher than the number of boys (4894). The pass percentage of Girls was 75.91 which was also higher than the pass percentage of boys which was only 67.82.

In commerce Stream total number of students appeared for the exam was 1397 out of which 892 were boys and 505 were girls. Even though a greater number of boys appeared for the exam than girls the pass percentage of girls (84.36) was higher than that of boys (67.83). The total pass percentage of commerce stream in 2016 was 73.80.

In Science stream a total of 2725 students appeared for the exam out of which 2246 students were qualified which makes the pass percentage 82.42. The data shows that the number of girls students appeared for the examination (1215) was less than that of boys (1510). However, the pass percentage of girls was 86.66 which was higher than the pass percentage of boys which was only 79.01.

S1.	Types of	No. of	No. of Students	Pass
No	Exam	Applicant	Passed	Percentage
1	Arts	4833	4020	83.19
2	Science	1168	966	82.71
3	Commerce	613	380	62.00
4	LLB	67	39	58.20
5	B.Ed.	301	270	89.71
6	BBA	26	26	100.00
7	BCA	9	9	100.00
8	MCA	2	2	100.00
9	B. Music	26	14	53.80

Table No. 2.11: Result of Different Degree Examinations, 2017-18

Source: Statistical Handbook of Nagaland-2018

The table No. 2.11 shows the number of students appeared and passed in different degree examination in 2017-18. Highest number of students appeared in

Arts Stream that was 4833 students and out of which 4020 students passed with the pass percentage of 83.19. Science stream had the second largest number of takers in the same year with 1168 students appeared and 966 students passed in the exam i.e., the pass percentage was 82. 71. Commerce stream had the third largest number of takers with 613 students appeared and 380 students passed with 62.00 pass percentage. There were 67 students appeared for LLB and out of which 39 passed which makes the pass percentage only 58.20. 301 students appeared for B.Ed. examination and 270 passed which makes the pass percentage of 89.71. BBA with 26 students, BCA with 9 students and MCA with 2 students appeared for the exam and the pass percentage was 100. 26 students appeared for B. Music and out of which 14 students passed i.e., the pass percentage was only 53.80.

# 2.1.7: Educational Institutions in Nagaland

SL.	Name of the	Government	Government	Government	Government	Total
No	District	Higher	High Schools	Middle	Primary	
		Secondary		Schools	Schools	
		Schools				
1	Dimapur	7	21	126	137	291
2	Kiphire	2	16	33	58	109
3	Kohima	7	24	51	87	169
4	Longleng	1	14	19	54	88
5	Mokokchung	5	37	52	103	197
6	Mon	5	16	69	137	227
7	Peren	2	16	42	72	132
8	Phek	4	35	44	103	186
9	Tuensang	5	25	59	116	205
10	Wokha	3	21	44	81	149
11	Zunheboto	3	22	88	121	234
	Total	44	247	627	1069	1987

Table No. 2.12. District wise Government Schools in Nagaland, 2018-19

Source: Office of the Directorate of School Education

The Table 2.12 shows the number of Government Schools in different districts of Nagaland in the year 2018-19. There were 44 government higher

secondary schools in Nagaland in 2018-19 out which Kohima district had 7 schools and Mon district had 5 schools. Kohima and Dimapur districts had the highest

Nagaland had 247 government high schools 2018-19, out of which Kohima district had 24 schools and Mon district had 16 schools. The highest number of government high schools were in Mokokchung district and the least number of government high schools were in Longleng district.

number of government higher secondary schools that is 7 schools each.

In Nagaland, there were 627 government middle schools in 2018-19, out of which 51 schools were in Kohima district and 69 schools were in Mon district. Dimapur district had the highest number of government middle schools where as Longleng district had the lowest number of government schools in Nagaland.

There are 1069 government primary schools in Nagaland in 2018-19, out of which 87 were in Kohima district and 137 were in Mon district. The highest number of government primary schools were in Dimapur district and the least number of government primary schools were in Longleng district.

The data shows that in case of the government schools, Mon district had a greater number of schools than Kohima district. In Mon district there were 227 government schools where as Kohima district had only 169 government schools. One reason for this may be that in Kohima district there was a greater number of private schools than in Mon district so in order to fill the shortage of private schools, government has set up a greater number of schools in Mon district. Since Kohima district was more advanced and had better connectivity, it attracts more private investment in the education sector than the Mon district as the private investment is mostly profit motivated and government investment is mostly welfare motivated. However, it was observed that though in Mon district, it was mostly primary and middle schools and the number of high schools and higher secondary schools were more in Kohima district.

SL.	District	Government	Government	Private Higher	Recognized	Permitted	Total
No.		Higher Secondary	High Schools	Secondary Schools with Secondary	Private High Schools	Schools	
		Schools with		Section	Seneors		
		Secondary					
1	Kohima	Section 7	24	25	24	23	103
1	Komma			2.5		23	
2	Mokokchung	5	37	12	13	6	73
3	Tuensang	5	24	1	6	17	53
4	Mon	5	18	5	2	28	58
5	Phek	4	35	5	11	7	62
6	Wokha	3	21	2	7	12	45
7	Zunheboto	3	22	6	14	15	60
8	Dimapur	7	22	44	18	88	179
9	Kiphire	2	15	1	2	10	30
10	Longleng	1	13	-	2	7	23
11	Peren	2	16	5	4	9	36
	Total	44	247	106	103	222	722

# Table No.2.13: High Schools in Nagaland (Government and Private), 2017-18

Source: Office of the Department of Higher Education

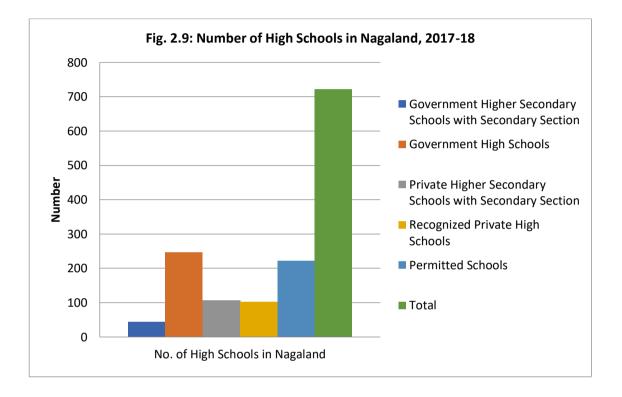
The table 2.13 shows the number of recognized Government and Private Schools in Nagaland, in district wise, as per 2017-18 data. There were 44 Government Higher Secondary Schools with Secondary section in the state. Among the 11 districts, Kohima and Dimapur districts had the highest number of government higher secondary schools i.e., 7 each, while Longleng district, with only one government higher secondary school, had the least number of government higher secondary school. Mon District had 5 Government higher Secondary Schools with Secondary Section.

Similarly, there were 247 Government High schools in Nagaland. Mokokchung District had the highest number of government high schools in the state that is 37 schools where as Longleng district had the least number of government high schools with only 13 schools. Kohima District had 24 Government High Schools where as Mon District had 18 Government High Schools.

There were 106 Private Higher Secondary Schools in the state with secondary sections and Dimapur district had the highest number of schools in this category i.e., 44 schools and Longleng District did not have any. Kohima District had 25 Private Higher Secondary Schools with Secondary Sections and Mon District had only 5 Schools of this category.

There were 103 Recognized Private High Schools in Nagaland out of which Kohima district had the highest number of schools that is 24 schools where as Mon, Longleng and Kiphire Districts were in the last with only 2 schools each in this category.

In addition to the recognized private high schools there are 222 Permitted Private High Schools in Nagaland and out of this Kohima District had 23 schools and Mon district had 28 schools. Only in this category Mon district had a greater number of schools than Kohima district. In the case of permitted private high schools, Dimapur District had the highest number i.e., 88 schools and with 7 schools each Longleng and Phek districts were in the last. The table shows that out of 722 high schools in Nagaland 103 were in Kohima district and only 58 were in Mon district. Dimapur district had the highest number of high schools i.e., 179 schools and Longleng district had the lowest number i.e., 23 schools.



The figure 2.9 shows the different categories of high schools in Nagaland in the year 2017-2018. The figure shows that the highest number was in the category of government high schools followed by permitted private schools. Number of Government Higher Secondary schools with secondary section was the least in this category. In the figure, the first two bars represent the government schools and the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> bars represent the private schools. The figure shows that total number of private schools were more than the government schools

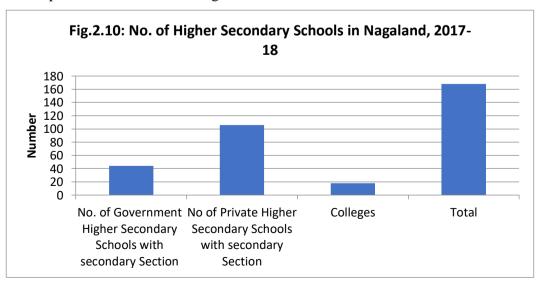
# 2.1.7.1: Government and Private Higher Secondary Institutions in Nagaland

SL.	Type of Institution	Number of
No		Institutions
1	Government Higher Secondary Schools with secondary Section	44
2.	Private Higher Secondary Schools with secondary Section	106
3.	Colleges	18
	Total	168

Table No. 2.14: Number of Higher Secondary Institutions in Nagaland, 2017-18

Source: Office of the Department of Higher Education

The table 2.14 shows the number of Higher Secondary Schools in Nagaland in 2017-18. Out of 168 higher secondary schools in Nagaland, 44 of them were government higher secondary schools, 106 were private higher secondary schools and 18 of them were colleges with higher secondary section. The data shows that the number of government higher secondary schools was much less than the private higher secondary schools which indicate the role played by the private sector in the development of education in Nagaland.



The Figure 2.10 shows the number of higher Secondary Schools in Nagaland in 2017-18. The figure shows that number of government higher secondary schools were less than half of the private higher secondary schools in Nagaland. It shows that the private sector played a major role in the area of higher secondary education in Nagaland. There were a few colleges also which still continue to provide the higher secondary education in Nagaland.

SL. No	District	Arts	Science	Commerce	Total
1	Kohima	35	10	8	53
2	Mokokchung	18	3	2	23
3	Tuensang	6	2	1	9
4	Mon	10	2	-	12
5	Phek	9	1	-	10
6	Wokha	6	1	-	7
7	Zunheboto	9	2	1	12
8	Dimapur	53	21	22	96
9	Kiphire	4	-	-	4
10	Longleng	1	-	-	1
11	Peren	7	-	1	8
		158	42	35	235

Table No. 2.15: Number of Higher Secondary Institutions<sup>1</sup> in Nagaland-District Wise Distribution, 2017-18

Source: Office of the Department of Higher Education

The table 2.15 shows that out of 158 higher secondary institutions for Arts, in Nagaland, 35 of them were in Kohima district and only 10 of them were in Mon district. The highest number of institutions were in Dimapur district and lowest number of institutions were in Longleng district which had only one institution. In the case of Higher Secondary institutions for Science 10 institutions were in

<sup>&</sup>lt;sup>1</sup>The figures in this table indicate only the number of courses or streams being offered in the institutions. These numbers will not tally with total number of institutions as one institution may have two or three streams.

Kohima district and only 2 were in Mon district. There were 35 higher secondary institutions for commerce in the state out of which 8 institutions were in Kohima district and there were no institutions for commerce in Mon district. In Kohima district, all together, there were 53 institutions (if there are all the three streams in one institution it is counted as three institutions) where as in Mon district there were only 12 institutions Arts, Science and Commerce together.

# 2.1.7.2: Higher Educational Institutions in Nagaland

SL. No	Type of Institutions	Number
1	University	4
2	College of General Education	
	a) Government	13
	b) Private	61
3.	Higher Professional Education	
	i) Nagaland College of Teacher Education	
	a) Government	2
	b) Private	7
	ii) Agriculture College	-
4	Law College	3
5	Management	1
6	Information technology	1
	Total	92

 Table No. 2.16: Number of Educational Institutions (Degree) 2016-17

Source: Statistical Handbook of Nagaland-2018

The table 2.16 shows the higher educational institutions in Nagaland in 2016-17. There were 92 institutions of higher education in Nagaland in 2016-17. It consisted of four Universities, 74 Colleges of General Education, 9 Colleges of Teacher Education, 3 Law Colleges and one each Institution of Management and Information Technology.

## 2.2: Socio Economic Profile of Kohima District

At the time of the formation of the state of Nagaland as the 16<sup>th</sup> state of the Indian union on 1<sup>st</sup> December, 1963, the entire state was divided into three districts, namely Kohima, Mokokchung and Tuensang. In 1973 new districts of Phek and Wokha were created out of Kohima district and in 1997 Dimapur district was also created form Kohima district. Peren District was also created out of Kohima district in 2003 (Wikipedia). After the creation of other districts, as per the 2011 census, Kohima district had the total geographical area of 1463 sq. km. representing 8. 82 per cent of the total area of the state of Nagaland. Kohima district was divided into four Rural Development Blocks (RD Blocks) namely Kohima, Chiephobozou, Jakhama and Tseminyu. The RD Blocks were divided into 8 administrative circles which were further divided into villages. The name of the administrative circles under the Kohima District and the number of villages under each administrative circle were Kohima Sadar (3 villages), Sechu-Zubza (16 villages), Chiephobozou (18 villages), Botsa (10 villages) Kezocha (10 villages) Jakhama (10 villages) Tseminyu (32 villages) and Tsogin (7 villages). As per 2011 census Kohima District had two statutory towns, namely, Kohima Town and Tseminyu Town and one Census Town namely, Kohima Village. The district had 105 inhabited villages (106 including Census Town of Kohima Village). The density of population in the district was 183 persons per sq. Km.

#### 2.2.1: Geography of Kohima District

Kohima is the capital city of Nagaland. Kohima is a hilly district sharing its borders with Manipur state and Peren District in the South, Wokha district in the North, Phek District in the East, Assam state and Dimapur district in the West. It had an average elevation of 1261 metres (4137 feet). Kohima is one of the three towns with Municipal Council status in Nagaland. Mount Japfü is the highest mountain peak in the district. (District Census Hand Book, Census of India, 2011)

# 2.2.2: Demographic Characteristics of Kohima District

Kohima district is predominantly inhabited by people belonging to Angami and Rengma tribes. People of Angami and Rengma tribes belong to Mongoloid race just as the other Naga tribes. Majority of the people of these Tribes now follow Christian faith. People belongs to all the tribes of Nagaland as well as the people from the mainland India reside in Kohima town. Kohima District had a total population of 267,988 persons out of which 138,966 were male and 129,022 were female. The rural population in the district was 146,900 while 121,088 was the urban population. The sex ratio in the district was 928 females per 1000 male. The sex ratio was better in urban areas i.e., 934 females per 1000 male while it was 924 females per 1000 male in rural areas.

# 2.2.3: Literacy Rate of Kohima District

The Literacy rate of Kohima district was 85.2% while that of the State was 79.55%. So, the literacy rate of the district was higher than the state literacy rate. The male literacy rate in Kohima district was 88.69% while the female literacy rate was 81.48%. The data shows that the male literacy rate was higher than the female literacy rate. The male literacy rate of Nagaland was 82.75% while the female literacy in literacy rate was 76.11%. Kohima district was in 4<sup>th</sup> place in terms of literacy in Nagaland.

# 2.2.4: Education Sector in Kohima District

Unlike the earlier decades where the importance was given to the development of physical capital for economic growth, now the researchers have shown the importance of education for the speedy development of the economy. Education helps and facilitates the development of human skills and knowledge of the people. The quality and quantity of education people receives determines the development of the state. Realizing the significance of education now the expenditure on education is called as investment in human capital.

SL. No.	Type of Schools	Number of Schools
1	Primary only with grades 1 to 5	107
2	Upper Primary only with grades 6 to 8	5
3	Upper Primary only with grades 1 to 8	44
4	Secondary with Grades 1to 10	9
	Higher Secondary with grades 1 to 12	1
5	Secondary with grades 6 to 10	12
6	Higher Secondary with grades 6 to 12	5
	Secondary with grades 9 and 10	3
	Higher Secondary with grades 9 to 12	1
	Total	187

Table No. 2.17: Government Schools in Kohima District, 2017-18

Source: Statistical Hand Book of Nagaland, 2019

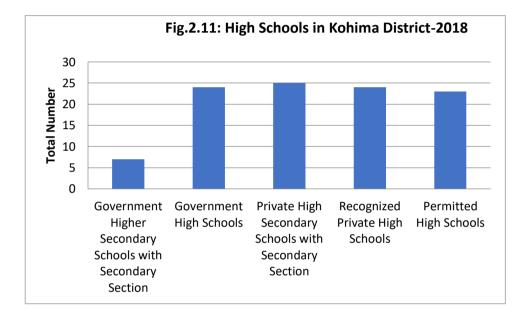
The data in the table 2.17 shows that there were 187 government schools in Kohima district in 2017-18. This was much less than the number of government schools in Mon district during the period. Out of 187 government schools in Kohima district, 161 schools had primary section i.e., class 1 to 5. There were 75 schools which had classes 6 to 8 and 31 schools had classes 9 to 10. Out of 187 government schools only 7 schools had class 11 and 12.

SL. No.	Type of Schools	Total	Government/
		Number	private
1.	Government Higher Secondary Schools	7	
	with Secondary Section		31
2.	Government High Schools	24	
3.	Private High Secondary Schools with	25	
	Secondary Section		72
4.	Recognized Private High Schools	24	
5.	Permitted High Schools	23	
	Total	103	103

Table No.2.18: High Schools in Kohima District-2018

Source: Office of the Department of Higher Education

Number of high schools in Kohima district, in 2018, is shown in the table 2.18. In 2018, there were 103 high schools in Kohima district. Out of 103 high schools 31 schools were government schools and 72 high schools were in private sector. Out of 31 government high schools 7 schools were higher secondary schools with secondary section. In the private sector, out of 72 high schools, 25 schools were higher secondary with secondary section, 24 recognized high schools and 23 permitted schools.



The Figure 2.11: shows the number of government and private schools in Kohima district in 2018. It shows that private sector played a major role in providing of high school education in Nagaland.

SL. No		Number of Students	Percentage (%)
1	Primary (1-5)	26427	47.04
2	Upper Primary (6-8)	14049	25.01
3	Secondary (9-10)	9262	16.49
4	Higher Secondary (11-12_	6445	11.47
5	Total	56183	100

Source: Statistical Hand Book of Nagaland, 2019

According to the table 2.19, during the period of 2017-18, in Kohima district, there were 26427 students enrolled in the primary section, 14049 students in upper primary section (Class 6-8), 9262 students in secondary section and 6445 students enrolled in higher secondary section. So, all together there was 56183 students enrolled in schools, from class 1 to 12, in Kohima district during the period 2017-18. The number of students enrolled included enrolment in both government and private schools. The data shows that the percentage of students enrolled in higher classes were steadily decreasing in comparison to the lower classes.

During the period of 2017-18, 4303 teachers were employed in Schools in Kohima district. It includes, 1405 teachers in primary section, 1578 teachers in upper primary section, 846 in secondary section, and 474 teachers in higher secondary section.

# 2.2.5: Health Sector in Kohima District

Good health is one of the basic determinants of the quality of human life and economic progress. Good health is a prerequisite for increasing the productivity and economic advancement. One of the major responsibilities of the government is to ensure the affordable and quality health care services to the people of the state.

During the period 2018-19, Kohima district had one district hospital, 3 Community Health Centres, 14 Primary Health Centres, one T. B. Hospital, One Mental Hospital, 40 Sub- Centres, one D.T.C., one Para Medical Training Institute, one School of Nursing (GNM), one Health Food Laboratory, and one Health and Wellness Centre (Statistical Hand Book of Nagaland, 2019).

## 2.2.6: Social Characteristics of Kohima District

Social Characteristics of the society always has an impact on the economic growth of the society. Kohima district was the second most populous district of Nagaland. The indigenous people of Kohima district were mainly consisted of the people belonging to the Angami Naga tribe and Rengma Naga tribes. The State Capital Kohima accommodate the people from all the Naga Tribes Nepalis and people from other parts of India. The indigenous people of Kohima district were mostly Christians. The official language of the state is English. The major dialects spoken in the area are Angami, Ao, Chakhesang, Lotha and Sumi. Agriculture is the main occupation of the people in the district. They use local basket made of bamboo and carry on the back to transport the things. Both men and women use traditional ornaments especially during festivals. They also have the practice of Terrace cultivation in the hills.

People belongs to Angami Tribe celebrate *Sekrenyi* festival in the month of February. The ten-days festival is also called *'Phousanyi'* by the *Angamis*. The festival follows a number of ritual and ceremony.

The Rengma *Nagas* celebrate '*Ngada*' festival towards the end of November. The celebration last for eight days. This festival is celebrated just after the harvest to mark the thanks giving. '*Ngada*' festival marks the end of the agricultural year.

# 2.2.7: Transport and Communication in Kohima District

Advanced transport and communication facility is a vital infrastructure for the development of the economy. It helps to remove the geographical distance between the people and the nations and make the whole world into a global village. Good transportation facility ensures the uninterrupted supply of goods and services and increases the place value of the goods. Cost effective and time saving transportation facility increases the market for the product as it can be sold out to anyone who demand the product irrespective of the geographical distance. Modern transportation facility ensures a remunerative price for the producers as the product can be transported from the places where it is abundant in supply to the place where its demand is more than its supply. Similarly, the modern communication facility ensures the quick transfer of information between the people irrespective of the distance. A good communication facility is vital element for the development of the business and trade as it helps to overcome the geographical distance between the sellers and buyers of the goods and services.

According to the data given in the statistical hand book of Nagaland 2019, in the year 2018-19 the total length of the roads in Kohima district was 1718.6 km. It includes 155.5 km. of National Highway, 42 km. of state high way, 189.6 km. of surfaced major district roads, 56.6 km. of unsurfaced major district roads, 257.6 km. of surfaced other district roads, 47.5 km. of unsurfaced other district roads, 88.4km. of surfaced urban roads, 9.3 km. of unsurfaced urban roads, 52.5 km. of surfaced town roads and 57 km. of unsurfaced town roads, 213.5 km. of surfaced rural roads and 414.9 km of unsurfaced rural roads.

According the data given in the statistical hand book of Nagaland, during the period 2018-19 there were 48 post offices in Kohima district which includes one head Post Office, 8 sub post offices and 39 branch post offices.

## 2.2.8: Banking in Kohima District

The banking system of the country has a major role in ensuring the financial strength of the economy. A well-developed banking system is necessary for the economic growth and development. Commercial banks play a major role in ensuring the financial resources for investors by the transfer of funds from the house hold savers to the investors. Central bank of the country controls the inflation and deflation in the economy by changing the supply of money in the economy by with the change in monetary policies. The success of the monetary policy depends on a developed banking system.

There were 42 banks in Kohima district in the year 2019. State Bank of India had the highest number of branches in the district i.e., 12 branches followed by Nagaland State Co-operative Bank with 4 branches. Nagaland Rural Bank, E-Vijay Bank, and Axis bank had three branches each and HDFC Bank, ICICI bank, and United Commercial Bank had two branches each. Allahabad Bank, Bank of Baroda, Bank of India, Canara Bank, Central Bank of India, Federal Bank, IDBI Bank, Indusind Bank, Punjab & Sind Bank, United Bank of India had one branches each (Statistical Hand Book of Nagaland, 2019). Business and Credit Deposit ratio in Kohima district as on 31<sup>st</sup> March, 2017 was 19.53 percent which increased to 20.02 percent on 31<sup>st</sup> March, 2018. The business and credit deposit ratio indicates the amount of deposit of net liabilities used for giving loans or advances to other sectors for productive purposes. It shows the capacity utilization by the bank.

## 2.2.9: Power Sector in Kohima District

Adequate an uninterrupted supply of power is one of the major factors which plays a key role in the economic growth and development. In the modern economy, almost all the machines are operated by power and in the absence of it the production process comes to a halt.

According to the data given in the statistical handbook of Nagaland 2019, during the period 2016-17, 100 villages were electrified and 5 villages were not electrified. During the period 2017-18, there was no villages in Kohima district which was not electrified. The total electricity consumption in Kohima division during the period 2016-17 was 98 MU where as it was only 72. 680 MU during the period 2017-18.

## 2.3: Socio-Economic Profile of Mon District

At the time of the formation of the state of Nagaland as the 16<sup>th</sup> state of the Indian union on 1<sup>st</sup> December, 1963, the entire state was divided into three districts, namely Kohima, Mokokchung and Tuensang. Mon district was created in 1973 by transferring seven circles out of Tuensang district. It covers the geographical area of 1,786 sq. km. representing 10.77 percent of the total area of the state of Nagaland. It is the third largest district of Nagaland in terms of geographical area. The District was divided in to 6 Rural Development Blocks (RD Blocks) namely Tizit, Mon, Wakching, Phomching, Chenand Tobu. The RD Blocks were further divided into 14 Administrative Revenue Circles. The names of the administrative revenue circles were Naginimora (6 villages), Tizit (16 villages), Hunta (10 villages), Shangnyu (5 villages), Mon Sadar (18 villages), Wakching (9 villages), Aboi (8 villages), Longshen (7 villages), Phomching (7 villages), Chen (9 villages), Angjangyang (11 villages) (erstwhile Longching), Mopong (9 villages), Tobu (4 villages) and Monyakshu (12 villages). The Administrative Revenue Circles were further divided into 131 villages which were all inhabited. The number of villages in each circle are given in the bracket above along with each circle. The administrative head of the district is Deputy Commissioner and administrative revenue circles are headed by either an Addl. Deputy Commissioner/ SubDivisional Officer (Civil) or an Extra Assistant Commissioner (District Census Handbook, Census of India, 2011).

#### 2.3.1: Geography of Mon District

Mon district is located at the northernmost part of Nagaland. It is bordering with two other Indian states namely Arunachal Pradesh in its north and Assam in its west. It is also sharing its border with another country that is Myanmar in the east. Mon district is also bordering with two other districts of Nagaland namely Tuensang district in its south and Longleng district in its south west. It has an average elevation of 655 metres or 2,148 feet from sea level (Wikipedia). Mon District has a total area of 1786 sq. km.

#### 2.3.2: Demographic Characteristics of Mon District

Mon district is called the land of 'Konyaks' which means it is mostly inhabited by the people belong to the Konyak tribe. People of Konyak tribe belong to Mongoloid race just as the other Naga tribes. Majority of the people of Konyak Tribe now follow Christian faith. Konyaks are a male dominated society. The law of inheritance of property normally goes from father to son and if the man dies without having a son his property will go to his brothers or brother's son. 95.2% of the population in the district belong to scheduled Tribes.

According to the census of 2011 the total population of the Mon district was 2,50,260 persons out of which 131,753 were male and 118,507 were female. Mon district witnessed a negative decadal population growth by -3.99% in 2011 census. In Mon district 215,816 persons live in rural areas out of which 113469 were male and 102347 were female. Out of the 34,444 people in urban areas 18284 were male and 16160 were female (Statistical Hand Book of Nagaland). The data shows that about 86.24% of the total population in Mon district lived in rural areas and 13.76% lived in urban areas. In terms of population Mon district had third position in Nagaland. Density of population of Mon district was 140 persons per sq. Km. as per 2011 census which was higher the density of population in the state which had only 119 persons per sq. Km. Sex ratio of Mon District was 899 females per 1000 males which was lower than the sex ratio of the state i.e., 931. Sex ratio is higher in rural areas that is 902 females per 1000 males where as in urban areas it was only

884 females per 1000 males. It shows that the sex ratio in rural areas was higher than in urban areas.

#### 2.3.3: Literacy Rate of Mon District

Literacy rate of Mon district was 56.99% as per 2011 census where as it was 79.55% in the state level. It shows that the literacy rate of the district was far behind the literacy rate of the state. The male literacy in the District was 60.94% and the female literacy rate is only 52.58 which show that men were in better placed than the women in terms of literacy. The female literacy rate of 52.58 points out that almost a little less than the half of the population in Mon district was illiterate. In terms of literacy Mon district ranked the 11<sup>th</sup> position that is the last position according to 2011 census.

However, the district has made a substantial progress in terms of literacy rate from 2001 census to 2011 census. The Literacy rate of Mon District as per 2001census was 41.83% which consisted of 46.56% male literacy and 36.35 female literacy. The literacy gap during this period was 10.21.

# 2.3.4: Education Sector of Mon District

Education occupies an important position in the planned activities of the state. Mon district has made a tremendous progress in education since the formation of the state, though still the district lagged behind all other districts in the state. The number and quality of available educational institutions occupies a key role in the educational advancement of the district. The following table shows the number of government schools in Mon district in 2017 -2018.

SL. No.	Type of Schools	Number of Schools
1	Primary only with grades 1 to 5	136
2	Upper Primary only with grades 6 to 8	4
3	Upper Primary only with grades 1 to 8	67
4	Secondary with Grades 1to 10	2
5	Secondary with grades 6 to 10	14
6	Higher Secondary with grades 6 to 12	5
	Total	228

Table No. 2.20: Government Schools in Mon District, 2017-18

Source: Statistical Hand Book of Nagaland, 2019

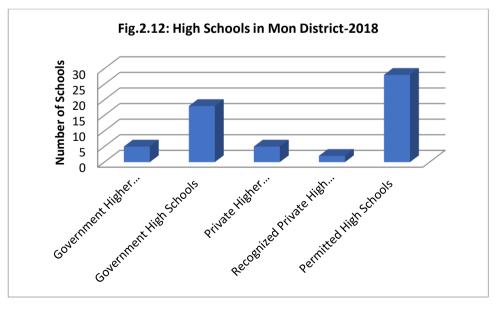
The table 2.20 shows that there were 228 government schools in Mon district in 2017-18. Out of this, there were 205 schools had primary section i.e., class 1 to 5. There were 92 schools with class 6 to 8 and 21 schools had grades 8 to 10 and 5 schools had class 11 and 12 also.

SL.	Type of School	Government/	Total	
No.		private	Number	
1	Government Higher Secondary	5		
	Schools with Secondary Section		23	
2.	Government High Schools	18		
4	Private Higher Secondary Schools with	5		
	Secondary Section		35	
5	Recognized Private High Schools	2		
6	Permitted High Schools	28		
	Total	58	58	

Table No.2: 21: High Schools in Mon District -2018

Source: Office of the Department of Higher Education, Kohima

The Table 2.21 shows that there were only 23 government high schools in Mon District. In addition to it there where 35 private high schools which made a total of 58 high schools in Mon district in 2018.



The Fig. 2.12 shows that even though there were 23 government high schools in the district the private sector played the key role in the development of high School education in Mon district with much higher number of schools operating in the private sector.

SL. No		Number of Students	Percentage (%)
1	Primary (1-5)	26134	59.93
2	Upper Primary (6-8)	10851	24.88
3	Secondary (9-10)	4962	11.38
4	Higher Secondary (11-12_	1661	3.81
5	Total	43608	100

Table No. 2.22: Enrolment of Students in Schools, 2017-18

Source: Statistical Hand Book of Nagaland, 2018

The data in the table 2.22 shows that there were 26134 students in primary schools where as it was only 10851 in upper primary level. Again, the enrolment was only 4962 in secondary level and it further decreased to 1661 in higher secondary level. The data shows that 59.93 % of the students were studying in primary classes, 24.88% in upper primary level, 11.38 in Secondary and only 3.81% of students were in Higher secondary. The low percentage of enrolment in higher secondary schools and high percentage of enrolment in primary schools can be of two reasons. Firstly, it can be due to high dropout rate. Secondly, it also gives a good sign that unlike the earlier years a greater number of students are attending schools now in the district which is a positive step towards the universalization of education in the district.

In Mon district there were 1498 teachers employed in the Schools during the period 2017-18. It includes 1523 teachers working in primary section, 757 teachers engaged in upper primary section, 366 teachers in secondary section and 107 teachers in higher secondary section (Statistical Handbook of Nagaland, 2019).

#### 2.3.5: Health Sector of Mon District

Good health is an important constituent of Human Development Index. The wellbeing of an individual is primarily determined by good health. Health of its population plays a key role in the socio-economic development of the state. In the year 2002 the government of Nagaland had commoditised the health care services in the state to improve the delivery of health services. However, the health care facilities were mostly concentrated in urban areas. The infrastructure facilities play a major role in the improvement of health care facilities. During the year 2014-2015, Mon District had 2 Community Health Centre (CHC), 15 Primary Health Centres (PHC) 51 Sub Centres (SC) which made the total number of health units to 68 (Nagaland Economic Survey, 2014-15).

## 2.3.6: Social Characteristics of Mon District

Human societies are dynamic and always subject to change under the influence of internal and external forces. Mon district was mainly inhabited by the people belongs to the Konyak tribe which belonged to the family of Naga tribes. In addition to the Konyaks there were a few tribes such as Ao, Phom, Nepalis and people from other parts of India. The most colourful festival of the Konyaks, is *Aoling* or *Aoleng*. The People of Konyak tribe speak Konyak Language, which belongs to the Sino-Tibetan Language. In addition to Konyak language, English and Nagamese is also in use. Different villages had their own of local dialect. Most of the people of Konyak tribes practice Christian faith and they embraced Christianity during the last part of 20<sup>th</sup> century and early part of 21<sup>st</sup> century. They also had a practice of decorating their houses with skulls, hornbill beaks elephant tusks, horns and wooden statues. Konyaks were ruled by *'Anghs'* (Kings) hereditary chief and the practice is still prevalent among the Konyaks.

Konyaks were good artisans and skilled craft man. They do excellent wood carvings and makes guns, head brushes, necklaces etc. Konyaks use local basket made of bamboo and carry on the back to transport the things. Both men and women belong to the Konyak tribe use traditional ornaments especially during festivals. They also had the practice of cultivating in the hills clearing the forests using the method of controlled burning called jhum cultivation.

# 2.3.7: Transport and Communication in Mon District

Transport and communication facility is the basic infrastructure which used by the human beings to overcome the barriers of physical distance. Communication facilities helps the people to connect with one another irrespective of the physical distance. Transportation facilities helps the movement of the goods from one place to another. Both transport and communication are the basic infrastructure required to carry out the economic activities and achieve faster economic growth and development. The development of communication facility helps to bring the producers and consumers together. On the other hand, the transportation facility facilitates the free and fast movement of goods from the place of production to the place of consumption. Free movement of goods from the place where it is in surplus to a place it is in scarce in supply increases the value of the goods.

Transport and communication facility is the life line of the people. It connects the rural areas to urban areas and ensure the free movement of goods and services which is a vital element for economic growth and development.

According to the Village level Development Indicators Survey Report, 2020, Mon district had 8 blocks with 114 villages and as on 31 January 2020, all the villages of the district had road connectivity and Mobile phone service. During 2018-19, Mon District had 197.4 km of National Highway and 184 km. of State Highway. Similarly, it had 127.3 km. of surfaced major district roads, 178 km. of surfaced other district roads and 267.5 km. of unsurfaced other district roads. The district had 56.2 km. of surfaced Town Roads and 89.8 km. of unsurfaced Town Roads. There were 142.5 km. of surfaced Rural roads and 211.3 km. of unsurfaced rural roads. The total length of the road in the district during 2018-2019 was 1256.6 km. (statistical hand book of Nagaland, 2019).

#### 2.3.8: Banking and Postal Services in Mon District

Banks are the financial institutions which accept deposit and make loans to the customers. It provides better access to the financial resources and provide cheap credit to the entrepreneurs and the individuals. A strong banking sector is a necessary condition for fast economic development. Banks accept the household deposits and mobilize the financial resources for productive investment. The banking system also helps the government to have control over the monetary system of the country.

As per the Statistical Hand Book of Nagaland 2019, Mon district had one branch of the Central Bank of India, four branches of the State Bank of India, and one branch of E-Vijay Bank which make a total of seven banks in Mon district in the year 2019. The Business and Credit Deposit Ratio in Mon district as on 31<sup>st</sup> March, 2017 was 46.96 which decreased to 44.25 as on 31<sup>st</sup> March, 2018. Business and Credit Deposit Ratio indicates the ratio of how much a bank lends out of its deposit it has mobilized.

According the data given in the statistical hand book of Nagaland, during the period 2017-18 there were 30 post offices in Mon district which consisted of 4 sub post offices and 26 branch post offices.

# 2.3.9: Power Sector in Mon District

Power is a key input in the industrial production and it is one of the major factors which determines the economic development of a country. Most of the machines in the modern economy is operated by power and adequate supply of uninterrupted and cheap power is essential for the economic growth and development.

According to the Statistical Hand Book of Nagaland 2019, during the period of 2016-17, there were ten unelectrified villages in Mon district while during the period of 2017-18 there was no unelectrified villages in Mon district. The total

power consumption in Mon division during the period of 2016-17 was  $18.77 \text{ MU}^2$  whereas during the period of 2017-18, it decreased to 5.07 MU.

# 2.4: Socio - Economic Profile of the Respondents

This study is based on the two districts of Nagaland that is Kohima and Mon. The socio-economic profile of the respondents of this study is given below.

From Kohima district all together 150 respondents were selected by way of Multi-stage stratified random sampling techniques. The District had four RD Blocks. Sample data was collected from the respondents covering all the four Blocks. From Kohima Block two villages namely Kohima Village and Sechu Zubza were selected at random. From Chiephobozou Block, Nerhema village was selected at random. From Jakhama Block Viswema village was selected at random. From Tseminyu Block, Tseminyu and Ziphenyu villages were selected at random. From all these six villages, 25 respondents each were selected at random for this study.

From Mon district all together 150 respondents were selected by way of Multi-stage stratified random sampling techniques. In Mon District there were 6 RD Blocks and from each Block one each village was selected at random. From Tizit Block Lapa Lampong village was selected and from Mon Block, Chi Village was selected at random. Kongan village was chosen from Wakching Block and Phomching Town was selected at random from Phomching Block. Chaoha Chingnyu and Yonghong villages were selected at random from Chen and Tobu Blocks respectively. From each village 25 respondents each were selected at random.

To study the socio-economic profile of the respondents' primary data was used. Here we analysed the gender of the respondents, average age of the respondents, type of the house in which they live and the employment and income of the respondents.

 $<sup>^{2}</sup>$  MU = Mega Unit. It is one million units of electricity where one unit is equal to one kilowatt hour

## 2.4.1: Age of the Respondents

Age is a biological factor and though it is not in the control of the person, it has a great influence on every aspect of the life of individual such as social life, psychological life and economic life. It has a great influence in determining the social, political, economic and institutional roles and responsibilities of the individual. Age is one of the key factors which determines the employability and employment of the person. It is generally found that youth are more inclined in political and social activities. It may be because of the fact that, youths are energetic and curious to learn and participate in social, political and economic activities. Age is an indicator of a person's physical and psychological maturity from biological perspective.

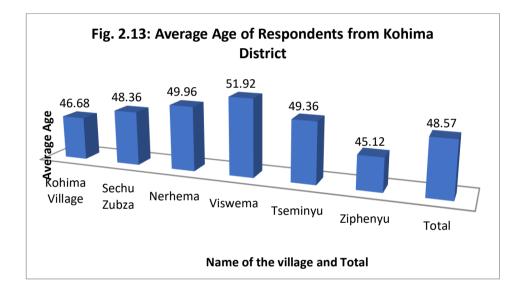
		Kohima District								Mon District					
Age	Kohima Village	SechuZubza	Nerhema	Viswema	Tseminyu	Ziphenyu	Total	LapaLampong	Chi Village	Kongan	phomching Town	Chaoha Chingnyu	YonghongChangnyu	Total	
Mean	46.68	48.36	49.96	51.92	49.36	45.12	48.57	52.60	44.96	48.12	44.88	43.40	41.84	45.97	
Std. Deviation	7.57	8.81	7.10	5.89	8.26	8.72	7.97	7.20	8.57	9.73	9.21	8.92	6.46	9.01	
N	25	25	25	25	25	25	150	25	25	25	25	25	25	150	

Table No. 2. 23: Mean Age of Respondents

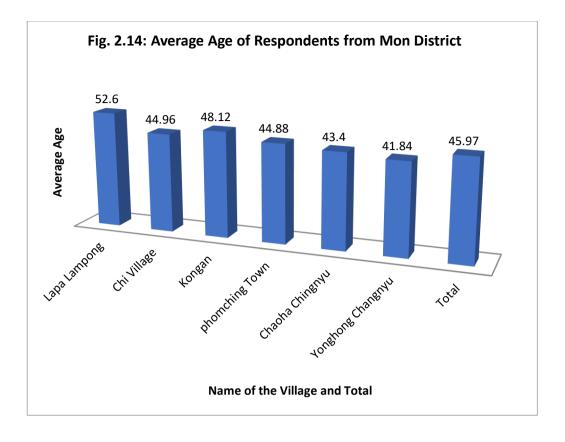
Source: Primary Survey 2017-18

The table 2.23 represents the average age of the respondents that is the head of the family. In Kohima districts the average age of the respondents (in rounded figure) was 49 years. To be specific, the average age of the respondents in Kohima village is 47 years, in Sechu Zubza 48 years, in Nerhema 50 years, in Viswema village 52 years, in Tseminyu 49 years and in Ziphenyu 45 years.

In Mon Districts the average age of the respondents that is the head of the family (rounded figure) was 46 years. To be more specific the average age of the respondents from Lapa Lampong village was 53 years, in Chi Village 45 years, in Kongan Village 48 years, phomching town 45 years, Chaoha Chingnyu village 43 years and in Yonghong Changnyu 42 years.



The Figure 2.13 shows the average age of respondents from different villages. The figure clearly indicates that the average of age of respondents from Kohima district was 48.57. The average age of respondents from Viswema village was the highest that is 51.92 and the lowest was from Ziphenyu village that is 45.12.



The Figure 2.14 shows the average age of respondents from different villages of Mon district. The figure clearly indicates that the average of age of respondents from Mon district was 45.97. The average age of respondents from Lapa Lampong village was the highest i.e., 52.6 and the lowest was from Yonghong Changnyu village i.ie., 41.84.

#### 2.4.2: Gender of the Respondents

Gender is a biological fact of life and it is not the choice of the individual. In most of the societies gender has a great influence on the nature of job one performs and the remuneration paid for it. Improving gender equality has a positive impact on employment, income and output in the economy. Improving the percentage of women participation in labour market will contribute to a great extent to increase the Gross Domestic Product (GDP) of the country. In many societies, irrespective of the attempts by the governments to reduce the gender pay gap still it is a reality. Gender pay gap is the average difference between the remuneration of man and women performing a similar job. Low gender pay gap encourages more women to enter the labour market and contribute to the GDP.

	Kohima District								Mon District						
Gender	Kohima Village	SechuZubz a	Nerhema	Viswema	Tseminyu	Ziphenyu	Total	LapaLamp ong	Chi Village	Kongan	phomching Town	ChaohaChi ngnyu	Yonghong Changnyu	Total	Grand Total
	21	21	22	19	21	22	126	22	20	22	20	21	18	123	249
Male	(8.4)	(8.4)	(8.8)	(7.6)	(8.4)	(8.8)	(50.6)	(8.8)	(8)	(8.8)	(8)	(8.4)	(7.2)	(49.4)	(100)
	[84]	[84]	[88]	[76]	[84]	[88]	[84]	[88]	[80]	[88]	[80]	[84]	[72]	[82]	[83]
	4	4	3	6	4	3	24	3	5	3	5	4	7	27	51
Female	(7.8)	(7.8)	(5.9)	(11.8)	(7.8)	(5.9)	(47.1)	(5.9)	(9.8)	(5.9)	(9.8)	(7.8)	(13.7)	(52.9)	(100)
	[16]	[16]	[12]	[24]	[16]	[12]	[16]	[12]	[20]	[12]	[20]	[16]	[28]	[18]	[17]
	25	25	25	25	25	25	150	25	25	25	25	25	25	150	300
Total	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(50)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(50)	(100)
	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]

 Table No. 2. 24: Gender wise Classification of Respondents

Source: Primary Survey, 2017-18

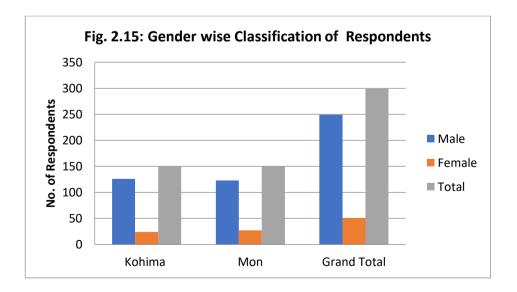
() Parenthesis indicates the row wise percentage,

[] Parenthesis indicates the Column wise percentage

Table No.2.24 shows the gender wise classification of the respondents (i.e., head of the family). For this study data was collected from two sample districts namely, Kohima and Mon. From Kohima district, six villages were selected namely, Kohima Village, Sechu Zubza, Nerhema Village, Viswema Village, Tseminyu Village, and Ziphenyu Village. From Mon District the following six villages were selected: Lapa Lampong village, Chi Village, Kongan Village, Phomchin Town, Choaha Chingnyu and Yonghong Changnyu. In the table the first value represents the number of respondents, the second value that is the numbers in Parenthesis [] indicates the column wise percentages. In Kohima district, out of 150 house hold selected 126 head of the families that is 84% were male and 24 head of the families were female that is 16% were female.

In Mon District out of the 150 households selected 123 head of the families were male that is 82% and 27 head of the families that is 18% were female.

Out of the total 300 samples collected from both districts together, 249 head of the families were male and 51 head of the families were female. It shows 83% the head of the families were male and only 17% of the head of the families were female.



The figure 2.15 shows the gender wise classification of the respondents. Out of the 300 respondents 150 each were selected from Kohima and Mon Districts.

The figure clearly shows that major portion of the respondents from, both, Kohima and Mon districts were male. From Kohima districts 126 male and 24 female respondents and from Mon district 123 male and 27 female respondents.

## 2.4.3: Marital Status of the Respondents

Marital status means the state of being married or unmarried. Marriage is the beginning of the family and a healthy family environment has an influence on every walks of life of the individuals. The emotional and material support the children receives form the family affects the social, psychological and economic life of the children.

SL. No	Marital Status	No. of respondents	Percentage (%)		
1	Married	300	100		
2	Unmarried	0	0		
	Total	300	100		

Table No. 2.25: Marital Status of the Respondents

Source: Primary Survey, 2017-18

In this study the out of 300 samples collected all the respondents were married.

# 2.4.4: Type of Houses of the Respondents

The three important basic needs of man are food, clothing and shelter which are must for all the human beings to lead a decent life. House is one of the basic needs of man. House provides security, control, identity and privacy to the individual. Having a decent house is a desire of every individual and it gives a social recognition to the individual. Having a pucca house is also an indication of the economic wellbeing of the individual.

 Table No.2.26: Types of House of the Respondents

		-	Ko	hima Di	strict					М	on Distr	ict			
Type of House	Kohima Village	SechuZubza	Nerhema	Viswema	Tseminyu	Ziphenyu	Total	LapaLampong	Chi Village	Kongan	phomching Town	ChaohaChingnyu	Yonghong Changnyu	Total	Grant Total
Рисса	9	8	7	4	12	11	51	3	2	9	4	5	7	30	81
	(11.1)	(9.9)	(8.6)	(4.9)	(14.8)	(13.6)	63.0%	(3.7)	(2.5)	(11.1)	(4.9)	(6.2)	(8.6)	37.0%	(100)
	[36]	[32]	[28]	[16]	[48]	[44]	34.0%	[12]	[8]	[36]	[16]	[20]	[28]	20.0%	[27]
Semi-pucca	16	11	13	17	10	8	75	17	11	14	11	14	10	77	152
	(10.5)	(7.2)	(8.6)	(11.2)	(6.6)	(5.3)	49.3%	(11.2)	(7.2)	(9.2)	(7.2)	(9.2)	(6.6)	50.7%	(100)
	[64]	[44]	[52]	[68]	[40]	[32]	50.0%	[68]	[44]	[56]	[44]	[56]	[40]	51.3%	[50.7]
Kutcha	-	6 (9) [24]	5 (7.5) [20]	4 (6) [16]	3 (4.5) [12]	6 (9) [24]	24 35.8% 16.0%	5 (7.5) [20]	12 (17.9) [48]	2 (3) [8]	10 (14.9) [40]	6 (9) [24]	8 (11.9) [32]	43 64.2% 28.7%	67 (100) [22.3]
Total	25	25	25	25	25	25	150	25	25	25	25	25	25	150	300
	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	50	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	50	(100)
	[100]	[100]	[100]	[100]	[100]	[100]	100	[100]	[100]	[100]	[100]	[100]	[100]	100	[100]

Source: Primary Survey, 2017-18

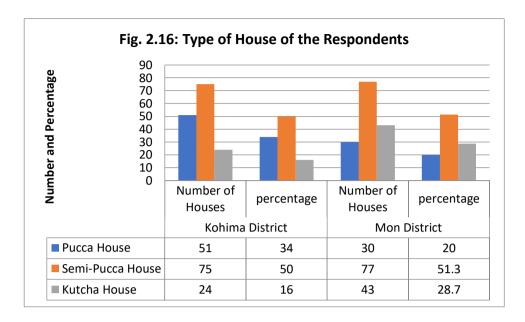
( ) Parenthesis indicates the row wise percentage,[ ] Parenthesis indicates the Column wise percentage

The table 2. 26 shows the type of house of the respondents. The houses of the respondents were classified into three types namely *Pucca* house, *Semi Pucca* house and *Kutcha* house. The data shows that out of 150 respondents in Kohima district, 51 respondents had *Pucca* House that is 34.0% of the sample had *pucca* house, 75 respondents had Semi *Pucca* House that is 50.0% of the sample and 24 respondents had *Kutcha House* that is 16.0% of the sample.

In Mon Districts, out of 150 respondents, 30 respondents had *Pucca House* that is 20% of the respondents had *Pucca house*, 77 respondents had *Semi-Pucca House* that is 51.3% of the sample and 43 respondents that is 28.7% of the sample had *Kutcha House*.

Out of the 300 respondents, from both Kohima and Mon Districts taken together, 81 people lived in *Pucca House*. Out of this 81 people lived in *Pucca* house 51 were from Kohima District and only 30 were from Mon District. In other words, among the respondents who lived in *Pucca house* 63% were from Kohima district and only 37% were from Mon District. Out of 152 respondents lived in *Semi-Pucca* House, 75 were from Kohima district and 77 were from Mon District. It shows that 49.3% of the respondents lived in *Semi Pucca* house were from Kohima District and 50.7% were from Mon district. There was no much difference in terms of the number of respondents lived in *Semi-Pucca House* from both Kohima and Mon districts. In case of 67 families lived in *Kutcha House* only 24 of them were from Kohima District and 43 were from Mon District. So, the data shows that only 35.8% of *Kutcha* house dwellers in the sample collected were from Kohima district and 64.2% of *Kutcha house* dwellers were from Mon District.

The data shows that in Kohima district highest percentage of people lived in *Semi-Pucca House* (50%) followed by *Pucca House* (34%) and the least number of people lived in *Kutcha House* (16%). In Mon District also the highest number of respondents lived in *Semi- Pucca House* (51.3%) followed by *Kutcha House* (28.7%) and the least number of respondents lived in *Pucca House* (20%). It was observed that in Kohima district the least number of respondents lived in *Kutcha house* while in Mon District the least number of respondents live in *pucca House*.



The Figure 2.16 shows the type of house of the respondents of both Kohima and Mon Districts and the percentage of different houses. The figure clearly indicates that in Kohima district 34% of houses were *Pucca house*, 50% of houses were *Semi Pucca and* 16% were *Kutcha* houses. Similarly, in Mon District 20% of houses were *Pucca house*, 51.3% houses were *Semi -pucca houses* and 28.7% were *Kutcha houses*. Again, the figure indicates that there were more *Pucca houses* in Kohima districts in comparison to Mon District that is 34% of houses in Kohima District were *Pucca* while it was only 20% in Mon District. Similarly, there was a smaller number of *Kutcha House* in Kohima district in comparison to Mon District that is 16% of houses in Kohima district was *Kutcha house* while it was 28.7% in Mon District. It was also observed that there was only a slight difference between Kohima and Mon district in terms of the number of respondents living in *Semi-Pucca* houses.

### 2.4.5: Education of the Respondents

Education facilitates the transmission of knowledge and skill from one generation to another. It is also a major source of socialization of the child. Education plays an important role in the development of an individual's social, political, economic life. It helps in the transmission of customs, traditions values and traditions from one generation to another. Thus, formal and informal education is the vehicle through which transfer and continuation of culture is made possible. Education makes a man aware of good and bad and desirable and un-desirable and plays an important role in the overall development of the person and ultimately the society. It helps the person to climb up in the ladder of social hierarchy and opens up the area of choices for the people irrespective of their caste, creed, religion and gender and thus becomes an agent of social change.

			Ko	hima Disti	rict						Mon Distri	ct			
Education	Kohima Village	SechuZubza	Nerhema	Viswema	Tseminyu	Ziphenyu	Total	LapaLampon g	Chi Village	Kongan	phomching Town	ChaohaChing nyu	YonghongCh angnyu	Total	Grand Total
Class 10 or below	18 (11.5) [72]	15 (9.6) [60.0]	11 (7.1) [44]	13 (8.3) [52]	7 (4.5) [28]	13 (8.3) [52]	77 (49.4) [51.3]	11 (7.1) [44.0]	19 (12.2) [76.0]	7 (4.5) [28]	15 (9.6) [60.0]	11 (7.1) [44]	16 (10.3) [64.0]	79 50.6 [52.7]	156 100 [52]
Higher Secondary	2 (2.7) [8]	2 (2.7) [8.0]	6 (8.0) [24]	9 (12) [36]	10 (13.3) [40]	5 (6.7) [20]	34 (45.3) [22.7]	10 (13.3) [40.0]	4 (5.3) [16.0]	7 (9.3) [28]	6 (8.0) [24.0]	9 (12) [36]	5 (6.7) [20.0]	41 (54.7) [27.3]	75 (100) [25]
UG	4 (7) [16]	7 (12.3) [28.0]	7 (12.3) [28]	2 (3.5) [8]	7 (12.3) [28]	3 (5.3) [12]	30 (52.6) [20]	3 (5.3) [12]	2 (3.5) [8.0]	10 (17.5) [40]	4 (7.0) [16]	4 (7.0) [16]	4 (7) [16]	27 (47.4) [18]	57 (100) [19]
PG and above	-	1 (11.1) [4]	1 (11.1) [4.0]	1 (11.1) [4.0]	1 (11.1) [4.0]	4 (44.4) [16]	8 (88.9) [5.3]	-	-	1 (11.1) [4.0]	-	-	-	1 (11.1) [0.7]	9 (100) [3]
Diploma and Technical etc.	1 (33.3) [4.0]	-	-	-	-	-	1 (33.3) [.7]	1 (33.3) [4.0]	-	-	-	1 (33.3) [4.0]	-	2 (66.7) [1.3]	3 (100) [1]
Total	25 (8.)3 [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	150 (50.0) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	150 (50) [100]	300 (100) [100]

### Table No.2.27: Level of Education of the Respondents

Source: Primary Survey, 2017-18

NB. First Value indicates the number of respondents

() Parenthesis indicates the row wise percentage,

[] Parenthesis indicates the Column wise percentage

Table 2.27 shows the level of education of the respondents. The level of education of the respondents were broadly classified into five groups namely, class 10 or below, higher secondary, Undergraduate (UG), Post Graduate (PG) and above and others i.e., diploma, technical etc. In the table the first value represents the actual number of respondents, second value indicates the row wise percentage and the third value indicates the column wise percentage. The data shows that 77 out of 150 respondents, that is 51.3% of the respondents in Kohima districts were with the education level of class 10 or below. In Kohima district 34 out of 150 respondents, that is 22.7%, were with higher secondary education, 30 respondents that is 20% of the respondents were Undergraduates (UG), 8 respondents that is 5.3% of the respondents were with Post Graduation (PG) and above education level and there was only 1 (one) respondent that is 0.7% of the respondents with diploma or technical education in Kohima district.

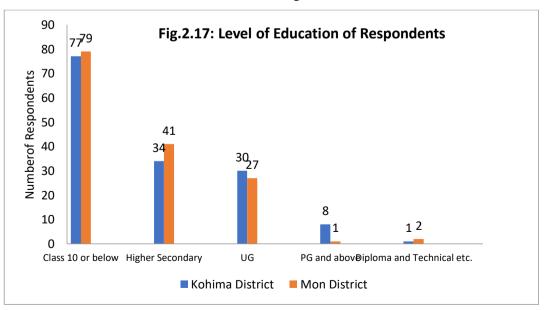
It was observed from this analysis that highest percentage of the respondents, that is, more than half of the respondents were with class 10 or below level of education in Kohima district followed by higher secondary education, Under Graduates, Post Graduate and above and the least percentage was with Diploma or Technical education.

Similarly, in Mon district 79 out of 150 respondents, that is 52.7% were with class 10 or below level of education, 41 respondents that is 27. 3 % of respondents were with higher secondary education, 27 respondents that is 18% were with Under Graduation (UG), one respondent that is 0.7% was with post-graduation (PG) or above and 2 respondents that is 1.3% with Diploma or technical education.

Out of 300 samples collected from both Kohima and Mon districts together, 156 respondents, that is 52% of respondents, were with education of class 10 or below. Out of these 156 respondents 77 of them, that is 49.4%, were from Kohima district and 79 respondents that is 50.6% were from Mon district. Total of 75 respondents, that is 25%, were with higher secondary education. Out of these 75 respondents with higher secondary education 34 respondents, that is 45.3%, were from Kohima district and 41 respondents that is 54.7% were from Mon district. 57

respondents out of 300 samples collected, that is 19% of total sample, were under graduates (UG) out of which 30 respondents, that is 52.6%, were from Kohima district and 27 respondents, that is 47.4%, were from Mon district. Among the three hundred respondents, only 9 of them were with post graduate or above qualification, which constituted only 3% of the total sample. Out of these nine postgraduate respondents eight of them, that is 88.9%, were from Kohima district and only one respondent that is 11.1% was from Mon district. There were only three respondents that is 1% of the sample, were with other educational qualifications like Diploma or Technical education. Among these three respondents with diploma or technical education, only one that is 33.3% was from Kohima and two respondents that is 66.7% were from Mon district.

It was observed from the data that little more than half of the total respondents were with the education level of class 10 or below. One fourth of the respondents were with the education level of higher secondary and all other groups together constitute only little less than one fourth of the total respondents. It was also observed that among the respondents with education qualification of class 10 or below and Higher Secondary level of education, higher number of respondents were from Mon District and with under graduation and Post-Graduation or above qualification, larger number of respondents were from Kohima district. There was only a nominal number of people in both districts with Diploma or Technical level of education. The same is shown with the diagram below.



The Figure 2.17 shows the comparison between the levels of education in Kohima and Mon districts. The figure clearly indicates that out of the 300 samples collected from both districts together there were a smaller number of people in Kohima districts in comparison to Mon districts with the education level of class 10 or below and higher secondary education. On the other hand, there were larger number people in Kohima district with Graduation and Post-Graduation level of education in comparison to the Mon district.

### 2.4.6: Occupation of the Respondents

Occupation mans the general work that a person performs on a regular basis and for which he is paid for. Occupation is one of the indicators of social status of the individual and determinant of income. Occupation is key factor which influences the economic status of the man as it is the main source of income. The level of income of the person has a high degree of positive correlation with the nature of the occupation of the person. The level of education training and skill one poses and the family back ground, age, sex, and physical health of person influences the occupation of the individual. The nature of occupation also influences level of job satisfaction and mental health.

SL. No	Occupation	No. of respondents	Percentage (%)
1	Government Job	133	44.3
2	Private Job	30	10
3	Business or Self Employed	49	16.4
4	Agriculture	84	28
5	Others	4	1.3
	Total		100

Table No. 2.28: Occupation of the Respondents

Source: Primary Survey, 2017-18

The table 2.28 shows the occupation of the respondents. In this study, it was found that out of 300 samples selected, 44.3 per cent was employed in government sector, 10 per cent was employed in private sector, 16.4 percent of the respondents was doing business or self-employed, 28 per cent was engaged in agricultural sector

and 1.3 per cent of the respondents was engaged in some other jobs other than the above mentioned.

### 2.4.7: Income of the Respondents

Annual income is an important parameter to define the economic status of the respondents. The income of the respondents depends on the occupation, land holdings, age, and control on the other sources of income. Income is the remuneration in cash or kind that a person receives in return for exchange of goods and services or as a return for productive investment.

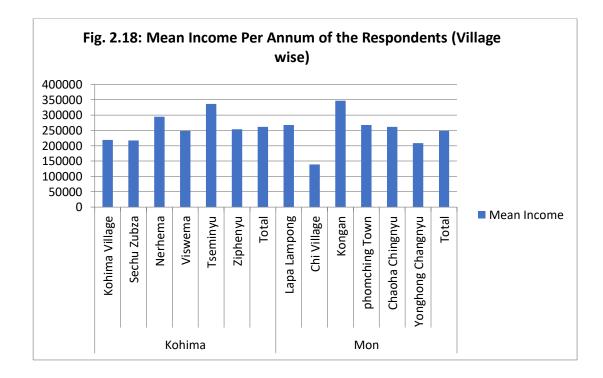
Table No. 2.29: Village wise Classification of Mean Income Per Annum

			K	ohin	na						Mon			
Income	Kohima Village	SechuZubza	Nerhema	Viswema	Tseminyu	Ziphenyu	Total	LapaLampong	Chi Village	Kongan	phomching	ChaohaChingny	YonghongChang	Total
Mean	218640	217680	294480	248400	336000	253680	261480	268080	139200	346560	267600	261840	208320	248600
Std. Deviatio n	149820.7	209309.7	208407.7	220508.5	228604.5	251025	214128.7	189362.5	197742.3	205795.6	204029.4	224010.4	196437.2	209626.8
N	25	25	25	52	25	25	150	25	25	25	25	25	25	150

Source: Primary Survey, 2017-18

The average annual income of the respondents from Kohima district was Rs. 2,61,480. The average annual income of the respondents from various villages of the Kohima district were Rs. 2,18,640 at Kohima Village, Rs. 2,17,680 at Sechu Zubza, Rs. 2,94,480 at Nerhema, Rs. 2,48,400 at Viswema, Rs.3,36,000 at Tseminyu and Rs.2,53,680 at Ziphenyu respectively. The data shows that the respondents from Tseminyu village had the highest income and the respondents from Kohima Village had the lowest income in Kohima district.

The average annual income of the respondents from Mon district was Rs. 2,48,600. The average annual income of the respondents from various villages of the Mon district were Rs. 2,68,080 at Lapa Lampong, Rs.1,39,200 at Chi Village, Rs. 3,46,560 at Kongan, Rs. 2,67,600 at Phomching Town, Rs. 2,61,840 at Chaoha Chingnyu and Rs.2,08,320 at Yonghong Changnyu respectively. The table shows that respondents from Kongan village had the highest income and the respondents from Chi Village had the lowest income in Mon district.



The Figure 2.18 shows the mean income of the respondents of each sample villages and the two districts of Kohima and Mon. There was a lot of difference in the mean income of the different villages of both districts. In Kohima district the highest income was in Tseminyu village and the lowest income was in Kohima village. Similarly, the highest income in Mon district was in Kongan village and the lowest income was Chi village.

SL. No	Monthly Income (Rs.)	No. of respondents	Percentage (%)
	Less Than 5000	93	31.00
	5001- 10000	31	10.33
	10001- 15000	19	6.33
	15001-20000	18	6.00
	20001-25000	26	8.67
	25001-30000	20	6.67
	More than Rs.30000	93	31.00
	Total	300	100.00

Table No. 2.30: Monthly Income of the Respondents (in Rupees)

Source: Primary Survey, 2017-18

The table 2.30 shows that out of 300 samples collected 31.00 per cent of the respondents had monthly income less than Rs. 5000, 10.33 per cent of respondents had monthly income between Rs. 5001 to Rs.10000 and 6.33 per cent had monthly income between Rs. 10001 to Rs. 15000. There was only 6 per cent of the respondents with monthly income between Rs. 15001 to Rs. 20000, 8.67 per cent with monthly income between Rs. 20001 to Rs. 25000 and 6.67 per cent with the monthly income between Rs. 20001 to Rs. 25000 and 6.67 per cent with the monthly income between Rs. 25001 to 30000. Among the respondents 31 per cent had monthly income more than Rs. 30000. The data shows that the highest percentage of respondents belonged to either in the highest income category or in the lowest income category.

### **2.5: Conclusion**

In this chapter titled 'Socio Economic Profile of Sample Study Area and Respondents', the first part deals with the socio-economic profile of the state of Nagaland. The people of Nagaland belong to various tribes collectively known as Naga tribes. There are different opinions among the scholars about the origin of the word Naga. Naga villages are normally established on the hill tops and the houses are nearby for the safety and security of the people and the valley is used for cultivation. Nagaland was formed as a separate state of the Indian union on 1<sup>st</sup> December, 1963. Nagaland shares the international boundary with Myanmar. This chapter also deals with the population of the state and its decadal growth rate, district wise population, and the population below the age of seven and the population above the age of seven. It was observed in the study that there was a continuous rise in the population of the state as given in various census reports except in 2011 census report. During the 2011 census period state reported a negative population growth for the first time.

In this study, it was observed that the workers of the state were less than the non-workers. In comparison between the two sample study districts of Kohima and Mon, it was found that the total number of workers in Kohima district was less than the non-workers but in Mon district the total number of workers were more than the non- workers.

This chapter also gives the descriptive analysis of the literacy rate of Nagaland and the literacy rate of various districts of Nagaland. In case of literacy, it was found that the state literacy rate was above the national level literacy rate. In case of the two sample districts of Kohima and Mon, the literacy rate of Kohima district was far above the literacy rate of Mon district and in terms of literacy rate, Mon district was behind all other districts of the state.

In terms of educational institutions especially in terms of government schools in the sample study districts of Kohima and Mon it was observed that at lower-level Mon district had a greater number of government school than Kohima district but at higher level Kohima district had a greater number of government schools than Mon district. In terms of the total number of higher secondary schools between the Kohima and Mon districts, Mon districts has only less than one fourth of the number of higher secondary schools in Kohima district. The chapter is concluded with brief description of the socio-economic profile of the respondents which includes the age and sex of the respondents' type of house in which the live, level of education, employment and monthly income of the respondents.

### CHAPTER-3 GROWTH AND MAGNITUDE OF EDUCATION IN SAMPLE STUDY AREA

### **3.1. Introduction**

Education plays a major role in the development of any country. Lack of education is the one of the major causes of many socio- economic problems in a country. The achievement of universal literacy and advancement of higher education will help to address many economic and non-economic problems in the country. Realizing the importance of education in the development of the nation, since the time of independence, Government of India had taken several measures to attain the objective of universal literacy and to irradiate the gender and regional disparity in education. Government has taken great efforts and succeeded to a great extent to make the education accessible and affordable to every section of the society. In this chapter titled growth and magnitude of education in sample study area, we analyse the history of the growth of education in India and Nagaland.

### **3.2. History of Education in India**

History of education in India is briefly explained here under various sub titles as Education in the primitive cultures and societies, Education in Ancient India, Education under Muslim Rulers, Spread of Western Education, Education in the Pre-Independence period and Education in Independent India

### 3.2.1. Education in Primitive Cultures and Societies

Education is a process of transmitting the acquired knowledge and skill from one person to another and form one generation to the next. The ways and means by which it is transmitted may vary from society to society and from time to time. However, the process of educating the young ones continues in every society irrespective of the society is advanced or primitive. "The term education can be applied to primitive cultures only in the sense of enculturation, which is the process of cultural transmission" (Goetz, Gwinn, & Swanson, 1985, p.3). Culture is a collective term which includes the social behaviour and norms, customs, beliefs, practices etc. found in a particular tribe or a group of people. The purpose of education in primitive societies was to make the child acquainted with their culture and to make the child a good member of the society. The people of the primitive societies had their own unique customs, traditions and practices, rituals, food habits, way of hunting, method of cultivation and collecting food etc. and the process of transferring this to the young generation is the education in the primitive societies.

### 3.2.2. Education in Ancient India

India is the seat of one of the most ancient civilization in the world. About the second millennium BC Aryans entered India, defeating the non- Aryans and settled here. In the course of time a section of intellectuals called *Brahmins* became priests and men of learning and another group, soldiers, became *Ksatriyas*, the agriculturist and trading class became Vaisyas and finally the original inhabitants, the non-Aryan tribes were absorbed as *Sudras* or domestic servants. Later on, by about 500 BC, the class turned into caste and the religion became the base of all the activities in India. This cast system and religion played a major role in all the aspects of life. According to the Vedic tradition of Hindu education formal schooling of the children began with the ceremony called *upanayana* or thread ceremony which was more or less compulsory for the three higher castes namely Brahmins, Kshatriyas and Vaisyas. The boy would leave his father's house and stay at the home or *asrama* of his master or guru. The guru would treat him as his own son and give free education and as a member of that house the student has to do the house hold work and look after his cattle. The character of education was different for the students from different caste. For example, a Brahmin boy being a member of the priestly caste, the knowledge of the three Vedas, the most ancient Hindu Scripture was essential. So, the practice was a gurukula or gurukulam type of education in ancient India (Goetz et al., 1985).

The *Gurukula* system of education was very sacred in Hinduism. Other religions like Buddhism and Jainism also practiced the similar model of education called monastic system of education. The word *gurukula* come from two Sanskrit

words *guru* means teacher and *kula* means family or home. At the end of education there was a system of giving a *guru dakshina*, traditional way of expressing the thanks, respect and acknowledgement to the guru. The *guru dakshina* may be monetary and/ or a task the teacher wants the students to accomplish while leaving the *gurukula* at the completion of the education.

### **3.2.3. Education in India under Muslim Rulers**

During the medieval period India was ruled by Muslim rulers and the foundation of Muslim rule in India was laid by Muhammad Ghuri in 1192, who established power in Delhi. The Muslim education system was of two types, namely a *maktab* or elementary education and a *madrasah* i.e., the institutions of higher learning. It was necessary for every Muslim boy to attend at least *maktab* to learn the necessary portion of Quran required for daily prayers. Initially the curriculum in the *madrasahs* comprised of Muslim traditions, jurisprudence, literature, logic and philosophy, and later on the scope was widened and the subjects like history economics, mathematics, astronomy and even medicine and agriculture were added. The credit of organizing the education on a systematic basis goes to Akbar the Great who lived from 1542 to 1605. He had given equal importance to all the subjects and opened a number of educational institutions throughout the country irrespective of the religion to which they belong that is both for Hindus and Muslims. During the 'Mughal' period girls were also given education but it was given to them at home or in the house of teachers living in close proximity (Goetz et al., 1985).

### 3.2.4. Spread of Western Education in India

The western education was basically started in India under the influence of the East India Company and the missionaries in India. Under the influence of the western education English education received prominence in the system of education in India.

### **3.2.4.1. Education under the East India Company**

British came to India with the primary motive of business and trade but gradually they became the rulers of the country. East India Company was established on 31<sup>st</sup> December, 1600 as a commercial body for trade. In spite of the fact that the East India Company became the ruling power in India the British at home were against any system of public instruction for Indians. "It was only in 1813, when the company's charter was renewed, that a clause was inserted requiring the governor general to devote not less than 1,00,000 rupees annually to the education of Indians" (Goetz et al., 1985, p.63).

### **3.2.4.2.** Role of Missionaries in the Development of Education in India

With the arrival of the Christian Missionary St. Francis Xavier, Christian missionaries started the educational activities in India. Christian missionaries added a new chapter in the growth of elementary education in India by the introduction of a clear-cut class system, curriculum and instructions at a fixed time. They printed books in different Indian languages and along with they also introduced English education. In order to disburse the education grand a General Committee of public Instruction was constituted in Calcutta in 1923. It gave more emphasis on Orientalist policy rather than western oriented policy of education (Goetz et al., 1985). The role of Christian missionaries in the Development of Education in India deserves a special mention in the history of the development of education as one of the major areas of their activities and tried to make the education equally accessible and available to the rural and urban people.

## **3.2.4.3.** Role of Semi Rationalist Movement in the Development of Education in India

In 1817 semi-rationalist in Bengal led by an Indian reformer Rammohan Roy, who believed that better things, could be achieved through the knowledge of English education, established the Hindu college in Calcutta. A number of English medium schools were also started in Calcutta. The demand for English education in Bengal began much before any government action in that direction (Goetz et al., 1985).

Meanwhile the influence of the Orientalists in the General Committee was decreasing and the young radical members questioned the policy of patronizing the Oriental learning and argued for spreading the western knowledge through English education. So there arose a controversy that whether the educational grants should be used for promoting oriental learning or western learning. The controversy between the two groups was decided in favour of the western supporters by Thomas Babington Macaulay and his report which was submitted in 1935 in this regard was accepted by Lord William Bentinck, the governor general. As a result of this, even though, the schools for oriental education were maintained for some more time the translation of English books into Sanskrit and Arabic was immediately stopped. With this the English education was adopted by the government. Again, as a boost to the spread of English in India the enactment of the Freedom of press Act (1835) encouraged the printing and publishing of books and made the English books available at low cost. Two years later English and Indian languages replaced the Persian as the language of record and languages in the higher and lower courts. On 10<sup>th</sup> October 1844, Lord Hardinge, the Governor General, declared that for all government appointments preference would be given to the knowledge of English. These measures helped to remove all prejudice against English language in India and it contributed to the development of English education in India (Goetz et al. 1985).

Although the English education gained ground in Bengal there was little demand for English education in Bombay, Madras and North- Western provinces and there the main stress was on Indian languages. The policy in Bombay was to encourage primary education and spreading the western knowledge through mother tongue. Between 1845 and 1848 there was a bitter controversy as to whether the medium of instruction should be in mother tongue or in English. Finally, the matter was referred to the Bengal government and the Bengal government advised the Bombay government to concentrate on English education alone and with this the demand for mother tongue was controlled. In Madras presidency the English education was extensively imparted through the effort of the missionaries. Though, British government gave more emphasis on English education, it did not completely suppress the Indian languages. For example, in 1844 the Bengal government established 101vernacular schools throughout the Bengal province (Goetz et al., 1985).

Another experiment in the field of vernacular education was the *halqabandi* system of James Thomason, Lieutenant Governor of the North- Western Province. In order to bring the primary education within the reach of the common people, under this system, in each *halqa* (circuit) of village a school was established in the most central village so that the people from all the villages within the radius of two miles can benefit from it. This experiment was a great success and within a period of 10 years 897 schools were opened and 23688 students received elementary education (Goetz et al. 1985).

Sir Charles Wood also made a significant contribution to the development of education in India. In 1854 he sent a dispatch to Lord Dalhousie, the then Governor General of India, in which he proposed that primary schools must adopt vernacular languages, high schools must adopt Anglo-vernacular language and at college-level English should be the medium of education which is known as Wood's despatch. The Woods' despatch led to the creation of a separate department for the administration of education in each province, the establishment of the three universities namely universities of Calcutta, Bombay and Madras, and the introduction of the system of grants in aid. In the initial stages the newly established universities were just examining bodies as they did not take up the teaching responsibilities. The universities were also dominating over the secondary education through their entrance examinations which also had a negative impact. So, the secondary schools were preparing the students for the college education and did not prepare the students for their life. So, the signs of decay in the general education were visible during this period. "In a general view of education during the last two decades of the 19th century, drift was more apparent than government resolve. Elementary education was starved and undernourished, and secondary education was suffering from want of proper supervision. There was an unplanned growth of high schools and colleges since the Education Commission had given a free charter to private enterprise" (Goetz et al., 1985, p.64). Since the education commission followed the educational Laissez- faire policy by giving more freedom to

the private enterprise, there was unplanned growth of educational institutions in the private sector where the university or the state had minimum control over them. As a result, many of these institutions diverted form a place of learning centre to a mere coaching centre affecting the quality of education.

### 3.2.5. Education in the Pre-Independence Period

At the later part of the 19<sup>th</sup> century, Indians became more and more critical of western education and demanded more attention to Indian languages and culture. When Baron Curzon of Kedleston arrived as viceroy in 1898, he realized that the education had not penetrated in the country as British had earlier expected. So, he disapproved the policy of state withdrawal from education and considered it is necessary for the state to maintain a few educational institutions of every type as a model for the private sector. He also cancelled the educational laissez- faire policy and introduced strict control and supervision over private educational institutions through inspections. This policy was opposed by the educated Indians as they thought that the policy is to bring the entire education of 1902 to improve the higher education in India. Although the policy of Baron Curzon had brought order into education, the policy of Baron Curzon was not gone well with the people in India and it gave rise to the first organized movement for national education.

In the new Indian constitution in 1921, education was made as a 'transferred' subject which means education was transferred from British control to Indian control except the European style of education which was still kept as reserved subject. The Government of India Act of 1935 removed the distinction between 'transferred' and 'reserved' subjects and gave a complete provincial autonomy over education.

The Indian national Congress considered the new constitution of 1921 was inadequate and in protest Mahatma Gandhi started Non- cooperation movement, a campaign to boycott English institutions and products. National schools were established throughout the country and national universities were set up at selected centres. The courses of study in these institutions were more or less same but Hindi was studied as an all-India language in place of English and the medium of instruction was in mother tongue. However, these institutions did not last long and it disappeared with the suppression of the non-cooperation movement. Since the Government of India Act of 1935 had given higher powers to the provincial ministers of education and the Congress was in power in major provinces, the programs of the provincial governments included the spread of primary education, the introduction of adult education, a stress on the vocational education and education of the girls and underprivileged people. Indian languages were given more importance both as a subject of study and the medium of instruction and the importance of English decreased (Goetz et al., 1985).

### 3.2.6. Education in Independent India

With the independence of the country in 1947 India became fully free to make own policies and programmes for the speedy development of the education. Since then, India has made a tremendous progress in education and the number of universities, educational institutions, number of students, and teachers have increased substantially. The numbers given below will prove the fact of the rapid progress India has made in the field of education.

According to the data given in website of the Department of School Education and Literacy, Ministry of Human Resource Development, Government of India, as on May, 2020 there were 15,50,006 schools in India out of which 2.46 lakhs were in urban area and 13.04 lakhs in rural area as per provisional data of 2018-19. There were 94,16,895 teachers in India out of which 47.08 lakhs were male and 47.09 lakhs are female. Total number of school students in India was 247853688, out of which 12.86 crore was boys and 11.93 crore was girls

The Gross Enrolment Ratio in elementary level was 91.64% while it is 79.55 at secondary level. The Dropout rate in elementary level was 2.72% while it is 9.74% at secondary level. The transition rate from primary to upper primary was 90.36% while it was 89.72% at upper primary to secondary level. People teacher ratio was 23 in primary level and 24 in upper primary level.

94.31% of schools for boys were with toilet facility and 95.68% schools for girls were attached with toilets. 89.97% schools had drinking water facility, 96.25% of schools had electricity connection and 61.66% of schools had library. The gender Parity Index was 1.06 at elementary level and 1.04 at secondary level (Website of MHRD, https://seshagun.gov.in/).

According to data given in the website of the Ministry of Human Resource Development, Government of India, (accessed on 31<sup>st</sup> May, 2020,) in 2018-2019, there were 993 universities, 41901 colleges and 10726 standalone institutions. All these three together made a total of 5360 institutions. There were 14.04 lakhs of teachers which include 1.58 lakhs teachers in universities, 10.99 lakhs teachers in colleges and 1.47 lakh teachers in standalone institutions. There were 3.50 crores students doing higher education in India out of which 69.46 lakhs were in universities, 2.60 crores in colleges and 20.23 lakhs students studying in the stand-alone institutions. This data gives a brief idea of the growth and development of education in India after the independence. The details of the various types of universities are given below in the table.

Table No.	3.1:	Number	of	Universit	ies in	India,	2018-19
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Sl. No	Type of University	Number of Universities
1	Central University	46
2	Central Open University	1
3	Institution of National Importance	127
4	State Public University	371
5	Institution Under State Legislature Act	5
6	State Open University	14
7	State Private University	304
8	State Private Open University	1
9	Deemed University- Government	34
10	Deemed University- Government Aided	10
11	Deemed University- Private	80
	Grand Total	993

Source: AISHE Final Report 2018-19 (http://aishe.nic.in/aishe/home)

The Table 3.1 shows that during the period 2018-19, the number of universities in India had increased to 993 out of which 385 universities were privately managed and 608 universities were directly under the government or government aided.

To make the education system of India more efficient and effective the government of India announced various education policies which provided the proper vision and direction to the education system in the independent India. On 14<sup>th</sup> July, 1964, the Government of India set up the commission under the chairman ship of Daulat Singh Kothari, then Chairman of the University Grants Commission, to make a comprehensive study of all the aspects of the educational sector across the country. It was the sixth commission in India after the independence and the first commission with comprehensive terms of reference on education. The commission submitted its report on 29<sup>th</sup> June, 1966.

The main recommendations of the commission were, Efforts should be made to provide free and compulsory education for all children up to the age of 14, importance to be given to the status, emoluments and education of teachers, adoption of the three language formula, strenuous efforts should be made to equalize educational opportunity, priority is to be given to science education and research, special emphasis should be placed on the development of education for agriculture and industry, reforms to improve the reliability and validity of examinations and to make evaluation a continuous process, expansion of secondary education and facilities for technical and vocational education at this stage, improvement and expansion of university education, development of part-time and correspondence courses on large scale at the university stage to provide opportunities to a large number of people who have the desire to educate themselves further but cannot do so on a full-time basis, spread of literacy and adult education, development of games and sports to improve the physical fitness and sportsmanship of the average student, and to have a broadly uniform educational structure in all parts of the country. The government of India accommodated these recommendations, popularly known as Kothari Commission Report, presented in India's first National policy on Education in 1968.

With the passage of time and the changing situation, to equip the education sector to meet the changing socio-economic needs of the country, government of India announced a new National Policy on Education in 1986. Some of the thrust areas of the New Education Policy1986, were development and universalization of primary education, universal provision of facilities, matters concerning enrolment and retention, common structure for first ten years of schooling, vocationalization of secondary education, specialisation of higher education and evaluation and monitoring.

Prakesh Javadekar, Honourable Minister of the Human Resource Development, Government of India, mentioned in his message while presenting the Draft National Education Policy 2019, "To reap the benefits of this demographics, our Government under the stewardship of our able Prime Minister had promised that it will implement a National Education policy to meet the changing dynamics of the population's requirement with regards to quality education, innovation and research, aiming to make India a knowledge superpower by equipping its students with the necessary skills and knowledge and to eliminate the shortage of manpower in science, technology, academics and industry".

The Draft National Education Policy 2019 is divided into four parts. The first part mainly deals with the school education which includes early childhood care and education, curriculum and pedagogy in schools, effective teacher recruitment and deployment, equitable and inclusive education and regulation and accreditation of school education.

The second part was the Higher Education which stress on quality of universities and colleges, Institutional restructuring and consolidation, research and transforming the regulatory system.

The third part deals with the Additional Key Focus Areas which includes technology in education, integrating vocational education into all schools, colleges and universities and the promotion of Indian languages. The fourth part deals with Transforming Education. For this purpose, the Policy envisages the creation of a National Education Commission (NEC)/ Rashtriya Shiksha Aayog (RSA) as an apex body for Indian education. The Prime Minister of India will be the Chairperson of the RSA and the Union Minister for Education (UME) will be the Vice Chairperson of the RSA.

These policies on education announced from time to time by the government of India gave the clear direction to the development of education in India helped to face the challenges in the modern times.

Again, to maintain the quality of education in India by way of proper supervision and implementations of government policies and programmes, the government of India established a number of institutions. University Grants Commission (UGC), a statutory body of the Government of India was set up in 1956, to coordinate, determine and maintain the standards of university education in India.

National Assessment and Accreditation Council (NAAC) was established in 1994 as an autonomous institution of the University Grants Commission (UGC) to ensure quality in higher education by periodic assessment and accreditation of institutions of higher education in India.

All India Council for Technical Education (AICTE) a statutory body of the Government of India was established in 1945 to plan and promote the quality in technical education in India.

National Council of Educational Research and Training (NCERT) was established in 1961 as an autonomous organisation of the government of India to assist and advise the Central and State Governments on policies and programmes for qualitative improvement in school education.

Indian Council of Agricultural Research (ICAR) is an autonomous organisation, formerly known as Imperial Council of Agricultural Research was

established in 1929 and it is responsible for co-ordinating agricultural education and research in India

### **3.3. Education in Naga Hills before the Independence of India**

Since the beginning of the active administration in 1881 to the transfer of power at the time of independence of India in 1947, the British administered Naga Hills was a frontiers district of Assam (Sema, 1992). British administration used education as an instrument of pacification and civilization. The primary objective of introducing modern education in Naga Hills just as the rest of India was to train the natives for the service of the nation. Although the administration was keen on opening the schools initially the responsibility was left to the care of the American Baptist Missionaries. However, in the first part of the 20<sup>th</sup> century government took over some of the mission schools and opened its own schools (Sema, 1992). The main reasons for the change of the education policy of the British were, firstly, the missionaries gave prime importance to the missionary work than the education when both interests had a clash. Secondly, Mission schools were under staffed and there were inadequate qualified staffs. Thirdly, animists were reluctant to send their children to missionary schools for fear of conversion. So, government felt that simply due to the fear of conversion Nagas should not be deprived of education. Due to these reasons government modified its educational policy in the district and started taking more and more village schools which were under the control of missionaries (Sema, 1992). "In 1838 out of 167 educational institutions, 115 were government lower primary schools, 10 government aided lower primary schools, 36 missions aided lower primary schools, 1 (one) government middle English school, 2 government aided training schools (up to middle English standard) 2 mission aided upper primary standard and 1 (one) government industrial school" (Sema, 1992, p.80). In accordance to the policy of taking over the responsibility of education in the district, government decided to take over 10 schools annually for a period of five years. As a result, the number of government schools in the district increased but the government did not keep its policy of taking over 10 schools per year (Sema, 1992, p.80). The following table shows the growth of education in Naga Hills District during the British Period, 1982-1947.

Table No. 3.2: Growth of Education in Naga Hills District during the BritishPeriod, 1982-1947

Year	No. of LP	No. of	No. of	No. of Stud					
	Schools	ME	High	Primary	Secondary	Total			
		Schools	Schools						
(1)	(2)	(3)	(4)	(5)	(6)	(7)			
1882-83	6	-	-	-	-	-			
1883-84	6	-	-	107	-	107			
1884-85	5	-	-	63	-	63			
1885-86	11	-	-	-	-	-			
1886-87	20	-	-	-	-	-			
1887-88	10	-	-	199	-	199			
1888-89	16	-	-	221	-	221			
1889-90	15	-	-	256	-	256			
1890-91	16	-	-	297	-	297			
1891-92	17	-	-	232	-	232			
1892-93	15	-	-	236	-	236			
1893-94	17	-	-	299	-	299			
1894-95	16	-	-	322	-	322			
1895-96	14	-	-	330	-	330			
1896-97	15	-	-	292	-	292			
1897-98	17	1	-	371	-	371			
1898-99	16	1	-	309	-	309			
1899-	13	1	-	211	-	211			
1900									
1900-01	16	1	-	73	6	79			
1901-02	16	1	-	80	5	85			
1902-03	22	1	-	81	6	87			
1903-04	22	1	-	-	-	667			
1904-05	22	1	-	-	-	-			
1905-06	-	-	-	-	-	-			
1906-07	31	1	-	-	-	787			
1907-08	24	1	-	-	-	-			
1908-09	21	1	-	-	-	-			
1909-10	23	1	-	-	-	-			
1910-11	24	1	-	-	-	-			
1911-12	22	1	-	-	-	-			
1912-13	26	1	-	385	-	-			

1913-14	27			150		
		1	-	458	-	-
1914-15	27	1	-	525	-	-
1915-16	39	1	-	-	-	-
1916-17	35	1	-	659	92	751
1917-18	-	1	-	773	97	870
1918-19	32	1	-	815	106	921
1919-20	59	1	-	1279	123	1502
1920-21	62	1	-	1909	111	2015
1921-22	84	1	-	1051	106	1157
1922-23	84	1	-	3209	110	3319
1923-24	85	1	-	2145	93	2238
1924-25	85	1	-	1868	92	1969
1925-26	88	1	-	2202	92	2314
1926-27	92	1	-	2401	79	2480
1927-28	107	1	-	2388	83	2471
1928-29	107	1	-	3132	92	3224
1929-30	124	1	-	3365	351	3716
1930-31	124	1	-	3677	611	4288
1931-32	149	1	-	3804	628	4432
1932-33	150	1	-	3835	602	4528
1933-34	145	1	-	3749	796	4545
1934-35	135	1	-	4261	959	5200
1935-36	141	1	-	4118	976	5092
1936-37	141	1	-	4325	1120	5445
1937-38	141	1	1	3594	938	4532
1938-39	-	1	1	3912	997	4909
1939-40	-	1	1	-	-	-
1940-41	-	1	1	-	-	-
1941-42	-	1	-	-	-	-
1942-43	-	1	1	-	-	-
1943-44	-	1	1	-	-	-
1944-45	_	1	1	-	-	-
1945-46	-	1	1	-	-	-
1946-47	161	3	1	-	-	-
1947-48	-	-	-	-	-	17443

Source: Sema, Piketo (1992). British Policy and Administration in Nagaland 1881-1947, pp.81-83,

The table 3.2 shows the gradual increase in the number of educational institutions in the Naga Hills before independence. The data shows that in the year 1882-83 there were only six Lower Primary (LP) schools in the entire Naga Hills. In 1983-84, there were 107 students all together. In 1984-85 the number of schools decreased to five primary schools and the number of students also decreased to 63. In 1897-98, the number of primary schools increased to 17 and there were one middle school with a total number of 371 students. From 1884-85 to 1895-96 the total number of students and in the year 1902-03, there were only 81 students in the primary schools and six students in the secondary section which makes a total number of students 87. Since 1902-03 there was continuous increase in the number of students and in the year 1947-48 total enrolment had increased to 17443 students. In the year 1946-47, there were 161 primary students, 3 middle schools and one high school.

During the British period education was placed under the general control of Deputy Commissioner (DC). So, the government schools were opened under the recommendations of the DC. The DC felt that the declining trend of enrolment in education from 1907 to 1912 was due to the nature of the education. DC felt that the *Nagas* were practical in mind and they would do better if the education would be of practical use and also if the heavy burden on language is reduced. This opinion was accepted by other officials also and as a result an industrial school (called Fuller Technical School) was opened in 1907 in Kohima to train the Naga boys for carpentry and black smithery. In 1941 the school was brought under the education department and became part of the first government high school of the district, located at Kohima. Since then, high school boys attended technical classes in the afternoon as part time students (Sema, 1992, p.83).

### **3.3.1. Medium of Instruction**

Due to the diversity of tribal languages, at the initial stage students were taught in their local vernaculars, Assamese and English. Since out of these three languages two were foreign languages, it was proved by experience that modern education was difficult for the beginners. So, in order to reduce the language burden Assamese was made a non-examinational subject though it was compulsory to study as it was needed for the people to communicate with the people in the plain areas of Assam. Subsequently, the medium of instruction was in vernacular and English and English was the medium for the higher classes (Sema, 1992).

### 3.3.2. School Curriculum

The missionaries and the converts played a major role in translating the books. Due to the difficulties involved in translation of books owing to language problem and absence of the script in tribal language, government readily accepted the available books for use in schools as text books. Since there was different languages, the books published in one vernacular could not be used by another tribe as text books. So, government closely cooperated by the missionaries for the publication of the books and the expense of the publication were mostly taken care by the government though Christian Missionaries also partly met the cost of some publication. (Sema, 1992) To encourage the students to pursue post primary schools, government also provided scholarship to the Naga students.

### 3.3.3. Education and Employment

Realizing the lack of employment opportunities, government followed a very careful approach in the expansion of the higher education in the hill districts. While appreciating the primary education, the government was very sceptic about the secondary level education. According to the Quinquennial Review of the Progress of Education in Assam (as cited in Sema, 1992, p.85) "There is very little chance of employment for Naga and Lushai matriculates in their own hills, and practically none for them outside".

"The government discussed the problems of Hill education at a conference in shillong in 1935 and again in 1938 and decided that education up to class VII should be given to Naga boys in their home hills, and that they should then be given opportunities for training in mechanical pursuits or agriculture, and that facilities for high school and college education should only be given to exceptional boys" (Sema, 1992, p.85). So, the policy of the government to restrict the higher education of the Hill people only to the exceptional people also led to the backwardness of the education in Naga Hill district.

### **3.3.4.** Impact of Colonial Administration on Education

Written form of any script was unknown for *Nagas* before the colonial administration. The indigenous form of education was exclusively informal. Education with regard to how to become good house wives, how to be a successful warrior etc was taught by every household which was supplemented by dormitory experience where boys and girls learned their social customs (Sema,1992). The basic character of their education system was simple but practice oriented.

The presence of colonial education redirected the traditional educational system to western education. British rulers entrusted the education of *Nagas* mostly to American Baptist Mission which substantially influenced the socio-cultural life of *Nagas*. With the introduction of western education system, the outlook of the people became broader and this helped them to accept the new trend and changes in the society (Sema,1992).

### 3.4. Growth of Education in Nagaland After Independence

Nagaland has made a rapid progress in the education since the time of independence and especially after it attained the statehood. In addition to the efforts taken by the government, private sector, especially the church played a major role in the development of education in Nagaland. English is the main medium of instruction in most of the educational institutions as it is the official language of the state. State follows the 10+2+3 pattern in education.

### 3.4.1. Growth of Literacy Rate in Nagaland

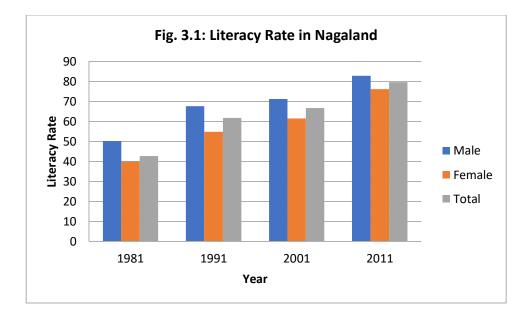
Ye	ear		Nagalan	d	Growth of
		Male	Female	Total	Literacy Rate
					in Nagaland
19	981	50.06	39.89	42.57	
19	91	67.62	54.75	61.65	44.82
20	001	71.16	61.46	66.59	8.01
20	)11	82.75	76.11	79.55	19.46

### Table No.3.3: Decadal Growth Rate of Literacy in Nagaland, 1981-2011

Source: Growth rate is calculated based on the data given in the Statistical handbook of Nagaland -1986, 1997, 2009 and 2014

The table 3.3 shows the literacy rate in Nagaland for the last four decades i.e., from 1981 to 2011 and its growth rate. The data shows that there was a constant increase in the literacy rate in Nagaland since 1981. The table shows that the literacy rate which was 42.57 per cent in 1981 increased to 61.65 in 1991 marking a 44.82 per cent growth in it. From 1991 to 2001 there was 8.01 per cent growth of literacy rate in Nagaland. Literacy rate which was 66.59 in 2001 was increased to 79.55 in 2011 with the growth rate of 19.46. There was continuous growth in both male and female literacy rate from 1981 to 2011. The data shows that the male literacy rate was always higher than female literacy rate in Nagaland from 1981 to 2011.

The male literacy rate of Nagaland in 1981 was 50.06 and female literacy rate was 39.89 with a gender gap of 10.89. In 2011 the male literacy rate increased to 82. 75 and female literacy rate increased to 76.11 and the gender gap was decreased to 6.64. The data shows the female literacy rate was increasing though the gap between the male female literacy is still a reality.



The Figure.3.1 shows that the literacy rate which was less than 50 in 1981 has reached 79.55 according to 2011 census. It means that there was a continuous and sustained growth in the literacy rate from 1981 to 2011. Even though there was a sustained growth in the literacy rate in Nagaland, the female literacy was always below male literacy, but the difference was constantly decreasing.

### 3.4.2. Growth in the Number of Schools and Colleges in Nagaland Since 1986

The growth of education in Nagaland has made a substantial progress since Independence. There was a tremendous increase in the number of Schools and colleges in Nagaland since independence. The increase in the number of schools since 1986 is given in the table below.

# Table No. 3.4: Number of Primary Schools, Middle Schools, High Schools and Higher Secondary Schools in Nagaland 1986-87to 2013-14

	Government Primary Schools	Private Primary Schools	Total No of Primary	Government Middle Schools	Private Middle schools	Total No. of Middle	Government high Schools	Private High Schools	Total No of High	Government H.S. Schools	Private H.S. Schools	Total No. of H.S.
			Schools			Schools			Schools			Schools
1986-87	1129	141	1270	224	119	343	64	47	111			
1987-88	1133	137	1270	224	119	343	67	48	115			
1988-89												
1989-90												
1990-91												
1991-92	1216	83	1299	236	122	358	72	107	179			
1992-93	1216	89	1305	235	122	357	72	117	189			
1993-94	1291	103	1394	227	191	418	99	133	232	4		4
1994-95	1291	103	1394	227	191	418	99	137	236	4		4
1995-96												
1996-97												
1997-98												
1998-99												
1999-												
2000												
2000-01	1299	192	1491	246	223	469	121	194	315	4	16	20
2001-02	1309	190	1499	261	218	479	123	198	321	5	18	23
2002-03	1311	190	1501	264	218	482	121	200	321	10	22	32
2003-04	1318	190	1508	271	218	489	125	206	331	10	25	35
2005-05												
2005-06												
2006-07	1442	218	1660	287	176	463	124	214	338	12	43	55
2007-08	1442	220	1662	287	178	465	119	218	337	19	50	69
2008-09												

2009-10												
2010-11												
2011-12												
2012-13												
2013-14	1661	145	1806	704	198	902	274	290	564	38	105	143

Source: Statistical handbook of Nagaland-1991,1996,1997,2002,2004, 2012, 2014

The table No. 3.4 shows that in the year 1986-87 there were 1270 primary schools out of which 1129 schools were under the government and 141 schools under the private management. The number of primary schools has increased steadily from 1986-87 to 2013 that is total number of primary schools has increased to 1806. During this period the number of government primary schools has increased from 1129 in 1986-87 to 1161 in 2013-14. However, there was fluctuations in the number of private primary schools during this period. There were 141 private primary schools in 1986-87 which decreased to 83 schools in 1991-92. In 2007-08 the number of private primary schools has increased to 220 which again decreased to 145 in 2013-14.

In 1986-87 there were 343 Middle Schools in Nagaland which increased to 902 in 2013-14. The number of government middle schools in 1986-87 was 224 which increased to 707 in 2013-14. The data shows that there was steady increase in the total number of middle schools and the number of government middle schools from 1986-87 to 2013-14 whereas there were fluctuations in the number of private middle schools during this period. The data clearly indicates that the number of private middle schools in 1998-97 was 119 and it increased to 223 in 2000- 01. In 2001-02 it decreased to 218 and it further decreased to 176 in 2006-07. However, the number again increased to 198 in 2013-14. So, unlike the number of government middle schools there were fluctuations in the number of middle schools there were fluctuations in the number of government middle schools there were fluctuations in the number of government middle schools there were fluctuations in the number of government middle schools there were fluctuations in the number of government middle schools there were fluctuations in the number of middle schools in the private sector.

There was a steady increase in the number high schools, which includes both government and private high schools, from 1986-87 to 2013-2014. The total number of high schools during this period increased from 111 to 337. The number of government high schools in 1986-87 was 47 which increased to 111 in 2013-14 where as the number of private high schools during this period increased from 47 to 218. So, there was a continuous increase in the number of high schools both in the private and government sector during this period.

There was sudden and steady growth in the number of higher secondary schools in Nagaland from 1993-94 to 2013-14. There were only 4 higher secondary schools in Nagaland and all of which was under the government sector. In 2000-01 the number of government higher secondary schools remained the same at 4 but the number of private higher secondary schools which was nil during the period of 1993-94 has increased to 16 which made the total number of higher secondary schools during this period 20. In 2013-14, total number of higher secondary schools increased to 143 out of which 38 were in the government sector and 105 were in the private sector.

	Government	Private	
	College	College	Total
1986-87	4	11	15
1987-88	4	12	16
1988-89			
1989-90			
1990-91			
1991-92	9	9	18
1992-93	8	13	21
1993-94	8	15	23
1994-95	8	16	24
1995-96			
1996-97			
1997-98			
1998-99			
1999-2000			
2000-01	8	27	35
2001-02	8	28	36
2002-03	8	28	36
2003-04			
2005-05			

Table No. 3.5: Number of Colleges of General Education in Nagaland, 1986 - 87to 2016-17

2005-06			
2006-07	13	31	44
2007-08	12	31	43
2008-09			
2009-10			
2010-11	13	32	45
2011-12			
2012-13	13	35	48
2013-14			
2014-15	13	40	53
2016-17	13	61	74

Source: Source: Statistical handbook of Nagaland-1991, 1996,1997,2002,2004, 2012, 2014, 2018

The Table No. 3.5 shows that in 1986-87 there were 15 colleges of general education in Nagaland out of which 4 colleges were in government sector and 11 colleges in the private sector. The number of colleges in Nagaland in 2016-17 increased to 74 out of which 13 colleges were in government sector and 61 colleges in private sector. So, the number of colleges of general education in the government sector increased gradually during this period while there was rapid increase in the number of colleges in the private sector.

## 3.4.3. Growth of Enrolment of Students in Schools, in Nagaland

#### 3.4.3.1. Growth Rate Students' Enrolment in Primary level

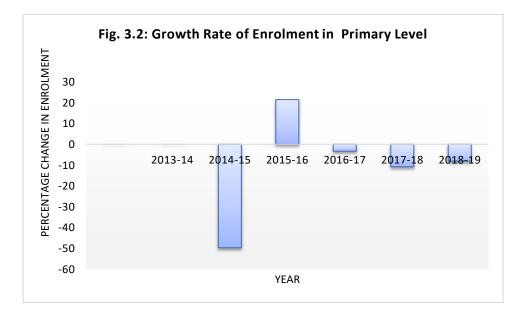
The table 3.6 shows the enrolment of students in primary schools and its growth rate from 2013-14 to 2018-19. The data shows that from 2013-14 to 2018-19, in all the years except in 2015-16 there was a negative growth in the enrolment at primary level. The enrolment was decreased during the period 2013-14 to 2014-15 by 49.69 per cent.

In the year 2015-16 there was a positive growth rate of enrolment by 21.47 per cent. Thereafter, the successive three years recorded a negative growth in enrolment at primary level.

Year	Enrolment in	Growth Rate
	Primary Level	
2013-14	386558	
2014-15	194486	-49.69
2015-16	236234	21.47
2016-17	228380	-3.32
2017-18	203768	-10.78
2018-19	187341	-8.06

Table No. 3.6: Enrolment in Primary Level

Source: Growth rate is calculated based on the enrolment of students given in the statistical hand book of Nagaland-2016, 2018, 2019



The figure 3.2 shows that from the academic year 2013-14 to 2018-19, only in 2015-16 there was a positive growth rate in enrolment and all other years there was a negative growth in enrolment of students in Primary schools in Nagaland.

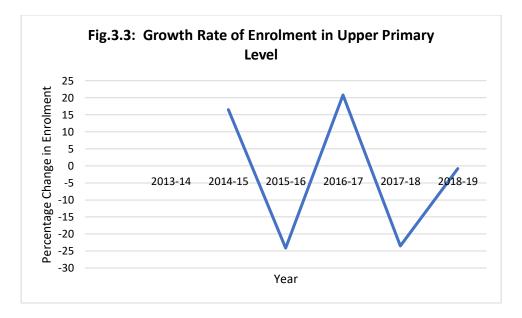
## 3.4.3.2. Growth Rate Students' Enrolment in Upper Primary level

The Table 3.7 shows the student's enrolment in upper primary level and its growth rate from 2013-14 to 2018-19. Total enrolment of students which was 123554 in 2013 -14 was decreased to 100115 in 2018-19. From 2013-14 to 2018-19 there was a fluctuation of positive and negative growth rate in different academic years. In the year 2014-15 there was a positive growth rate of enrolment in upper primary level by 16.52 and in 2016-17 there was 20.81 per cent positive growth rate and other years negative growth rate was recorded. In the year 2017-18, there was a negative growth rate of 23.54 per cent.

Year	Enrolment in	Growth Rate
	Upper Primary	
2013-14	123554	
2014-15	143961	16.52
2015-16	109223	-24.13
2016-17	131949	20.81
2017-18	100892	-23.54
2018-19	100115	-0.77

Table No. 3.7: Enrolment in Upper Primary Level

Source: Growth rate is calculated based on the enrolment of students given in the statistical hand book of Nagaland-2016, 2018, 2019



The figure 3.3 shows that the growth rate of enrolment in upper primary level was highly fluctuating and it is indicated by the 'W' shape of the diagram. During the academic year 2014-15 and 2016-17 the growth rate was positive and all other years from 2013 -14 to 2018-19, there was a negative growth rare in enrolment.

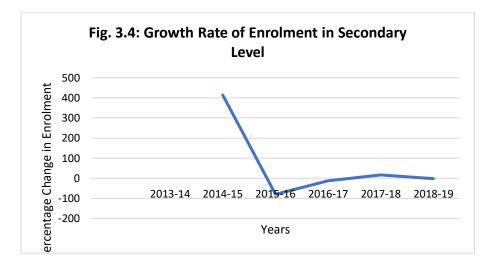
# 3.4.3.3. Growth Rate Students' Enrolment in Secondary Level

The table no. 3.8 shows the enrolment and the growth rate of student's enrolment in secondary schools in Nagaland from 2013-14 to 2018-19. The data shows that the total enrolment which was 55962 in 2013-14 was decreased to 55946 in 2018-19. From 2013-14 to 2014-15, there was 413.99 per cent growth rate and in the academic year 2017-18 there was 15.80 growth rate in enrolment and all other years there was a negative growth rate in enrolment.

Year	Enrolment in	Growth Rate
	Secondary	
2013-14	55962	
2014-15	287639	413.99
2015-16	56948	-80.20
2016-17	49709	-12.71
2017-18	57564	15.80
2018-19	55946	-2.81

Table No. 3.8: Enrolment in Secondary Level

Source: Growth rate is calculated based on the enrolment of students given in the statistical hand book of Nagaland-2016, 2018, 2019



The diagram 3.4 shows that an 'L' shape curve indicating that the growth rate of enrolment in Secondary level decreased sharply from 2014-15 to 2015-16 and thereafter there was less fluctuations in enrolment. However, the diagram shows that the after the academic year 2014-15, only in 2017-18 the growth rate in enrolment was positive and all other years it was negative.

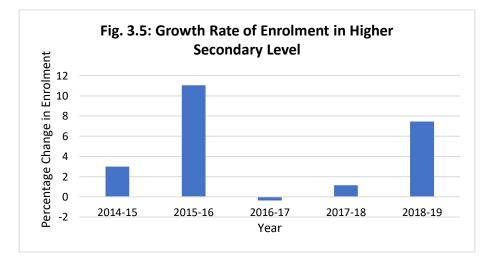
## 3.4.3.4. Growth Rate Students' Enrolment in Higher Secondary Level

The table no. 3.9 shows the enrolment of students in Higher Secondary class from the year 2013-14 to 2018-19. Unlike the change in enrolment in lower classes, in higher secondary level there was an increase in enrolment from the academic year 2013 -14 to 2018-19. The enrolment which was 26564 in 2013-14 increased to 32899 in 2018-19. The growth rate in enrolment during this period was positive except in the academic year 2017-18 which recorded a negative growth of 0.36 per cent from the previous academic year.

Year	Enrolment in	Growth Rate
	Higher Secondary	
2013-14	26564	
2014-15	27357	2.99
2015-16	30376	11.04
2016-17	30268	-0.36
2017-18	30615	1.15
2018-19	32899	7.46

Table No. 3.9: Enrolment in Higher Secondary Level

Source: Growth rate is calculated based on the enrolment of students given in the statistical hand book of Nagaland-2016, 2018, 2019



The figure 3.5 shows the growth rate of enrolment in Higher Secondary Level from 2014-15 to 2018-19. The figure shows that that in the academic year 2016-17 the growth rate was negative and all other years from 2014-15 to 2018-19, there was a positive growth rate in enrolment.

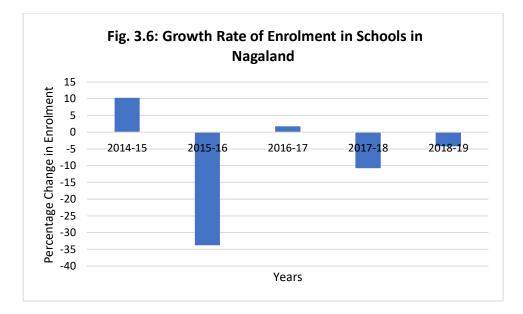
# 3.4.3.5. Growth of Total Enrolment of Students in Schools

The table 3.10 shows the total enrolment of students from primary level to higher secondary level during the periods 2013-14 to 2018-19. The total enrolment of students decreased form 592638 in 2013-14 to 376301 students in 2018-19. The table shows that the total enrolment of students in schools in Nagaland recorded a positive growth rate of 10.26 per cent in 2014-15 and in the following year it recorded a negative growth of minus 33.77 per cent. Again, in the years of 2017-18 and 2018-19 also there was a decrease in enrolment by minus 10.78 and minus 4,21 per cent respectively.

Year	Total Enrolment in	Growth Rate
	Schools	
2013-14	592638	
2014-15	653443	10.26
2015-16	432781	-33.77
2016-17	440306	1.74
2017-18	392839	-10.78
2018-19	376301	-4.21

Table No. 3.10: Total Enrolment of Students in Schools in Nagaland

Source: Growth rate is calculated based on the enrolment of students given in the statistical hand book of Nagaland-2016, 2018 & 2019



The figure 3.6 shows the growth rate of enrolment of students in schools in Nagaland from 2014-15 to 2018-19. The figure shows that the percentage of growth rate was negative in 2015-16, 2017-18 and in 2018-19.

Year	Enrolled	Growth rate	Appeared	Qualified	Percentage
		of enrolment*			
2009	-	-	19985	13974	69.92%
2010	-	-	19205	11030	57.43%
2011	23470	-	20023	12125	60.56%
2012	23448	-0.09%	20345	12463	61.26%
2013	24462	4.32%	21310	13535	63.51
2014	25416	3.75%	21678	14131	65.19
2015	26662	4.90%	23639	14905	63.05
2016	24055	-9.78%	22970	15027	65.42

Table No. 3.11: Growth of Enrolment in HSLC from 2009 to2016

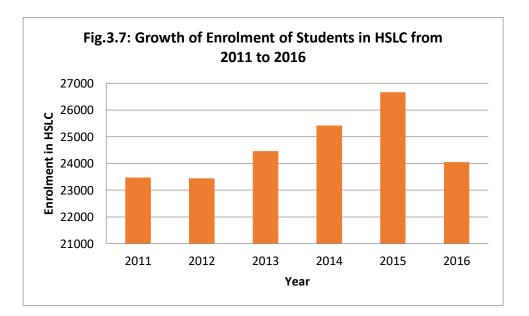
Source: Report of Nagaland board of School Education, 2009-2016.

\*Growth rate of enrolment is calculated based on the data

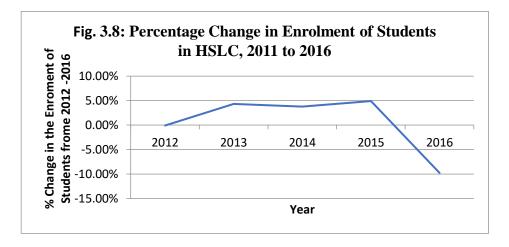
The Table No. 3.11 shows the growth of enrolment of students, number of students appeared, qualified and passed percentage in class 10 from the year 2009 to 2016. The number of students enrolled as private candidate in class 10 in 2009 and 2010 was not available and therefore the total number of students enrolled could not be calculated during this period. From 2011 to 2016 the total enrolment includes the private candidates and the repeaters in addition to the regular candidates. The data in the table no. 3.11 shows that the enrolment of students in HSLC marginally decreased in 2012 in comparison to 2011. From 2012 to 2015 the enrolment continuously increased and in 2016 again there was a decrease in the enrolment.

The number of students appeared for the exam in the year 2009 was 19985 which decreased to 19205 in 2010 and thereafter, it continuously increased till 2014 and from 2014 to 2016 the enrolment decreased.

From 2009 to 2016 only in the year 2010 the number of students qualified in the examination decreased and all other years it increased. During the period 2009-2016, the pass percentage was highest in 2009 that is 69.92%. In the year 2010 the pass percentage was 57.43% and in all other years the pass percentage was above 60%.



The Figure 3.7 shows that there was continuous increase in the enrolment of students in HSLC from 2011 to 2015 but there was a sharp decrease in the enrolment in the year 2016.



The figure 3.8 shows the percentage change of enrolment of students in HSLC from the year 2012 to 2016. The figure clearly shows that the enrolment of students in HSLC has increased from 2012 2015. However, the rate of increase varied from year to year and the rate of increase decreased from 2013 to 2014 and again from 2014 to 2015, it increased. However, the change in the enrolment from the year 2015 to 2016 became negative that is there was a decrease in total enrolment during the period.

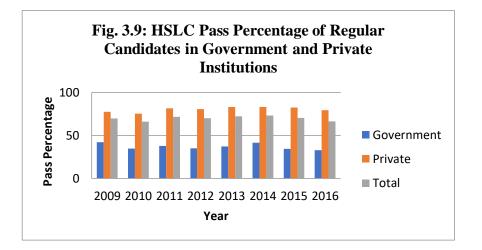
# 3.4.4. Pass Percentage of HSLC Examination, 2009-2016

# Table No. 3.12: HSLC Pass Percentage of Regular Candidates in Government andPrivate Institutions (2009-2016)

	2009	2010	2011	2012	2013	2014	2015	2016
Government	42.08	34.68	37.92	35.15	37.25	41.69	34.55	32.81
Private	77.55	75.36	81.52	80.63	83.09	83.27	82.64	79.46
Total	69.98	66.22	71.68	70.14	72.46	73.23	70.51	66.51

Source: Report of Nagaland board of School Education, 2009-2016

The Table No.3.12 shows the percentage of students passed form government and private institutions and total pass percentage of regular students from 2009 to 2016. The data shows that the highest pass percentage in the government institutions was in the year 2009 that is 42. 08 percentages and the lowest during this period was in the year 2016 with 32.81 percentage. The highest pass percentage, during this period, in the private institutions was in the year 2014 with 83. 27 percentages and the lowest in the private institution was in 2010 with 75.36 percentages. The data shows that there was a sizable difference in the performance between the government and private institutions in terms of pass percentage, where the performance of the private institutions was much better than the government institutions.



The figure 3.9 shows the pass percentage of regular candidates in government and private institutions in Nagaland from 2009 to 2016. The figure makes a comparison between the pass percentage in different years and between private and government institutions. The diagram shows that there was fluctuations in the pass percentage from 2009 to 2016. The performance of private institutions was always well above that of government institutions throughout the period.

## 3.4.5. Growth Rate in the Enrolment Degree Students in Nagaland

The Table 3.13 shows the growth of enrolment of degree students in Nagaland from 2008-09 to 2017-18. It reveals that in 2009-2010 growth rate of enrolment of the

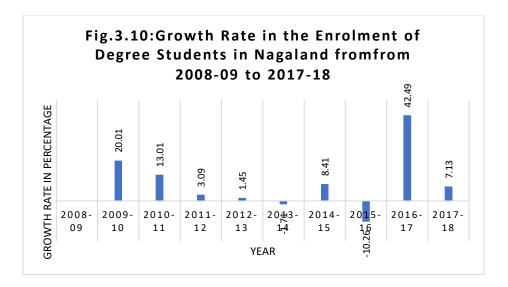
students was 20.01 per cent. However, the successive years till 2014-15 witnessed a declining growth trend of enrolment. More over two periods i.e., 2013-2014 and 2015-2016 have registered negative growth rate of enrolment. After registering a negative growth rate of enrolment in 2015-16, there was a surge in the growth rate of enrolment i.e., 42.49 per cent in 2016-2017. Again, the period of 2017-2018 has reflected a declining growth rate of enrolment i.e., 7.13 per cent in 2017-18 which was 42 .49 per cent in 2016-17.

Year	No. of Students	Growth Rate (%)
2008-09	14790	
2009-10	17750	20.01
2010-11	20060	13.01
2011-12	20679	3.09
2012-13	20978	1.45
2013-14	20619	-1.71
2014-15	22354	8.41
2015-16	20060	-10.26
2016-17	28584	42.49
2017-18	30623	7.13

**Table No.3.13: Enrolment of Degree Students** 

Source: Growth rate is calculated based on the data given in the Statistical Handbook

# of Nagaland, 2014. 2016 & 2018



The Figure 3.10 shows that from the academic year 2008 -09 to 2017-18 there was a continuous fluctuation in the growth rate of enrolment of degree students in Nagaland. The growth rate was always positive except in 2013-14 and 2015-16. The growth rate of enrolment was highest in the academic year 2016-17 and it was the lowest in the year 2015-16.

## 3.4.6. Growth of Technical Education in Nagaland

The growth rate of technical education in Nagaland has been very slow. Even after fifty-six years of the formation of the state of Nagaland there exist only three government polytechnics institute in the state. The diploma courses offered in the Polytechnics are Civil Engineering, Electronics & Electrical Engineering, Mechanical Engineering, Automobile Engineering, Computer Application, Modern Office Practices, Fashion Technology, Computer Engineering, Electronics &Communication and Information Technology.

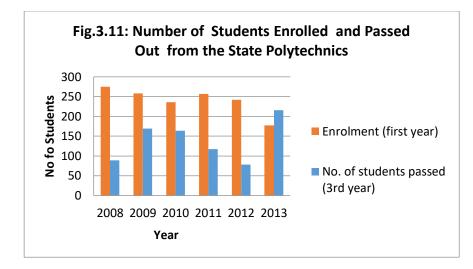
Year	Enrolment	Change in	Growth rate in	No. of students
	(first year)	enrolment	Percentage (%)	passed (3 <sup>rd</sup> year)
2008	275			89
2009	258	- 17	- 6.18	169
2010	236	- 22	- 8.52	164
2011	257	+ 21	+ 8.89	117
2012	242	- 15	- 5.83	78
2013	177	- 65	- 26.85	216

 Table No. 3.14: Student Enrolment and Passed –Out Students from the State

 Polytechnics

Source: Nagaland State Human Development Report-2016.

The data the table 3.14 shows that the enrolment of students in the state-run polytechnics has ups and downs and there was no steady growth rate. The enrolment in 2008 was 275, which decreased to 258 in 2009 and further decreased to 236 in 2010. In 2011 the enrolment increased to 257 which indicate 21% increase but again in 2012 it decreased to 242 i.e., 15% decrease. In 2013 the enrolment was further decreased to 177 which marked 65% decrease in enrolment.



The figure 3.11 represents the enrolment and the number of students passed from the state polytechnics from 2008 to 2013. The graph shows that irrespective of the fact that the total enrolment in the polytechnics is very low, the number of passed out students were very low.

# 3.5. Growth of Education in Two Sample Districts of Kohima and Mon

# 3.5:1. Growth of Literacy Rate in Kohima District

Table No.3.15: Decadal Growth of Li	iteracy Rate in K	Kohima District, 1981-2011

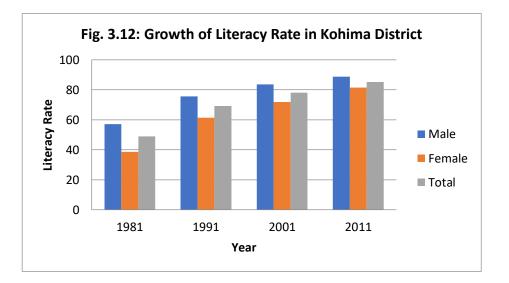
Year	Ko	hima Dist	Growth of	
	Male	Female	Total	Literacy Rate
				in Kohima
				District
1981	57.04	38.69	48.94	
1991	75.58	61.41	69.16	41.32
2001	83.61	71.89	78.11	12.91
2011	88.69	81.48	85.23	9.12

Source: Growth rate is calculated based on the data given in the Statistical handbook of Nagaland -1986, 1997, 2009 & 2014.

The table 3.15 shows the Male, female and total literacy rate of Kohima district and its growth rate from 1981 to 2011. There was a continues growth in the literacy rate of Kohima district from 1981 to 2011. From the census year 1981 to 1991 there was 41.32 per cent growth rate in literacy rate and from 1991 to 2001 the growth rate of literacy was 12. 91. From 2001 to 2011 the growth rate of literacy rate was 9.12 per cent. There was continues increase in the literacy rate from 1981 to 2011 though the growth rate was decreasing. The Growth rate of literacy rate is calculated by using the formula

```
Current Census Period Literacy Rate-Previous Period Literacy rate
Previous Census Period Literacy Rate × 100
```

The table shows that there was always a literacy gap between male and female. However, the literacy gap was continuously decreasing in the successive periods. In 1981 the male literacy rate in Kohima District was 57.04 while that of female literacy rate was 38.69 with a gap of 18.35. The male female literacy gap decreased continuously and in the year 2011 male literacy rate in Kohima district was 88. 69 and female literacy rate was 81.48 which reduced the gap between male and female literacy rate to 7.21.



The Figure 3.12 shows that there was a continuous growth of literacy rate from the year 1981 to 2011. The Female literacy rate was always below the female literacy rate but the positive side was that the difference was continuously decreasing from 1981 to 2011.

# 3.5.2. Growth of Literacy Rate in Mon District

 Table No. 3.16: Decadal Growth of Literacy Rate in Mon District, 1981-2011

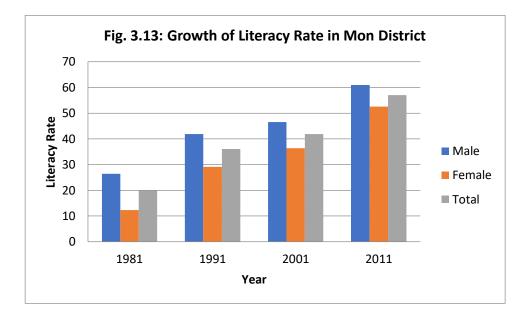
Year	N	Ion Distri	Growth of	
	Male	Female	Literacy Rate in	
				Mon District (%)
1981	26.45	12.35	19.89	
1991	41.90	29.10	36.02	81.10
2001	46.56	36.35	41.83	16.13
2011	60.94	52.58	56.99	36.24

Source: Growth rate is calculated based on the data given in the Statistical handbook of Nagaland -1986, 1997, 2009 & 2014

The table 3.16 shows the male, female and total literacy rate of Mon district during the last four decades starting from 1981. The literacy rate which was only 19.89 per cent in the 1981 increased to 36.02 in 1991 marking 81.10 percent increase in it. Literacy rate which was 36.02 in 1991 increased to 41.83 in 2001 marking an increase of 16.13 per cent. Literacy rate was further increased to 56. 99 per cent in 2011 making a growth rate of 36.24 per cent.

In 1981 the male literacy rate in Mon district was 26.45 while the female literacy rate was only 12. 35 and the gap between the two was 14.1. The data shows that as per the 1981 census, the female literacy rate in Mon district was less than half of the male literacy rate. However, the situation made a substantial progress in the consecutive census. The literacy rate of male and female increased and the gender gap

in literacy rate was reduced. In 2011 Male literacy rate was 60.94 and female literacy rate was 52.58 which made the difference of 8.3 between the male and female literacy rate.



The Figure 3.13 shows that there is rapid and sustained increase in the literacy rate in Mon District from the year 1981 to 2011. The figure clearly shows that that the female literacy was always below the male literacy throughout the period though the difference was decreasing.

A comparison between the literacy rate of Kohima and Mon districts shows that the literacy rate of Kohima district was always higher than that of Mon district. In 1981 the literacy rate in Kohima district was 48.94 while it was only 19.89 in Mon district. In 2011 the literacy rate of Kohima district was 85.23 while that of Mon district was 56.99 per cent. Though the literacy rate of Mon district was always lower in comparison to Kohima district, the growth rate of literacy was always higher in Mon district in comparison to Kohima district.

# 3.6. Conclusion

In this chapter the first part analyses the growth of education in India. Under the growth of education in India we have started with the education in primitive cultures and societies. The purpose of education in primitive societies was basically for the purpose of cultural transmission to the young generation. It was noticed that the education in Ancient India was basically a *gurukula* system of education where the student stayed at the house of the teacher as a member of the family and the teacher would accept him as his son and give free education to the student.

During the medieval period, India was ruled by the Muslim Rulers and education made a substantial progress during that period. Muslim education was mainly of two types, that is elementary education (*Maktab*) and higher education (or *Madrasah educatin*).

Western education was started in India basically under the influence of East India Company. Christian Missionaries also occupied a major role in the development of education in India. However, the development of education made a rapid progress only after the independence of the nation. After the independence, India became free to make the best policies for the development of education in India. Education commissions set up by the government of Independent India at various times has made comprehensive recommendations to the government and it gave a clear direction to attain the desired objective of education in India.

After the analysis of the history of the growth of education in India, this chapter explains the growth of education in Nagaland. It was clearly shown that the growth of the number of educational institutions in Nagaland, the enrolment of students and the literacy rate in Nagaland has made a sudden increase after Independence of the nation especially after the formation of the state of Nagaland.

# **CHAPTER-4**

# CONTRIBUTION OF EDUCATION TO ECONOMIC DEVELOPMENT

## 4.1. Introduction

This chapter provides the analysis and discussions on the impact of education on the employment and income of the respondents of Kohima and Mon districts. A detailed primary survey was conducted from selected two districts of Nagaland namely Kohima and Mon. The response from the village people was satisfactory. As indicated in methodology the reason for selecting these two districts was that the state capital is situated in Kohima district with all the advantages attached to it. Mon district, on the other hand, is one of the least developed districts in terms of the literacy rate and the level of educational attainment. The socio – economic variables analysed in this study include sex and age of the respondents, type of house, level of education, type of employment and the income of the respondents. In this chapter, the analysis of the level of education of the respondents and its correlation with the nature of employment and income was done to find out the contribution of education to economic development.

### 4.2. Gross State Domestic Product (GSDP) of Nagaland

Gross State Domestic Product (GSDP) is the sum total of the money value of all the goods and services produced within the geographical boundaries of the state during the period of one year. It is one of the measures of economic growth of the state. The estimation of GSDP over a period of time gives an insight into the extent and direction of the changes in the levels of economic development. One of the factors which determines how a state will gain the advantage over other states is the level and quality of education and training the labour force of the state receives. Having a stock of well trained and qualified labour force creates spill over effects and positive externalities in the economy. This positive externality creates positive effects on the economy by way of having a pool of well-trained workforce (Radcliffe, 2020). Having a well-trained work force in a particular region or country may attract particular business or industries, requiring labour with such training and skill, leading to increase in production and output.

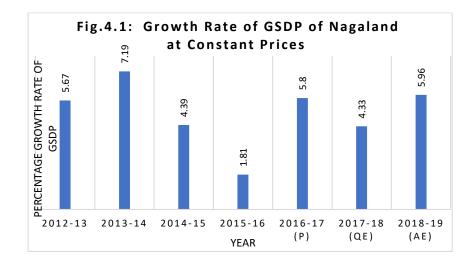
Year	GSDP (at constant prices)							
	GSDP (Rs. In Crores)	Growth Rate (%)						
2011-12	12177							
2012-13	12868	5.67						
2013-14	13793	7.19						
2014-15	14399	4.39						
2015-16	14660	1.81						
2016-17 (P)	15511	5.80						
2017-18 (QE)	16182	4.33						
2018-19 (AE)	17147	5.96						

Table No.4.1: GSDP of Nagaland at Constant Price

P = Provisional, Q.E. = Quick Estimates, A.E. = Advance Estimates

Source: Growth Rate is Calculated based on the data given in the Statistical Handbook of Nagaland, 2018

The table 4.1 shows the growth rate of GSDP of Nagaland, at constant prices, from the year 2011-12 to 2018-19. It reveals that from the period 2012-13 to 2013-14 the growth rate of GSDP of Nagaland was 7.19 per cent and thereafter the growth rate in GSDP showed an uneven trend. The growth rate of GSDP of Nagaland was only 1.81 per cent in 2015-16. From the year 2015- 16 to 2016-17 the growth rate increased to 5.80 per cent.



The Fig. 4.1 shows the growth rate of GSDP of Nagaland at constant prices from 2012-13 to 2018-19. The figure shows that from the year 2012-13 to 2018-19 the growth rate of GSDP in Nagaland showed an uneven trend though there was a positive growth rate. During this period the highest growth rate of GSDP in Nagaland was in the year 2013-14 and the lowest growth rate was recorded in the year 2015-16.

## 4.3. Gross State Value Added (GSVA) by Economic Activity

According to Wikipedia Gross Value Added (GVA) measures of goods and services produced in an industry or the sector of an economy. It is the measure of contribution to gross domestic product (GDP) made by and individual producer or sector. Gross value added is the value of output minus the value of intermediate goods and raw material used. Gross Value added is equal to Gross Domestic Product plus subsidies minus tax on products.

Education helps the producers, employees and the economy as whole in its effort to increase income and output by increasing the total value added. It helps the employer or producer to get higher value of output produced as the education and training the labour receives increases the productivity of the labour. Higher levels of education and training helps the workers to get better remuneration for their contribution and provides better job security. For the economy, the education helps to add the value to the national output as the educated workers are able to work in the modern industries which are more competitive and able to survive the competition in the long run. Since the educated workers are able to carry out the task which require special skill and critical thinking, as the proportion of the countries educated workers increases the country's economy becomes more productive. In business and production, employees' intellectual ability is treated as an asset like any other physical asset. Education and training are major source of intellectual asset creation. Intellectual asset can be used to create new product and services and to add value to the existing products and services that can exchanged for money.

Year	Gross State	Value Added	(GSVA) by	Total GSVA at	Growth Rate	Growth Rate of Total			
	Primary	Secondary	Tertiary	Basic	Primary	Secondary	Tertiary	GSVA at	
	Sector Sector Sector		Sector	Prices	Sector (%)	Sector (%) Sector (%)		Basic Price (%)	
2011-12	3790	1498	6778	12067					
2012-13	4003	1540	7224	12767	5.62	2.80	6.58	5.80	
2013-14	4423	1224	7981	13627	10.49	-20.52	10.48	6.74	
2014-15	4606	1376	8316	14297	4.14	12.42	4.20	4.92	
2015-16	4390	1621	8437	14448	-4.69	17.81	1.46	1.06	
2016-17 (P)	4522	1754	8921	15198	3.01	8.20	5.74	5.19	
2017-18 (Q.E)	4654	1937	9246	15837	2.92	10.43	3.64	4.20	
2018-19 (Q.E)	4929	2054	9790	16773	5.91	6.04	5.88	5.91	

Table No. 4.2: Growth Rate of GSVA by Economic Activity at Constant Prices (Rs. in Crores)

P = Provisional, Q.E. = Quick Estimates, A.E. = Advance Estimates

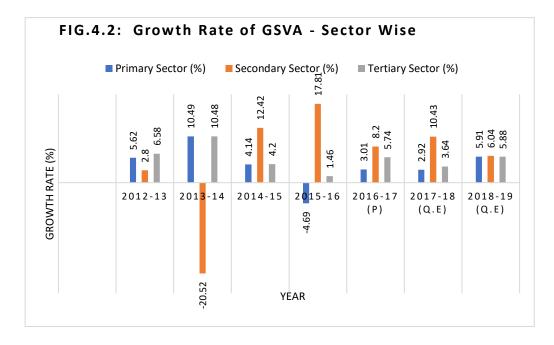
Source: Growth Rate is calculated based on the data given in the Statistical Handbook of Nagaland, 2018

The table 4.2 shows Growth Rate of Gross State Value Added (GSVA) by Economic Activity at Constant Prices (Rs. in Crores) from 2011-12 to 2018-19. The GSVA by primary, secondary and tertiary sectors are given separately to highlight the contribution of various sectors. The data shows that from the year 2011-12 to 2018-19, there was a positive growth in the gross value added by primary sector except in the year 2015-16, which recorded a negative growth rate of 4.69 per cent. The year 2013-14 recorded the highest growth rate of GSVA by the primary sector.

GSVA by the secondary sector also has shown an uneven growth during the period from 2011-12 to 2018-19. During the year 2013-14, the secondary sector recorded a negative growth rate of GSVA by 20.52 per cent which was the lowest. During the same year GSVA by the primary and tertiary sectors recorded the highest growth rate.

Unlike the primary and secondary sectors, the growth rate of GSVA by the tertiary sector maintained a positive growth rate throughout the period. The growth rate of GSVA by the tertiary sector was the highest in the year 2013-14, i.e., 10.48 per cent and there after it was fluctuating, even though it recorded always a positive growth rate. The lowest growth rate in GSVA by the tertiary sector was 1.46 per cent from the previous year which was recorded in 2015-16.

The growth rate of total GSVA, which includes GSVA by primary, secondary and tertiary sectors, recorded a positive growth rate from 2011-12 to 2018-19, and it was more or less stable during this period except in 2015-16. The highest growth rate of GSVA was 6.74 in the year 2013-14 and the lowest was 1.46 per cent which was recorded in the year 2015-16.



The figure 4.2 shows that the percentage growth rate of GSVA by primary secondary and tertiary sectors from the year 2012-13 to 2018-19. The figure shows that growth rate of GSVA by primary sector was highest in 2013-14 and then it recorded a declining growth rate in 2014-15 and turned to be negative in 2015-16. The growth rate of GSVA by secondary sector recorded a negative growth in 2013-14 and in the year 2014-15 it recorded a positive growth by 12.42 per cent and the highest growth rate was recorded in 2015-16. In the case of the GSVA by tertiary sector, it has shown a positive growth rate in all through the period from 2012-13 to 2018-19 and the growth rate was the highest in the year 2013-14.

	Sector	
Primary	Secondary	Tertiary
31.41	12.41	56.17
31.35	12.07	56.58
32.46	8.98	58.56
32.21	9.62	58.16

 Table No. 4. 3: Percentage Contribution of Various Sectors to GSVA at Current

 Prices

58.40

58.70

58.38

58.37

P = Provisional, Q.E. = Quick Estimates, A.E. = Advance Estimates

11.22

11.54

12.23

12.25

Source: Statistical Handbook of Nagaland, 2018

30.38

29.76

29.38

29.39

Year

2011-12

2012-13

2013-14

2014-15

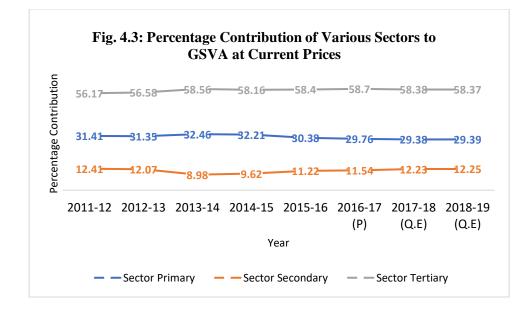
2015-16

2016-17 (P)

2017-18 (Q.E)

2018-19 (Q.E)

The table 4.3 shows the percentage share of primary, secondary and tertiary sectors to the Gross State Value Added (GSVA) at current prices in Nagaland from the period 2011-12 to 2018-19. The tertiary sector was the major contributor with more than 56 per cent in all the years from 2011-12 to 2018-19. The primary sector was the second largest contributor to GSVA and the percentage share of the contribution of the secondary sector was the least among the three sectors. The least contribution from the secondary sector is an indication of the backwardness of the industrial sector in the state. The data shows that the growth pattern of the Nagaland economy was directly from primary sector to the tertiary sector and the secondary sector is still in the underdeveloped state.



The figure 4.3 shows the percentage contribution of various sectors to GSVA at current prices in Nagaland from 2011-12 to 2018-19. The figure clearly shows that from the year 2011-12 to 2018-19 the tertiary sector was the major contributor to GSVA, followed by primary sector and the contribution of the secondary sector was always at the last.

## 4.4. Expenditure on Education and Gross Domestic Product in Nagaland

Education is a strategic factor which determines the type of job one obtains; income receives and the lifelong wellbeing and the living standard of the individual. Education is also the principal instrument for preparing an individual for later professional training and provides the foundation for good citizenship. Education of the people helps the developing and under developed countries with the dominance of primary sector to change from an agrarian economy to a knowledge-based service sector economy. However, it requires a huge investment and lack of sufficient investment in education and training prevent the economic growth of the country. For developing countries to improve their per capita GDP they must improve the human capital formation by investing in education and training of the people. The nature, extent and the quality of education provides the required skills to the individual for employment. Appiah, (2017) found that an investment in education impact per capita GDP positively for all developing countries.

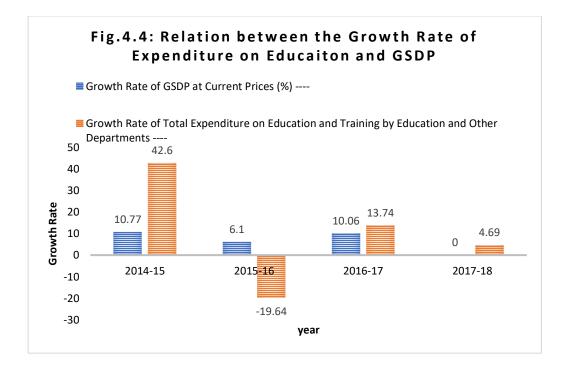
Table No. 4.4: Relation Between Budgeted Expenditure on Education and Gross
Domestic Product in Nagaland (Rs. in Crores)

Year	Gross State Growth		Total	Growth Rate of	Percentage of
	Domestic	Rate of	Expenditure on	Total Expenditure	Expenditure on
	Product at	GSDP at	Education and	on Education and	Education and
	Current	Current	Training by	Training by	Training by
	Prices	Prices (%)	Education and	Education and	Education and
			Other	Other	other Departments
			Departments	Departments	to GSDP
2013-14	16612.00***		937.43		5.64
2014-15	18401.00**	10.77	1336.79	42.60	7.26
2015-16	19524.00	6.10	1074.20	-19.64	5.50
2016-17	21488	10.06	1243.27	13.74	5.79
2017-18	21488.00*	0	1301.56	4.69	6.06

\*Base year 2016-17, \*\*Base Year-2014-15, \*\*\*Base year 2013-14 Source: Growth rate of is calculated based on the data given in the Analysis of Budgeted Expenditure on Education 2015-16 to 2017-18 & 2013-14 to 2015-16. (www.mhrd.gov.in)

The table 4.4 shows the relation between budgeted expenditure on education and Gross Domestic Product in Nagaland. The data shows that growth rate of GSDP was 10.77 per cent in the year 2014-15 which was the highest growth rate recorded during the period 2013-14 to 2017-18. During the same period i.e., in 2014-15 the growth rate of total expenditure on education and training by education and other departments was also recorded highest growth rate i.e., 42.60 per cent. Similarly, in the year 2015-2016, growth rate of total expenditure on education and training by education and other departments was minus 19.64 per cent and in the same year the growth rate of GSDP at current prices also decreased to 6.10 per cent from 10.77 per cent in the previous year. Similarly, from the period 2016-17 to 2017-18 the growth rate of total expenditure on education and training by education and other departments was reduced from 13.74 to 4.69 and during the corresponding period the growth rate of GSDP at current prices was also decreased from 10.06 per cent to zero percent.

The percentage of expenditure on education and training by education and other departments to GSDP also showed a positive relation with the growth rate of GSDP at current prices. In the year 2014-15, the percentage of expenditure on education and training by education and other departments to GSDP was the highest i.e., 7.26 per cent and during the same year the growth rate of GSDP was also at the highest.



The figure 4.4 shows a positive correlation between the growth rate of GSDP and the growth rate of total expenditure on education. The growth rate of both GSDP and the total expenditure on education was the highest in the year 2014-15. In the year 2015-16 the growth rate of GSDP declined and the growth rate of expenditure on education became negative. Again, in the year 2016-17 GSDP increased and the total expenditure on education also increased.

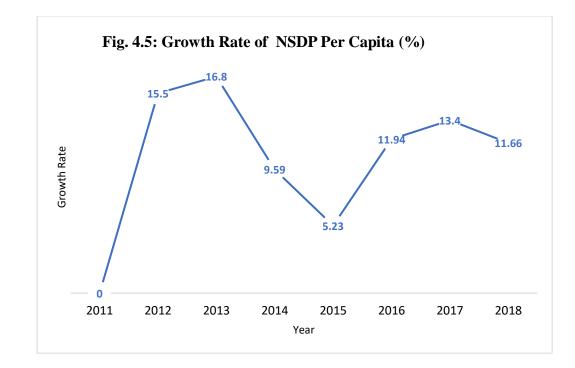
# 4.5. Net State Domestic Product (NSDP) in Nagaland

SL. No	Year	NSDP	Growth Rate of
		Per Capita	NSDP per capita (%)
1	2011	53010	
2	2012	61225	15.50
3	2013	71510	16.80
4	2014	78367	9.59
5	2015	82466	5.23
6	2016	92315	11.94
7	2017	104681	13.40
8	2018	116882	11.66

Table No. 4.5: NSDP Per Capita of Nagaland

Source: (List of Indian states and union territories by GDP per capita - Wikipedia) (Growth rate is calculated based on the data given in the website)

The table 4.5 shows the NSDP per capita of Nagaland from the year 2011 to 2018. The data in the table shows that there was a continuous increase in the NSDP per capita of Nagaland from 2011 to 2018. The growth rate of NSDP per capita of Nagaland recorded a positive growth rate, though its rate of growth declined in the years 2014, 2015 and 2018. The year 2013 recorded the highest growth rate of NSDP per capita with 16.80 per cent growth and the year 2015 recorded the lowest growth rate i.e., 5.23 per cent growth rate. Except in the years 2014 and 2015 the growth rate of NDSP was always above 10 per cent.



The figure 4.5 shows the growth rate of NSDP per capita of Nagaland from 2011 to 2018. The figure shows an uneven trend in the growth rate of NSDP per capita during this period. However, it shows an overall declining trend in the growth rate in the NSDP from 2013 to 2018.

## 4. 6. Education, Income and Productivity of Human Capital

The productivity of the human capital, in this study, is measured in terms of income. Education is the means through which the skill and knowledge is transferred to the individual which has market value. It helps the individual to get employed with enhanced remuneration. Education also provides the necessary skill and expertise to the individual and the self-confidence to be self-employed or to start own business and increase the productivity. The level and the nature of education one possesses is an indicator of the qualification of the person and act as a trade mark for marketing oneself in the employment market. The employer also assesses the level of education of the individual as the minimum criteria for the recruitment though it is not a sufficient criterion for appointment. In a competitive market no employer will pay a labour more than the marginal revenue productivity and therefore the income received by the

individual is an indicator of the productivity. So, in this study the income is taken as the indicator of the productivity. Higher income indicates higher productivity and lower income indicates less productivity. Similarly, income from agriculture included the value of goods produced by the farmers for self-consumption, for selling in the market for a price and for giving to others without charging the price.

District		Kohima District									Mon District						
Education / Income	Less Than 60000	60001 to 120000	120001 to 180000	180001 to 240000	240001 to 300000	300001 to 360000	More than 360000	Total	Less Than 60000	60001 to 120000	120001 to 180001	180001 to 240000	240001 to 300000	300001 to 360000	More than 360000	Total	
class 10 or below	43 (55.8) [97.7]	16 (20.8) [94.1]	5 (6.5) [50]	5 (6.5) [71.4]	7 (9.1) [50]	-	1 (1.3) [2]	77 (100.0) [51.3]	48 (60.8) [98]	9 (11.4) [64.2]	4 (5.1) [44.4]	6 (7.6) ]54.5]	4 (5.1) [33.3]	5 (6.3) [50]	3 (3.8) [6.7]	79 (100) [52.7]	
higher secondary	1 (2.9) [2.27]	1 (2.9) [5.88]	2 (5.9) [20]	_	6 (17.6) [42.8]	7 (20.6) [70]	17 (50.0) [35]	34 (100.0) [22.7]	1 (2.4) [2]	5 (12.2) [35.7]	4 (9.8) [44.4]	4 (9.8) [36]	5 (12.2) [41.7]	5 (12.2) [50]	17 (41.5) [37.8]	41 (100) [27.3]	
UG	-	-	3 (10.0) [30]	2 (6.7) [28.6]	1 (3.3) [7.1]	3 (10.0) [30]	21 (70.0) [43.8]	30 (100.0) [20]	-	-	1 (3.7) [11.1]	1 (3.7) [9.1]	3 (11.1) [25]	-	22 (81.5) [48.9]	27 (100) [18]	
PG and above	-	-	-	-	-	-	8 (100.0) [16.6]	8 (100.0) [5.3]	-	-	-	-	-	-	1 (100) [2.2]	1 (100) [0.7]	
Diploma, technical etc.	-	-	-	-	-	-	1 (100.0) [2.1]	1 (100.0) [0.4]	-	-	-	-	-	-	2 (100) [4.4]	2 (100) [1.3]	
Total	44 (29.3) [100]	17 (11.3) [100]	10 (6.7) [100]	7 (4.7) [100]	14 (9.3) [100]	10 (6.7) [100]	48 (32) [100]	150 (100) [100]	49 (32.7) [100]	14 (9.3) [100]	9 (6) [100]	11 (7.3) [100]	12 (8) [100]	10 (6.7) [100]	45 (30) [100]	150 (100) [100]	

Table No.4.6: Relationship between Education and Income Per Annum of the Respondents

Source: Primary Survey, 2017-18

() Parenthesis indicates the row wise percentage,

[] Parenthesis indicates the Column wise percentage

The table 4.6 shows the relation between the level of education and income of the respondents based on primary survey. The data shows that from Kohima district there were 77 respondents with the education level of class ten or below. Out of these 77 respondents 43 respondents i.e., 55.8% were having income less than Rs.60,000 per year. Among the respondents with the same level of education there were 16 of them i.e., 20.8% of them with the annual income between Rs. 60,001 to Rs. 1,20,000 and 5 respondents i.e., 6.5% with the income between Rs. 1,20,001 to Rs.1,80,000 per annum. 5 respondents i.e., 6.5% had annual income between Rs.1,80,001 to Rs. 2,40,000, seven respondents that is 9.1% had annual income between Rs. 3,00,001 to Rs. 3,60,000 among the respondents with the education of class 10 or below. Only one respondent had income had income more than Rs. 3,60,000 per year.

Among the 150 respondents from Kohima district, there were 34 of them with higher secondary education. Among the respondents with higher secondary education only one of them i.e., 2.9% had annual income less than Rs. 60,000, one of them i.e., 2.9% had annual income between Rs. 60,001 to Rs.1,20,000 and 2 of them i.e., 5.9% had income between Rs. 1,20,001 to Rs.1,80,000 per annum. No respondents with the higher secondary education had income between Rs. 1,80,001 to Rs. 2,40,000 per year. Six respondents i.e., 17.6% of the respondents with higher secondary education had annual income between Rs. 3,00,001 to Rs. 3,00,000, Seven respondents i.e., 20.6% had income between Rs. 3,00,001 to Rs. 3,60,000 and 17 respondents had annual income More than Rs. 3,60,000.

Out of 30 respondents with under graduation (UG) from Kohima District, 3 of them that is 10% had annual income between Rs. 1,20,001 to Rs. 1,80,000, two respondents that is 6.7% had annual income between Rs. 1,80,001 to Rs. 2,40,000 and one respondent that is 3.3% had income between Rs. 2,40,001 to Rs. 3,00,000 per annum. 3 respondents with graduation that is 10% had annual income between Rs. 3,00,001 to Rs. 3,60,000 and 21 respondents with graduation from Kohima district that is 70% had annual income more than Rs. 3,60,000.

There were 8 respondents from Kohima district with post-graduation (PG) or above qualification and all of them had annual income more than Rs. 3,60,000. There was only one respondent with Diploma or Technical education and he or she had the annual income more than Rs. 3,60,000.

The data shows that in Kohima district out of 150 respondents 44 of them, that is 29.3%, had annual income less than Rs. 60,000 and out of this, 43 of them that is 97.7% were with the education of class 10 or below and one of them that 2.9 % had higher secondary education.

Similarly, 17 respondents from Kohima District had annual income between Rs. 60,001 to Rs.1,20,000 and out of which 16 of them that is 94.1% were with the level of education of class 10 or below and one of them that is 5.88% was with higher secondary education.

Among the respondents from Kohima district with the annual income between Rs. 1,20,001 to Rs. 1,80,000 there were 10 respondents out of which 5 of them i.e., 50% of them had the education of class 10 or below, 2 of them i.e., 20% had higher secondary education and 3 of them i.e., 30% were graduates. There were 7 respondents with the annual income of Rs. 1,80,001 to Rs.2,40,000, and out of this 5 of them, i.e., 71.4%, were with class 10 or less of education and 2 of them that is 28.6% were under graduate.

From Kohima district, out of 14 respondents in the income group of Rs. 2,40,001 to Rs.3,00,000, seven of the respondents i.e., 50% of them were with class ten or less of education and six of them i.e., 42.8% were with higher secondary education and one respondent i.e., 7.1% was graduate. Similarly, out of 10 respondents with the annual income of Rs. 3,00,001 to Rs. 3,60,000 none of them were with less than class 10 education and 7 of the respondents, that is 70% of them, were with higher secondary education and 3 of the respondents, that is 30%, were graduates.

Out of 150 respondents from Kohima district, 48 of them had annual income more than Rs 3,60,000 and out of these 48 respondents, only one of them, i.e., 2%, was with the education of class 10 or less, 17 of them, i.e., 35%, were with higher secondary education, 21 respondents, i.e., 43.8% of them were graduates, 8 of them i.e., 16.6% were post graduates and one of them that is 2.1% was Diploma holder or technically qualified person. The data shows that all the respondents with Post Graduation and Diploma or Technical education had the annual income more than Rs. 3,60,000 while only one of them out of 77 respondents with class ten or less of education had the annual income more than Rs. 3,60,000.

From Mon district out of 150 respondents 79 respondents were with the education level of class 10 or below. Out of these 79 respondents 48 of them, that is 60.8%, were having the income less than Rs. 60,000 per year. Among the respondents with the same level of education there were 9 of them, i.e., 11.4%, with the annual income between Rs. 60,001 to Rs.1,20,000 and 4 respondents, i.e., 5.1%, with the annual income between Rs. 1,20,001 to Rs.1,80,000. Six respondents, i.e., 7.6%, with the education of class 10 or below had annual income between Rs. 1,80,001 and Rs. 2,40,000, four respondents, i.e., 5.1%, had annual income between Rs. 2,40,001 to Rs. 3,00,000, and five respondents, i.e., 6.3%, had annual income between Rs. 3,00,001 to Rs. 3,60,000. Only 3 respondents out of 79 respondents with the education level of class ten or below had income more than Rs. 3,60,000 per year.

Out of 150 respondents from Mon district, there were 41 of them with higher secondary education. Among the respondents with higher secondary education, only one of them i.e., 2.4% had annual income less than Rs. 60000, five of them, i.e., 12.2%, had annual income between Rs. 60,001 to Rs. 1,20,000 and four of them, i.e., 9.8%, had annual income between Rs. 1,20,001 to Rs. 1,80,000. Four respondents, i.e., 9.8%, with higher secondary education had annual income between Rs. 2,40,001 to Rs. 2,40,000 and five respondents i.e., 12.2% had the annual income between Rs. 2,40,001 to Rs. 3,00,000. Five respondents, i.e., 12.2%, with higher secondary education had

annual income between Rs.3,00,001 to Rs. 3,60,000 and 17 respondents with higher secondary education had the annual income more than Rs. 3,60,000.

There were 27 respondents with graduation from Mon district. Out of these 27 respondents with graduation one each respondent, i.e., 3.7% each, had annual income between Rs.1,20,001 to Rs. 1,80,000, and Rs. 1,80,001 to Rs. 2,40,000 respectively. Three respondents, i.ie., 11.1%, had annual income between Rs. 2,40,001 to Rs. 3,00,000 and 22 respondents had annual income more than Rs. 3,60,000. There was only one respondent with Post Graduation (PG) and two respondents with Diploma or Technical education and all the three of them had annual income more than Rs. 3,60,000.

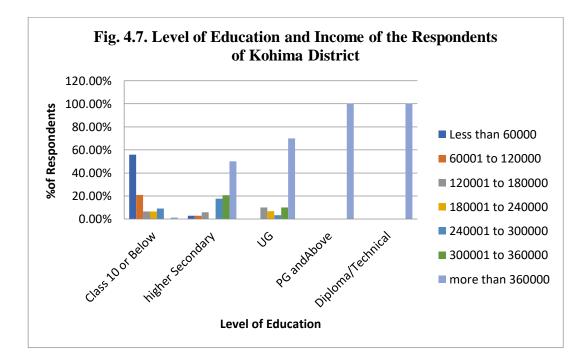
Similarly, the data shows that from Mon district out of 150 respondents 49 of them that is 32.7% had annual income less than Rs. 60,000 and out of this, 48 of them, i.e., 98%, were with the education of class 10 or below and one of them i.e., 2%, was with higher secondary education. Similarly, 14 respondents, i.e., 9.3%, had annual income between Rs. 60,001 to Rs.1,20,000 and out of which 9 of them i.e., 64.2% were with the level of education of class 10 or below and 5 of them i.e., 35.7% were with higher secondary education. In the income group of Rs. 1,20,001 to Rs. 1,80,000 there were 9 respondents, out of which 4 of them each i.e., 44.4% had the education of class 10 or below and higher secondary education.

There were 11 respondents, that is 7.3% of respondents, from Mon district with the annual income of Rs. 1,80,001 to Rs.2,40,000 and out of these 11 respondents 6 of them that is 54.5% were with class 10 or less of education 4 respondents, that is 36%, had higher secondary education and one of them, that is 9.1%, was graduate. Similarly, out of 12 respondents with the annual income between Rs. 2,40,001 to Rs.3,00,000, 4 of them, that is 33.3%, were with class 10 or less of education, 5 of them, that is 41.7%, with higher secondary education and 3 of them, that is 25%, were graduates. There were 10 respondents with the annual income between Rs. 3,00,001 to Rs. 3,60,000, out

of which five of them that is 50% were with the education level of class 10 or below, and another 5 of them that is 50% were with higher secondary education.

Out of 150 respondents from Mon districts there were 45 of them that is 30% were with the annual income more than Rs. 3,60,000 and out of this only three of them, that is 6.7%, were with class 10 or less of education, 17 of them, that is 37.8%, with higher secondary education, 22 of them, that is 48.9%, were graduates, one of them with post-graduation and 2 of them were with Diploma or Technical education. The data shows that all them with Post graduation or Diploma or Technical education had the annual income of more than 3,60,000 while only three of them out of 45 respondents in the same income category were with class 10 or less education.

The data clearly shows that there is a positive correlation between the level of education and the income. Higher the level of education of the respondents their annual income was also higher. On an average the annual income of those who had graduation and above was higher than those who were with the education of less than graduation.



The figure 4.7 shows the percentage of respondents in different income groups corresponding to different levels of education from Kohima district. The level of education was broadly classified into five categories namely, respondents with class 10 or less of education, with higher secondary education, with under graduation (UG), with Post Graduation (PG) or above and lastly with Diploma or Technical education. The annual incomes of the respondents were classified into seven categories. They were respondents with annual income of less than Rs.60,000, Rs. 60,001 to Rs. 1,20,000, Rs. 1,20,001 to Rs.1,80,000, Rs. 1,80,001 to Rs.2,40,000, Rs.2,40,001 to Rs.3,00,000, Rs.3,00,001 to 3,60,000 and lastly respondents with annual income of more than Rs.3,60,000.

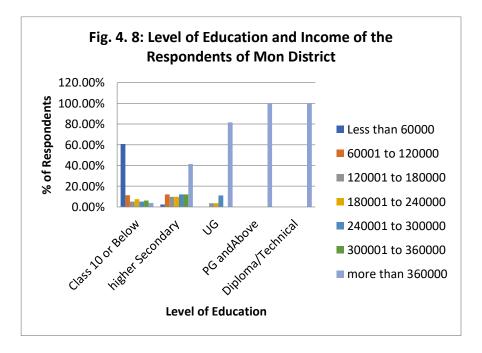
The Figure shows that in the first category, that is with the education level of class 10 or below, the highest percentage of respondents, that is 55.8%, were having the annual income less than Rs. 60,000, followed the by the group having the annual income of Rs. 60,001 to Rs.1,20,000 and all other income groups in this educational category were less than ten percentage each. It was observed that among the respondents with class ten of less of education, there were no respondents with the annual income between Rs.3,00,001 to Rs. 3,60,000 and there was only one respondent with the annual income of more than Rs. 3,60,000. It shows that the percentage share of higher income groups was the least among the respondents with class ten or less of education.

In the second category with higher secondary education, the graph shows that there were only 2.9% with less than Rs.60,000 annual income and 50% were having the annual income more than Rs. 3,60,000. It was observed in the diagram that unlike the group with the education level of class 10 or less, in this group with higher secondary education there were more and more people in higher income groups.

In the third group with under graduation (UG) from Kohima district, highest percentage of respondents belonged to the group whose annual income was more than Rs. 3,60,000. Seventy percentage of undergraduates had their annual income more than

Rs. 3,60,000 and all other income groups with graduation were 10% or less. In the fourth and fifth category, that is respondents with Post Graduation (PG) and above qualification and Diploma or Technical education, though there were only eight respondents in the former and only one respondent in the latter, all of them had the annual income more than Rs. 3,60,000. In short, the figure shows that only in the first group that is the respondents with the education of class ten or below, the percentage of respondents belonged to the lowest income group were higher than the percentage of respondents in the higher income groups and in all other categories with different levels of education, percentage of higher income groups were more than lower income group. It showed that as the level of education increased the percentage of respondents with higher annual income also increased.

In short except in the group of respondents with the education level of class ten or below, in all other groups with different educational level, as the level of education increased the percentage of people with higher income groups were also increased and in the groups with the education level of Post-Graduation and Diploma or Technical education all of them had the annual income more than Rs. 3,60,000.



The figure 4.8 shows the percentage of respondents in different income groups corresponding to different levels of education from Mon district. The figure shows that in the first category that is with the education level of class 10 or below from Mon district, the highest percentage of respondents, that is 60.8%, had the annual income less than Rs.60,000, followed the by the group having the annual income of Rs. 60,001 to Rs. 1,20,000 and the other income groups in this educational category were less than ten percentage each. It was observed that in this educational category, there were only three respondents with the annual income of more than Rs. 3,60,000.

In the second category with higher secondary education from Mon district, the graph shows that the least percentage of respondents that is there were only 2.4% with less than Rs.60,000 annual income and there were more and more people from higher income groups.

In the third group of respondents from Mon district, with under graduation (UG), the highest percentage of respondents were from the group with the annual income more than Rs. 3,60,000. In the fourth and fifth category that is the respondents with Post Graduation (PG) and Diploma or Technical education, though there was only one respondent in the former and two respondents in the latter all of them had the annual income more than Rs. 3,60,000.

In short, the figure shows that only in the first group that is the respondents with the education of class ten or below, the percentage of lower income groups were higher than the higher income groups and in all other categories with different levels of education, the percentage of higher income groups were more than lower income groups. As the level of education increased the percentage of respondents in the highest income group that is with the annual income more than Rs. 3,60,000 also increased. So, the data shows that as the level of education increases the productivity also increases which is shown by the increase in income.

#### 4.7. Education, Skill Development and Employability

Skill means the ability to do something in a better way. It is the special ability one achieves either through formal or informal education or through practice. However, no doubt that, education whether formal or informal is the main instrument through which one attains the basic literacy and numerical and arithmetical skill. This basic skill of literacy is the foundation which is a necessary for the acquisition of other sophisticated skills through formal education especially vocational education. Employability means the ability to gain new employment and the capacity to retain the employment by having the necessary skill to perform the task successfully. The skill one possesses gives better chance to get employed. Even if, the unskilled also gets employed the unskilled will the first one to be fired in case of the job cuts. The pay one receives will also be associated with the position hold in the organization or industry and the position in the organization or company depends on the education and the skill and the experience one possesses. In this way education leads to the development of the skill and the skill increases the employability. In this study we make an analysis of the level of education and the nature of the employment.

 Table No.4.7: Main Occupation of the Respondents

			•	Kohim	ia						Mo	n			Grant Total
Main Occupation	Kohima Village	SechuZubz a	Nerhema	Viswema	Tseminyu	Ziphenyu	Total	LapaLamp ong	Chi Village	Kongan	phomching Town	ChaohaChi ngnyu	Yonghong Changnyu	Total	
govt. job	14 (10.5) [56]	7 (5.3) [28]	14 (10.5) [56]	12 (9) [48]	14 (10.5) [56]	12 (9) [48]	73 (54.9) [48.7]	10 (7.5) [40]	6 (4.5) [24]	13 (9.8) [52]	14 (10.5) [56]	7 (5.3) [28]	10 (7.5) [40]	60 (45.1) [40.0]	133 (100) [44.3]
private job	1 (3.3) [4]	6 (20) [24]	2 (6.7) [8]	1 (3.3) [4]	4 (13.3) [16]	-	14 (46.7) [9.3]	4 (13.3) [16]	-	4 (13.3) [16]	2 (6.7) [8]	6 (20) [24]	-	16 (53.3) [10.7]	30 (100) [10]
business/ self employed	3 (6.1) [12]	6 (12.2) [24]	3 (6.1) [12]	2 (4.1) [8]	2 (4.1) [8]	1 (2) [4]	17 (34.7) [11.3]	7 (14.3) [28]	3 (6.1) [12]	7 (14.3) [28]	3 (6.1) [12]	6 (12.2) [24]	6 (12.2) [24]	32 (65.3) [21.3]	49 (100) [16.3]
agriculture	6 (7.1) [24]	4 (4.8) [16]	6 (7.1) [24]	10 (11.9) [40]	4 (4.8) [16]	12 (14.3) [48]	42 (50.0) [28.0]	4 (4.8) [16]	16 (19) [64]	1 (1.2) [4]	6 (7.1) [24]	6 (7.1) [24]	9 (10.7) [36]	42 (50.0) [28.0]	84 (100) [28]
Others	1 (25) [4]	2 (50) [8]	-	-	1 (25) [4]	-	4 (100) [2.7]	-	-	-	-	-	-	-	4 (100) [1.3]
Total	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	150 (50.0) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	25 (8.3) [100]	150 (50.0) [100]	300 (100) [100]

Source: Primary Survey, 2017-18

() Parenthesis indicates the row wise percentage,[] Parenthesis indicates the Column wise percentage

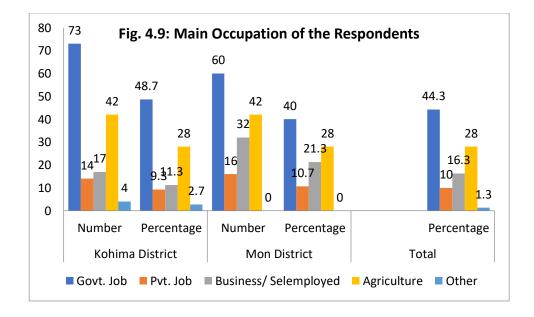
The table 4.7 shows the main occupation of the respondents from both Kohima and Mon districts. In this study, we have broadly classified the occupation into five categories namely, government job, private job, Business or Self-employed, Agriculture and other. The data shows that in Kohima district out of 150 respondents 73 respondents, that is 48.7%, had government job. Only 14 respondents, that is 9.3% of the respondents from Kohima district, were employed in the private sector. 17 respondents, that is 11.3% of the respondents, were doing own business or selfemployed. Agriculture was the main occupation of 42 respondents, that is 28% of the respondents, from Kohima districts and in others category there were only 4 respondents that is 2.7% of the respondents.

In Mon District, 60 respondents out of 150, that is 40%, were working in the government sector, 16 respondents, that is 10.7%, were working in the private sector, 32 respondents, that is 21.3%, were doing business or self-employed and 42 respondents, that is 28%, were depending on agriculture as their main source of income.

A comparison between Kohima and Mon districts shows that out of 300 respondents, taken from both districts together, 133 respondents i.e., 44.3% were government servants. Out of these 133 respondents 73 of them, that is 54.9 %, were from Kohima district and 60 of them, that is 45.1%, were from Mon district. The data shows that out of the 300 samples collected only 30 respondents were employed in the private sector that is 10% of the respondents. In these 30 respondents employed in the private sector 14 respondents, that is 46.7%, were from Kohima district and 16 respondents, that is 53.3%, were from Mon district. There were 49 respondents doing business or self-employed out of 300 samples collected from both districts together, i.e., 16.3% of the total sample. Out of these 49 respondents doing business or self-employed 17 respondents i.e., 34.7% were from Kohima district and 32 respondents that is 65.3% were from Mon District. 84 respondents i.e., 28% of the total sample were depending on agriculture as their main source of income out of which 50% was from Kohima district and another 50% was from Mon district. Those who were

engaged in other categories of work which were not included in any of these divisions of employments were only 4 respondents that is 1.3% of the total sample.

It was observed from the data that highest number of respondents from both districts depended on government job as the main source of income. Secondly, Kohima district had a greater number of government employees than Mon District. Next to government job agriculture occupied the second position in terms of employment in both districts. Business or self-employment occupied the third position and private job was in the fourth position.



The Figure 4.9 shows the number and the percentage of people engaged in different types of occupation in Kohima and Mon districts separately and the percentage of people engaged in different jobs in both districts combined together. The figure clearly indicates that the highest percentage of the respondents were employed in the government sector that is 48.7 percent from Kohima district and 40 per cent from Mon district. 28% of respondents depended on agriculture in both Kohima and Mon Districts. 11.3% of the respondents from Kohima district were engaged in business or self-employment while it was 21.3% in Mon district. 9.3% of respondents from Kohima district and 10.7% from Mon district were engaged in private job.

Out of 300 samples collected from both districts together 44.3% were employed in the government sector, 28% in agriculture, 16.3% in business or self-employment, 10% were in private job and 1.3% depended on other source as the main source of income.

District			Ko	hima					Mo	n			Grand Total
Education / Employment	govt. job	private job	business/ self employed	agriculture	any other	Total	govt. job	private job	business/ self employed	agriculture	any other	Total	
class 10 or	10	9	14	41	3	77	12	8	17	42		79	156
below	(13.0)	(11.7)	(18.2)	(53.2)	(3.9)	(100.0)	(15.2)	(10.1)	(21.5)	(53.2)	-	(100.0)	(100)
	[13.7]	[64.3]	[82.4]	[97.6]	[75.0]	[51.3]	[20.0]	[50.0]	[53.1]	[100]		[52.7]	[52.0]
higher	30	1	1	1	1	34	23	5	13			41	75
secondary	(88.2)	(2.9)	(2.9)	(2.9)	(2.9)	(100.0)	(56.1)	(12.2)	(31.7)	-	-	(100.0)	(100)
secondary	[41.1]	[7.1]	[5.9]	[2.4]	[25.0]	[22.7]	[38.3]	[31.3]	[40.6]			[27.3]	[25.0]
UG	24	4	2			30	22	3	2			27	57
	(80.0)	(13.3)	(6.7)	-	-	(100.0)	(81.5)	(11.1)	(7.4)	-	-	(100.0)	(100)
	[32.9]	[28.6]	[11.8]			[20.0]	[36.7]	[18.8]	[6.3]			[18.0]	[19]
PG and	8					8	1					1	9
above	(100)	-	-	-	-	(100.0)	(100)	-	-	-	-	(100.0)	(100)
	[11.0]					[5.3]	[1.7]					[0.7]	[3.0]
Diploma,	1					1	2					2	3
technical	(100)	-	-	-	-	(100.0)	(100)	-	-	-	-	(100.0)	(100)
education	[1.4]					[0.7]	[3.3]					[1.3]	[1.0]
	73	14	17	42	4	150	60	16	32	42		150	300
Total	(48.7)	(9.3)	(11.3)	(28.0)	(2.7)	(100.0)	(40.0)	(10.7)	(21.3)	(28.0)	-	(100.0)	(100)
	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]		[100]	[100]

### Table No.4.8: Relationship between Education and Employment of the Respondents

Source: Primary Survey, 2017-18

NB: 1<sup>st</sup> value indicates the number of respondents

() Parenthesis indicates the row wise percentage

[] Parenthesis indicates the Column wise percentage

The table 4.8 shows the relation between different levels of education and employment of the respondents. The first value in the table shows the number of respondents, second value is the row wise percentage and the third value is the column wise percentage. As the table indicates the level of education was broadly divided into five categories namely people with education of class 10 or below, higher secondary, Undergraduate (UG), Postgraduate (PG) and above, and Diploma or technical education. Employment is broadly classified into five types, namely government job, private job, business or self-employed, agriculture and any other. Here we analyse the level of education of the respondent and his or her employment, in Kohima and Mon district separately.

The data shows that in Kohima district, out of 150 respondents, 77of them, i.e., 51.3%, were with the education of class 10 or below. Out of these 77 respondents with the education level of class 10 or below, 10 of them that is 13.0% were in government service, 9 of them that is 11.7% were employed in private sector, 14 respondents that is 18.2% were doing business or self-employed, 41 respondents that is 53.2% were engaged in agriculture as the main source of income and 3 respondents that is 3.9% were depended on any other occupation for their livelihood. In this group with class ten or less of education the highest percentage of people were employed in agriculture.

In this study, out of 150 respondents from Kohima district 34 respondents, i.e., 22.7%, were with higher secondary education. Out of these 34 respondents with higher secondary education, 30 of them, that is 88.2% were in government service, and one person each (that is 2.9%) were in private job, business / self-employed, agriculture and other jobs.

There were 30 undergraduates among the respondents from Kohima district. Out of these 30 undergraduate respondents 24 of them that is 80.0% were employed in government service, 4 of them, i.e., 13.3% were in private job, 2 of them that is 6.7% were in business/ self-employed. Among the postgraduates and diploma holders, all of the respondents that is all the eight postgraduates and one diploma or technically qualified respondent were employed in government sector. It shows 100% of these two categories were employed in government sector.

In Mon district, out of 150 respondents, 79 of them were with the education level of class 10 or below. Out of these 79 respondents 12 of them that is 15.2% were employed in government sector, eight of them that is 10.1% were in private sector, 17 respondents that is 21.5% were doing own business or self-employed, and 42 respondents that is 53.2% were depending on agriculture as their main source of income.

There were 41 respondents from Mon district with higher secondary education out of 150 samples collected. Out of these 41 respondents with higher Secondary education 23 of them that is 56.1% were employed in government service 5 of them that is 12.2% were employed in private sector, and 13 of them i.e., 31.7% were doing business or self-employed.

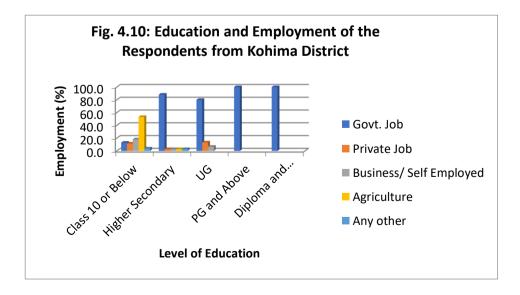
There were 27 respondents with under graduation from Mon district out of which 22 of them that is 81.5% were in government service, three of them that is 11.1% were employed in private sector and 2 of them that is 7.4% were engaged in own business or self-employed. There was only one respondent out of 150 samples collected from Mon district with Post graduation (PG) or above level of education and he/ she was employed in government sector which make it 100%.

There were only two respondents form Mon district with diploma/ technical education and both of them were employed in the government sector that is 100% of the diploma/ technical education qualified respondents were employed in government sector.

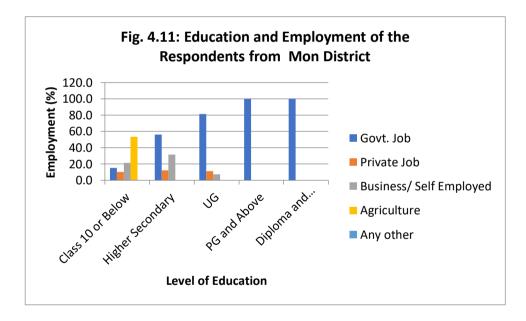
The data shows that out of 300 samples collected from both Kohima and Mon district together, 156 of them that is 52% of the total sample were with the level of education class 10 or below, 75 of the respondents that is 25.0% were with Higher Secondary level of education, 57 respondents that is 19.0% were Under Graduates, 9 of them that is 3.0% were with Post Graduation or above and three of the respondents that is 1.0% were with Diploma or Technical education. It was observed that in Kohima district maximum number of people i.e., 97.6% of respondents employed in agriculture were with the education level of class 10 or below. Similarly, in Kohima district among the respondents with education level of class 10 or below the highest share i.e., 53.2% were employed in agriculture. It is also observed that in Kohima district there were only 8 respondents with PG or above qualification and all of them were employed in the government sector.

In Mon district all the respondents employed in agriculture were with the education level of class 10 or below. Similarly, in Mon district among the respondents with the educational level of class 10 or below the highest share i.e., 53.2% were employed in agriculture. Again, it was found that from Mon District there were only 2 respondents with Diploma or technical education and both of them were employed in the Government sector.

In brief, this study showed that, both in Kohima and Mon districts, as the level of education increased the percentage of people employed in the primary sector or agricultural sector decreased and the employment in the tertiary sector increased. In other words, it showed that the level of education has an impact of the employment pattern in the economy. Lower the level of education higher the percentage of people employed in primary sector and higher the level of education higher the percentage of people employed in the tertiary sector.



The Figure 4.10 shows the level of education and percentage respondents engaged in different the types of employment from Kohima District. Here we have divided the level of education into five categories and the level of employment also broadly classified into five types. It is clear from the figure that among the people with the level of education of class 10 or less, highest number of them were depended on agriculture as the main source of income. In the second category with the higher secondary level of education, the number of people employed in agricultural sector and other sectors has decreased substantially and that of government sector increased. In the third category that is with the level of education of under graduation (UG), highest percentage of people were employed in the government sector followed by private sector and business/ self-employment. In the fourth and fifth category that is with PG or above education and with Diploma or Technical education, all of them were employed in the government sector.



The Figure 4.11 shows the level of education and percentage of respondents employed in different types jobs from Mon district. The above figure shows that in the first group that is among the respondents with class 10 or less of education, highest percentage was employed in agriculture followed by business/ selfemployment. In the second group with better education that is with higher secondary level, highest number of people were employed in government sector followed by business/ self-employment and private job. In the third category, that is with graduation, the percentage of people employed in the government sector had increased further. In the fourth and fifth category, that is with PG or above qualification and with the qualification of Diploma or Technical education, all of them were employed in the government sector. It shows that as the level of education increased the level of employment in the primary sector decreased and that of the tertiary sector increased.

So, the data shows a direct relation between the level of education and employment of the respondents. It is an indication that the level of education has played a major role in the development of the skill of the labour and increased the employability. As the education adds and improves the skill of the labour demanded by the market it helps the labour to get employed and to retain the employment.

#### 4.8. Education and Economic Development

In this study economic development is understood in the sense of economic growth with structural changes. Economic growth means increase in national income and the structural changes means the change in the contribution of the various sectors of the economy in the generation employment and of income. Here the structural change takes into account two things that is the employment pattern or the percentage of employment in primary, secondary and tertiary sectors and the income generated from these sectors. generally, the underdeveloped economies are dominated by primary sector. In the initial stages of development higher percentage of people depends on agriculture and allied activities for employment and income or for their livelihood. This is basically due the fact that in the initial stages of development there would be limited number of opportunities in the secondary and tertiary sectors for employment as it would be in an underdeveloped stage. Secondly, even if there are opportunities in the secondary and tertiary sectors, most of the people may not be skilled enough to work with the modern machinery and technology in the secondary and tertiary sectors. Due to these reasons, in the initial stages of development the percentage of population working in the primary sector will be very high and that of secondary and tertiary sectors will be relatively low. So, in an under developed economy the primary sector will play the key role being the major contributor to the national income and employment and as the development take place the share of the primary sector will decrease and that of the secondary and tertiary sectors will increase in terms of both employment and income.

It is difficult to ascertain whether the advancement of education is the cause or effect of economic development. In reality, the advancement of education can be both the cause as well as the effect of economic development. When the level of education improves the people becomes more industrious and they venture into new areas of production which in turn leads to more and more inventions and innovations. Education provides new skills and knowledge to the people and also improves existing knowledge and skill. In this way education becomes the cause of economic development.

The development of various sectors of the economy leads to increase in production and provides opportunities for more productive investment and better paid employment there by increasing the income of both the producer and labour. Increase in the income of the producer and suppliers of the factors of production, including the labour, increases demand for goods and services. This, in turn, leads to the expansion of the market and further increase in the profit of the producer.

When the income and the living standard of the people increases, as a result of economic development, the demand for education also increases. The development creates more employment opportunities and makes the people more optimistic about the future. In order to benefit from the new opportunities created by the economic development, the derived demand for education increases. When the job seekers realize the positive correlation between the level of education and employment, they demand more education to be in the forefront of the queue of the job seekers. Education is considered to be both social as well as private goods. When the people feel a positive correlation between the level of education, employment and income, the private investment on education will increase. The private investment on education and training of their children to make them more competitive and when the demand for education increases, the investment on the development of educational infrastructure will also increase to meet the increased demand. When the economic development take place the increase in the demand for education comes not only from economic angle but also from social angle. Education is also considered as a prestige good. People, may go for higher studies in India or abroad not only to get productively employed but also to get social status. Having a high degree itself is considered to increase the social status of the person even if it is not directly used for economic gain. The increased demand for education will lead to the development of education sector creating more and more employment opportunities and income on the one side and more and more output that is qualified and skilled labour to fit into the modern advanced economy on the other. In short education becomes the cause and effect of economic development.

As a result of the advancement of education a structural change in the economy takes place. It means the percentage of people employed in the primary sector decreases and that of the secondary and tertiary sectors increases. This is due to two reasons. Firstly, when the people get better education and training, they will be able to work with modern and advanced machines and equipment. This will help them to get productively employed in the secondary and tertiary sectors. Secondly, as the people get educated, they get more exposure to outside world. They begin to migrate to towns and cities looking for better job opportunities and thereby the mobility and place value of labour increases. In other words, the people migrate from primary sector where the marginal productivity of labour is very low to the secondary and tertiary sectors where it is relatively high. The labour migration is an autonomous process.

Labour migrates from the places and industries where its demand is low to the places, industries or sectors where its demand is high and paid better. The mobility of labour reduces the demand supply gap of labour. For example, a trained pilot may be highly paid and demanded in a country where there is scarcity of trained pilots but he may not have any value in a country where there are no aeroplanes to be piloted. The advancement of certain areas, especially cities and towns, leads to the migration of skilled labour from backward areas to advanced areas looking for better avenues which creates the spread effects. Spread effect, the concept developed by Gunnar Myrdal, states that the development in one place spreads to its suburbs and all the adjoining areas leading to faster economic development. With these changes, the share of the primary sector in terms of employment and national income decreases. On the other hand, as the development take place the share of secondary and tertiary sectors in terms of employment and national income increases. The decrease in the share of primary sector need not be in absolute terms but in relative terms with secondary and tertiary sector. In other words, even if the absolute contribution of the primary sector to employment and national income remains the same or even increases, the share of the secondary and tertiary sector may increase at a faster rate than that of primary sector leading to an increase in the percentage share of the latter in terms of employment and national income.

The data shows that as the level of education increased the percentage of employment in the primary sector decreased and that of tertiary sector increased. Similarly, the data showed that higher income was associated with the employment in service sector especially in government sector which in turn determined by the level of education. In this way the study points out that the increase in the education has led to economic development by way of economic growth and structural changes.

#### 4.9. Analysis of the Impact of Education on Employment

#### **HYPOTHESIS - 1**

# Education has impact on employability, skill and productivity of human capital.

- Null hypothesis (H<sub>0</sub>) : There is no significant difference between the education and employability, skill and productivity of human capital.
- Alternative Hypothesis (H<sub>1</sub>) : There is significant difference between the education and employability, skill and productivity of human capital.

# Table No. 4.9: Years of Education and Employment- Kohima District ofNagaland

Model Summary <sup>b</sup>													
					Change Statistics								
			Adjusted	Std. Error of	R Square					Durbin-W			
Model	R	R Square	R Square	the Estimate	Change	F Change	df1	df2	Sig. F Change	atson			
1	.541 <sup>a</sup>	.293	.288	1.09304	.293	61.387	1	148	.000	1.880			

a. Predictors: (Constant), years of education

b. Dependent Variable: What is the main occupation (main source of income) of the Head of the family?

		Unstand Coeffi	lardized cients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.119	.237		4.718	.000
	years of education	.163	.021	.541	7.835	.000

Coefficients

a. Dependent Variable: What is the main occupation (main source of income) of the Head of the family?

The table 4.9 shows that the estimated correlation between years of education and employment is 0.54 in the sample study area of Kohima district. This shows that there is a positive correlation between the years of education and employment. The coefficient of determination, that is  $R^2$  value, shows that 0.29 (29 percent) variation in employment has been explained by the change in the years of education.

To measure the effect on employment from change in the years of education it has been analyzed by using Liner Regression Model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

### Y = 1.12 + 0.16 X

Where, Y is the employment and X is the years of education. This result shows that the regression co-efficient byx of Y on X is 0.16 times. The positive value of regression co-efficient indicates that the relation between Y and X is direct. This shows that change in the years of education will have a positive impact on employment (Y) by 0.16 times. To see whether the regression analysis is significant or not, t-test was done. The result shows that calculated value of 't' is higher than the table value. The calculated value of 't' is 7.835 and the table value of 't' is 6.314 at 10 per cent significant for one degree of freedom. Therefore, the value of 'b' is significant at 10 percent for one degree of freedom. Hence change in the years of education has a positive impact on increasing employment. Therefore, the null hypothesis (H<sub>0</sub>) is rejected and the alternative hypothesis (H<sub>1</sub>) is accepted that is there is a significant difference between the years of education and employment in Kohima district.

# Table No. 4.10: Years of Education and Employment: Mon District ofNagaland

Model	Summary	þ
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						Change Statistics						
			Adjusted	Std. Error of	R Square					Durbin-W		
Model	R	R Square	R Square	the Estimate	Change	F Change	df1	df2	Sig. F Change	atson		
1	.655 <sup>a</sup>	.429	.425	1.00682	.429	111.149	1	148	.000	1.979		

a. Predictors: (Constant), years of education

b. Dependent Variable: What is the main occupation (main source of income) of the Head of the family?

		Unstand Coeffi	lardized cients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.916	.177		5.160	.000
	years of education	.178	.017	.655	10.543	.000

Coefficients

a. Dependent Variable: What is the main occupation (main source of income) of the Head of the family?

Table 4.10 shows that the estimated correlation between years of education and employment was 0.66 in the sample study area of Mon district. This shows that there was a positive correlation between the years of education and employment. The coefficient of determination, that is  $R^2$  value, shows that 0.43 (43 percent) variation in employment has been explained by the change in the years of education.

To measure the effect on employment from change in the years of education it has been analyzed by using Liner Regression Model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

#### Y = 0.92 + 0.18 X

Where, Y is the employment and X is the years of education. This result shows that the regression co-efficient byx of Y on X is 0.18 times. The positive value of regression co-efficient indicates that the relation between Y and X is direct. This shows that change in the years of education will have a positive impact on employment (Y) by 0.18 times.

To see whether the regression analysis is significant or not, t-test was done. The result shows that calculated value of 't' is higher than the table value. The calculated value of 't' was 10. 543 and the table value of 't' was 6.314 at 10 per cent significant for one degree of freedom. Therefore, the value of 'b' is significant at 10 percent for one degree of freedom. Hence change in the years of education has a positive impact on increasing employment. Therefore, the null hypothesis  $(H_0)$  is rejected and the alternative hypothesis  $(H_1)$  is accepted that is there is a significant difference between the years of education and employment in Mon District.

# Table No. 4.11: Years of Education and Employment: Kohima and MonDistricts of Nagaland

Model	Summary

							Change Stati	stics		
			Adjusted	Std. Error of	R Square					Durbin-W
Model	R	R Square	R Square	the Estimate	Change	F Change	df1	df2	Sig. F Change	atson
1	.607 <sup>a</sup>	.368	.366	1.04817	.368	173.657	1	298	.000	1.281

a. Predictors: (Constant), years of education

b. Dependent Variable: What is the main occupation (main source of income) of the Head of the family?

		Unstand Coeffi	lardized cients	Standardized Coefficients		
Mode	el	В	Std. Error	Beta	t	Sig.
1	(Constant)	.995	.143		6.949	.000
	years of education	.172	.013	.607	13.178	.000

#### Coefficients

a. Dependent Variable: What is the main occupation (main source of income) of the Head of the family?

The Table 4.11 shows that the estimated correlation between years of education and employment in the sample study area of Kohima and Mon districts of Nagaland is 0.61. This shows that there is a positive correlation between the years of education and employment. The coefficient of determination, that is  $R^2$  value, shows that 0.37 (37 percent) variation in employment has been explained by the change in the years of education.

To measure the effect on employment from change in the years of education it has been analyzed by using Liner Regression Model. Regression equation of Y on X: Y mean of Y = byx (X-Mean of X)

$$Y = 1.00 + 0.17X$$

Where, Y is the employment and X is the years of education. This result shows that the regression co-efficient byx of Y on X is 0.17 times. The positive value of regression co-efficient indicates that the relation between Y and X is direct. This shows that change in the years of education will have a positive impact on employment (Y) by 0.17 times.

To see whether the regression analysis is significant or not, t-test was done. The result shows that calculated value of 't' is higher than the table value. The calculated value of 't' is 13.178 and the table value of 't' is 12.706 at 5 percent for one degree of freedom. Hence change in the years of education has a positive impact on increasing employment. Therefore, the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_1$ ) is accepted that is there is a significant difference between the years of education and employment in the sample study area of Kohima and Mon District.

# **4.9.1.** Education and Employment A Comparison between the Kohima and Mon Districts

District	Cor	relation	Regression							
	R	R <sup>2</sup>	a	b	t	Std Error	P-value			
Kohima District	0.54	0.29	1.12	0.16	7.84	0.02	0.00			
Mon District	0.66	0.43	0.92	0.18	10.54	0.02	0.00			
Kohima and Mon Districts Combined	0.61	0.37	1.00	0.17	13.18	0.01	0.00			

Table No. 4.12: Education and Employment A Comparison between theKohima and Mon Districts

The table 4.12 shows a comparison between Kohima and Mon Districts with regard to the relation between the years of education and employment. The estimated value in the table shows that there is a positive correlation between the level of education and employment in both Kohima and Mon districts. However, the relation is higher in Mon District, i.e., 0.66, in comparison to Kohima district, i.e., 0.54. The co-efficient of determinants i.e.,  $R^2$  value, which explains the variation in employment by the years of education, is also higher in Mon district in comparison to Kohima district. The  $R^2$  value in the case of Mon district was 0.43 where as it was 0.29 in Kohima district.

The Linear Regression model is used to measure the effect of change in education to employment. In the regression equation Y = a+ bX the value of 'a' (constant) in Kohima district is 1.12 which is higher than the value of 'a' (constant) in Mon District which is 0.92. The value of 'b' in the regression equation explains the rate of change of employment as a result of the change in the number of years of education. The table shows that the value of 'b' in Kohima district is 0.16 while it is 0.18 in Mon district. It shows that the value of "a" is higher in Kohima district where as the value of "b" is higher in Mon district. The result of the data analyzed shows that though the difference between the two districts is not very high the

impact of education on employment is comparatively high in Mon district where the level of education is relatively low. Similarly, the impact of the years of education on employment is relatively low in the Kohima district where the level of education is relatively high. The possible reason for this relationship is that in areas where the level of education is low, education plays the major role in getting employed where as in those areas where the level of education is relatively high, factors other than education plays a major role.

### 4.10. Analysis of the Impact of Education on Income

#### **HYPOTHESIS - 2**

### Education is an instrument for achieving economic development.

Null hypothesis	(H <sub>0</sub> )	:	There	is	no	significant	difference	between
		E	ducation	n an	d in	come of the	family for	achieving
		ec	onomic	dev	velop	oment.		
Alternative hypothesis	s (H1)	: '	There is	s sig	nific	ant difference	e between I	Education
		ar	id incoi	ne	of th	e family for	achieving	economic
		de	evelopm	ent.				

# Table No. 4.13: Years of Education and Income: Kohima District ofNagaland

Model Summary <sup>b</sup>										
					Change Statistics					
			Adjusted	Std. Error of	R Square					Durbin-W
Model	R	R Square	R Square	the Estimate	Change	F Change	df1	df2	Sig. F Change	atson
1	.751 <sup>a</sup>	.564	.561	1.68129	.564	191.606	1	148	.000	1.899

a. Predictors: (Constant), years of education

b. Dependent Variable: INCOME

		Unstand Coeffi	lardized cients	Standardized Coefficients								
Mode	)	В	Std. Error	Beta	t	Sig.						
1	(Constant)	664	.365		-1.821	.071						
	years of education	.442	.032	.751	13.842	.000						

#### **Coefficient**®

a. Dependent Variable: INCOME

The data shows that the estimated correlation between the number of years of education and income is 0.75 in the sample study area of Kohima district. This shows that there is a positive correlation between the years of education and income. The co-efficient of determination i.e.,  $R^2$  value shows that 0.56 (56 percent) variation in income has been explained by education.

To measure the effect of change in the number of years of education to the level of income, it has been analyzed by using Linear Regression Model. Regression equation of Y on X: Y mean of Y =byx (X-Mean of X).

$$Y = -0.66 + 0.44X$$

Where, Y is the income and X is the years of education. The result shows that the regression co-efficient byx of Y on X is 0. 44 times. The positive value of regression coefficient indicates that the relation between Y an X is direct. This shows that the change in the years of education will have a positive impact on income (Y) by 0.44 times.

To see whether the regression analysis is significant or not, t-test is done. The result shows that calculated value of t is higher than the table value. The calculated value of 't' is 13.842 and the table value of 't' is 12.706 at 5 per cent significant for one degree of freedom. Therefor change in educational level has a positive impact on increasing employment. Therefore, the null Hypothesis (H<sub>0</sub>) is rejected and the alternative hypothesis (H<sub>1</sub>) is accepted that is there is significant difference between the education and income in Kohima district.

#### Table No. 4.14: Years of Education and Income: Mon District of Nagaland

Model Summary <sup>b</sup>												
					Change Statistics							
			Adjusted	Std. Error of	R Square					Durbin-W		
Model	R	R Square	R Square	the Estimate	Change	F Change	df1	df2	Sig. F Change	atson		
1	.743 <sup>a</sup>	.551	.548	1.70684	.551	181.890	1	148	.000	1.843		
a. Pre	a. Predictors: (Constant), years of education											

b. Dependent Variable: INCOME

			lardized cients	Standardized Coefficients								
Model		В	Std. Error	Beta	t	Sig.						
1	(Constant)	.291	.301		.969	.334						
	years of education	.385	.029	.743	13.487	.000						

Coefficients

a. Dependent Variable: INCOME

The table 4.14 shows that the estimated correlation between the years of education and income is 0.74 in the sample study are of Mon district. This shows that there is a positive correlation between the years of education and income. The co-efficient of determination i.e., R<sup>2</sup> value shows that 0.55 (55 percent) of variation income has been explained by education.

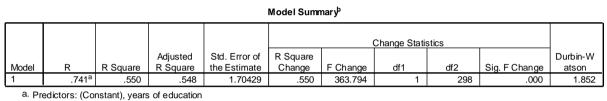
To measure the effect of change in the years of education on income, it has been analyzed by Linear Regression Model. Regression equation of Y on X: Y mean of Y = byx (X mean of X).

#### Y = 0.29 + 0.39X

Where, Y is the income and X is the years of education. The result shows that the regression co-efficient byx of Y on X is 0.39 times. The positive value of regression coefficient indicates that the relation between Y and X is direct. This shows that the change in the years of education will have a positive impact on income (Y) by 0.39 times.

To find out whether the regression analysis is significant of not, t- test is under taken. The result shows that the calculated value of 't' is higher than the table value. Calculated value of 't' is 13.487 and the table value of 't' is 12.706 at 5 per cent significance for one degree of freedom. Therefore, the value of 'b' is significant at 5 per cent for one degree of freedom. Therefore, change in the years of education has a positive impact on increasing income. Hence the null hypothesis  $(H_0)$  is rejected and the alternative hypothesis  $(H_1)$  is accepted which means there is a significant difference between the level of education and income in Mon District.

### Table No .4.15: Years of Education and Income: Kohima and Mon Districts of Nagaland



b. Dependent Variable: INCOME

Coefficients

		Unstand Coeffi	lardized cients	Standardized Coefficients		
Mode	9	В	Std. Error	Beta	t	Sig.
1	(Constant)	077	.233		331	.741
	years of education	.404	.021	.741	19.073	.000

a. Dependent Variable: INCOME

Table 4.15. shows that the estimated correlation between the years of education and income of the sample study area of Kohima and Mon districts of Nagaland is 0.74. This means that there is a positive correlation between the years of education and income. The coefficient of determinants i.e., R<sup>2</sup> value shows that 0.55 (55 percent) of variation in the income has been explained by the years of education.

To measure the effect on income from change in the years of education, it has been analyzed using Linear Regression Model. Regression equation of Y on X: Y mean of Y = byx (X mean of X).

$$Y = -0.08 + 0.40 X$$

Where, Y is the income and X is the years of education. The result shows that the regression co-efficient byx of Y on X is 0.40 times. The positive value of regression coefficient indicates that the relation between Y and X is direct. This shows that the change in the years of education will have a positive impact on income (Y) by 0.40 times.

To see whether the regression analysis is significant or not, t-test is done. The result shows that the calculated value of 't' is higher than the table value. Calculated value of 't' is 19.073 and the table value of 't' is 12.706 at 5 per cent significant for one degree of freedom. Therefore, change in the years of education has a positive impact on the increase in income. Hence the null hypothesis is (H<sub>0</sub>) is rejected and the alternative hypothesis (H<sub>1</sub>) is accepted which means there is a significant difference between the year of education and the income.

## 4.10.1. Education and income- A Comparison between Kohima and Mon Districts

Table No.4.16: Education income A Comparison between Kohima and MonDistricts

District	Correlat	ion			Regression			
	R	<b>R</b> <sup>2</sup>	а	b	t	Std	P-	
						Error	value	
Kohima District	0.75	0.56	-0.66	0.44	13.84	0.03	0.00	
Mon District	0.74	0.55	0.29	0.39	13.49	0.03	0.00	
Kohima and Mon	0.74	0.55	-0.08	0.40	19.07	0.21	0.00	
Districts Together								

Table No.4.16 gives a comparison between Kohima and Mon district in terms of the years of education and income. The table shows that correlation between the years of education and income is positive in both districts but it is slightly higher in Kohima (0.75) than Mon district (0.74). The  $R^2$  value which explains the variation in income by the years of education is also marginally high

in Kohima district (0.56) than Mon district (0.55). It shows that Kohima district being educationally more advanced than Mon district the education plays a better role in the determination of the income of the people.

In the regression equation Y = a + bX, which measures the effect of change in in the years of education to the change in income, the value of 'a' (constant) is higher in Mon District (0.29) than Kohima district (-0.66) while the "b" value which explains the rate of change of income due the change in the years of education has been higher in Kohima district (0.44) than Mon district (0.39). It shows that in Mon district where the level of education is relatively low the value of constant "a" in the regression equation which represents the factors other than education which influence the level of income is high. On the other hand, the "b" value in the regression equation, which represents the rate of change in income as a result of change in the number of years of education, is high in Kohima district than Mon district. It indicates that in areas where the level of education is comparatively high the role of education in determining income is also high and in the areas where the education is relatively in a backward stage the role of education in determining the income is also low. In educationally backward areas factors other than education also plays a major role in the determination of income.

### 4.11. Conclusion

This Chapter titled the contribution of Education to Economic Development deals with the analysis and interpretation of the of the primary data collected from the two sample districts of Kohima and Mon. First part of this chapter deals with the objectives of this study. The first objective of this work was to study the socioeconomic profile of the two districts and the respondents. For this purpose, the variables like gender and age of the respondents and the type of house of the respondents in which they live were analysed based on the primary data collected in addition to the secondary data. The second objective of this study was to examine the magnitude of the level of education in the sample study area. For this, purpose in addition to the secondary data the education level of the respondents from both districts were collected and analysed. In the study it was found that in comparison to Kohima district the education level of the people of Mon district is lagging behind. In Both district the number of people with post-graduation or above is comparatively very low and it is better in Kohima district. The education level was divided into five categories and it was observed that the maximum number of respondents was from the category of class ten or below level of education and as we proceed to the higher levels of education, the number of people was decreasing.

The third objective of the study was to analyse the contribution of education to increase in productivity of human capital. Here the productivity of human capital was measured in term of income. For this purpose, the mean income of the respondents from each sample villages were calculated. Then to make a comparison between the level of education and income of the respondents, the respondents were classified in to 5 categories based on the level of education of the respondents. Then the income of the respondents was also classified into seven groups and made a comparison between the level of education and income of the respondents. In this study it was found that the income was positively correlated to the level of education of the people. The average income of the respondents with the education of class ten or less was the lowest and the annual income of the respondents with the post-graduation, Diploma or technical education was the highest. This relation was noticed in both Kohima and Mon districts.

The fourth objective of this work was to study the role of education in skill development and employability of the workforce. Since it is difficult to measure the skill one possess, in order to study the role of education in skill development and employability, a comparison was made between the level of education and the nature of employment of the respondents'. Since the education provides the skill necessary to perform the task, in most of the cases the level of education becomes the basic criteria for the employment. In this study we divided the respondents into five categories based on their education. Again, the respondents were classified into five types based on their employment. A comparative analysis was made between the level of education of the respondents and the type of employment. In this study it was observed that the nature of employment is mostly influenced by the level of education one has. The highest percentage of respondents with the lowest level of education was employed in the primary sector. On the other hand, the respondents with higher level of education were mostly employed in the service sector,

especially government sector. It was a clear indication that the level of education was a major factor which determines the employability and employment. The relation between the level of education and employment was compared in both, Kohima and Mon district separately and it was found to be true in both the districts.

The fifth and the final objective of this study was to examine the impact of education on economic development. In this study economic development is defined as economic growth with structural changes. The economic growth is measured in terms of increase in income. Structural change is defined in terms of the change in the contribution of primary, secondary and tertiary sectors in terms of income and employment. In a competitive market the remuneration of the factors of production are determined by the marginal productivity and no factor will be paid more than its marginal productivity. Marginal productivity means the additional contribution made by the additional unit of the factor of production. In this study it was found that as the level of education increased the income of the people also increased and the employment pattern changed. People with higher level of education were mostly employed in the service sector and the people with less education were mostly employed in the primary sector. It was an indication that the change in education leads to the structural change in the economy.

The first hypothesis of the study was that "Education has an impact on employability, skill and productivity of human capital". To verify this hypothesis, we formulated the null hypothesis (H<sub>0</sub>) as "There is no significant difference between the education and employability, skill and productivity of human capital. The Alternative hypothesis was "There is significant difference between the education and employability, skill and productivity of human capital.". To verify the hypothesis the Linear Regression was done and it was found that education has a positive impact on increasing employment. Therefore, the null hypothesis was rejected and the alternative hypothesis was accepted that is there is a significant difference between the education and employment.

The second hypothesis of the study was that "Education is an instrument for achieving economic development." To verify the hypothesis null hypothesis (H<sub>0</sub>) was formulated as "there is no significant difference between education and income

of the family for achieving economic development." The alternative hypothesis  $(H_1)$  "there is significant difference between education and income of the family for achieving economic development." To verify the hypothesis Linear Regression Model was used and it was found that change in education has a positive impact on income. Therefore, the null hypothesis was rejected and the alternative hypothesis was accepted, which means there is a significant difference between education and income.

In the comparison between the Kohima and Mon districts in terms of the relation between the level of education and employment, it was found that there is a positive correlation between the level of education and income in both Kohima and Mon districts but the correlation is higher in Kohima than Mon district.

Similarly, in terms of comparison between Kohima and Mon districts in terms of education and income, there is a positive correlation between the two but the correlation is found to be higher in Kohima than Mon district. The regression equation shows that the rate of change in income due to change in education is higher in Kohima district than in Mon district.

#### **CHAPTER-5**

#### SUMMARY AND CONCLUSION

#### **5.1. Introduction**

This study 'Education and Economic Development in Nagaland: A Comparative Study of Kohima and Mon Districts' is done based on the primary data collected from two sample districts of Nagaland namely Kohima and Mon and also based on the secondary data collected from various sources. For this study sample size was 300 respondents selected from six villages each of Kohima and Mon Districts. From Each village 25 respondents each were selected at random. A multistage stratified sampling technique was used for primary data collection. The primary data was collected through survey method using structured questionnaire send through enumerators. In this study, statistical tools of SPSS and Microsoft Excel are used to analyze the data collected. The variables used include age and gender of the respondents, Type of house of the respondents, educational level, employment and income of the respondents.

#### **5.2.** Findings of the Study

A comparison between Kohima and Mon Districts has shown that total population of Kohima district (267988) was higher than that of Mon District (250260). However, the percentage of population in the age group of zero to six in Kohima district was 13.54 where as it was 16.12 in Mon district. Higher percentage population in the age group zero to six in Mon district in comparison to Kohima district indicates that the growth rate of population is higher in Mon district than Kohima district.

Out of the total population of 1978502 people in Nagaland 974122 were workers and 1004380 were non-workers. In other words, only 49.24 per cent were workers and 50.76 per cent were non-workers. It clearly indicates that percentage of workers were less than non-workers in Nagaland.

Among the workers in Nagaland 547357 were male and 426765 were female. It shows that the ratio between the male workers to female workers in Nagaland was 1: 0.78.

In Kohima district the percentage of workers to the total population was 42.85 which was less than the percentage of the non-workers to total population which was 57.15. Where as in Mon district, the percentage of workers to total population was 59 which was higher than the percentage of non-workers to total population which was 41. It shows that though the level of education was relatively low in Mon district, the labour force participation of people was higher in Mon district.

The number of male workers in Kohima district was 138966 and female workers was 129022 which makes the male female ratio of workers 1:0.93. In Mon district the number of male workers was 131753 which was higher than female workers i.e., 118507 which make the male female ratio of workers 1: 0.90. Though the number of male workers were higher than female workers in both districts, the ratio of male workers to female workers shows that the female participation in labour force was higher in Kohima district than Mon district.

The literacy rate in Nagaland has increased at a rapid rate in the last four decades. Literacy rate of Nagaland which was 42.57 per cent in 1981 increased to 79.55 per cent in 2011.

The literacy rate of Nagaland which was 79.55 per cent as per 2011 census was higher than the literacy rate of India which was only 72.98.

The literacy rate in Kohima district, which was 85.23 per cent as per 2011 census was higher than the literacy rate in Mon district which was 56.99 per cent.

Male literacy rate in Kohima district was 88.69 per cent which was higher than female literacy rate which was 81.48 per cent. The male literacy rate in Mon district was 60.94 per cent which was higher than female literacy rate which was 52.58 per cent as per 2011 census. It shows that education of the girls was lagging behind the education boys in both Kohima and Mon districts. It was observed that even though the male literacy rate was higher than female literacy in Nagaland the female literacy rate is increasing at a faster rate and the gender gap in literacy is continuously decreasing.

Literacy rate of Kohima district (85.23 per cent) was higher than the literacy rate of the Nagaland (79.55 per cent) whereas the literacy rate of Mon district (56.99 per cent) was less than the literacy rate of the state.

The enrolment of students from primary to Higher Secondary level in Kohima district in 2017-18 was 56183 which was more than that of Mon district which was 43608. It was observed that in Kohima district 47.04 per cent of the total enrolment was in in primary section and it was only 11.5 per cent in higher secondary section. On the other hand, in Mon district in 2017-18, 59.93 per cent of the total enrolment was in primary section while it was only 3.81 per cent in higher secondary section. The difference in the percentage of enrolment between the primary and higher secondary section was higher in Mon district.

According to this sample study, in Kohima district 34% of population live in *Pucca house*, 50% of the population live in *Semi- Pucca* house and 16.0% live in *Kutcha House*.

According to this sample study it is found that, in Mon district 20% of the people lived in *Pucca house*, 51.3% of the people lived in *Semi Pucca House* and 28.7% of the people lived in *Kutcha House*.

Among the total number of respondents living in the *Pucca House* 63 per cent was from Kohima district and only 37 per cent was from Mon district. Higher percentage of people living in Pucca house is also an indication of higher living standard of the people of Kohima district in comparison to the people of Mon district.

Among the respondents lived in *Kutcha House*, 35.8 % were from Kohima District and 64.2% were from Mon District indicating that in comparison to Mon

District a smaller percentage of people in Kohima district lived in *Kutcha house* which is also an indicator of economic conditions of the people.

Out of a total of 156 respondents with the education level of class 10 or below, 49.4% of the respondents were from Kohima district and 50.6% were from Mon District indicating that the number of people with education level of class 10 or below was more in Mon district in comparison to Kohima district.

In this study it was found that in Kohima district 48.7% of the respondents depend on government job as the main source of income and government was the largest employment provider in the district. Similarly in Mon district 40% of the respondents depended on government job as the main source of income and government was the largest employment provider in the district too.

In this study it was found that only 9.3% of respondents from Kohima district and 10.7% from Mon district were employed in the Private sector. The employment in the private sector occupied the fourth position in both Kohima and Mon districts indicating the underdeveloped state of the private sector in the studied area.

It was observed that, 11.3% of the respondents from Kohima district and 21.3% of respondents from Mon district were self-employed or doing own business. The percentage of people self-employed in Mon district is better than Kohima district.

It was observed that 28% of the respondents each from both Kohima and Mon districts were depending on agriculture as the main source of income for livelihood. It occupied the second position in terms of employment in both districts.

It was found in the study that that the government sector was the largest employment provider in both Kohima and Mon districts followed by agriculture.

It was realized in this study that in comparison to Mon district (40.0 per cent) higher percentage of people from Kohima district (48.7%) were employed in

government sector. It may be due to the fact that the education level of the people in Kohima was higher than that of the people in Mon district. Secondly the state capital is situated in Kohima district and as a result many administrative offices of the government departments are located in Kohima district.

It was observed that in Kohima district 97.6% of respondents employed in agriculture were with the education level of class 10 or below indicating that the agriculture was not the option of the educated people.

It was observed that both in Kohima and Mon districts among the respondents with education level of class 10 or below the major portion i.e., 53.2% each were employed in agriculture, indicating that the people who are illiterate or with less education had limited scope for jobs in areas other than agriculture. So, it was an indication that agriculture was not the option of the people but in most cases, agriculture seems to be last option of the people.

In Kohima district there were only 8 respondents with PG or above qualification and all of them were employed in the government sector which indicates that since people with higher levels of education were limited in number there was high chance of getting better paid jobs especially in government sector with higher level of education.

In this study, it was observed that in Mon district there were only one respondent with post-graduation and 2 respondents with Diploma or technical education and all the three of them were employed in the Government sector which shows that there were not many people with post-graduation and technical education and as a result there was high chance of getting job for the people with technical education or post-graduation. It showed as Bennett, Jr. (1967) pointed out that there was a high positive correlation between growth in technological education and economic development.

The study showed that higher the level of education of the people the better the prospects of earning higher income. Krueger and Lindahl (2001) rightly pointed that overall, education of the people is statistically significantly and positively associated with subsequent growth in the countries with the lowest education. In Kohima district there were 77 respondents with class 10 or less of education and out of this 55.8% of them had annual income less than Rs. 60,000 and only one of them that is 1.3% with this education had annual income more than Rs.3,60,000. It is an indication that the level of education of the people affects the productivity of the people in terms of income they earn. Higher level of education helps them to earn better income. Similar relation between the level of education and income was observed in Mon district also. In Mon district, out of 79 respondents with class 10 or less of education 60.8% had annual income less than Rs. 60,000. Among the respondents with this same level of education only 3 respondents that is 3.8% had the annual income more than Rs. 3,60,000.

Out of 34 respondents with higher secondary education, 50% of them and out of 30 respondents with graduation 70% of them from Kohima district had annual income more than Rs.3,60,000. Similarly, there were 8 respondents with Post Graduation and one respondent with Technical education from Kohima district and all of them had the annual income more than Rs.3,60,000. The data indicates that higher the level of education, higher the percentage of people in the higher income group.

From Mon district there were 41 respondents with higher secondary education and out of which 41.5 per cent and out of 27 respondents with under graduation 81.5 per cent had annual income more than Rs.3,60,000. Similarly, there was one respondent with Post Graduation and two respondents with Diploma or technical education and all the three of them had annual income more than Rs.3,60,000. So, the data clearly pointed out the fact that there is a direct relation between the level of education and income that is higher the level of education, higher the income and vice versa.

A clear positive relation between the level of education and the nature of employment was observed in this study. The data indicated that the major portion of the people employed in the agricultural sector was with the education of class ten or below and relatively less percentage of people with higher education depended on agriculture for the livelihood. Similarly, People with Post Graduation or technical education were mostly employed in Government sector. So, the result of the data analysed indicated a clear positive relation between the level of education and the employment in service sector especially in the government sector and an inverse relation between the level of education and employment in the primary sector. In short, the findings of the study showed that as the level of education of the people increased the percentage of people employed in the agriculture decreased and the employment in the service sector increased leading to a structural change of the economy.

The linear regression line of employment on education in Kohima district, Y = 1.12 + 0.16 X shows that the change in education has a positive impact on employment by 0.16 times of change in years of education. In the case of Mon district, it was found that the linear Regression equation between education and employment was Y = 0.92 + 0.18 X. It shows that the change in years of education had an impact on the level of employment in Mon district by 0.18 times of change in education. The result of the study shows that though the difference between the two districts was not very high the impact of education on employment was comparatively high in Mon district where the level of education is relatively low. In the analysis of the combined data of Kohima and Mon districts together, the linear regression equation Y = 1.00 + 0.17X shows that the impact of the change in the years of education to the employment was 0.17 times of change in education.

To study the impact of education on income Liner Regression was done and it was found that in Kohima district the regression equation was Y = -0.66 + 0.44Xwhich means that the change in the number of years of education had the impact on income by 0.44 times of change in the years of education. The regression equation line between the education and income in Mon district was Y = 0.29 + 0.39X. The value 0.39X in the equation indicates that the change in the years of education in Mon district had the impact on average income by 0.39 times change in education. The regression equation line of both districts showed that the impact of education on income was higher in Kohima district in comparison to Mon district. It indicates that in areas where the level of education of the people are comparatively high the role of education in determining income is also high and in the areas where the level of education of the people are relatively in a backward stage the role of education in determining the income is also low. In the regression analysis of the combined data of Kohima and Mon districts together, the regression equation Y = -0.08 + 0.40 X, shows that the increase in one year of education had the impact on income by 0.40 times of the change in education. As Jorgenson and Fraumeni (1992) pointed out one of the most important benefits of education was higher income from labour market participation and this higher income from labour market participation shows the link between investment in education and economic growth.

#### 5.3. Limitations of the Study

1. This study was based on the data collected from only two sample districts namely Kohima and Mon.

2. The total sample collected was limited to 300 respondents, that is 150 respondents from Kohima district and 150 respondents from Mon district.

3. Secondary data was mostly available for the entire state and in many areas secondary data was unavailable for each district separately to make a comparative study.

## 5.4. Suggestions

The development of education in Mon district requires more attention as the education level in Mon district was lagging behind other districts as indicated by the low literacy rate. The sample study showed that there were more respondents with the education level of class ten or below in Mon district in comparison to Kohima district. So, in order to bring up education level of the district along with other districts of Nagaland, extra effort is required from the part of the government as well as all other stake holders.

The excessive dependence on the government sector for job will increase the problem of unemployment in the future as the government jobs may reach a saturation point in the future and therefore special attention is required for the development of private sector which can generate more employment opportunities in the state. It is good to conduct some studies on the problems faced by the private entrepreneurs so that government can address the issues faced by the private entrepreneurs, within the capacity and with the available resources of the state.

Since only a small percentage of the population was self-employed special efforts may be required to encourage new entrepreneurs and to increase self-employment by way of imparting training to the people in various skills and providing financial assistance and incentives for the new start-ups and self-employment projects.

As agriculture plays a major role in the state economy by being the major source of employment and food supply, special measures need to be taken for the development of agriculture and allied activities in the state. Support for the development of agriculture in the form of adequate supply of financial resources at a cheap rate to the farmers through banks, mobilization of household savings and micro financing in the village areas, government support for the procurement and marketing of agricultural products, and assured minimum price for the farmers will boost the morale of the farmers. Government support to farmers also includes the introduction of new crops suitable to the area, training of farmers in the cultivation of new crops, and creation of awareness to farmers on the suitable crops especially cash crops suitable for cultivation in different areas of the state according to the geographical and climatic condition.

Development of technical and professional education also needs more attention to meet the demand for skilled labour in the state. It is good to explore the additional ways and means to increase the provisions for medical education in the state to meet the demand for the medical staff. The development of technical education also requires a further push to attract more students in to the technical education to fill the gap between the demand and supply. The development of professional and technical education will help the youth to get employed not only within the state but also outside the state thereby reducing the unemployment problem.

It is desirable to control the excessive rush for the general education and divert some part of rapidly swelling stream of students into the courses of more practical character. For instance, the students those who are very week in studies of general education or failed to qualify for higher studies can be motivated to join the training in vocational courses like electrical courses, plumbing, mechanics, cutting and tailoring, embroidery etc., which will help them to find a job or to be self-employed. Initially, if sufficient number of students are not coming forth for such courses it may be advisable to attract the students by giving special incentives like fee concessions, scholarships, placement assistance after the completion of the course.

In order to provide specific skill to every student who completes the high school education or above it is good to introduce at least one skill-based course in schools, which is practical in nature, starting from class eight as a compulsory course. It will provide an orientation to the students to various fields and will help the students to get a job or to start something of his or her own even if one fail to qualify for higher studies. Special certificate approved by the government can be issued for the students who complete the course successfully. Proper monitoring from the government may be required especially in the initial stages for the success of the programme. The purpose of such course should be utility and usefulness to the candidates rather than the convenience of the schools.

Education is social as well as private goods. So, education of the people needs to be considered as a national need though it has private benefit also. Education is one of the key factors of the human resource development. So, wherever the private sector is not coming forth in the required level, increased level of state involvement is required to fill the demand supply gap at least in the initial stage.

Proper collection of data with regard to the present demand and supply of the skilled labour in various fields and forecasting the expected future demand and supply of it will provide the required direction to the stakeholders in the planning of the education which will definitely assist in reducing the mismatch between demand and supply of labour. The unemployment is normally caused due to the mismatch between the demand and supply in particular area or a sector. Very often we face the problem of unemployment and at the same time scarcity of labour in some other areas.

It is recommended that there should be an efficient monitoring system from the part of government on the running of various educational institutions to ensure the quality of education and validity of the certificate issued by the concerned educational institutions. If certificate issued by the educational and training institutions at the successful completion of the course is not recognized by the state and central governments it should be clearly made known to the public and to the students in advance to avoid financial loss and inconveniences to the candidates.

It was observed that a major portion of the respondents, in the low-income group, from both Kohima and Mon districts had less than class ten education. Accessibility to quality education for the poor people needs special attention. Lack of Education can be the cause and effect of economic backwardness of the people.

Education of the people is the surest way out of ignorance and poverty. Setting up of at last a limited number of government-aided private educational institutions in every district may increase the accessibility to affordable and quality education to the poor people. The system of having government aided private educational institutions, along with the government and private educational institutions, was successfully practiced in some other states in India and proved to be effective to increase the educational level of the people.

## 5.5: Scope of Future Research

This study titled 'Education and Economic Development in Nagaland: A Comparative Study of Kohima and Mon Districts' was an attempt to find out the role of education in economic development. The study area of the topic is very complex and it is difficult to measure quantitatively the contribution of education in economic development. However, a humble attempt has been made in this direction and it needs more and more studies in these areas. The following are the major areas which need future focus in the study. The present study is based on the two sample districts of Kohima and Mon only.
 It would be more appropriate if a study could be carried out covering the entire state.

2. A detailed study may be conducted on the role of education on economic development analysing the secondary data.

3. A study on the role of primary education and higher education on economic development of the state may be undertaken separately.

4. A study on the cost and benefit of education and its impact on the development of the state of Nagaland may be taken up.

5. The role of education on the economic development of a particular tribe in Nagaland may be attempted.

6. A study on the economic and non-economic benefit of education on the people of Nagaland may be taken up.

7. A study on the impact of education on the Economic Growth of the tribal people of Nagaland may be conducted.

## 5.6: Conclusion

In this study, "Education and Economic Development in Nagaland: A Comparative Study of Kohima and Mon Districts" was an attempt to analyse the role of education in economic development in Nagaland. This study was divided into five chapters. The first Chapter titled 'introduction' explains the concepts used in this study, the statement of the problem, area of study, relevance of the study, research objectives, hypothesis, methodology, sample design, statistical tools used for the analysis of the data, variables used in the study, and the literature review.

Second chapter of this study titled 'Socio Economic Profile of Sample Study Area and Respondents' gives a brief description of the state of Nagaland and the two sample districts of Kohima and Mon. The first part of this chapter deals with the geography and population of Nagaland, workforce in various districts of the state, Literacy rate in various districts of Nagaland and at the state level, student enrolment at various levels in Nagaland, academic performance of the students, and educational institutions in Nagaland. Then a brief description about the two sample districts of Kohima and Mon district was given. It includes a brief description of the formation of the Districts, people and literacy rate. A brief description of the socio-economic profile of the respondents was also given based on the primary data collected.

The third chapter titled 'Growth and Magnitude of Education in Sample study Area, shows the growth of education in different time periods in India, and in Nagaland. The chapter begins with the history of education in India which include the education in the primitive cultures and societies in India, education in ancient India, education under Muslim Rulers in India, education under East India Company, the role of Missionaries in the development of education, role of semi rationalist movement in the development of education in India, education in the pre-independence period and education in Independent India. Second part explains the education in Nagaland. It includes the education in Nagaland before independence of India, the medium of instruction, school curriculum, impact of education on employment, impact of colonial administration on education, growth of the number of educational institutions in Nagaland, growth of Literacy rate in the state, and growth of enrolment of students in Nagaland.

Fourth chapter titled 'Contribution of Education to Economic Development' mainly dealt with the analysis of the primary data. The first objective of the study was to study the socio-economic profile of the two districts of Kohima and Mon. For this purpose, the gender and age of the respondents and the type of house in which they live have been analysed.

Second objective the study was to examine the magnitude of the level of education in the sample study area. For this purpose, the primary and secondary data was analysed. The secondary data shows that there was a rapid progress in terms of literacy and the number of educational institutions in the sample study area and the performance of Kohima district was better than that of Mon district. For primary data, 150 samples each were collected from both Kohima and Mon districts. In the study it was found that from Kohima district 51.3% of respondents

were with class ten of less of education, 22.7% with higher secondary education, 20% were under graduates, 5.3% were post graduates and 0.7% was with technical education or Diploma holders. Similarly, it was found that from Mon District out of 150 samples studied, 52. 7% were with class ten or less of education, 27.3% were with higher secondary education, 18% were under graduates, 0.7% was with post-graduation and 1.3% was with Technical education or Diploma holder. Similarly, in comparison between Kohima and Mon districts, it was found that among the first two categories of respondents that is with class ten or less of education and with higher secondary education, Mon district had higher percentage of people than Kohima district. Among the respondents were from Kohima district than Mon district.

The third objective of the study was to analyse the contribution of education to increase in productivity of human capital. In this study the productivity was measured in terms of income. A comparison was done between the level of education of the respondents and their income to study the contribution of education to the productivity of the human capital. It was found that there is a positive correlation between the level of education and the income of the respondents. Most of the respondents who had annual income less than Rs. 60,000 had the educational qualification of class ten or less. On the other hand, most of the respondents with the educational qualification of graduation, post-graduation and Diploma or Technical education had annual income more than Rs.3,60,000. So, a positive correlation between the level of education and the productivity of the labour was found in in terms of employment and income. Similar to the findings of this study, Bils and Klenow (2000) in their study found that increase in the years of education was associated with a faster annual growth. The studies made by Mankiw et al (1992) and Barro (1991) about the link between education and economic growth also found a similar result that that schooling has a significant and positive and impact on the rate of growth of real GDP. Prichett (2001) observed that income of the people increased with the increase in education as the average wage of the educated workers were high. Booth (1999) found in his study that in high performing East Asian Economies, Education stimulated the growth and the growth stimulated the education.

However, as Sharma (1991) pointed out that the contribution of education to economic growth will be maximum when a portion of students leave the education at the appropriate levels and find a place in the occupational ladder instead of going beyond their limits which may lead to wastage of time, money and energy.

The fourth objective of this research was to study the role of education in skill development and employability of the workforce. To study this, a comparative analysis was done between the educational qualification of the respondents and their employment. In this study a positive correlation was observed between the levels of education of the respondents and their employment. It was observed that more than half of the respondents with class ten or less of education were engaged in agriculture in both districts where as only 13.3% and 15.2% respondents respectively from Kohima and Mon districts employed in government sector with the same level of education. On the other hand, though there were only a few respondents from both districts with post-graduation or above qualification, all of them were employed in the government service sector. It was also observed that as the level of education increased the percentage of people employed in agricultural sector decreased and that of service sector increased.

Similar to the findings of this study, Anosike (1977) observed that transfer of the technological and general skill to the nation's labour force was made possible through formal education which in turn increased the employability of the labour.

The fifth objective of the study was to examine the impact of education on economic development. In this study the economic development was defined as economic growth with structural changes. Economic growth was measured in terms of increase in income. Structural change was measured in terms of the contribution of various sectors with respect to income and employment. It was found that the respondents with class ten or less of education were mostly engaged in primary sector where as the respondents with higher level of education were mostly employed in service sector. It clearly indicates that as the level of education increased the percentage of people employed in the primary sector decreases and that of tertiary sector increases. Similarly, it was observed that the income of the people engaged in the service sector was higher than that of the people engaged in the primary sector.

Booth (1999) observed that the high rate of investment in education reduced the inequality and low inequality stimulated both economic growth and investment in education. Bennett, Jr. (1967) found a high positive correlation between growth in technological education and economic development. Bolino, (1968) wrote the education not only gives the skill to reproduce but it also creates the potential to invent new goods and new technologies which in turn lead to economic development.

This study had two hypotheses and the first hypothesis was that education has an impact of employability, skill and productivity of human capital. To verify the hypothesis correlation and linear regression model was used. The analysis of the primary data collected from both Kohima and Mon district was done separately and for both districts together. In the analysis, the variable respondents' education showed a significant contribution to the respondents' employment. To measure the effect of change in education to employment Linear Regression Model was used. The positive value of regression coefficient showed that the relation between the level of education and employment was direct. In other words, there was significant relation between the level of education and employment.

Anosike (1977) observed that though formal education increases the skill and employability of the people, the imbalance between the educational structure and the needs of the state becomes the main factor which causes the educated unemployment. Ranis et al (2000) found in their studies that education positively contributes to increase the economic growth by increasing the productivity, creativity of the workforce.

The second hypothesis of the study was that "education is an instrument for achieving economic development". Here we analysed the data between the level of education of the respondents and income using the correlation and Linear Regression Model. In this analysis the respondents' education showed a significant contribution to respondents' income. The Linear regression analysis between the level of education and income showed that the change in the level of education had a direct impact on the level of income.

Diebolt (1999) observed that education contributes to economic growth and development by making men and women more adaptable to the new technology which increase their productivity.

As a conclusion, in this study, it was observed that the years of education and the nature of education had a positive impact on employment and income of the people and it contributes to the development of the nation.

## **Bibliography**

#### **Books, Journals and Research Articles**

Acemoglu, D., Aghion, P., & Zilibotti, F. (2006). Distance to frontier, selection, and economic growth. *Journal of the European Economic association*, *4*(1), 37-74.

Ajakaiye, O., & Kimenyi, M.S. (2011). Higher Education and Economic Development in Africa: Introduction and Overview. Journal of African Economies, Vol. 20, AERC Supplement 3, pp. iii3–iii13

Aggarwal, J.C. (1983). Development and Planning of Modern Education (9<sup>th</sup> ed.). Noida: Vikas publishing House Pvt. Ltd.

Aghion, P., Boustan, L., Hoxby, C., & Vandenbussche, J. (2009). The causal impact of education on economic growth: evidence from US. *Brookings papers on economic activity*, *1*, 1-73.

Allen, G. C. (1978). Education, science and the economic development of Japan. *Oxford review of education*, 4(1), 27-36.

Anosike, B. J. (1977). Education and economic development in Nigeria: the need for a new paradigm. *African Studies Review*, 20 (2), 27-51.

Appiah, E. N. (2017). The Effect of education expenditure on per capita GDP in developing countries. *International Journal of Economics and Finance*, 9(10), 136-144.

Athparia, R. P. (2004). Role of education in economic development: A case study of Karbis, Assam. In: Lyndem, Biloris & De, Utpal Kumar, (eds.), Education in North East India: Experience and Challenge (pp. 317-326). New Delhi: Concept Publishing Company.

Baldwin, N., & Borrelli, S. A. (2008). Education and economic growth in the United States: cross-national applications for an intra-national path analysis. *Policy Sciences*, *41*(3), 183-204.

Barro, R. J. (1991). Economic growth in a cross section of countries. *The quarterly journal of economics*, *106*(2), 407-443.

Barro, R. J. Xavier. Sala-I-Martin (1995). Economic Growth. New York: McGraw-Hill.

Barro, R. J. (1998). Human capital and growth in cross-country regressions. In Economic Growth-Literature Surveys. Downloadable at http://hassler-j. iies. su. se/conferences/papers/barro. pdf (January 18, 2006).

Barro, R. J. (2001). Human capital and growth. *American economic review*, *91*(2), 12-17.

Barro, R. J., & Lee, J. W. (2013). A new data set of educational attainment in the world, 1950–2010. *Journal of development economics*, *104*, 184-198.

Barro, R. J. (1999). Determinants of democracy. *Journal of Political economy*, 107(S6), S158-S183.

Barro, R. J. (1999). Notes on growth accounting. *Journal of economic growth*, 4(2), 119-137.

Barro, R. J. (1999). *Inequality, growth, and investment* (No. w7038). National bureau of economic research.

Basantia, T. K. & Singha, R. K. P. G. (2008). Education and development in North East's Tribal region: A seed corn relationship. In Komol Singha, (ed.), Village development in North east India (pp. 119-132). New Delhi: Concept Publishing Company.

Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal* of political economy, 70(5, Part 2), 9-49.

Becker, G. S. (1964). Human capital theory. *New York* : Colombia University Press.

Benavot, A. (1989). Education, gender, and economic development: A crossnational study. *Sociology of education*, 62(1), 14-32.

Benhabib, J., & Spiegel, M. M. (1994). The role of human capital in economic development evidence from aggregate cross-country data. *Journal of Monetary economics*, *34*(2), 143-173.

Bennett Jr, W. S. (1967). Educational change and economic development. *Sociology of Education*, 40(2),101-114.

Benham, F. (1959). Education and Economic Development in the under-Developed Countries. *International Affairs (Royal Institute of International Affairs 1944-)*, *35*(2), 181-187.

Berg, I. (1973). Education and jobs. The great training robbery, Middlesex: Inglaterra.

Bhatia, K. K., & Narang, C.L. (1968). *A first course in principles of education*. Ludhiana: Tandon publication.

Bils, M., & Klenow, P. J. (2000). Does schooling cause growth?. American economic review, 90(5), 1160-1183.

Black, J. (2002). Oxford dictionary of Economics (2<sup>nd</sup> ed.). New Delhi: Oxford University press.

Bolino, A. C. (1968). Education, Manpower, and Economic Growth. *Journal of Economic Issues*, 2(3), 323-341.

Booth, A. (1999). Education and economic development in Southeast Asia: Myths and realities. *ASEAN Economic Bulletin*, 16(3), 290-306.

Borbora, S. (2010). Economic growth and Human Development: chain relationship. In P. Nayak (ed.) *Growth and human development in North East India* (pp. 39-45). New Delhi: Oxford University Press.

Bowen, H. R. (1977). Investment in learning: The individual and social value of American higher education.

Breton, T. R. (2012). The role of education in economic development: theory, history, and current returns.

Brief, I. P. (2008). Economic Growth in Developing Countries: Education Proves Key. *International Institute for Applied System Analysis*, (3), 1-4.

Browne, E. (2016) What works in youth employment programmes?, HEART Helpdesk Report

Camdessus, M. (2004). Towards a New Growth for France. French documentation.

Chapman, P. G. (1993). *The economics of training* (Vol. 97). Hemel Hempstead: Harvester Wheatsheaf.

Chaudhri, D. P. (1974), Rural education and agricultural development: some empirical results from Indian agriculture. *World Year Book of Education*, UNESCO, Paris.

Christina, K., and D'souza, A. B. (2013) Education for social equality. In Kikhi, K. (ed.) The dynamics of development in North –East India (pp. 186- 203). Delhi: Book well.

Das, Gurudas (2007) Globalization and Human development: Is there any trade off. In Chakroborty, K. S. & Das, G. (eds.), Human development: experiences of North East India (pp. 3-14). New Delhi: Akansha Publishing House.

Diebolt, C. (1999). Government Expenditure on Education and Economic Cycles in the Nineteenth and Twentieth Centuries: the case of Spain with special reference to France and Germany. *Historical Social Research/ Historische Sozialforschung*, 24(1), 3-31.

De Muro, P., & Burchi, F. (2007). Education for rural people and food security. A Cross Country Analysis. Food and Agricultural Organization of the United Nations, Rome.

Dore, R. P. (1976). Human capital theory, the diversity of societies and the problem of quality in education. *Higher Education*, *5*(1), 79-102.

Dutta, Subhendu (2008). Human development in Nagaland: An inter district analysis. In , Komol Singha, (ed.) Village Development in North east India (pp. 154-162). New Delhi: Concept Publishing Company.

Freire-Serén, María Jesús (2001). Human Capital Accumulation and Economic Growth. *Investigaciones Economicas*, 25(3), 585-602.

Garcia-Espejo, I., & Ibanez, M. (2006). Educational-skill matches and labour achievements among graduates in Spain. *European Sociological Review*, 22(2), 141-156.

George, K. K., & Sunaina, P. (2005). Dynamics of change in Kerala's education system: The socio-economic and political dimensions. *Kochi: Centre for Socio-economic & Environmental Studies*, 5-13.

Ghosh, B.B (1982). History of Nagaland. New Delhi: S. Chand & Company Ltd.

Godfrey, M. (1977). Education, training and productivity: A Kenyan casestudy. *Comparative Education Review*, 21(1), 29-36.

Goel, S. C. (1974). Education and Economic Growth in India. *Comparative Education*, *10*(2), 147-158.

Graham, R. (1982). Education and Economic Growth: The State Role. *journal of education finance*, 8(2), 135-140.

Grant, C. (2017). The contribution of education to economic growth. Institute of Development Studies.

Gupta, A. D. (1999). New economic policy, human resource development and entrepreneurship: A case study of North East India. In Banerjee, A. and Kar, B. (eds.) *Economic Planning and Development of North Eastern States* (pp. 396-433). New Delhi: Kanishka Publishers.

Gylfason, T. (2001). Natural resources, education, and economic development. *European economic review*, *45*(4), 847-859.

Haldar, S. K., & Mallik, G. (2010). Does human capital cause economic growth? A case study of India. *International Journal of Economic Sciences & Applied Research*, *3*(1), 7-25.

Hanushek, E. A., & Kimko, D. D. (2000). Schooling, labour-force quality and the growth of nations. *American economic review*, *90*(5), 1184-1208.

Hanushek, E. A., & Wößmann, L. (2007). The role of school improvement in economic development. (www.nber.org/papers/w12832).

Hanushek, E. A., & Wößmann, L. (2007). The role of education quality for economic growth. (World Bank Policy Research Working Paper 4122).

Hanushek, E. A., Jamison, D. T., Jamison, E. A., & Woessmann, L. (2008). Education and economic growth: It's not just going to school, but learning something while there that matters. *Education next*, 8(2), 62-71.

Herschede, F. (1980). Chinese education and economic development: An analysis of Mao Zedong's (Mao Tse-tung's) contributions. *The Journal of Developing Areas*, *14*(4), 447-468.

Hazarika, Bolin (2004). Education and social environment among the Tea Tribes in Assam. In Ray, B. D and Das, Gurudas, (eds.), *Dimensions of rural Development in North- East India* (pp. 239-243). New Delhi: Akansha publishing House.

Hazarika, Jatin (2000) Perspective of entrepreneurship development in the 21<sup>st</sup> century. In Mali, D. D. (ed.), *Entrepreneurship Development in North East*. Indian Institute of Entrepreneurship, Guwahati: Indian Institute of Entrepreneurship.

Herschede, F. (1980). Chinese education and economic development: An analysis of Mao Zedong's (Mao Tse-tung's) contributions. *The Journal of Developing Areas*, *14*(4), 447-468.

Hinchliffe, J. K. (1987). Education and labour market. In Psacharopoulos, George (Ed.), *Economics of Education Research and Studies* (pp.141-146). Oxford: Pergamon Press.

Hunt, C. L., & McHale, T. R. (1965). Education and Philippine economic development. *Comparative Education Review*, *9*(1), 63-73.

IIASA (2008) Economic Growth in Developing Countries: Education Proves Key, Policy Brief (http://www.iiasa.ac.at/web/home/resources/publications/IIASAPolicyBriefs/pb03 -web.pdf) Jaoul, M. (2002). Higher education and economic growth in France since the Second World War. *Historical Social Research*, 27(4), 108-124.

Jorgenson, D. W., & Fraumeni, B. M. (1992). Investment in education and US economic growth. *The Scandinavian Journal of Economics*, S51-S70.

Kar, M., & Taban, S. (2003). Varieties of Public Expenditure on Economic Growth Effects. *Ankara University, Journal of the Faculty of Political Science*, *58*(3), 145-169.

Kar, M., & Taban, S. (2003). The impacts of the disaggregated public expenditure on economic growth. *Ankara University Faculty of Political Science*, *53*(3), 145-169.

Keskin, A. (2011). Economic role of human capital development and Turkey. *Atatürk University Journal of Economic and Administrative Sciences*, 25 (3-4), 125-153.

Kikhi, Kedilezo (2008). Educated youth in Nagaland: Aspiration's vis –a vis employment opportunities. In Singha, Komol (ed.), *Village Development in North east India* (pp. 133-153). New Delhi: Concept Publishing Company.

Khattak, N. U. R. (2012). The contribution of education to economic growth: evidence from Pakistan. (https://mpra.ub.uni-muenchen.de/51180)

Krueger, A. B., & Lindahl, M. (2001). Education for growth: Why and for whom?. *Journal of economic literature*, *39*(4), 1101-1136.

Lewis, W.A. (1961). Education and economic development. *Social and Economic Studies*, 10(2), 113-127.

Lewis, W.A. (1962). Education and Economic Development. *Caribbean Quarterly*, 7(4), 171-184.

Little, A. (1980). Is education related to productivity?. *The IDS Bulletin*, *11*(2), 13-19.

Lockheed, M., Jamison, D., & Lau, L. (1980). Farmer education and farmer efficiency: a survey. In King, T. (ed.), Education and Income. (World Bank Staff Working Paper 402).

Lucas Jr, R. E. (1988). On the mechanics of economic development. *Journal of monetary economics*, 22(1), 3-42.

Lutz, W., Goujon, A., KC, S., & Sanderson, W. (2007). Reconstruction of populations by age, sex and level of educational attainment for 120 countries for 1970-2000. *Vienna year book of population research*, 193-235.

Mankiw, N. G., Romer, D., & Weil, D. N. (1992). A contribution to the empirics of economic growth. *The quarterly journal of economics*, *107*(2), 407-437.

Marr, C., Charite, J., & Huang, C. C. (2013). Earned Income Tax Credit promotes work, encourages children's success at school, research finds. *Center on Budget and Policy Priorities*.

Mincer, J. (1958). Investment in human capital and personal income distribution. *Journal of political economy*, 66(4), 281-302.

Mohan, G.A. (2012). Holistic Education with Knowledge and Self-knowledge. *Hyderabad: Neelkamal Publications Pvt. Ltd.* 

Myrdal, G. (1972). *Asian drama; an inquiry into the poverty of nations* (Vol. 3). New Delhi: Kalyani Publishers.

Nayak, P., & Mishra, S. K. (2010). Human development and its correlates in Nagaland. In Nayak, P. (ed.), *Growth and Human Development in North East India* (pp. 323-346). New Delhi: Oxford University Press.

Ndiyo, N. A. (2007). A dynamic analysis of education and economic growth in Nigeria. *The Journal of Developing Areas*, *41*(1), 1-16.

Nelson, R. R., & Phelps, E. S. (1966). Investment in humans, technological diffusion, and economic growth. *The American economic review*, *56*(1/2), 69-75.

Ohiwerei, F. O., & Nwosu, B. O. (2013). The Role of Vocational and Technical Education in Nigeria Economic Development. *Educational Research Quarterly*, *36*(3), 47-66.

Pologeorgis, Nicolas A. (2019). Employability, the Labour Force, and the Economy. Investopedia. retrieved from https://www.investopedia.com/articles/economics/12/employability-labor-forceeconomy.asp

Power, L., Millington, K., & Bengtsson, S. (2015). Building Capacity in Higher Education–Topic Guide. *Health and Education Advice and Resources Team, UK. http://www. heart-resources. org/wp-content/uploads/2015/09/Capacity-Building-in-Higher-Education-Topic-Guide. pdf.* 

Pritchett, L. (2001). Where all education has gone. *The World Bank Economic Review*, 15(3), 367-391.

Psacharopoulos, G., & Patrinos, H. (2002). Returns to investment in education: a further update World Bank Policy Research Working Paper 2881. *World Bank: Washington*.

Psacharopoulos, G., & Patrinos, H. A. (2004). Returns to investment in education: a further update. *Education economics*, *12*(2), 111-134.

Radcliffe, B. (2020). How education and training affect the economy. (Investopedia).

Ranis, G., Stewart, F., & Ramirez, A. (2000). Economic growth and human development. *World development*, 28(2), 197-219.

Ranson, B. (1988). Rural education and economic development in China, Mexico, Japan, and the United States. *Comparative Education Review*, *32*(2), 213-225.

Reising, R. W., Schell, D. W., & Vance, R. (1992). Factors Affecting Minority Education and Rural Economic Development. *The Clearing House*, 65(5), 298-301.

Sachdeva, G. (2013). *Economy of the north-east: Policy, present conditions and future possibilities*. New Delhi: Konark Publishers Pvt. Ltd.

Sala-i-Martin, X. (1990). Lecture notes on economic growth (I): Introduction to the literature and neoclassical models (No. w3563). National Bureau of Economic Research.

Saleh, S.I. (1989). *Nagaland's Economy in Transition since 1964*. New Delhi: Omsons Publications,

Sanders, D. P., & Bath, P. S. (1968). *Education and Economic Development*. Review of Educational Research, 38(3), 213-230.

Sapir, A. (ed.), Philippe Aghion (author), Giuseppe Bertola (author), Martin Hellwig (author), Jean Pisani-Ferry (author), Dariusz Rosati (author), and Jose Vinals (author) (2004). An Agenda for a Growing Europe. Oxford: Oxford University Press.

Scherer, F. M., & Huh, K. (1992). Top managers education and R&D investment. *Research Policy*, 21(6), 507-511.

Schultz, T. W. (1961). Investment in human capital. *The American economic review*, *51*(1), 1-17.

Self, S., & Grabowski, R. (2004). Does education at all levels cause growth? India, a case study. *Economics of Education Review*, *23*(1), 47-55.

Sema, H. (1986). *Emergence of Nagaland: Socio-economic and political transformation and the future*. New Delhi: Vikas Publishing House Pvt. Ltd.

Sema, P. (1991). British policy and administration in Nagaland, 1881-1947 (2<sup>nd</sup> ed.). New Delhi: Scholar Publishing House.

Senupta, A. K., (2009). *The Challenge of Employment in India An Informal Economy Perspective* (Vol.1). New Delhi: Academic Foundation.

Sharma, M. K. (1991). The role of education in economic development: Assam as a Case Study. In Udayon Misra (Ed.) *Nation building and development in North East India* (pp.171-187). Guwahati: Purbanchal Prakash.

Sharma, S. (2016). Relation Between Education and Employment Outcomes in the Indian Labour Market: A Critical Review of The Literature.". *International Journal of Research in Economics and Social Sciences. IJRESS*, 6(4).

Solow, R. M. (1956). A contribution to the theory of economic growth. *The quarterly journal of economics*, 70(1), 65-94.

Teal, F. (2011). Higher education and economic development in Africa: A review of channels and interactions. *Journal of African Economies*, 20(suppl\_3), iii3-iii13.

Temple, J. R. (2001). Generalizations that aren't? Evidence on education and growth. *European Economic Review*, *45*(4-6), 905-918.

Todaro, M. P. (1993). *Economic Development in the Third World* (4<sup>th</sup> ed.). Hyderabad: Orient Longman Ltd.

Todaro, M. P., & Smith, S. C. (2009). Economic development (8<sup>th</sup> ed.). Dorling, Delhi: Kindersley (India) pvt. Ltd.

UKEssays. (November 2018). Relationship Between Education and Economic Growth. Retrieved from https://www.ukessays.com/essays/economics/relationship-between-educationand-economic-growth-economics-essay.php?vref=1

UNESCO (2010) The Central Role of Education in the Millennium Development Goals, MDG Summit High-Level Round Table, 22/09/2010, United Nations, New York Secondary education.

(http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/ED/ED\_new/images/educ ation\_for\_all\_intern ational\_coordination\_new/PDF/analyticalnote.pdf)

UNESCO (2012) UNESCO Global Monitoring Report. (http://unesdoc.unesco.org/images/0021/002180/218003e.pdf)

UN System Task Team on the Post -2015 UN Development Agenda. Education and skills for inclusive and sustainable development beyond 2015. (https://www.un.org/millenniumgoals/pdf/Think%20Pieces/4\_education.pdf)

Woessmann, L. (2016). The economic case for education. *Education Economics*, 24(1), 3-32.

World Economic Forum (2016) Global Competitiveness Report 2015-2016 http://reports.weforum.org/global-competitiveness-report-2015-2016/education/#view/fn-53

Zhamin, V. A., & Kostanian, S. L. (1972). Education and Soviet economic growth. *International Review of Education*, 18(2), 155-171.

## Encyclopaedia

Mitchell, A., et al. (Eds.). (1980). Compton's Encyclopaedia and Fact Index, (Vol.8). Chicago, USA: F.E. Compton Company.

Downey, D. W., et al. (Eds.). (1988). New Standard Encyclopaedia, vol. 5, Chicago, USA: Standard Educational Corporation.

Downey, D. W., et al. (Eds.). (1988). New Standard Encyclopaedia, vol. 7, Chicago, USA: Standard Educational Corporation.

4. Goetz, P. W., Gwinn, R.P. & Swanson, C.E. (Eds.), (1985). The New Encyclopaedia Britannica, (Macropedia Knowledge in Depth) Vol.18, (15<sup>th</sup> ed.). Chicago.

## Dictionary

Bannock, G., Baxter, R. E., & Davis, E. (1987). The *Penguin Dictionary of Economics* (4<sup>th</sup> ed.). London, England: Penguin Books.

Black, J. (2002). Oxford Dictionary of Economics (2<sup>nd</sup> ed.). New Delhi: Oxford University press.

Cowie, A. P. (ed.). (1989). Oxford Advanced Learner's Dictionary of Current English (4<sup>th</sup> ed.). Oxford: Oxford University Press.

## Reports

Nagaland State Human Development Report, 2016. Government of Nagaland, Department of Planning and Coordination, Nagaland. Report of the Nagaland Board of School Education, 2009-2016.

Nagaland Economic Survey-2012-13, 2014-15, 2015-16, 2016-17 & 2018-19.

Census of India, 2011- District Census Handbook, Kohima.

Census of India, 2011- District Census Handbook, Mon.

Education Statistics at Glance 2011, 2013, 2014, 2016 and 2018. Ministry of Human Resource Development.

Analysis of Budgeted Expenditure on Education- 2012-13 to 2014-15, 2013-14 to 2015-16 & 2015-16 to 2017-2018. Ministry of Human Resource Development, Government of India.

Statistical Handbook of Nagaland, 1986, 1991, 1996, 1997, 2002, 2004, 2009, 2012, 2014, 2016, 2018 & 2019. Directorate of Economics and Statistics, government of Nagaland.

Important Economic Indicators of Nagaland, 2011 & 2013. Directorate of Economics and Statistics, government of Nagaland.

AISHE Final Report 2018-19 (http://aishe.nic.in/aishe/home)

## **Internet Information**

http://aishe.nic.in/aishe/home (Documents and Reports) Accessed on 29<sup>th</sup> May,2020

https://mhrd.gov.in/sites/upload\_files/mhrd/files/Draft\_NEP\_2019\_EN\_Revised.p df (New Draft Education Policy, 2019) Accessed on 27<sup>th</sup> May, 2020 https://en.wikipedia.org/wiki/Human\_capital, accessed on 16th February, 2020

https://en.wikipedia.org/wiki/Mon\_district accessed on 21st June, 2020

www.censusindia.gov.in). (Census of India 2011, Meta Data)

https://www.india.gov.in/my-government/constitution-india/constitution-indiafull-text accessed on 25<sup>th</sup> April, 2020

http://www.unevoc.unesco.org/up/05\_Shanghai-Update\_EN.pdf. (Editorial, Shanghai Update (2016), issue 5.)

https://digitalmarketinginstitute.com/blog/what-is-the-importance-ofhigher-education-on-the-economy (What's the Importance of Higher Education on the Economy?, Dec 6, 2018)

http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/ED/ED\_new/images/educa tion\_for\_all\_intern ational\_coordination\_new/PDF/analyticalnote.pdf

## **Secondary Source**

1. Quinquennial Review of the Progress of Education in Assam 1932-37.

# Department of Economics Nagaland University

## Questionnaire for Ph.D. Research

Topic of Research: Education and Economic Development in Nagaland A Comparative study of Kohima and Mon District

Date of data collection: .....

Note: All information given will be kept strictly confidential and will be used only for the purpose of the Ph. D. Research only.

Research Scholar Saju Mathew Research Scholar Dept. of Economics Nagaland University Lumami, Nagaland Supervisor

Prof. Mithilesh Kumar Sinha Dept. of Economics Nagaland University Lumami, Nagaland

## **AREA OF STUDY**

State: Nagaland

District: (a) Kohima	(b) Mon	
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Block: .....

Village: .....

1. Name of the Head of the house hold<sup>1</sup>: Mr. /Mrs.: .....

.....

2. Age: .....

3. Sex: (a) Male (b) Female

4. Type of House: (a)  $pucca^2$  (b)  $semi-pucca^3$  (c) Kutcha<sup>4</sup>

5. Is the house electrified? (a) Yes (b) No

6 (a). Do you face the problem of water scarcity at home?

(a) Yes (b) No (c) Some times

6. (b). What is the source of the drinking water supply at home?

(a) open well	(b) pipe water supply to home	(c)	public	Pipe
(d) natural	source (stream)			

6 (c). If no direct water supply to home, how far is the source of water from the house?

(a) less than 100meters, (b) 100 to 500 meters (c) more than 500 meters

7.(a) At present any of your family members own the following? You can Tick ( $\sqrt{}$ ) more than one option.

	Tick $()$
Laptop/ Desk top Computer	
Mobile	
Cycle	
Bike/Scooter	
Car/ any four-wheeler (private vehicle)	
Four-Wheeler (commercial vehicle)	

7.(b) Did any of your family members had the following, <u>before 10 years</u>? You can Tick ( $\sqrt{}$ ) more than one option.

	Tick $()$
Laptop/ Desk top Computer	
Mobile	
Cycle	
Bike/Scooter	
Car/ any four-wheeler (private vehicle)	
Four-Wheeler (commercial vehicle)	

8(a). Do you have a bank account?

(a) Yes (b) No

8(b). Did you have a bank account before ten years?

(a) Yes (b) No (c) don't know

9. What is the main occupation (main source of income) of the Head of the family?
(a) Government job
(b) Private job
(c) Business
(d) Agriculture
(e) Any other, specify .....

.....

Family Members	Sex (M/F)	Marital Status (1- unmarried 2- married 3-Divorcee 4-Widow / widower)	age	Level of Education	Type of school	Type of College/ University	Employment@@	Place of Employment \$\$	Average monthly Income in Rupees (if
Head of the family									
Spouse									
Children-1									
(According to age)									
Children-2									
Children-3									
Children-4									
Children-5									
Children-6									
Children-7									
Children-8									
Children-9									
Children-10									
Children-11									
Children-12									

- \* 1= Class 10 or Below 2= Higher Secondary; 3 =UG (BA/B.Com/B.Sc. etc); 4= PG or above 5=Diploma or technical;
- # 1 Government; 2= private; 3= both (some classes in private and some classes in government)
- @ @ 1= Government Job; 2= Private Job; 3= Business/Self
   Employed; 4= Agriculture 5= Any other
- $\Rightarrow $$1=within the district 2= outside the district but within the state 3= outside the state but within the country 4= outside the country$

11. Educational level (passed) of the parents of the head of the family than Class 5 to 8 Class 9-10 Class 11-12 Graduation Illiterate between Class 5 Ph.D. Less PG Father Mother 12.(a) Number of persons in the family who has never attended the school, if any: (b) Female: ..... (a) Male: ..... (c) Total: ..... 12. (b) Reason for never attending the school (a) No school nearby (b) Financial problem (c) Did not feel the need (d) any other (specify) ..... ..... ..... 13. Number of illiterate persons in the family, if any?

(a) Male...... (b) Female..... (c) Total.....

14.a. Number of persons in the family who discontinued the study before completing class-10 :

(a) Male...... (b) Female...... (c) Total......

14. b. Reason for the discontinuation of study:

(a) Failure (b) Financial problem (c) Lack of school nearby

(d) any other (specify)

.....

.....

15 (a). Does the present system of education provide the necessary skill to find a job or to be self-employed for those who discontinue studies before Graduation?

(a) Yes (b) No (c) Cannot Say

15. (b) If No, do you agree that introducing a compulsory vocational course (like carpentry, automobile mechanics, driving, tailoring etc) along with general education from class 8 onwards can solve this problem to a great extent.

(a) Yes (b) No (c) Cannot Say

16. If the present system of education does not provide the necessary skill to find a job or to be self-employed what is your suggestion to improve the situation?

	Preference	Preference	Preference	Preference	Preference
	-1	-2	-3	-4	-5
(a)					
Education of					
the people					
(b) road					
connectivity					
(c) Industrial					
Developmen					
t					
(d)					
employment					
e) Any other					
Specify:					

17. Which is the major factor necessary for the economic development of the region? (Tick in the appropriate column in the order of Preference)

To no	To a	To a	To a	To a
extent	small	medium	large	very
	extent	extent	extent	large
				extent
		extent small	extent small medium	extent small medium large

18. To what extent do you feel that the education has an impact on.....?

19 (a). Where do you prefer to send your children for education?

(a) private schools/ colleges (b) government schools/ colleges

19 (b). what could be the major reason for that? (Tick only one)

(a) quality (b) prestige (c) nearness and convenience (c) any other (Specify)

20. Suggest any measures to improve the quality of education system in Nagaland

(a) by increasing the number of government schools/colleges

(b) by increasing the number of private schools / colleges

(c) By setting up more government aided private schools/colleges (means schools/colleges managed by private management but salary of the staff is paid by government so that students are required to pay fees equivalent to government school/ college fee in private school/ college)

(d) any other (specify)

.....

21 (a). Number of family members (Father, Mother and children only) studied or studying outside the district but within Nagaland: .....

21 (b). If there are, give the main reason for studying outside.

(a) lack of institution (b) quality (c) status (d) exposure (e) any Other (specify).....

22 (a). Number of family members (Father, Mother and children only) studied or studying outside the state but within the country: .....

22 (b). If there are, give the main reason for studying outside.

(a) lack of institution (b) quality (c) status (d) exposure (e) Other (specify).....

23(a). Number of family members (Father, Mother and children only) studied or studying outside the country: .....

23 (b). If there are, give the main reason for studying outside.

	(a) lack of institution	(b) quality	(c) status	(d) exposure	(e)
Other	(specify)				

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## **NB:** Explanations

<sup>1</sup>Head of the family/household: The head of household is a person who is recognised as such by the household. She or he is generally the person who bears the chief responsibility for managing the affairs of the household and takes decision on behalf of the household. The head of household need not necessarily be the oldest male member or an earning member, but may be a female or a younger member of either sex.

<sup>2</sup>**Pucca house:** A house, with its wall and roof (both), is made of pucca materials such as stones and cement, burnt bricks, cement bricks, concrete, or G.I/metal / asbestos sheets etc is called pucca house.

<sup>3</sup>Kutcha House: A house, with its wall and roof (both), is made of kutcha materials like unburnt bricks, bamboos, mud, grass, reeds thatch, plastic/ polythene, loosely packed stone, etc. are called kutch house.

<sup>4</sup>Semi-pacca house: A house with either the wall or roof is made of pucca materials and the other part is made of kutcha material is called semi-pucca house.

Thank you for your cooperation.