HUMAN RESOURCE DEVELOPMENT AS A STRATEGY FOR SOCIO-ECONOMIC CHANGE IN NAGALAND

Thesis submitted to Nagaland University
for the award of the degree of
DOCTOR OF PHILOSOPHY

SAKULEMBA LONGKUMER

DEPARTMENT OF GEOGRAPHY
AND RESOURCE MANAGEMENT,
SCHOOL OF SCIENCES
NAGALAND UNIVERSITY
HEADQUARTERS : LUMAMI
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CERTIFICATE

*This is to certify that the thesis entitled "**Human Resource Development as a strategy for socio-economic change in Nagaland**" submitted by Mr. SAKULEMBA LONGKUMER for the degree of DOCTOR OF PHILOSOPHY of this University is his original work and personal investigations. According to the best of my knowledge, this thesis has not been submitted for the award of any other degree of this University or any other University.*

I recommend that this thesis may be placed before the examiners for evaluation for the award of the Ph. D Degree of this University.

(T. LANUSOSANG)
Supervisor

ACKNOWLEDGEMENT

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While acknowledging the support and contributions made by all those named and unnamed, I take full responsibility for any error and uncalled for insertions in this thesis.

SAKULEMBA LONGKUMER

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CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

The development of natural resources, their proper use and conservation is possible only with the development of human resources. The people in a country form the most important element in the development of resources. The need and aspirations of the people, their skills and technical training also play an important part in resource development. In many areas the natural resources remain underdeveloped because the peoples' needs and aspirations are limited, and they do not possess the knowledge and skills needed for the development of the resources. Therefore, human resources need to be developed in order to exploit all the potential resources and to achieve economic prosperity of the region. Nagaland with an area of 16,579 square Km is one of the smallest states in the country. It is located in the southern extension of the Himalayas and it occupies the extreme eastern corner of the country (Fig: 1.1). Its total population according to 2001 census is 1990036 and the average density is 120 persons per sq km. Compared to other states human resource development in the state is not well developed. Physiographical factors do play a vital role in this respect. The eastern part of Nagaland which is characterized by high mountain ranges is less accessible and as such the people living there are less developed. Whereas, people in the western part are better well-off as their region is less encumbered with the burden of inaccessibility.

NAGALAND

Fig: 1.1

1.1 Significance of the study

The Human Resources are assuming increasing significance in modern organizations. Obviously, majority of the problems in organizational settings are human and social rather than physical, technical or economic. The failure to recognize this fact causes immense loss to the nation, enterprise and the individual. It is a maxim that productivity is associated markedly with the nature of human resources and their total environment consisting of interrelated, inter-dependent ant inter-acting economic and non-economic (i.e., political, religious, cultural, sociological and psychological) factors. In fact, the development of human resources forms the foundation for the development of any region. One cannot even visualize the economic well being of any region when this aspect of development is neglected. In Nagaland, human resources are perhaps the least developed of all the resources. The state's rapid stride towards economic and social advancement carries little meaning if its human resources are not developed to mobilize, organize and harness nature's bountiful resources. Therefore, the significance of the present study stems from the fact that it attempts to focus on the level of human resource development in the state and how this constitutes an important component of the development process. Further, it may be stated that though there are a number of literature on different aspects of Nagaland the present work is the first to study the

human resource development in the spatial context of Nagaland in an analytical way.

1.2 Objectives

The following are the objectives of the proposed study:

1. To understand the dynamics of HRD in relation to existing socio-economic framework of the state
2. To analyze and understand the comparative picture of the HRD in Nagaland and in India as a whole, and to locate the factors responsible for backwardness in this aspects
3. To understand the importance and influence of HRD on the socio-economics life of the state and
4. To streamline a matching HRD strategy in relation to changes which bear validity in the present globalization and information technology paradigm

1.3 Hypothesis

The basic hypotheses considered in the present study are:

1. The socio-economic institutional framework existing in Nagaland is consequential on the poor and inadequate HRD

2. The physical framework of the state has a great say in the level of development of human resources.
3. Globalization and emerging information technology open a new development vista for HRD in Nagaland.

1.4 Methodology

The proposed study of HRD needs to be based on the Primary and Secondary data sources. Fieldwork and the interviews of the people both in the case of rural and urban population constitute an important part of the study. Besides, the use of cartographic techniques, quantitative methods and field survey techniques form an essential component of the study. The present study is partly nomothetic and partly ideological, and the strength of this study lies in a systematic analytical framework.

1.5 Literature review

Review of the works already done by other scholars in the same line constitutes an integral part of the study. For, it is based on these approaches that the nature and scope of the ongoing research has to be defined. It is in this backdrop that the present section is devoted to the treatment of review of certain works in this line. The works included for discussion are not all inclusive for they are not easily

available, but the cross-section of studies that has been considered is expected to manifest the common forms encompassing the field.

Marshall's (1956)[1] work on The Principles of Economics is a commendable one. As one of the founders of modern economics, he dwelt on the priority of investment in human capital for economic development of a nation. He stated that "the production of wealth is but a means to the sustenance of man; to the satisfaction of his wants; and to the development of his activities, physical, mental and moral, whereby it is the chief means of the production of that wealth of which he is the ultimate aim". Another worth noting work in the same vein is that of Gideouse (1963)[2] in which he did an in-depth study on the Labours as a productive force by analyzing and comparing the investment of capital in the form of in-service training and formal education to the labours. Among the works done on 'developing country', the work of Robert Baldin (1966)[3] gives the characteristics of a developing country. He is of the opinion that the concept of a developing country is essentially a relative one and is generally used to denote the differences between the poor and the rich countries, where the essential difference that lie between these two types of countries is the wide gap in the living standard of the people. He brings out that the wide gap in the

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1. Marshall Alfred; *Principles of economics*. Macmillan and Co. Ltd. London 1956
2. Gideouse.H.D; College and university. Summer 1963 pp 424-427
3. Baldwin Robert; *Economic development of growth*. John wiley & sons. New York 1966 pp 9 -16

living standard of the people is the essential difference that lies between these two types of countries. Uthoff & Perina (1986)[4] studied the human resource planning in developing countries. They gave a detail insight into the interplay between population dynamics and socio-economic change and argued that besides, functional-awareness there is a need of labour force, its utilization and distribution among economic sectors and relevant spatial units. Another notable work is that of Lester (1966)[5]. He examines the manpower planning in a free society and argues that the main problem is that of the switch-over from the primitive to the most advanced machineries and processes. And this change-over in the space of a few years requires a gigantic task of manpower development, the success of which depends on meticulous planning, wise investment in education and concerned efforts to use scarce human skill effectively". Hilliard (1967)[6] while analyzing the dynamics of development stated that "manpower planning for national development is fundamentally similar to planning for the intelligent utilization of other resources. Although it presents certain unique problems, the development of human resources lends itself to the application of tested principles and practices at the right time are indispensable to the achievement of national goals". Harbinson (1975)[7] in his work

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4. Uthoff & Ernesto; *An introduction to Human Resource planning in developing countries*. Publish 1986

5. Lester.R.E; *Manpower planning in a free society*. Princeton university press 1966

6. Hilliard John.F; *Dynamics of development*. Universal book stall. Delhi 1967 p-93

7. Harbinson.F.H; *Human resources as wealth of nation*. Oxford university press. London 1975

'Human resources as wealth of nation' advocated that human resources not capital nor income, nor material resources constitute the ultimate basis for the wealth of nations. He opines that capital and natural resources are passive factors of production; human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organizations, and carry forward national development. Jerome (1988)[8] discusses the conceptual basis for bringing about the change from a reactive mode to a pro-active mode in industrial relation. He argues that given the alienation of the organized workforce, industrial relations situation today is formal, combative, political, legalistic and contradictory. The introduction of the developmental approach on the HRD concept to industrial relations has the potentials of changing IR from a reactive to pro-active mode, and contends that this change will be possible only if HRD overtures are negotiated with organized labour, bilateralism, democratic ownership and decision making in organization. The United Nations Development Programme (UNDP) published the first in a series of world report called "Human Development" in May (1990)[9] which was prepared by scholars and specialists from a very large number of countries. It redefined goals of development as "widening of people's choices" in the areas of

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8. Jerome Joseph in *Alternative approaches and strategies of human resource development* (Eds) T.V.Rao et.al; *Reactivity to productivity: Industrial relation and HRD*. Rawat publication. Jaipur 1988 pp 21-25

9. United Nations Development Programme; *Human Development Report 1990*. Oxford university press. New York.

health and nutrition (longevity), acquisition of knowledge (literacy), shelter, employment, environmental protection and upgradation, and most importantly, human freedoms. A Human Development Index (HDI) was proposed as a more realistic measure of per capita income level and gross domestic product. Armstrong (1990)[10] argues that human resource development programmes helps to ensure that the organizations have the people with the skills and knowledge it needs to achieve its strategic objectives. They aim to train new employees to the level of performance required in the jobs quickly and economically and to develop the abilities of existing staff so that performance in their present job is improved and they are prepared to take on increased responsibilities in the future. In Human Development Report (1993)[11] the UNDP clearly defined Human Development as 'development of the people, for the people by the people. Development of the people means investment in human capabilities, whether in education or health or skills, so that they can work productively. Development for the people means ensuring that the economic growth they generate is distributed widely and fairly". As a special contribution for Human Development Report, on the topic "Human resource development in the 21st Century: enhancing knowledge and information capabilities. Dae-Jung (2001) [12]

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10. Armstrong Michael; *A handbook of HRM.* Aditya books Pvt, Ltd. New Delhi 1990
11. United Nations Development Programme; *Human Development Report 1993.* Oxford university press. New York.
12. Dae-jung Kim, in Human Development Report 2001 by United Nations Development Programme; *Human Resource Development in the 21st century: enhancing knowledge and* information capabilities. New York. P-24

penned that the success or failure of individuals and nations, as well as the prosperity of mankind depends on whether it can wisely developed human resources.

Bhargava (1991)[13] in his paper explains the South Asia Association of Regional Cooperation's initiatives and programmes in the area of human resource development in member countries. He pleads that one should look at South-Asia as one geophysical unit to facilitate evolution of a regional approach and to effectively translate it into a result-oriented programme for human development. Vatsyayan (1991)[14] made a few limited observations on "Literacy and human development". The study is based on the experience in India and many other countries, where there has been a tradition of oral learning through which knowledge, learning and culture has been transmitted over many centuries, and stated that literacy is basic to human development. Further, it enunciates that the approach to literacy should be broadened to include oral learning, craftsmanship and attainments in fine art, museums and contribution handicrafts, to national products, as indicators of creativity and learning are essential features of human development.

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13. Bhargava, in Human development: an Indian perspective.K.K (Eds) K.L Dalal et.al; SAARC-*A regional approach to human development.* Vikas publishing House @ UNDP 1991 pp 131- 141

14. Vatsyayan Kapila(Eds) K.L Dalal et.al in Human development: an Indian perspective; *Literacy and human development.*Vikas publishing House @ UNDP 1991 pp 105 -110

The Relationship between an individual and the State is undergoing fundamental changes all over the world. There is a resistance to ever increasing interference and control by the State in the life of an individual. Human beings are once again opting for human freedoms in preference to a regimented life even when the latter is economically more advantageous. Trends towards greater democratization of socio-economic life imply new responsibilities for parliamentarians who become a link between the government and administration on the one side and the people on the other. National and international issues are more and more interconnected. So Vasant Sathe (1991)[15] pleads for a forum of parliamentarians, for human development strategies are backed by requisite political will, as expressed in legislative organizations. In the national context, The Ministry of Home Affairs (Government of India in 1960)[16] defined manpower planning as "the process of developing and determining objectives, policies and programmes that will develop, utilize and distribute manpower so as to achieve economic and other goals. It includes developing the necessary organizations and institutions, required to execute manpower programmes". Therefore, it says that the objectives of economic development for the under-developing countries as "any nation committed to rapid

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15. Sathe Vasant (Eds) K.L Dalal et.al in Human development: an Indian perspective; *A parliamentarians' forum for human development*. Vikas publishing House @ UNDP 1991 pp 27-31

16. Ministry of Home Affairs (Government of India); *A manpower programme for economic development*. New Delhi December 1960 pp 1-2

economic development must plan for the development of its manpower resources as an integral part of the planning for the development of other resources. Manpower requirements will be determined by the economic goals to be attained and the nature of economy visualized. Manpower requirements must flow from economic plants and activity. If the economy is to include steel and other heavy industries, medium and small-scale industrial enterprises as well as agricultural production, the whole range of occupation required by these industries must develop in appropriate number. Batra (1978)[17] in his book 'The Economy and Human Resources' made a critical assessment of the efforts made towards manpower planning in India, insofar as its role in the economic development of the country is concerned. As human resources are the nation's most valuable resources he emphasized that it should be planned in such a way as to provide employment to each and every able-bodied person of the working age willing to work at its maximum efficiency. Kumar (1991)[18] advocated that HRD is to be based on the principle of functionalism in education and training. The academic part of the knowledge is to be made functionally relevant and shown to be necessary for the types of jobs which a child is being trained for. He argues that human resource development policy can be implemented only by the educationalist getting a re-orientation to manpower policy

17. Batra.U.P; *The Economy and Human Resources*. B.R Publishing Corporation. Delhi 1978

18. Kumar Ashok; *Human Resource Development: An Interdisciplinary Approach.* Anmol publication. New Delhi 1991

and creating a parallel cadre of teachers in advocationaries within the ministry of HRD rather than the ministry of Labour. Ministry of HRD is to help in the generation of skilled manpower for scores of avocation, including those requiring academic rigour. Nair (1988)[19] on the career development strategies proposed that Career planning programme should not be tailor-made and there must be an effective system of tracking down high potential managers. He also suggested that appraisal, training and development and monitoring are essential for the success of career planning strategies. Chandra (1988)[20] attempts to present a blue-print for a HRD policy. He disputes that an efficient and satisfied workforce is the most significant factor in organizational effectiveness. Therefore, a policy should be evolved through a participative process to improve employee motivation and organizational effectiveness. In the article "Integrated HRD system-Intervention strategies", Athreya (1988) [21]cites an integrated and systems' view of Human Resource Development with the various mechanisms and their interlinkages. Jayagopal (1990)[22] on seeing the abundance of human resources but a dearth of

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19. Nair.R.R,in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *Career Development strategies*.Rawat publication.Jaipur 1988 pp 366-373
20. Chandra.S. in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *Human Resource Management Policy*.Rawat publication.Jaipur 1988 pp 1-9
21. Athreya.M.B in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *Integrated HRD system-Intervention strategies*. Rawat publication.Jaipur 1988 pp 375- 398
22. Jayagopal.R; *Human Resource Development: conceptual analysis and strategies*. Sterling publisher Pvt, Ltd. New Delhi 1990

manpower skills in India, tries to analyze the various ideas that have emerged on the subject of HRD and attempts to conceptualize an integrated strategy to achieve optimum results by suggesting some models including a Swedish model for a comparative study. Jain (1991)[23] gives a deep insight into the problems of human development in rural India. He draws upon his life-long experience and knowledge of rural and village industries as a member of the Indian Planning commission. He recommends that area planning should replace the current pre-occupation with sectoral planning and financial control should shift from 'expenditure targets to investment targets. Further, he added that voluntary agencies and non-governmental organizations should be given a more active role. Verma and Chand (1992)[24] attempt to study the growth of Indians during the last 41 years (1951-1992) of planned development, the role played by HRD in bringing about positive structural change, the availability of human resource in India during Eight plan (1992-1997) and the strategy for its development and increased employment. They argue that the quality of human can be greatly improved and its productivity can be enhanced by investment in human capital. Narayanan (1991)[25] compares the significant

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23. Jain.L.C, in Human development: an Indian perspective.K.K (Eds) K.L Dalal et.al; *Human Development in Rural India*. Vikas publishing House @ UNDP 1991 pp 102- 104
24. Verma.H.C & Chand Mahesh, in HRD practices: Assimilation and implication (Eds) B.S. Bhatia; *Human Resource Development in India*.Volume-3 Delhi 1992
25. Narayanan.K.R in Human development: an Indian perspective.K.K (Eds) K.L Dalal et.al; *Political Choices*. Vikas publishing House @ UNDP 1991 pp 34-39

diversities in human development attainments in different regions within India and his article give a fresh challenge to the political leadership for making strategies for human development. He elaborates that political choice is implicated in a development model followed by any country. Pattanayak (1998)[26] argues that in spite of the advanced technological development, human resource will remain at the core of each of the process in any industry. His work speaks about the concept and process of HRD including practical experience of OD-HRD intervention in Indian industries. Sundarajan (1991)[27] examines two cases to measure the added advantage and how resources are used in a more cost effective way by involvement of voluntary and non-governmental organizations. A literacy drive in Ernakulam district of Kerala and the other was a programme on health and nutrition improvement of women in the child-bearing age-group and infants in Coimbatore town in Tamil Nadu State. Monappa (1997)[28] in his book 'Managing human resources" tried to explore HRM concepts, issues and practices, targeted towards HR specialists in either the manufacturing or service sectors and also to all persons having to deal with HR issues. He also did some case studies to explore issues

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26. Pattanayak.B; *Corporate HRD*. Excel book. New Delhi 1998

27. Sundarajan.C.R, in Human development: an Indian perspective.K.K (Eds) K.L Dalal et.al; *Human Development Strategies: A case study in resource mobilization and targeting*. Vikas publishing House @ UNDP 1991 pp 59-69

28. Monappa Arun; *Managing Human Resources*. Macmillan India Ltd. New Delhi 1997

regarding HRM practices in a cross-section of organizations, both in the manufacturing and the service sector among multi-national and Indian companies. Sharma.N (2002)[29] addresses for a comprehensive, total approach to people problem through achieving a return in investment in human resources, as human being is the largest simple operating cost for most enterprises and confronts the most complex and challenging demand made on management that manage people. Parikh (2002) [30] in the article "social infrastructure as important as physical infrastructure" expressed that for human welfare, freedom from ignorance, diseases and fear is as important as freedom from want. Education, health care, water and sanitation services, and environment that promote health and social safety net which are required to provide such freedom cannot be obtained easily by all through private action and therefore, there is a need for public action. He collectively termed these facilities as Social Infrastructure, which is critical as physical infrastructure. He also addressed a set of questions to explore the needed policy actions and reforms in education and health sector.

Large public sector organizations in our country have shown a good deal of interest in designing and using HRD systems and mechanisms for improving their

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29. Sharma Jain Narain; *Human Resource Management.* A Mittal publication. New Delhi 2002

30. Parikh, for Indira Gandhi Institute of Development Research (IGITR); *India Development Report 2002.* University oxford press.

effectiveness. The works of Kolekar (1993)[31] analyzed the HRD philosophy and function while undertaking a case study of selected public sectors in the state of Maharashtra and Goa, and stated that there was a wide scope for their application in public enterprises. The development of suitable policies and mechanism in these areas would help to eliminate 'man-management' problems to a large extent and enable public enterprise philosophy to take deep roots and stand on its own. Kapoor (1987)[32] presents an inside view of the various phases of HRD in Indian Oil Corporation. He argues that for every organization, it is necessary to take some time off and look at its various dimensions as to check how it is going at any given point of time especially for an organization like IOC which has grown rapidly and radically in the past 25 years. The corporation has made the following as the areas of concern- (i) Customer satisfaction (ii) Employee satisfaction and (iii) Corporation profitability. BHEL is the largest engineering enterprise in India and has ranked as 12th largest manufacturer of power plant, equipment in the world. Sarthi & Rao (1987)[33] presents in detail the objectives to invest in HRD, and the various HRD

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31. Kolekar.B.D; *Human Resources Development-A philosophy and a function: A case study of selected* public sector undertaking in Maharashtra and Goa. Northern book centre. New Delhi 1993 pp 28-35.

32. Kapoor Bimal, in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *Indian Oil Corporation*. Rawat publication.Jaipur 1988

33. Sarthi.P & S.S.Rao, in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *BHEL*. Rawat publication.Jaipur 1988

efforts made by BHEL. Verma (1987)[34] in his paper on "Bank of Baroda' traces the history of HRD in the bank. The HRD effort in BOB focused on performance appraisal, manpower information system, manpower forecasting, job-rotation and revitalization of training. The HRD experiences in State Bank of India by Raman (1987)[35] provide further insights into HRD in the banking system. In the private sector, interest in developing human resources existed from the very beginning in some form or the other. Srivastava (1987)[36] traces the history of HRD in Larsen & Toubro Construction Group and presents briefly their work in various systems. Varughese (1987)[37] describes in detail, the potential development exercises undertaken by Crompton Greaves Limited, for rapid growth of the company which is manifested in the increase in job sites from 10 to over a 100 and manpower from 1200 to over 2600. Some of the key areas that HRD looked at in the effort to strengthen the organizational process are structure, job-responsibility, manpower planning, performance appraisal, training and OD. The unique feature of the system is the presence of HRD managers in each review discussion to give process

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34. Verma.K.K, in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *Bank of Baroda.* Rawat publication.Jaipur 1988

35. Raman.T.P, in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *State Bank of India.* Rawat publication.Jaipur 1988

36. Srivastava.C.M, in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *Larsen and Tourbo.* Rawat publication.Jaipur 1988

37. Varughese Susan (1987), in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *Crompton Greaves limited.* Rawat publication.Jaipur 1988

feedback. Sambarmurthy (1987)[38] describes this HRD experience of Sundram Fasteners.

Among the works done on tribals, the work of Prasad (1971)[39] which studied the evolution of literacy patterns among the tribals in Bihar, and argues that the efforts of the Christian missionaries in conjunction with the British government policy was greatly responsible for spreading the literacy spatially and raising its level among the tribals in the area under study. Mention may be made of Vidyarthi (1974)[40] which focuses on the multifarious problems faced by the tribal in different regions of the country. He accredits these problems mainly to their openness to exogenous influences. Another work worth commendable is that of Longchar & Vashum (1998).[41] It deals with work on the element of eco-world view in the tribal tradition to show an eco-way of life. It also observed that the organic relationship of all realities is the core of the traditional tribal world view, as the people lay great emphasis on the place or space and interdependentness of all creation. Also the work

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38. Sambarmurthy.M.S (1987), in Alternative Approach and strategies of Human Resource Development (Eds) T.V.Rao et.al; *Sundaram Clayton Limited.* Rawat publication.Jaipur 1988

39. Prasad.S, in Man in India LI (4); *Modern Educational among the Tribals of Bihar in the second half of the 19th century.* Publish 1971 pp 364-394

40. Vidyarthi.L.P, in Man in India LIV (1); *Tribal Development in Independent India* Publish 1974 pp 45-79

41. Longchar Wati & Vashum; *The Tribal Worldview and Ecology.* Tribal study centre. Jorhat. Assam 1998

of Sharma.C (1972)[42] and Sinha (1976)[43] is noteworthy. Sharma studied the relationship between the harsh environment and humankind, the environmental constraints under which people live, population structure, caste structure and the migration patterns of the region. Sinha studied the relationship between human habitation and its geographical milieu. He examines the rural settlements, the village patterns, house types and their functions in the case of different social groups inhabiting different pockets of the area. Ahmad (1986)[44] discusses the heavy concentration of literacy in the metropolitan cities like Delhi, Bombay, Madras, etc. The study sheds immense light on the imbalance growth of literacy which he assumes, has taken the colonial pattern. Dobhal (1987)[45], has done work on "Hill area development", in which he examined the characteristics of the hill region in terms of its physiographic, demography and settlement structure, land-use and cropping pattern, levels of productivity and income, functional organization, infrastructure and other services and amenities. The study is essentially spatial looking at development problems in terms of structure, process and stage in a spatial

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42. Sharma.R.C; *Settlement Geography of the Indian Desert.* Kumar brothers. Hauz Khas. New Delhi 1972
43. Sinha.V.N.P; *Chotanagpur Plateau: A study in settlement Geography*. K.Bpublication. New Delhi 1976
44. Ahmad.A; *Special lecture on 'Disparity in Literacy in India'*. Department of Geography.Gauhati University 1986
45. Dobhal.G.L; *Development of the hill areas*. Concept publishing company. New Delhi 1987

frame-work. The work done on the North East India by Singh. P (1982)[46] is worth noting, He surveyed the spatial distribution of human resources of North-East India at district, police station and sub-divisional levels, presenting varying patterns. At the district level, the level of human resources is demarcated to a great extent by contour lines. The plain districts have high to very high level human resources while the hill districts have low and very low level human resources. However, he argued that the type of human resources is controlled by the distribution of literacy, urbanization and industrialization, and the levels of amenities do not follow the level of human resources. He advocated that HRD should have link with the economic development. Burman (1984)[47] examined the poverty alleviation programmes in Nagaland and Manipur apart from the short range issues involved in linking up the approaches and the programmes with the social structural specificities of the sub-region and of the communities concerned. The study shows some of the communities of Manipur and Nagaland having traditional control over and access to resources but not well-off. Singh.K (2000)[48] attempts to present the comparative analysis of death rates and the association of income and education with mortality rates and to examine the influence of these variables on mortality rates in North-

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46. Singh.J.P; *Human Resources of North-Eastern India*. M.C mittal publication New Delhi 1982
47. Burman.B.K; *Towards poverty alleviation programme in Nagaland and Manipur*. Mittal publication. New Delhi 1982
48. Singh.W.K, in Journal of the North Eastern councils Vol.20, No.1 ; *Impact of Income and Education on Mortality in N-E States of India*.Shillong 2000 pp 22-29

Eastern states of India. On the basis of experience of these states, he found the significant relationship between income and education, and mortality rates. In addition to the above there are a good number of literatures on Naga society and on different aspects of Nagaland written by various writers. Among them Shimray (1985)[49] attempts to trace the origin of the Nagas of Nagaland and also of Manipur, notably the Tangkhuls. He elaborates on the socio-cultural traits of the Nagas. Ashikho (1992)[50] centers on the evolution of Naga society based on intense and original research of Naga social systems prevailing during Pre-British colonial period and Post-Independent India. He provides a coherent and integral approach to a major facet of a Naga-modern society. Ghosh (1982)[51] emphasis the history of Nagaland state from Ancient to Modern period. It takes notes of its geographical framework, flora and fauna, climate, population, religion etc. Horam (1975)[52] focuses on the factors that lead to social changes in the Naga society. He tries to point out the undesirable fall of these changes. T.Lanusosang (1989)[53] discusses on demographic features and their social implication in the spatial context of Nagaland. He also attempts to give a perspective of the social character of the tribes at the micro level and the peripheral view of the changes that are taking place.

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49. Shimray.R.R; *Origin and Culture of Nagas*.pamleiphi Shimray. New Delhi 1985
50. Daili Ashikho; *Nagas: Problems and Politics*. Ashish publishing house. New Delhi 1992
51. Ghosh.B.B; *History of Nagaland*. S.Chand and company Ltd.New Delhi 1982
52. Horam.M, in Man in India LV (2); *Social change in Nagaland*. publish 1975 pp 149-158
53. Lanusasang.T; *Nagaland: A study in Social Geography*. Kohima. Publish 1989

The work of Joshi (2001)[54] presents the state of Nagaland and all the related issues; social, political and economic. He discusses in an encyclopedic way the environment that is conducive to growth of insurgency, and the development process being badly hampered for years by insurgent movement. A. Lanunungsang (1983)[55] exercises on complexity of rural development programmes in general and tribal development in particular. He also examines emerging agrarian relation, rural-social structure, the Naga authority systems and the participation of the tribesmen in rural schemes basing on first hand sociological analysis from the field data collected in four representative villages. Mishra and Pande's (2000)[56] is a case study on the size structure and overall quality of employment in private sector service enterprises in Nagaland. It takes note of the socio-demographic condition of the state in order to highlight the need to generate employment opportunities. Haimendorf (1959)[57] examines the socio-cultural set-up and political organization of the Konyak-Nagas. Smith (2002)[58] describes the life of Ao-Nagas by indicating the process of both personal and social disorganization and reorganization observed among them due to their contact with the other advance community.

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54. Joshi Hargowind; *Nagaland: Past and Present*. Akasha publishing house. New Delhi 2001
55. Lanunungsang.A; *Rural Development in Nagaland*. Har Anand publication. New Delhi 1983
56. Mishra.B & N.M.Panda, in the Journal of the North Eastern Council Vol.20, No.2; *Size structure and* overall quality of employment in private sector service enterprises: A case study. Shillong 2000
57. Furer Haimendorf Christoph Von; *The Konyak Nagas: An Indian frontier Tribe*. New York 1959
58. Smith.W.C; *The Ao-Naga Tribe of Assam*. Mittal publication. New Delhi 2002

The above have touched upon the various aspects of Nagaland and its society. Cultural, political, social, economic, etc. have been discussed in great detail. However, the area under the present study i.e., human resource development and its implication has not been dealt with in any detail and analytical manner in the case of Nagaland. This present study makes an attempt to study this critical area of study which has so far not been attempted in an analytical way. It may have a great bearing on developmental planning and process of change in Nagaland.

CHAPTER II

PHYSICAL FRAMEWORK OF NAGALAND

Nagaland emerged as a state, out of the Naga Hills district of Assam and NEFA province in 1st December 1963 as the then 16th state of the Indian Union. It is located in the eastern-most part of India. Lying between 25° 6` N and 27° 4` N Latitudes and between 93° 20` E and 95°15` E Longitudes, it has an area of 16,579 sq. km. It is bounded by the states of Arunachal Pradesh on the north-east, Manipur on the south and Assam on the west. The state shares an international border with the adjacent country of Myanmar on its extreme east and it is almost equidistant from the tri-junctions of Indo-China-Myanmar in the North-east and Indo-Myanmar-Bangladesh in the south.

2. 1 Physical setting

The topography of Nagaland depicts a young mountain terrain feature, full of hilly ranges that break into a wide chaos of spurs and ridges. Barring only 8 % of plain area which is limited to Dimapur, Jalukie and adjoining areas of Assam, its altitude varies between 194 m and 3048 m above mean sea level. The mountain system of Nagaland is an off-shoot of the Himalayan mountain system running from North to the South. Orographically, the mountain system can be classified into four distinct ranges[59]:-

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59. Bhakta G.P: *Geography of North-east India*.Akash book depot 1992

(i) The Low Mountain Range: This mountain range lies along the Assam-Nagaland border, and is composed of rather low hills of altitude less than 1000 m. This range starts from Jalukie and runs in a northerly direction through the length of Nagaland. It encloses some of the richest agricultural valleys in Nagaland like Jalukie valley, Medziphima valley, Baghty valley, Changki-Tsurang valley and Tiru valley within the territory of Zeliangs, Angamis, Lothas, Aos and the Kongyaks respectively. Oil well is also located at Chumukedima area and Champang area in this range.

(ii) The Middle Mountain Range: This, consisting of mostly ranges and some lateral off-shoots runs in an east-west direction. Most of the villages of Naga-tribes-Angami, Chakesang, Pochuri, Yimchunger, Lotha, Ao, and Sema etc are located here. It is adorned with peaks which are higher than 1800 m and thick forests rich in flora and fauna. The Zanübou-Satoi mountain range is the easternmost as well as the most elevated of this system.

(iii) The Patkai Mountain Range: This mountain system forms the international boundary between India and Myanmar, the highest peak of this range being Saramati which is 3840 m in height. It is covered with thick forests encompassing

the biggest forest area of Nagaland. The Shiloi Game Reserve Forest and the Sangtam-kuki protected forest are located in this mountain system.

(iv) The Barail Mountain Range System: It runs in an east-west direction and becomes progressively lower towards the west. This mountain system extends from Nagaland to Manipur and from Manipur to Meghalaya. The Japfü range with Japu (3014 m) is the easternmost part of this system. The Dzükou in the easternmost part of the Barail mountain system is almost a table-land. This mountain range is the home of Angamis, Maos, Chakesangs and the Zeliangs

2.2 Geological structure

The Geology of Nagaland (Fig: 2.1) which constitutes the northern part of the Indo-Burma ranges is bounded on the western part by the pre-Cambrian Mikir Hills Massif and tertiary shelf sediments of Assam plains, and on the north-west by the Brahmaputra plains through lineaments[60]. On the eastern side lies the western

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60. Directorate of Geology and mining (1978) *Status of Geological Work and inventory of Mineral Discoveries in Nagaland,* Dimapur p4

central low land of Myanmar containing a gigantic thickness of Cenozoic sediments. In the north the state runs into the so called 'Eastern syntaxial bend' of the Himalayas and in the south it passes into the hills of Manipur and Cachar (Assam) enclosing tertiary sediments. In the South-east ward these hills run through Chin Hills and Arakan Yomas (Myanmar) into Andaman-Nicobar Island in the Bay of Bengal and link up with the chain of Islands off the coast in the Indian Ocean. The hills of Nagaland, created during the Tethyan orogenic belt form a part of the Alpine-Himalayan mountain chain. These are built up mostly by the thick sequence of Cenozoic and late Mesozoic sediments. These sediments are bounded on the eastern side by Ophiolite complex and shelf sediments along the eastern periphery of the state bordering Myanmar. In the western part of the state, the most prominent morphotectonic sedimentary crustal block is the 'Belt of Schuppen'.

The general rock sequence in the state can be grouped into:-

1. The Nimi formation of Paleozoic age.
2. The Ophiolite complex of upper cretaceous.
3. The Disang group of lower and middle Eocene age.
4. The Barial group of Eocene and Oligocene age.
5. The Surma group.
6. The Tipam group.
7. The Namsang beds of Mio-pliocene age.
8. The Dihing group of Pliocene-Pleistocene age.

The eastern fringe of Nagaland which is covered by Nimi formation extents from Mollen in the south to Saramati in the north for about 30 km in length[61].It is thrust over the ophiolitic complex from the east and it consists of crystalline limestone, quartzite, phyllite, etc. The ophjolite complex which also occurs in the eastern part of Nagaland is tectonically sandwiched between the Nimi formation in the eastern side and the Disang formation in the western side. Minerals such as magnetite, nickel, chromium, cobalt copper zinc, etc mostly occur in the area characterized by Ophiolitic complex of the state. Nearly half of the surface area of the state is covered by the Disang group of rocks comprising a very thick sequence of fly ash sediments that occurs in the intermediate hill regions. The Disang group gradually merges with the overlying Barial group of rocks which are predominantly mollasic sediments. The Barials which crop out as outlines over disang in some higher ridges in the intermediate hill areas are mainly confined to the 'Belt of Schuppen' in the outer hill areas. The main rock types found in the Barial group are well bedded sandstones, shale, clay and coal. The Barial rocks are followed by an unconformity over which Miocene Surma group of rocks are deposited. The Sumas that are Mollassic sediments of sandstones, shale and clay are exclusively confined to the 'Belt of Schuppen'. The Tipam groups of rocks which overlie the Sumas are also found in the 'belt of Schuppen', though they also occur in the eastern high hill areas

61. Op Cit, Directorate of geology and Mining (1978) p5

NAGALAND

GEOLOGY

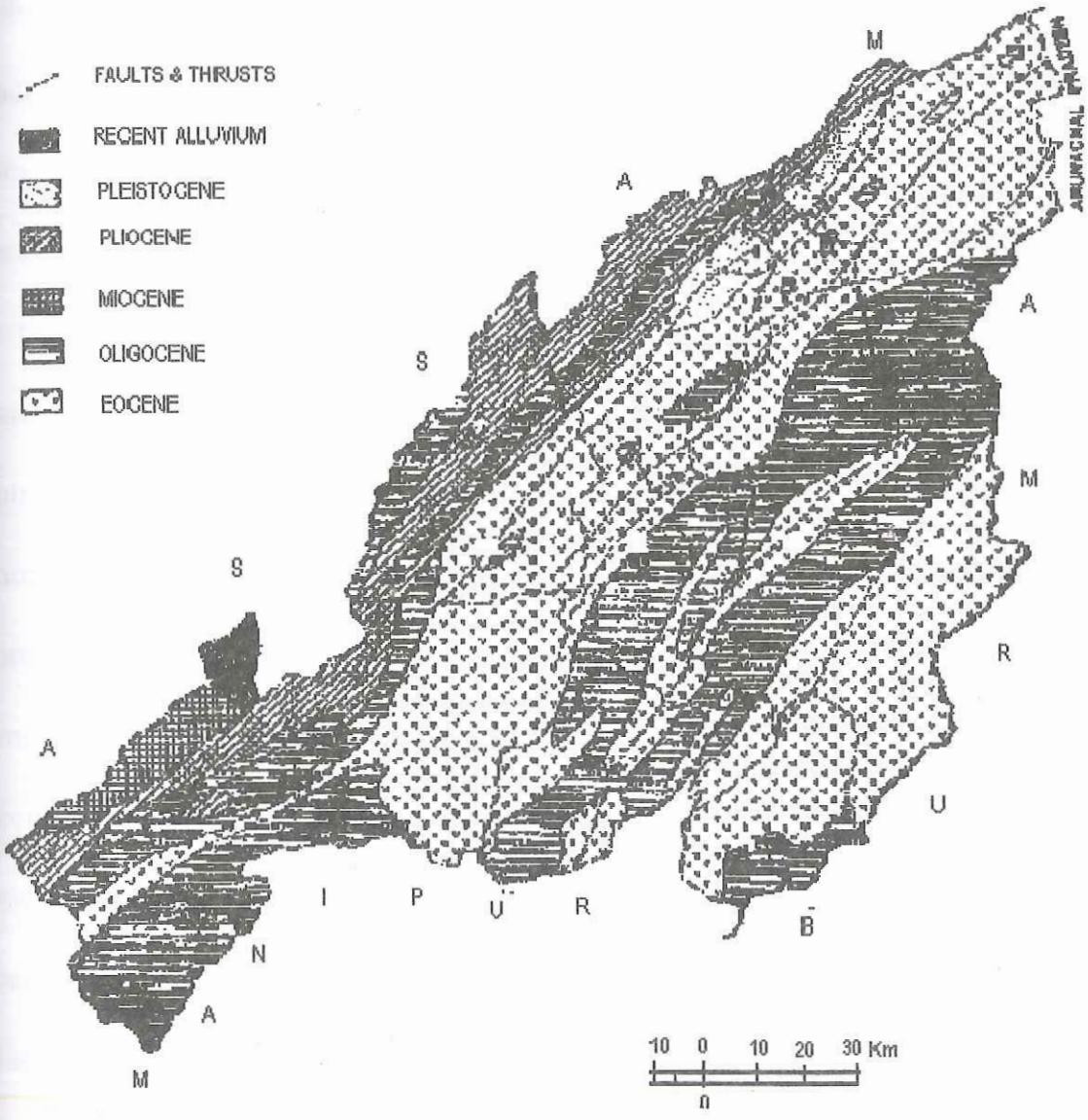

Fig: 2.1

where they overlie the Disangs. In the western part of Nagaland, the Namsang beds are found overlying the Tipam group of rocks which are absent in the intermediate and eastern hill ranges. The rocks of Namsang bed consist of a poorly consolidated Litho-sequence comprising conglomerate, grids, mottled clays and sandstones. The Dihing group, on the other hand, resting over the Namsang beds with a minor unconformity is found in a few places only in the outer areas of the state. Gravels, thin clays and sands are the main constituents of the Dihing group. Mineral resources are seems to be more in the eastern part of the state. The Nimi formation in the eastern fringe conceives the largest limestone deposits of the state. The associated sheared granites, schist and quartzite are found in this formation. The ophiolite belt also provides diverse mineral presence represented by podiform chromite, magnetite, nickel, cobalt, base metal, asbestos, etc. The Disang sediments spreading over a vast country of intermediate hill ranges too exhibit occurrences of limestone, brine springs, slates, black shales and pyrites. The Barial group of rocks occurring mostly in the 'Belt of Schuppen' is rich in coal. And the important coal belts in the state are in Borjan and Tiru-valley. The Tipam and Surma groups of rocks also hold promise for yielding glass sands, clays, iron laterites and building materials.

2.3 Drainage system

Nagaland being hilly is gifted with a number of both perennially and seasonally flowing rivers (Fig: 2.2). The major drainage systems in the state are Doyang, Dikhu and Tizu. These river systems are of dendritic nature. Dhansiri, Doyang and Dikhu rivers run towards west and flow into the Brahmaputra. On the other hand, the Tizu river system flows towards the east and joins the Chindwin River in Myanmar.

Doyang is the largest as well as the longest river in the state. It originates from Japvo hill in the southern part of the state. Raising near Mao in Manipur state it flows in a north-easterly course for about 72 km and ultimately turns sharply to north-west direction forming a rectangular drainage pattern. This river drains areas of different districts. In the south it flows through Kohima district and flows towards the eastern edge of Phek district. Flowing northward it enters Zunheboto district and then runs through Wokha district. After flowing towards south-west of wokha district leaves the hills and finally falls into Dhansiri in Sibsagar district of Assam. Doyang is joined by many streams in its central and western part. Chubi is a supplementary system of Doyang which flows southward from Mokokchung district and joins Doyang. Originating from Nerhema in Kohima district, Nzhu is another tributary of Doyang. It flows through Miphong in Rengma area and joins Doyang in

Wokha district. Dikhu is another important river in the state; it originates near Nuroto hill in Zunheboto district and flows towards north along the border of Mokokchung and Tuensang districts. In the north, it is joined by Yangyu, an important river in Tuensang district. From the confluence, Dikhu flows north and then turns west and passes through Mokokchung district and Mon district and flows past Naginimora (Mon district) to join Brahmaputra in Assam[62]. Dhansiri rising from the south-west part of Kohima district flows in the south-western part of the state. It runs in a westward course forming a natural boundary with north Cachar hills of Assam at the extreme south-west of the state. From Cachar, it takes an eastward direction and flows through Rangapahar-Dimapur plain in Dimapur district. Leaving the district it flows northward until it falls into the Brahmaputra. This river receives almost all the western and southern drainage of Nagaland. Tizu forms an important drainage system in the eastern part of the state. It assumes a special significance as it exposes the Ophiolite complex of Nagaland in its deep gorge sections providing vital geological information. The river rises in the southern part of Tuensang district and flows towards the north. After flowing in a northward direction it turns eastward and then to south-east direction joining the Chindwin in Myanmar. Zunki is an important tributary of Tizu River. It originates in the eastern

62. Gosh. B. B (1981) Nagaland District Gazetteers, Tuensang District, Government of Nagaland, Kohima. P3

NAGALAND

DRAINAGE SYSTEM

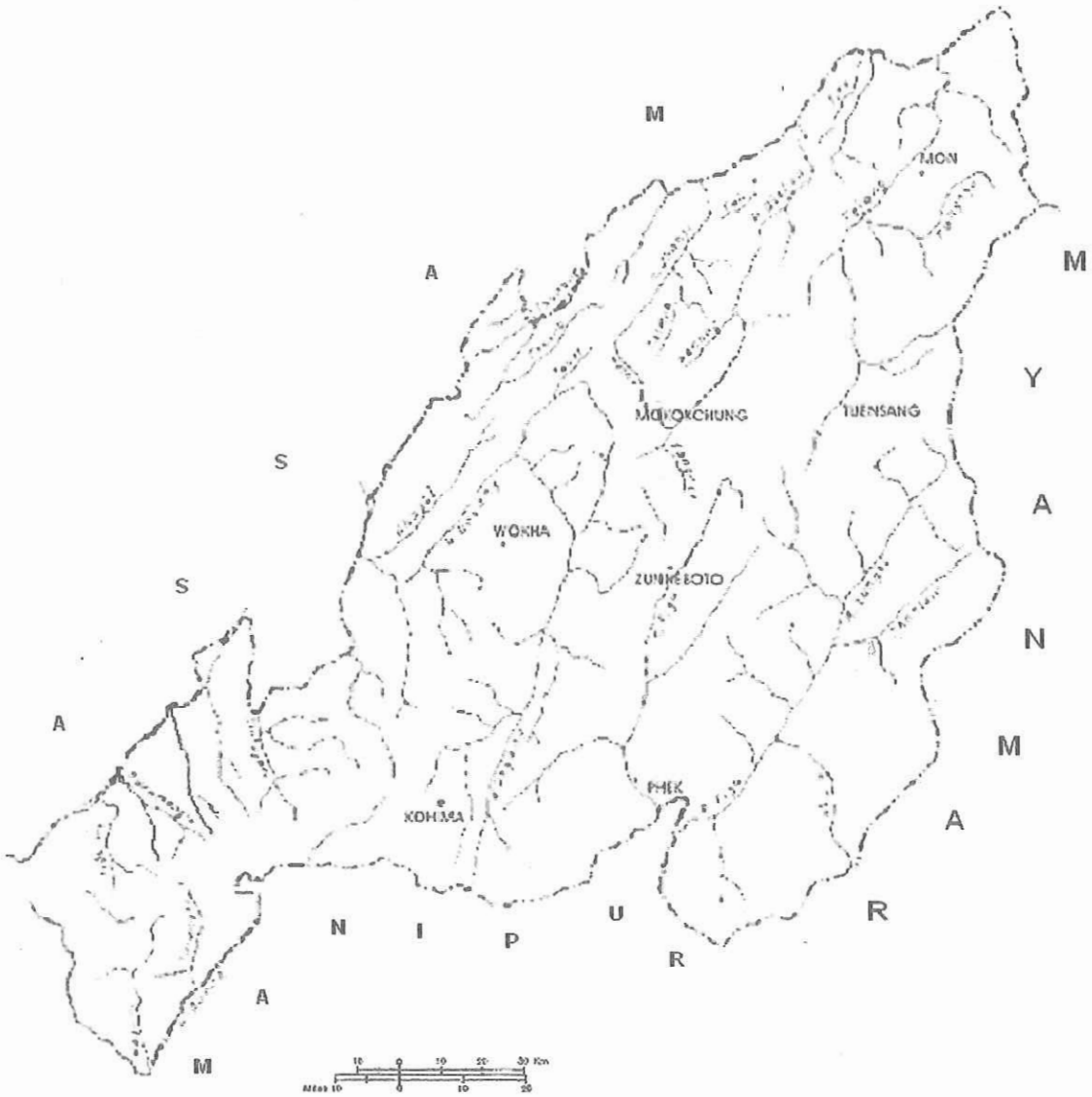

Fig: 2.2

corner of Tuensang district and flows southward to join Tizu in the south.Tizu are also called Ti-ho or Nantaleik. Milak which is known as Jhanzi in Assam is another important river that flows across Ao territory in Mokokchung district. Its source is found in the heart of Mokokchung town at an altitude of about 1,300 m above sea level. It flows northward until it leaves the hills and turn west-ward for the Plains near Amguri (Assam). In the plains it flows through Sibsagar district. Tsurong is another river which rises in the east of Lakhuni village and flows between Yachang and Lirmen villages on the one side, and Molung village on the other in Mokokchung district. Besides these rivers, there are a large number of rainfed rivulets, the beds of which remain dry during the dry season.

It can be stated that the river basins coupled with physiographic conditions have performed the role of natural ecosystem where the separate tribal groups have settled and have acquired definite and distinct characteristics. Naturally, these rivers form the territorial boundaries of different tribal groups in the state. This can be identified in the case of the Doyang River which acts as a demarcating line of several tribal groups such as Rengmas, Angamis, Lothas and Aos. Similarly, Dikhu running in the territory of Aos, Sangtams, Phoms and Konyaks, acts as the boundary. Furthermore, these rivers influence to a great extent the settlement, the social milieu as well as the economic pattern of the people in the state.

2.4 Climate

Nagaland has a typical Monsoon climate with variations from tropical to temperate conditions. It is generally cool in winter and pleasantly warm in summer especially in the interior places and higher hills. In winter the night temperature comes down from 4° Celsius to 1° Celsius in December, January and February which are the coldest months in the year. The temperature does not rise beyond 32° Celsius, and the average summer temperature is 22° Celsius to 27° Celsius. The average annual rainfall for about 7 months from May to October is between 200 cm and 250 cm. As it is in the subtropical areas Nagaland has four characteristic seasons: (i) Cold season (winter), (ii) Hot season (pre-monsoon), (iii) Rainy season (monsoon) and (iv) Cool dry season (retreating monsoon). The cold season begins in December with a steep fall in temperature, and it continues till the first week of February. During this period the cold wind which blows from the high ranges of Saramati in the eastern part of the state mixed up with the north-east monsoon winds and blows particularly over the eastern part of the State. January is the coldest month all over the state, when frost falls in a few places like Zunheboto, Phek, Kiphire, Aghunato, Pfutsero, etc. The average temperature in winter season varies from 10.48°C to 17°C; and the average rainfall is generally low during this period. It is followed gradually by hot season during March and April. From the first week of March with a gradual rise in temperature the pre-monsoon starts.

NAGALAND

MONTHLY AND ANNUAL RAINFALL

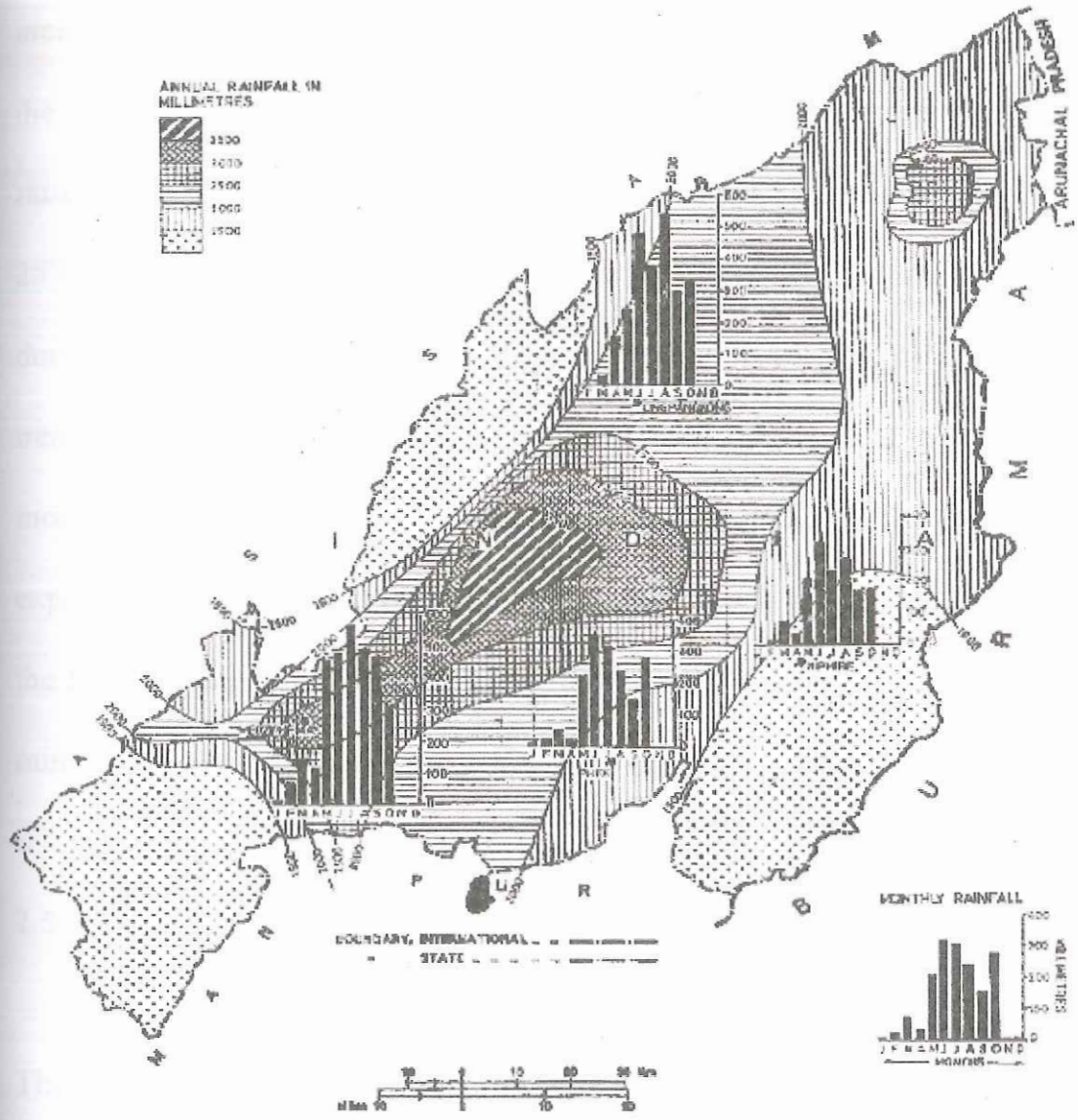

Fig: 2.3

This period is characterized by strong winds, accompanied by thunderstorms. The wind generally blows from south-west and at times the velocity raises up to 100 km per hr, making the sky clear almost throughout the day. The rainy season (Fig: 2.3) includes the months from May to September. It is the monsoon season which sets in the middle of June and continues up to the middle of September. The temperature raises upto 25°Celcius in July, and it is also during this month of July up to 25°Celcius, that the heaviest rainfall is experienced. The average relative humidity during this period is around 85%. The period from September to November is treated as cool and dry season as this period is neither too hot nor too cold. From the month of September the temperature as well as rainfall decreases and the land experiences the onset of retreating monsoon. And whenever there is depression in the Bay of Bengal the sky over the state becomes overcast and there is drizzling and rainfall heavier than that in the Gangetic west Bengal.

2.5 Soils

The soils in Nagaland except in the valleys and along the foothills are generally thin. Steep slopes, heavy rainfall and the extensive practice of Jhum cultivation are mostly responsible for making the soil cover thin. The materials are washed away from the hill-slopes easily and are deposited in the valley and along the foot of the hills. The state has a variety of soils (Fig: 2.4) depending upon the topographical and

NAGALAND

SOILS

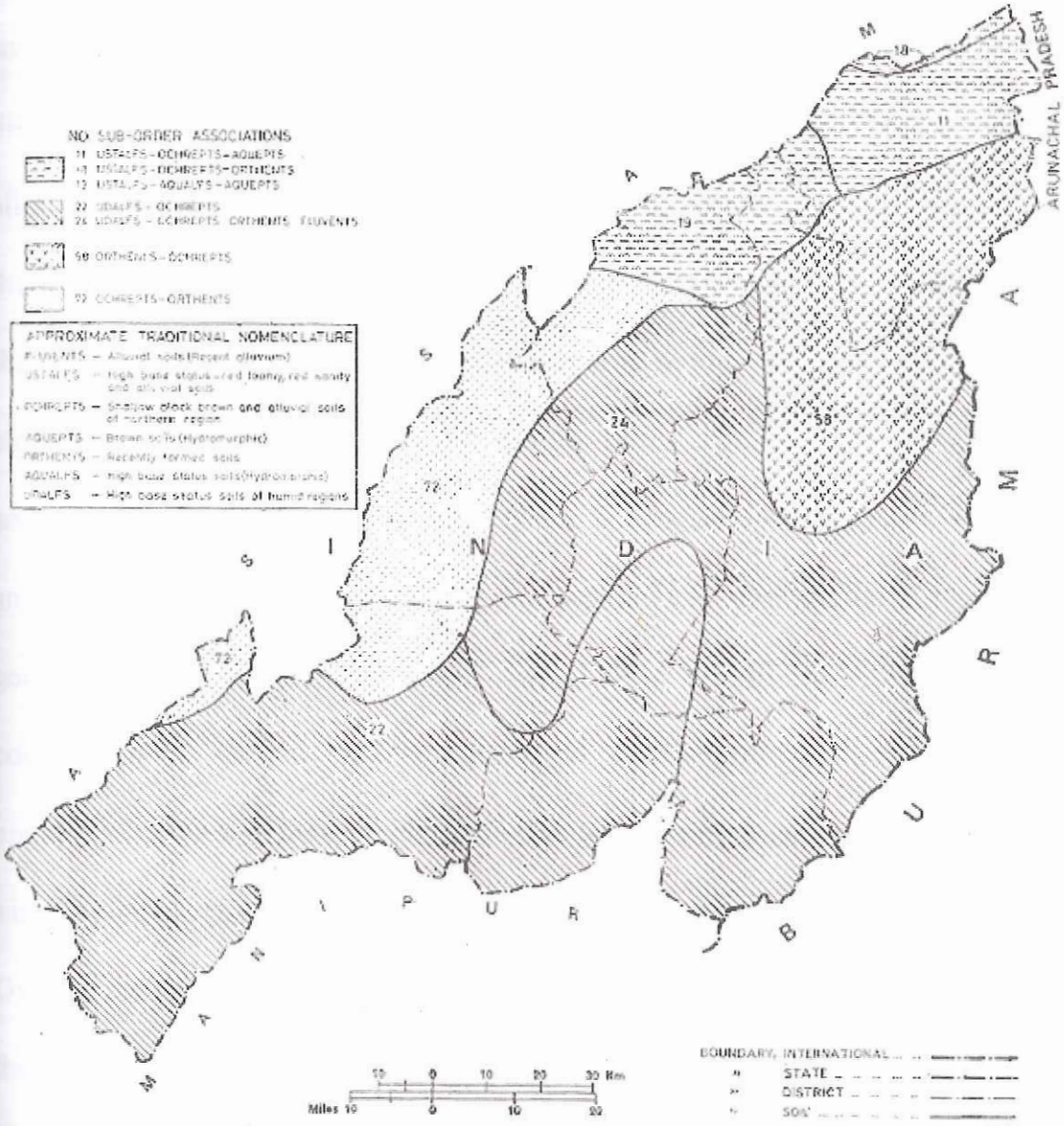

Fig: 2.4

geographical pattern of location. The soils of southern Nagaland covering the districts of Kohima, Phek, Zunheboto and the southern portion of Tuensang district mostly consist of high base status soils of humid regions, shallow black, brown soils. Recently formed soils and alluvial soils are found in the west covering the district of Wokha and Mokokchung. The soils are black and brown similar to the alluvial soils found in the northern India. In the northern part of the state covering the district of Mon, the northern part of Mokokchung and the district of Tuensang, the soils are of high base status, red loamy, red sandy and alluvial soils, shallow black, brown and alluvial soils of northern India[63], high base status soil and brown soils. Except in the valleys and along the foot hills with comparatively level land and gentle gradient, the soil cover in Nagaland is thin. Soils in Nagaland are in general, acidic and the PH value ranges from 4.8 to 5.62. The organic carbon contents of the surface soil are quite high, but the soils are very poor in available phosphate content. The soil texture varies from sandy loam to silty coarse sandy and sandy loam. Primarily, the soils of Nagaland can mainly be grouped under Entisol, Oxisols, Mollisols and Spodosole. Entisols are the alluvial soils occurring mainly in the valleys and foot hills of the western and south western part of the state. These soils are characterized by Ochric epipedam, low organic matter and lighter color. This soil comprises of the most important soil type for agriculture. Oxisols are strongly weathered soils characterized by low Base Exchange capacity, friable and

63. ICAR (1884) *Soils of India*, National Bureau of Soils Survey and Land Used Planning, Nagpur

massive structure. These soils occur mainly over the foot hills and lower ranges in mid-southern part as well as eastern part of the state, more or less up to an elevation of 750 m above sea level. These soils have a prolonged day period (rain shadow area) and are predominantly covered by degraded grass and bamboo forest. Mollisols occur over cool and temperate areas with temperate rain forest and are characterized by a mollic epipedam, high organic matter and high base saturation. This type of soil is mainly found in the intermediate high hill ranges in the state. Spodosol type of soil is mostly found in the central, southern and eastern part of the state which is of higher altitude with humid and temperate climate suitable for coniferous vegetation.

2.6 Natural vegetation

Though Nagaland is a small state, it is endowed with a wide variety of forest types (Fig: 2.5) on account of its unique geographic locations and a wide range of physiographic terrain. Based on the floristic composition, the forest of Nagaland can be primarily divided into two groups: Coniferous and Broad leaved forest. Coniferous forest is confined to Phek and Tuensang districts, bordering Manipur state and Myanmar; while the Broad-leaved forest is scattered all over the state. The variation in altitude, climatic condition and soil types have a great effect on the growth of vegetation in the state. Depending upon those factors, forest types in the

NAGALAND

FOREST TYPES

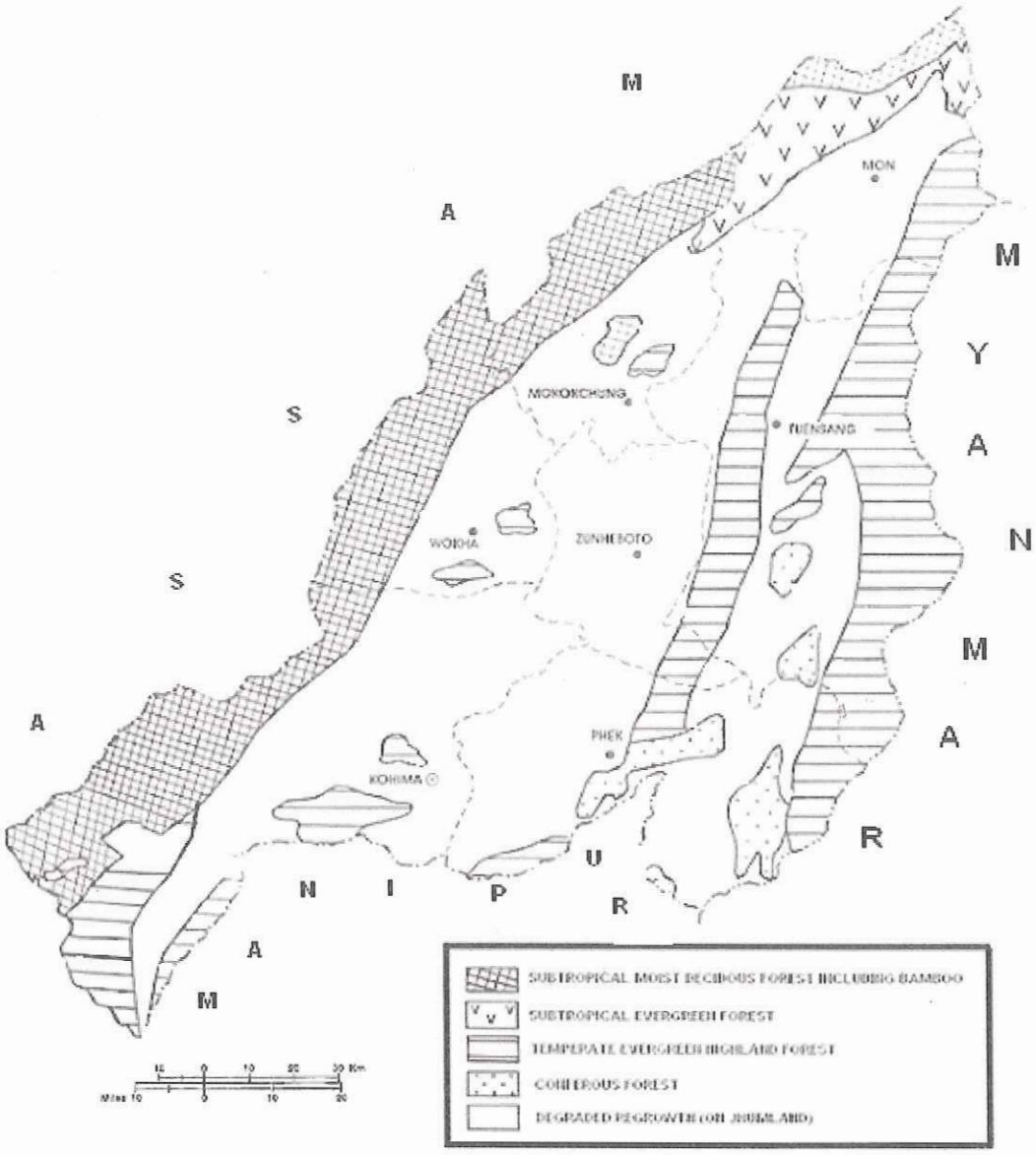

Fig: 2.5

state can be classified into: (i) Sub-tropical moist deciduous forest, (ii) Sub-tropical evergreen rainforest, (iii) Temperate evergreen highland forest, (iv) Coniferous forest and (v) Degraded growth. The Sub-tropical moist deciduous forest are confined to the elevations between 200 and 450 m above mean sea level and represent one of the major ecological types in the state of Nagaland with a rich floristic diversity. This forest covers the western and the north-western part of the state bordering Assam in the west and Arunachal Pradesh in the north, and the south-western foothills of the state. There is a bewildering wealth of species in this forest. Some important species of trees are hollock (terminalia myriocarpa), gamari (gmelina arborea), gogra (schima wallichii), amari (amoora wallichii), etc. There is a variety of canes (calamus) in this forest, especially in the foothills. Apart from the canes, numerous shrubs and herbs cover the ground. The thick vegetative cover of this forest is being lost in many places due to extensive jhuming and also due to unregulated felling of timber trees. The Sub-tropical evergreen forest is concentrated on the areas receiving an annual rainfall of about 200 cm and within a varying range of elevation from 400 m to 1400 m. This type of forests is found in the north-western part of the state and in around Tizit (Mon district). The flora is quite diverse, especially in the lower elevations where the forest merges with patches of semi evergreen forest. The forest exhibits multitiered nature of different storeys which are not quite distinct. Further, the species are very irregular. Some important species of trees are: hilika (terminalia myriocarpa), hingori (castonopsis indica),

koliori (cyclastemon assamicus), moj (allbizzia lucida), etc. Some of the important commercial species of trees are found in great profusion in this forest. Temperate evergreen highland forest is mostly confined to higher elevation from 1300 m to 3500 m above mean sea level. Due to heavy rainfall and high humidity the vegetation is quite luxuriant. It is found along the international boundary in the eastern part of the state and also in a narrow strip of land running from north to south in the middle part of the state. The top canopy is constituted by commercially important species such as champa (cichilia champaca), amari (amoora wallichii), simul (bombax ceiva), hollock (terminalia myriocarpa), urium (bischofia javanica), etc. The branches of these trees are heavily moss-laden and offer a suitable habitat for a luxuriant growth of epiphytic species, orchids and ferns. Coniferous forests are found mainly in the areas of colder and higher altitude in the south-eastern part of the state, of Tuensang and Mon districts. The elevation varies from 1600 m to 2000 m and the average annual rainfall is around 175 cm in those areas. Pines (Pinus insularis) are the principal species which occurs in almost in pure strands. Occasionally broad-leaved species such as Gogra (Schima wallichii) are also noticed interspersed among these pines. Degraded growth are mainly confined to old jhum fallows and are most widespread covering around 40% of the total area of the state. Besides these forests, there are number of reserved forest namely the Intangki, Rangapahar, Singpham, Fakim, Puliebadze. The Intangki and Rangapahar are located in the south western part of the state; and Singpham is situated in the north

western part of the state. The total area of land covered by forest in Nagaland is around 862930 hectare, constituting only 17.3% of the total geographical area. The low percentage of forest cover to total area in the state is mainly due to the practice of shifting cultivation in the rural areas, and the unregulated feeling of trees for timber and fuel. As a result, extensive areas get depleted every year; the natural fertility of land and its valuable forest resources are destroyed denuding the potential forest land. Moreover, the increase in human population, heavy incidence of grazing and pressure on land for agriculture and settlement are responsible for depletion of forest cover in the state. Realizing the gravity of the situation created by wanton felling of trees and the damage to the environment caused by the traditional practice of jhum activities, efforts are being made by the government of Nagaland to check the further destruction of forest.

2.7 Transport and Communication

Till 1957 when Naga Hills Tuensang area was formed there was only limited network of Transport and Communication in the state. However, after the statehood of Nagaland in 1963, a great stride in development works of roads was initiated; existing roads were widened and metalled. At present, Dimapur-Kohima-Imphal (National highway Number 39); Kohima-Mokokchung-Amguri (National highway Number 61); Mokokchung-Tuensang; Mokokchung-Zunheboto; Kohima-

Zunheboto; Kohima-Phek; Mon-Sonari; etc, state highways are all metalled. Apart from these, there are many other roads connecting every administrative outpost and villages are being metalled. At present, the total length of roads in the state is around 8690 Km (Fig: 2.6). After the formation of statehood of Nagaland, the Nagaland State Transport organization came into existence and buses started plying between Kohima and Dimapur from 1964. Gradually, the NST introduced buses on other roads. Now Buses ply from Kohima to Dimapur; Kohima to Wokha; Kohima to Zunheboto; Kohima to Phek; Kohima to Kiphire etc. Regular services ply from Mokokchung to Mariani; Mokokchung to Tuensang; Mokokchung to Zunheboto; Mokokchung to Amguri; Tuensang to Kiphire; Mon to Sonari; Dimapur to Guwahati; Jorhat; etc. The department operates services in 102 routes covering even remote villages in the state. The total fleet strength during the year 2000 was 223 numbers. The road development in Nagaland cannot be said as uniform due to constraints imposed by the topography and rugged terrain.

The western part where, the land is not so rough and rugged does not face much problem. Many communities in the eastern portion are without any sign of metalled road for approaching or connecting them with other places. However, development of roads has been going on in a rapid phase despite the inhospitable and rugged topography. Thus, it has shortened the social distance and has helped in the

NAGALAND

ROAD PATTERN, 1992

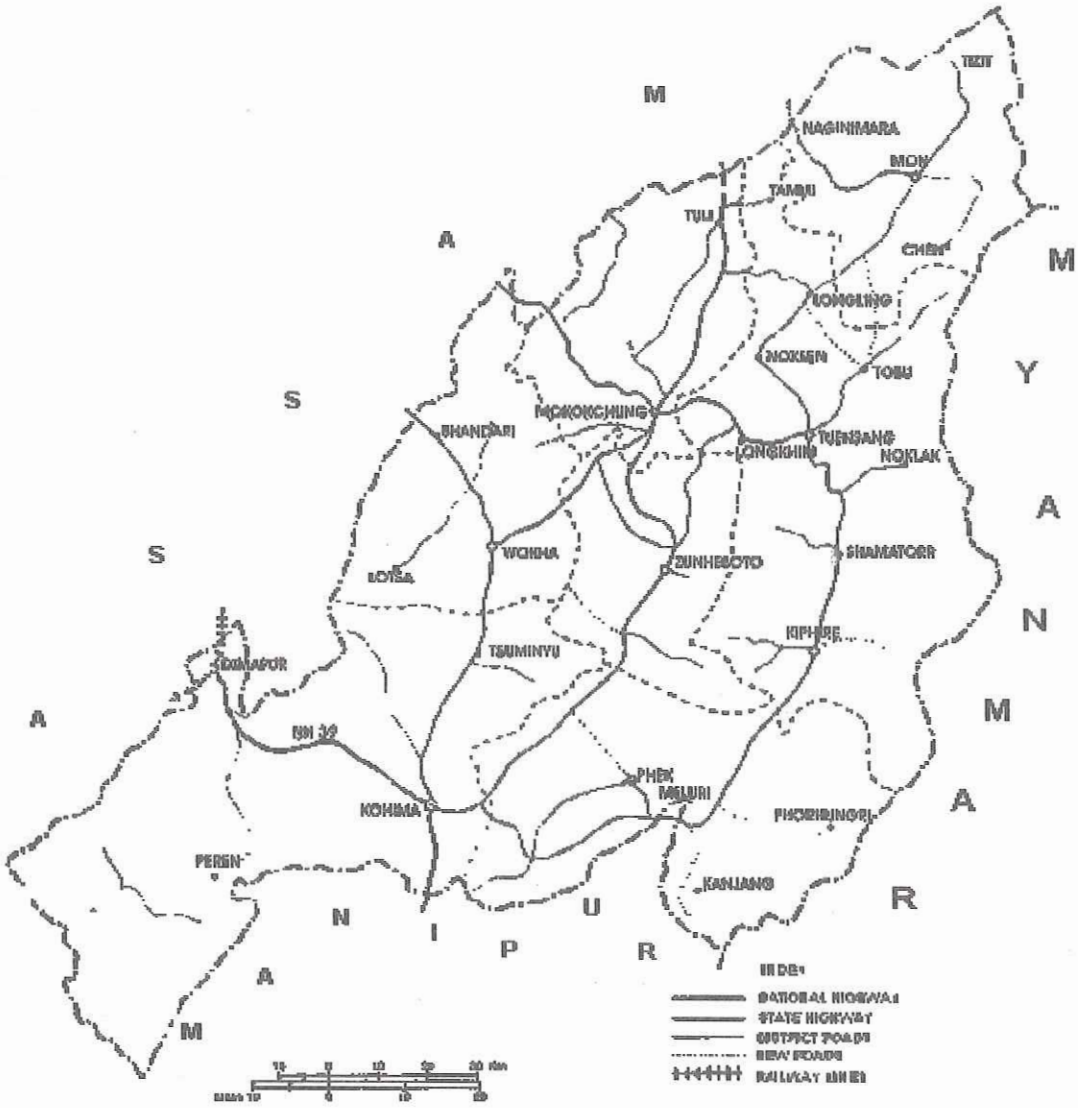

Fig: 2.6

convergence of fellow feelings among the people who were then in their own world separated by geographical distance and isolated from one another. The hilly topography of Nagaland forbids development of railways. The main line of the North East Frontier Railway from Guwahati to Dibrugarh passes through Nagaland only in a small area having a station at Dimapur. This station caters to the needs and commercial transactions between the states of Nagaland and Manipur with other parts of the country. Another railway line from Simulguri to Naginimora in Mon district was laid as a branch line of the North Eastern Frontier Railway. This line was initially introduced for carrying the coal of Borjan colliery through Naginimora. It serves the needs of the passengers particularly in the north western part of the state. Many passengers especially of Tsurangkong and Japukong area of Mokokchung District and also Ralan and Bandari area of Wokha district board from Moriani (Assam) to go to Dimapur or to the other part of the country. The only aerodrome in Nagaland is located at Dimapur. It was constructed during the Second World War for military purpose. Be that as may, it fell into neglect and remained unused for a long time after the cessation of the war. The need for it revived and was revamped with the outbreak of insurgency in 1956 for evacuating wounded soldiers by air. Only after the state of Nagaland came into being it was used as a regular airport for flights from Calcutta to Dimapur in the early 1960s. Now, it connects flights from Dimapur with Jorhat, Calcutta and Guwahati, etc.

During the time of Independence of India there were only three post offices in Naga Hills, located at Dimapur, Kohima and Mokokchung, and two extra departmental branch post offices at Wokha and Zunheboto. After the statehood of Nagaland, a postal facility was gradually extended to all other administrative headquarters and some villages. In 1970 the Nagaland postal division was created and headquarters was set up at Kohima. All the district headquarters are now served by telephone. In 1973 Nagaland telephone division was created and now it functions from Dimapur. Telecommunication services in the state have made significant progress in the last decade, though it is still very inadequate. At present, there are 326 post offices spread throughout the State. Mobile phone services have also been recently launched in the State.

CHAPTER III

ECONOMIC DEVELOPMENT AND DEMOGRAPHIC DYNAMICS

Before the arrival of the British, the people of Nagaland lived in numerous independent villages or 'village state'. What they cultivated and collected from their rich forest reserves influenced the lifestyle of the different Naga tribes. Self-sufficient local economies existed. Salt was a scarce commodity. It was imported from the western part of the country until the advent of the British. The exchange of goods was based on barter system. It was in the later part of the 19th century that changes in the social and cultural practices of the Naga began. The introduction of Christianity which was followed by the entry of the British administration marked the beginning of the use of currency in Naga economy. The first significant exposure and movement of the Nagas to the outside world was during the World War I. About 5000 Nagas went to France to work as commissioned labour and returned with money, which they invested in housing, and infrastructure development. This marked the beginning of monetary circulation in the Naga society. The Second World War was the succeeding key exposure to the outside world for the Nagas. The end of the war marked the beginning of the participation of Naga people in Secondary and Tertiary sectors at a minimal level.

The present economy of the state is basically dominated by the primary sector. It is particularly due to relative isolation, the adversities of terrain, inaccessibility to the rest of the world and non-availability of trained manpower. Remoteness and inaccessibility are also the predominant causes of regional disparities in the State.

The level of socio-economic development in the western regions of the State is higher in the eastern side. This is due to contiguity to Assam which provides better connectivity while on the Myanmarese side inaccessibility still presents formidable problems. During the post independence period remarkable changes and development have taken place in all economic sectors. Participation of workers in different economic activities has also increased.

3.1 Agriculture

Agriculture is the mainstay of the people of Nagaland. Even by 1950 almost 95 percent of the population was directly dependent on agriculture. But, gradually avenues of other means of living in the secondary and tertiary sectors of economic activities opened up, decreasing the percentage of people dependent on agriculture. The existence of steep hills in almost all parts of the state hinders large-scale agricultural pursuits. In most parts of the state the practice of Jhum cultivation is still in existence. But, the Jhum cultivation is not sufficient enough for the entire state because Jhum as a rule is cultivated for two seasons only and also the crops are entirely dependent on rainfall. The cultivators of the southern districts of Nagaland practice mainly wet rice terraced cultivation. The proportion of Jhum cultivation in those areas is 20 percent only whereas in Tuensang and Mokokchung districts it is as much as 80 percent. Terrace cultivation is practiced mostly in the southern part of

the state by Angami, Chakesang and Zeliangrong, tribes, etc. Food grain production scenario in Nagaland has witnessed a remarkable change during the last three decades mainly due to expansion in area under cultivation. Food grain production has increased from 62,00M.T during 1964-65 to above 283.45 thousand M.T by the end of 1998-99 with area coverage of 212.64 thousand hectare now[64]. The productivity has also increased from 700 kg to 1300kg per hectare of land. This has been brought about due to screening and selection of potential locally cultivated varieties; use of improved seeds, better agronomic practices; use of manures and fertilizers, plant protection measures, increase in irrigation facilities and use of small farm powers and machineries. Lately, the Government of the state has expanded its activities by introducing tea, pulses, sugarcane, oilseeds and other cash-crops for cultivation.

3.2 Horticulture

The state of Nagaland is predominantly hilly, and the crops are grown under rain feed situation. The topography, soil and the climatic condition of the state are more favorable for growing of horticultural crops. Although, the staple food in the state is rice, earnings made by the rural population are through the sale of horticultural

64.Directorate of Agriculture (1980-1981) "*Report on the Agricultural Census of Nagaland*" Government of Nagaland, Kohima.

corps in the local markets. The potentiality for the cultivation of fruits, vegetables, species, plantation crops, medicinal and aromatic plants, flowers and mushrooms, etc in the state is great. At present there are about 14 Government run nurseries and farms which are mostly located in the western part of the state. Lately, the development of fisheries is making its impact on the economic scene of Nagaland. The state government is making tremendous efforts for the development of fishery sector. 3700 hectares of water area have been developed in which 4500 M.T per annum of fish was produced during 1999- 2000. Conservation of rivers and streams for protection of natural flora and fauna to maintain ecological balance is one of the major thrusts of the state government. For this purpose riverine fisheries scheme has been implemented since 1985-1986. Doyang hydro project which has a capacity of holding about 6000 hectares of water area is located in Wokha district. It is a promising project for the development of fisheries in the state and efforts are on to rear fish in this reservoir. The paddy-cum-fish culture is traditionally practiced in few pockets of the eastern part of the state, especially in Phek and Kohima districts and few areas in other parts of the state along with paddy cultivation. Certain scheme has been implemented by the government to boost such farming in the state by supplying fingerlings at subsidized rates to the farmers. By the year 2000 about 100000 hectares of paddy field was being utilized for fish culture with paddy cultivation. Fish farmers development agency; a central sector scheme had recently

been implemented for the development of intensive aquaculture. There are at present 8 units of FFDA around 2700 hectares water area under this scheme.

3.3 Animal husbandry

Nagas are fond of rearing pigs and keeping poultry in a traditional way. An average Naga family owns two to four pigs. Cattles are also widely reared by the people and steps are being taken now by the state government by extending facilities to the people to enhance the economy in the state. According to the sample survey report conducted by the government during 1997-1998, there were 383308 heads of cattle; 36131 buffalo; 33345 mithun; 2363058 poultry birds in the state. During the same period 47000 tonnes of milk were produced; 465 lakhs number of eggs produced and 1711000 tonnes of meat were produced. Animal health services are predominantly in the government sector. The existing 4 veterinary hospitals; 27 veterinary dispensaries; 60 veterinary outposts provides facilities and services for the implementation of health care programmes.

3.4 Mineral resources

With the exploitation of various minerals in different parts of Nagaland, the state has been brought under the mineral map of India. Coal and lime stones are now

commercially extracted; Coal seams are present in the Basal Argillaceous formations in the Mokokchung district. Occurrence of coal has been reported from Dikhu river area west of Namsang-Chingchang area lying between the border of Mon and Tuensang districts. In Mokokchung district the coal seams are located in the vicinity of the settlements of Lirmen, Nokpu, and Lakhuni. Nazira coal field and its extension appear to be important. In this coal field coal is mined in Borjan in the Saffrai area. Coal also occurs at Jhanji valley, 13 km south west of Nazira field. In the eastern part of the state investigation for limestone, nickel, cobalt, chromium and clay deposits has been carried out. Marble occurs near Myanmar border in Tuensang district. Magnetite deposits have been located in Pokphur tract in Tuensang district and eastern part of Phek district. Limestone containing very high calcium-oxide and low insoluble has been found in Nimi village of Kiphiri in Tuensang district. Limestone reserves are also found in Phek district. Building materials such as sandstone, slates, stream gravels and boulders are found in large quantities. Sandstones are found near Kohima, Mokokchung and Wokha districts. Slate occurs and is mined in Tuensang district which are popularly used for roofing purpose. Besides, salt is produced from brine water obtained in some of the wells located in villages of Yisi, Purr, and Ozeho in Kohima district. In the western part of Nagaland surveys have been conducted by the Assam Oil Company and the Oil and Natural Gas Commission. It is revealed that this part holds good hydrocarbon prospects in the Champang area in Wokha district.

3.5 Industry

Nagaland is still in its infancy in the field of industry. Lack of raw materials, power, market, transport and technical labour are some factors that hinder the development of industries. In 1963 when Nagaland attained its statehood, industry was almost non-existent in the state. Since then, the government has initiated several schemes, such as establishment of industrial centers, modernization of handloom and handicraft sectors, promotion of garment industries, development of agro-forest and mineral based industries. Recently, a new industrial policy has been formulated to boost industrial consciousness and development, and at present a few medium scale industries have been set up in the state. A mini cement plant at Wazeho in Phek district is functioning under North Eastern Council. One fruits and vegetable processing and cold storage plant is located at Dimapur. It was commissioned in 1995 with an installed capacity of 5MT per day and this unit has been producing fruit squash, slice as well as bamboo shoots, etc, for marketing as well as for export purpose. Another medium industrial unit the Mechanized Bricks Co. Ltd is located at Dimapur with a capacity to produce one lakh bricks per day. Even though the industrial landscape the state is marketed by had only a few medium sized industries, it abounds in cottage and small scale industries which are found in almost all the villages. Traditionally, Nagas are used to weaving, bamboo and cane works, carpentry and wood carving, black smithy and potteries. It is evident from the fact

that the government has been putting a great effort for the development of the cottage and small scale industries. Nearly 1059 units of small scale cottage industries are permanently registered. Among those units 18 medicinal and essential oil demonstration farms including one training cum production center has been set up; 4 bee keeping demonstration farms; 1 carpet weaving training centers; 1 dying center; 4 handloom weaving training centers; 1 pineapple fibers cum spinning plant and 1 cottage match factory are the important small scale industrial units. The latest census on handloom reveals that there are about 43,000 weavers who depend on the handloom industries as full time profession for their livelihood. At present, 4 mini industrial estates have been identified at Chuchuyimlang, Saring in Mokokchung district; Baghty in Wokha district; Viswema in Kohima district; where all necessary infrastructures have been built to promote the industries.

The total population of Nagaland according to 2001 Census is 1,990,036 out of which male forms 1,047,141 and females 942,895. It is distributed over a geographical area of 16,579 Sq. Km. The state forms 0.19 per cent of the country's total population. It occupies the 25th rank in population size amongst all the states and union territories in the country. The Schedule Tribe constitutes 89.14 per cent of the total population. Thus, the composition of population in the state is almost entirely tribal.

3.6 Population Growth pattern

Population growth means the increase in the size of population which creates a number of changes in a region or country. It includes the changes in the value of land, man land ratio, and also in the social and economic order. The unprecedented growth rate of population is a serious concern in many developing countries including India. It restrains the social-economic development, employment, education, health, and savings and also increases environment damage and population pressure upon the limited resources of the less-developed world.

Although the problem is not severe, it has significant bearing on Nagaland, which is hilly in character with a limited arable land. Therefore, increase of population by 1859.66 per cent during the last ten decades (Table 1) is inevitably fraught with many complexities. A detail study of early population growth in the state is not possible due to the non-availability of data on population prior to 1901. The regular census operation was conducted only from 1901 in the Naga inhabitat areas, the formerly Naga Hills District. The absolute increase of population in 1911 by 47,488 or 46.76 percent over the figure of the previous census was higher than the corresponding all India average growth rate of 5.15 per cent. The increase in population is mainly due to the annexation of more areas which were not covered

Table 1

Growth of population, Nagaland 1901-2001

Year	Person	Decadal variation	Decadal variation (%)	Males	Females
1901	101550			1473	50077
1911	149038	+47488	+46.78	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	+16309	+8.60	106551	106424
1961*	369200	+28975	+14.07	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	+64.5	1047141	942895

Source: Census of India 2001.

* In working out decade variation and percentage decade variation 1951, and 1961, population of Tuensang district has not been taken into account, as the area was censuses for the first time in 1951. In 1951, Tuensang was censuses for the first time for 129.5 Sq.Km of area. In 1961 census, the censuses area of Tuensang district has increased to 5356.1 Sq.Km.

under the Naga Hills District administration. Besides, it is attributed to the migration of the Kacharis who came to the foothills in search of better lands[65]. However, throughout the decade 1911-1921, the increase of population is comparatively lower than the previous one. The universal influenza epidemic of 1918-1919 was the cause of growth retardation which took a heavy toll of lives more in the hill districts except Garo Hills and Manipur[66]. After the population of the district being decimated by the epidemic in the previous period, there was indeed a period of

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65.Census of India (1951): *Assam, Manipur and Tripura,* Vol.XII, part 1-A, pp. 54-55.

66..Ibid. pp. 54-55

population recovery in the following decade. The increase was largely because of the decline in death rate as a result of control over epidemics through the extension of medical services. However, the growth of population was comparatively slow during the period 1931-1941. The fall in the growth rate was due to the incidence of unhealthy condition which led to the outward migration of non-locals and death of many people due to the outbreak of World War II. During the decade 1941-1951, inspite of the Japanese invasion of the Naga territory causing great disaster, the population rose from 6.04 per cent to 8.60 per cent. In this period, out of the total increase of 16,309 persons, the displaced persons accounted only 333, with 21 persons in the urban area and 312 persons in the rural area of the district[67]. The rest was due to the addition of people from some areas of the present Tuensang district in the census and also due to the natural growth of population. Significant higher rate of variation during the decade 1951-1961 was also due to the improvement in medical and health services and the inflow of migrants from outside the region. The number of migrants was 17579 contributing nearly 4.76 per cent of the total in 1961[68]. In the period from 1961 to 1971, the abnormal growth rate of population was basically due to (a) the entry of outsiders in the wake of the administrative network and the spread of development opportunities, significantly after the

67.Ibid. pp. 56-57.

68.Census of India, 1971. *Nagaland series-15, part II-D, migration tables,* p-4.

NAGALAND

GROWTH OF POPULATION

1901 – 2001

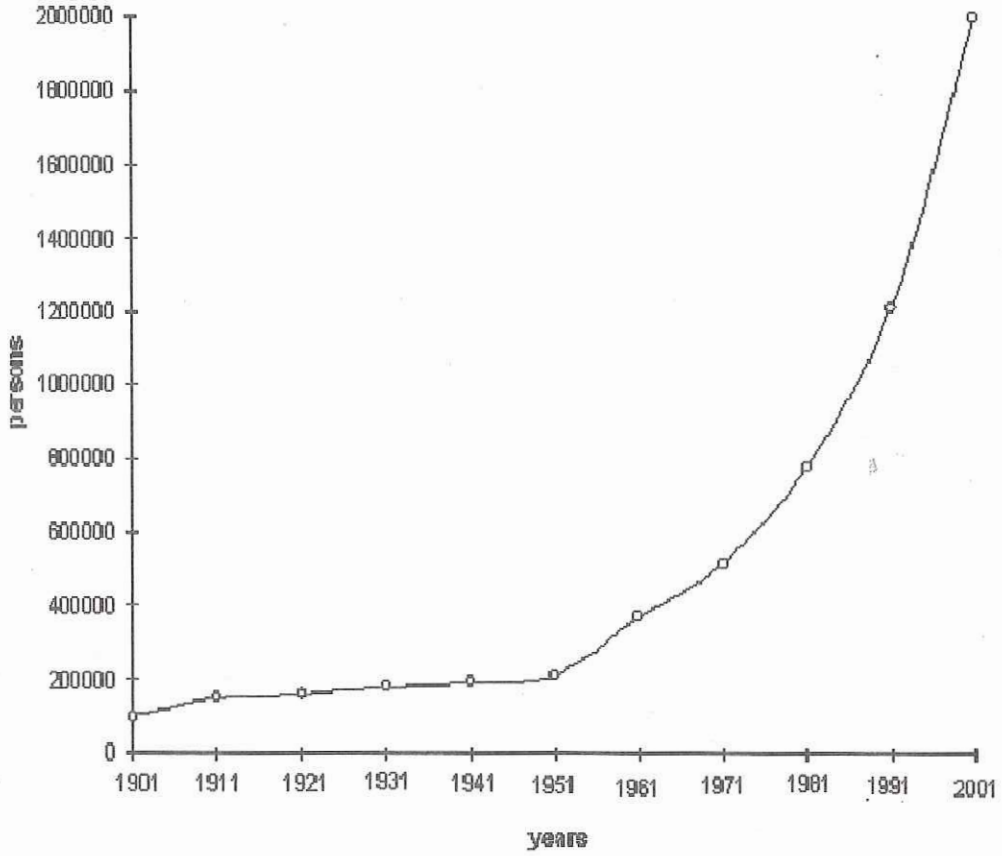

Fig: 3.1

attainment of statehood in 1963. During the decade 1971-1981, out of the total population in 1971, 9.58 per cent were immigrants from different regions of the country and also from the neighbouring countries[69]. The decadal variation of population growth (950.05 per cent) during the period 1971-1981 is essentially a continuation of the previous decade. In 1981, out of the total population of 7, 74,930 persons 81,505 persons or 10.52 per cent were immigrants, where 69,137 persons from other states and union territories of the country and 12,368 persons from other countries[70] The population growth rate of 64.5 percent during 1991-2001 is recorded as the highest growth rate amongst the states and union territories in the country which recorded an average of only 21.54 percent during the decade (Fig: 3.1). Thus, it is evident from the above that the growth pattern of population in Nagaland has set about in an accelerated rate since the Independent period.

3.7 Spatial Pattern of Population Growth

In regard to decennial growth of population in Nagaland, the districts do not portray a uniform pattern. It is evident from the Table 2, that Wokha district has the highest growth rate (95.15 per cent) during the decade 1991-2001. It is mainly due to the advancement in economic development, propagation of education, improvement of

69. Ibid. pp. 12-20.

70. Census of India, 2001.

living standard and condition of sanitation. The exceedingly high rate is recorded for Sungro Circle (155.62). The other Circles which are higher than the state's average are Lotsu and Ralan followed by Wokha Sardar and Wozhuro (Appendix I). The high growth is attributed to natural growth and partly to the inflow of migrants. The circles like Aitepyong (41.63) and Chukitong (53.42) in the district, however, reveal contrastingly low growth rate.

Table 2

Decennial growth of population in districts, Nagaland, 1991-2001

District	Total Population		Decennial Growth rate (%)	
	1991	2001	1981-91	1991-2001
Nagaland	**1209546**	**1990036**	**56.08**	**64.52**
Kohima	209630	310084	54.97	47.91
Phek	102156	148195	44.66	45.06
Wokha	82612	161223	43.47	95.15
Zunheboto	96218	153955	57.32	60.00
Mokokchung	158374	232085	52.00	46.54
Tuensang	232906	414818	52.89	78.10
Mon	149699	260652	89.64	74.11
Dimapur	-	309024	-	-

Source: Census of India 2001.(Dimapur district was recognized only after 2001)

Higher death rate among the inhabitants and the very nature of rugged terrain limiting easy access of outsiders to the areas are the factors that are responsible for the low growth rate in the circles. Tuensang District with 78.10 per cent ranks next to Wokha District in growth rate. In the district, the Circles having growth rate higher than the state's growth rate are Longmatra (198.78), Tsurungtho (143.75), Pungro (140.62), Amahator (128.89), Noksen (118.11), Chessore (113.59), Sitimi

(107.08), Longleng (103.30), Seyuchung (101.63), Yongya (95.89), Thonoknyu (89.68) and Kiusam (80.58). The high growth rate is accredited to natural growth. The districts having more or less the same state growth rate level are Mon and zunheboto. Kohima and Mokokchung districts exhibit a decline in growth. The difference in the growth of population among the districts can be attributed to the imbalances between the districts in carrying out different developmental economic activities and different levels in improving medical facilities.

Thus, the study of population growth in the state shows that the percentage of growth is more than double of the country's growth rate. It is indeed, shocking and alarming; and it requires measures to prevent the fast growth rate. Unless proper steps are taken by educating the people on family planning, it can be said that the population prospect of the state would be problematic in the near future.

3.8 Growth of population in Urban and Rural areas

As per 2001 census, the state's urban population is 342787 constituting 17.22 per cent of the total population. It is below the percentage of India which is 25.75. Among the states in the North Eastern Region, the highest percentage in urban population is recorded in Mizoram (49.49 per cent). The states which have recorded the proportion of urban population to total population below that of Nagaland are

Tripura (17.01 per cent), Orissa (114.97 per cent), Assam (12.72), Sikkim (11.10), Bihar (10.47 per cent), and Himachal Pradesh (9.79 per cent).

Table 3

Growth of urban population in Nagaland, 1991-2001

Urban areas	**Urban population**		**Decennial Growth rate (%)**
	1991	2001	1991-2001
Kohima	51418	77030	49.81
Dimapur	65973	98096	48.69
*Chumukedima	8796	16504	87.63
Zunheboto	11473	23081	101.17
Wokha	14377	37636	161.77
Mokokchung	24803	31214	25.84
Tuensang	21018	29772	41.65
Mon	10790	16590	53.75
*Phek	8366	12864	53.76
Nagaland	**208223**	**342787**	**64.62**

Source: Census of India 1991 and 2001(*Urban areas recognized only from the year 1991)

During the decade 1991 -2001, there was a decrease in the percentage of urban population in the towns of Mon, Mokokchung Dimapur and Tuensang (Table 3). This is indicative of migration of urban population from these towns to other towns and metro cities, in search of better urban amenities and entrepreneurial opportunities. Wokha has recorded the highest increase of 161.77 per cent, while Mokokchung has the lowest increase of 25.84 per cent. Beside Wokha, the other towns that exceeded the state's decennial growth rate is Zunheboto (101.17 per cent). The exceedingly high increase of population in Wokha may be attributed mainly to the immigrants from the rural area within the district as well as immigrants flown in from different parts of the state and other states of the country.

In the state, the rural population constitutes 82.78 per cent (Table 4). When the growth rate is measured amongst the districts, it is perceived that Tuensang (81.72 per cent), Wokha (81.11 per cent), and Mon (7.69 per cent) districts have registered the growth rate above that of the state. This unusual high increase of population in the case of Tuensang district may be ascribed mainly to high birth rate and low mortality rate. Kohima district has the lowest growth rate (13.74 per cent) amongst the districts that have the growth rate below the state growth rate. This growth rate disparity amongst the districts shows that the population in the district has not uniformly increased.

Table 4

District wise growth of rural population in Nagaland, 1991-2001

Disrtrict/ State	**Rural population**		**Decennial growth (%)**
	1991	2001	1991-2001
Kohima	270185	233054	13.74
Phek	93790	135331	44.29
Wokha	68235	123587	81.11
Zunheboto	84745	130874	54.43
Mokokchung	133571	200871	50.38
Tuensang	211888	385046	81.72
Mon	138909	244062	75.69
*Dimapur	-	194424	-
Nagaland	**1001323**	**1647249**	**64.50**

Source: Census of India, series Nagaland-general population table 2001
(*Recognized from 2001)

3.9 Altitudinal distribution of population

In respect of spatial distribution of population in the state, it is observed that the population at the foothills is generally thin compared to that at the higher altitude. At the foothills (extreme western part of Kohima, Wokha, Mokokchung and Mon districts adjoining Assam) where the altitude rises upto 600 m, the population is only around 281391 or 14.13 per cent of the total population (2001 census) of the state. Denser population is found in and around the hill tops. In the altitude between 600 m and 1800 m, the total population is around 1493721 persons accounting for 75.05 per cent of the total population. However, as the altitude increases so also the population thins out. The percentage of population at the altitude 1800-2400 m is about 10.08 per cent, whereas at the still higher altitude (above 2400 m) where the climatic condition is not suitable for human habitation, the percentage is only around 0.72 per cent of the total population. The thicker concentration of human habitation in relatively higher altitudes has been mainly for security reasons. In olden days the Nagas whose society was smeared with head hunting practice naturally preferred to set up villages on hill top for strategic considerations. However, with the days of head hunting days gone, their compulsion for security is vanished. It is clearly evident from the recent migration of people from the hilly areas to the western foothill areas which is good for agriculture as well as for the pursuit of other economic activities.

3.10 Pattern of Migration

Migration which means movement of people from one geographical area to another is one of the dominant factors that cause population change in a region, and as a result, it affects the social structure of a society. The re-location of people usually tends to take place from areas of lower opportunities to areas of higher opportunities and economic promises. Its impact is threefold; viz (i) on the area of immigration (ii) on the area of out-migration and (iii) on the migrants themselves. Migration is, thus, a necessary element of normal population adjustment and equilibrium and plays a great role in cultural diffusion and social integration. It is in this backdrop that this portion of the chapter attempts to examine the immigration from different states of the country as well as from other countries to the state, and examine the consequent impact on the various order of Naga society. Besides, it undertakes to deal with the local migration.

In Nagaland, the total number of migrants stood at 359457 in 2001 accounting for nearly 18.06 per cent of the total population as against 10.49 per cent in 1991. According to 2001 census, the total number of immigrants in Nagaland from the States and Union Territories of India and also from countries beyond India is 93534 persons constitutes for 4.7 per cent of the total population (Fig: 3.2). Out of the total number of immigrants, 23.79 per cent are from other States of the country and the

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2001

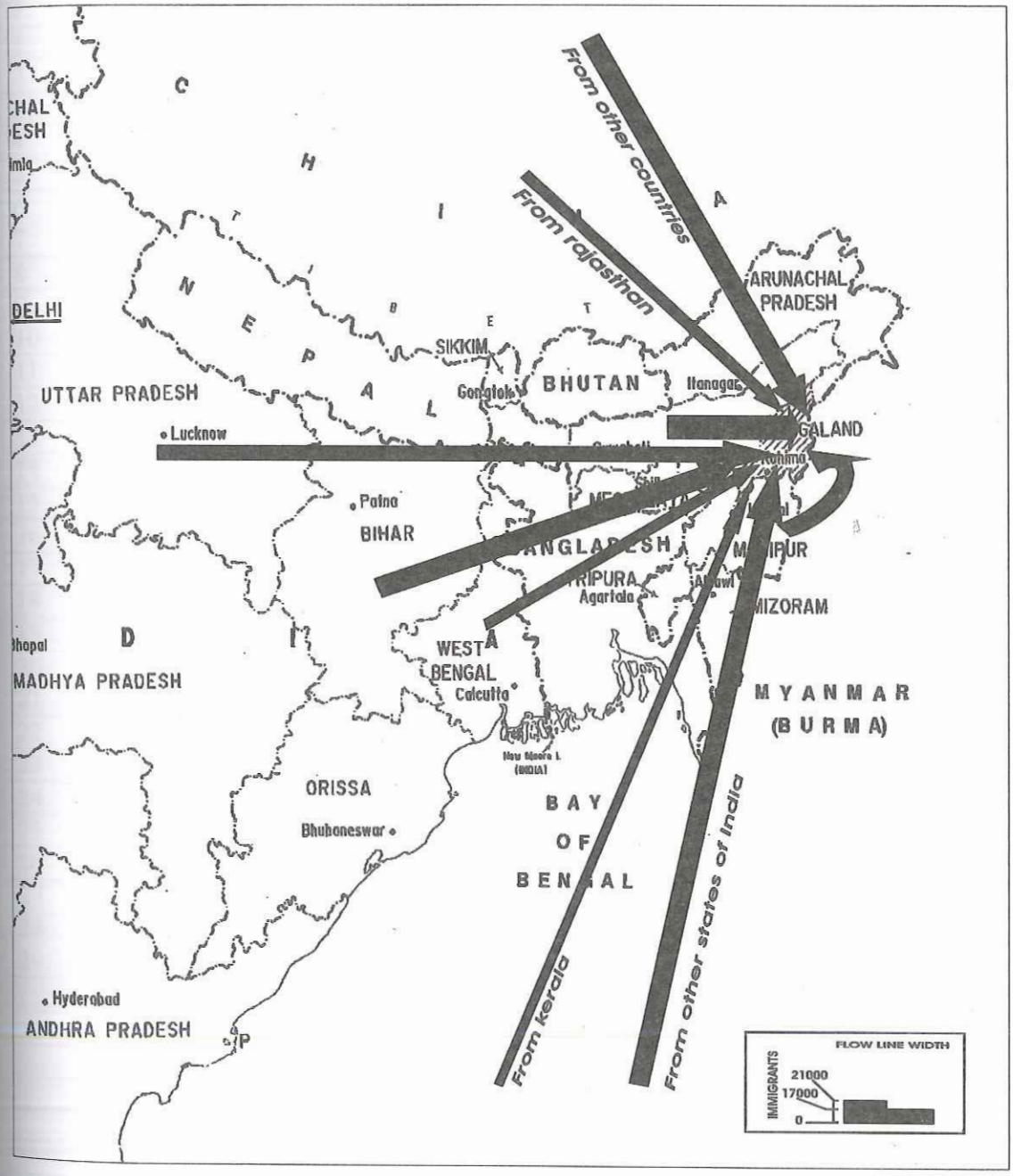

Fig: 3.2

Table 5

Migration from States/Union Territories and Countries beyond India to Nagaland, 2001

Sl.No.	State/Union Territories, Countries beyond India	Persons	Percentage to total migrants.
1	2	3	4
1	Andhra Pradesh	559	0.15
2	Arunachal Pradesh	737	0.20
3	Assam	36,589	10.41
4	Bihar	12,940	3.68
5	Gujarat	333	0.09
6	Haryana	561	0.15
7	Himachal Pradesh	339	0.09
8	Jammu & Kashmir	232	0.06
9	Karnataka	260	0.07
10	Kerala	1,841	0.52
11	Madhya Pradesh	339	0.09
12	Maharashtra	547	0.15
13	Manipur	7,530	2.14
14	Meghalaya	572	0.16
15	Mizoram	228	0.06
16	Orissa	1,630	0.46
17	Punjab	440	0.12
18	Rajasthan	2,698	0.76
19	Sikkim	112	0.03
20	Tamil Nadu	887	0.25
21	Tripura	2,340	0.66
22	Uttar Pradesh	5,082	1.44
23	West Bengal	3,862	1.09
24	Uttranchal	1,782	0.50
25	Jharkhand	2,733	0.77
26	Chhatisgargh	146	0.04
27	Goa	17	0.01
28	Union Territories	175	0.04
29	Countries beyond India		
	(a) Bangladesh	551	0.15
	(b) Myanmar	152	0.04
	(c) Nepal	5619	1.59
	(d) Pakistan	28	0.1
	(e) Others	1673	0.47
	Total	93534	26.61

Source: Census of India, 2001

rests 2.22 per cent are from other countries. It is observed that (Table 5) out of the total immigrants (i.e. 93534) the bulk is from Assam which is 36589 or 10.41 per cent. Nearly 85 per cent of the immigrants from Assam are workers, out of which 64 per cent are in Tertiary sector, 17 per cent in the Secondary sector and the rest 19 per cent in the Primary sector. The immigrants from Assam is followed by Bihar (12940 persons) and Manipur (7530 persons) which makes up 3.68 and 2.14 per cent respectively of the total number of immigrants. Migrants from Nepal and Bangladesh comprise the largest volume of the immigrants amongst the countries beyond India. The number of Nepalese that is mainly the military personnel who have settled in Nagaland on retirement has grown large in number. As per 2001 census, they (5619 persons) constitute 1.59 per cent of the total number of immigrants in the state. Next to Nepalese are the Bangladeshis. They account for 0.15 per cent of the total immigrants. Most of the Nepalese are farmers whereas the Bangladeshis are in petty business and also are working as agricultural labourers.

As indicated in the district-wise distribution of the immigrants (Table 6), Dimapur district accommodates the largest number (130366 persons) or 36.26 per cent of the total migrants. This is mainly due to the fact that Dimapur being the commercial hub attracts people from outside the state as well as from different part of the state. It has the only railhead and airport in the state. In fact, it is sprouting into a big container of businessmen from various parts of the country. The second biggest number of

immigrants is found in Tuensang district. It holds 38157 persons, that is, 10.61 per cent of the total immigrants. The smallest number of immigrants is found in Phek district, the total number is 13370persons constituting only 3.71 per cent of the total in the state. The total number of immigrants in the state, 185839 persons or 51.70 per cent are in the urban areas. Amongst the urban centers, Kohima and Dimapur account for 66.90 per cent whereas the share of Tuensang is 10.02 per cent.

Table 6

Classification of immigrant population by place of birth and sex, 2001

District	Year	Migrants					
		Total			Within the district		
		Persons	Males	Females	Persons	Males	Female
Kohima	2	69788	38564	31224	34206	17702	16504
Phek	0	13370	7444	5926	8452	4423	4029
Wokha	0	20896	10493	10403	15140	7850	7290
Zunheboto	1	28299	15612	12687	25948	13889	12059
Mokokchung		25110	14212	10898	17699	9171	8528
Tuensang		38157	21581	16576	31060	16940	14120
Mon		33472	19340	14132	25304	13909	11395
Dimapur		130366	71729	58637	31671	16749	14922
Nagaland		**359457**	**198975**	**160482**	**189480**	**100633**	**88847**

Source: Census of India 2001

From the above analysis, it is evident that the volume of local migration in the state is noticeable. A number of reasons such as economic and cultural can be put forward for such phenomenon. People's movement to urban areas is chiefly on economic consideration in search of better jobs and facilities. Their movement from rural to rural, either within the district or outside the district can also be associated to economic compulsion, especially in the case of male migrants. As has already been specified, streams of people in recent years are noted to be moving towards the western low lying areas which provide better facilities for various economic quests apart from more fertile lands for cultivation. This itself exhibits the improvement upon the general social environment which until recently was marked by hostility among the people due to the lack of favorable social contacts among the people. On the other hand, marriage migration comprises a greater proportion of female migration whether it is from rural to rural or from rural to urban areas. The marriage field among the Nagas was hitherto, limited to the village because of physical as well as social factors as stated above. Now, however, with the increase of more social interactions among them and the broadening of their social outlook as a product of modern education and civilization, there is stimulating social intercourse among them. Marriage sphere is no longer limited to the village boundary. This is distinctly uphold by the volume of female migration which support itself to the fact that social intercourse among the people is now no more confined to a limited area as it used to be.

3.11 Sex Ratio

Sex ratio is an important social indicator used to measure the extent of inequality between males and females in the society. It is commonly believed that the population of any country should be comprised of an equal number of males and females. In reality there is always an imbalance in the sex ratio in the population. The influence of sex ratio on the growth of population, migration, marriage, and working force and employment patterns cannot be overlooked. The parity in sexes may give rise to a number of social problems like promiscuity, perversion, etc. A higher number of male populations will indicate a lower marriage rate and a large labour force, while a large proportion of female population implies a rapid population growth in the future.

As per 2001 census, sex ratio in Nagaland (Fig: 3.3) is 900 females per 1,000 males as against the all India ratio of 933. Nagaland occupies the 6^{th} position amongst the states in the North East India (Table 7) with respect to sex ratio on a descending order. Higher mortality rate of the females and the immigration of defense, paramilitary personnel, and bureaucrats and technocrats to various socio-economic services are the main reasons behind this phenomenon. The sex ratio for the urban population in the state is only 809, whereas for the rural population it is 932. This expresses the male-selective migration to the urban centers not only from the rural

NAGALAND

SEX RATIO, 2001

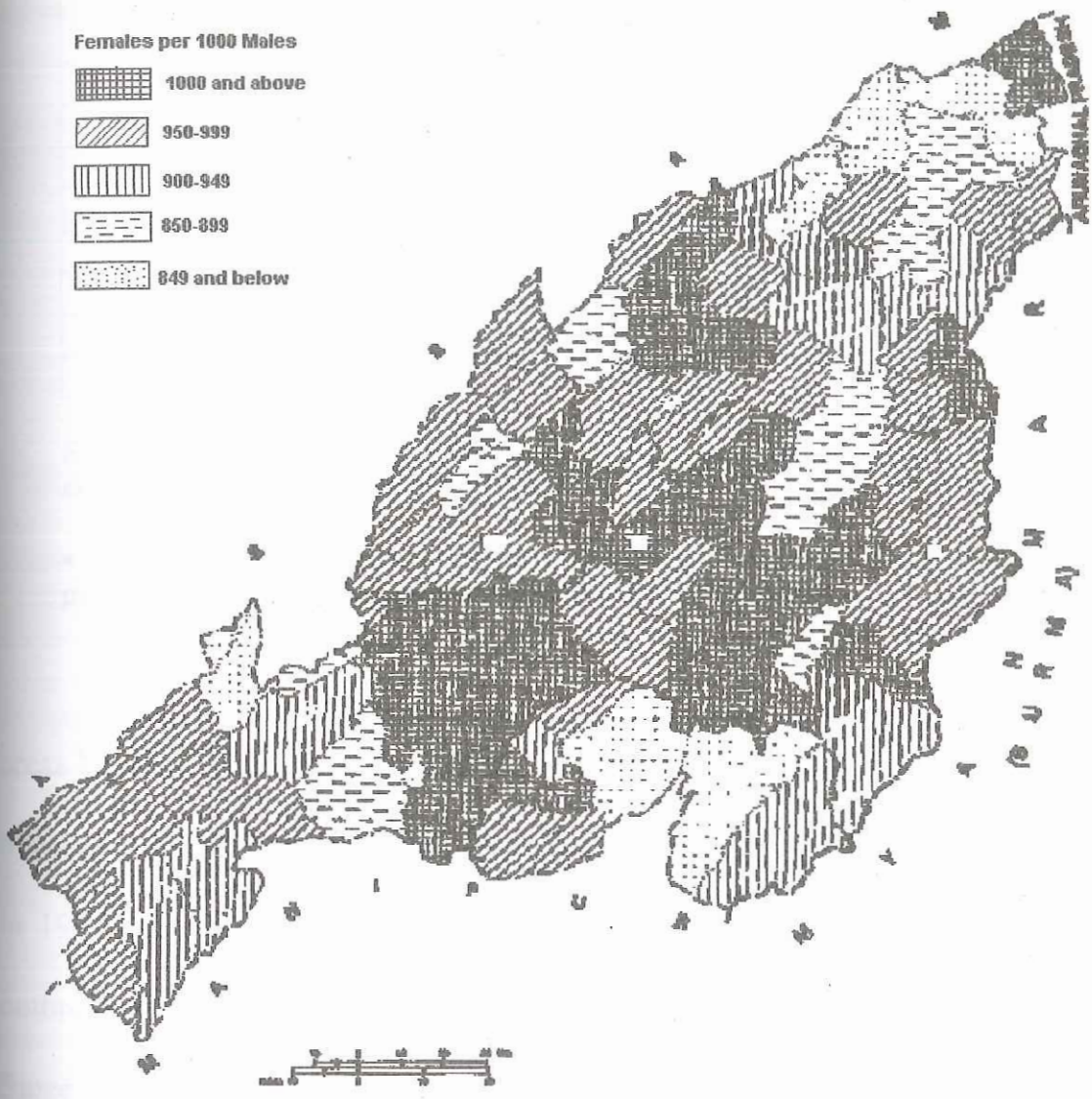

Fig: 3.3

Table 7

Sex Ratio in North East India, 1991-2001

States	Sex Ratio	
	1991	2001
1	2	3
Arunachal Pradesh	861	893
Assam	925	932
Manipur	961	964
Meghalaya	947	974
Mizoram	924	937
Nagaland	886	900
Tripura	946	950

Source : Census of India, 1991, series-18, part II-A, general population tables, Directorate of census operation, Nagaland.

• In 1981, Census was not conducted in Assam. Based on the 1971 and the 1991 census provisional results the population as of 1981 has been interpolated.

areas but also from other parts of the country and the countries as well. The regular trend of sex ratio in the state has been decreasing since 1951 (Table 8). The anomaly in 1941 was particularly due to the departure of outsiders from the region at the outbreak of World War II and the consequences of Japanese invasion on the region. Since then, the sex ratio has gone down rather steeply in the decades 1961-1971, 1971-1981 and 1981-1991. However, a modest improvement is observed in the decade 1991-2001.The decrease in sex ratio is largely due to two factors: (i) higher

Table 8

Sex Ratio in Nagaland, 1901 to 2001

Year	Females per 1000 males.
1901	973
1911	993
1921	992
1931	997
1941	1021
1951	999
1961	933
1971	871
1981	863
1991	886
2001	900

Source: Census of India, 2001 general population tables, Directorate of census operation, Nagaland.

rate of mortality among females than their counterparts and (ii) the immigration of males in number than females from outside the state. It is observed that the higher mortality among the females prevail due to a number of circumstances occurring in the region. For example (a) Naga society is male dominated in which generally more preference, in respect of care, higher education, etc is given to the boys. (b) The females generally perform all the manual and domestic chores taxing themselves on their health. (c) Early marriage and bearing of child, which is a normal characteristic among the Nagas, affect the health of women. All these features are harmful to the general health of women. These conditions do occur in other parts of the country but it appears to be more functional in the area under study. It is observed that there is a wide spatial variation in the sex ratio in different parts of the state (Table 9).

Table 9

Distribution of Sex Ratio in the districts, Nagaland, 2001

State\District	Total	Male	Female	Sex Ratio (females per 1000 males)
Kohima	310084	162251	147833	911
Phek	148195	77141	71054	921
Zunheboto	153955	79056	74899	947
Wokha	161223	83670	77553	927
Mokokchung	232085	120929	111156	919
Tuensang	414818	218678	196140	897
Mon	260652	138753	121899	879
Dimapur	309024	166663	142361	854
NAGALAND	**1990036**	**1047141**	**942895**	**900**

Source: Census of India, 2001.

The highest sex ratio is found in Zunheboto District (947). Other districts that display relatively high sex ratio above the state average include Wokha, Phek and Mokokchung with 927, 921 and 919 females per thousand males respectively. Amongst the Districts, Dimapur having the lowest sex ratio in actuality indicates the number of immigrants to the District. Being the commercial centre of the state, it attracts people from other districts as well as from outside the state to settle without their spouses. These immigrants include business men, traders, and government employees, semi skilled and skilled labourers. Another factor leading to the low sex ratio in the district is due to close proximity of the state capital Kohima. It is the hub of administration and other associated departments. This office is staffed by the outsiders who are male dominated immigrants and as a consequence overturn the sex ratio.

Among the circles Longchem circle in Mokokchung district (Appendix II) recorded the highest sex ratio with 1011 females per 1000 males followed by Chuchuyimlang circle again in Mokokchung district with 1010 females per 1000 males. The lowest sex ratio recorded among the circles is in Sechu circle in Mon district with only 810 females per 1000 males. The sex ratio in Nagaland is characterized by wide differences in its rural and urban components (Fig: 3.4). The sex ratio of rural population in the state is 916 females per 1000 males in 2001(Table 10), whereas only 829 females per 1000 males is recorded in the urban area in 2001. Amongst the districts Zunheboto recorded the highest ratio of 970 females per 1000 males in the rural areas. In the urban milieu Kohima district recorded the highest ratio of 849 females per 1000 males. The lowest sex ratio in the rural area among the districts is recorded in Dimapur district (865). In the urban context, Phek district registered the lowest ratio of only 757 females per 1000 males.

Table 10

Sex ratio by Rural and Urban, 2001

District/State	Sex Ratio	
	Rural	Urban
Kohima	933	849
Phek	938	757
Wokha	954	844
Zunheboto	970	829
Mokokchung	936	817
Tuensang	906	784
Mon	883	815
Dimapur	865	837
NAGALAND	**916**	**829**

Source:Census of India, 2001

NAGALAND
DISPARITY OF SEX RATIO IN RURAL AND URBAN AREAS, 2001

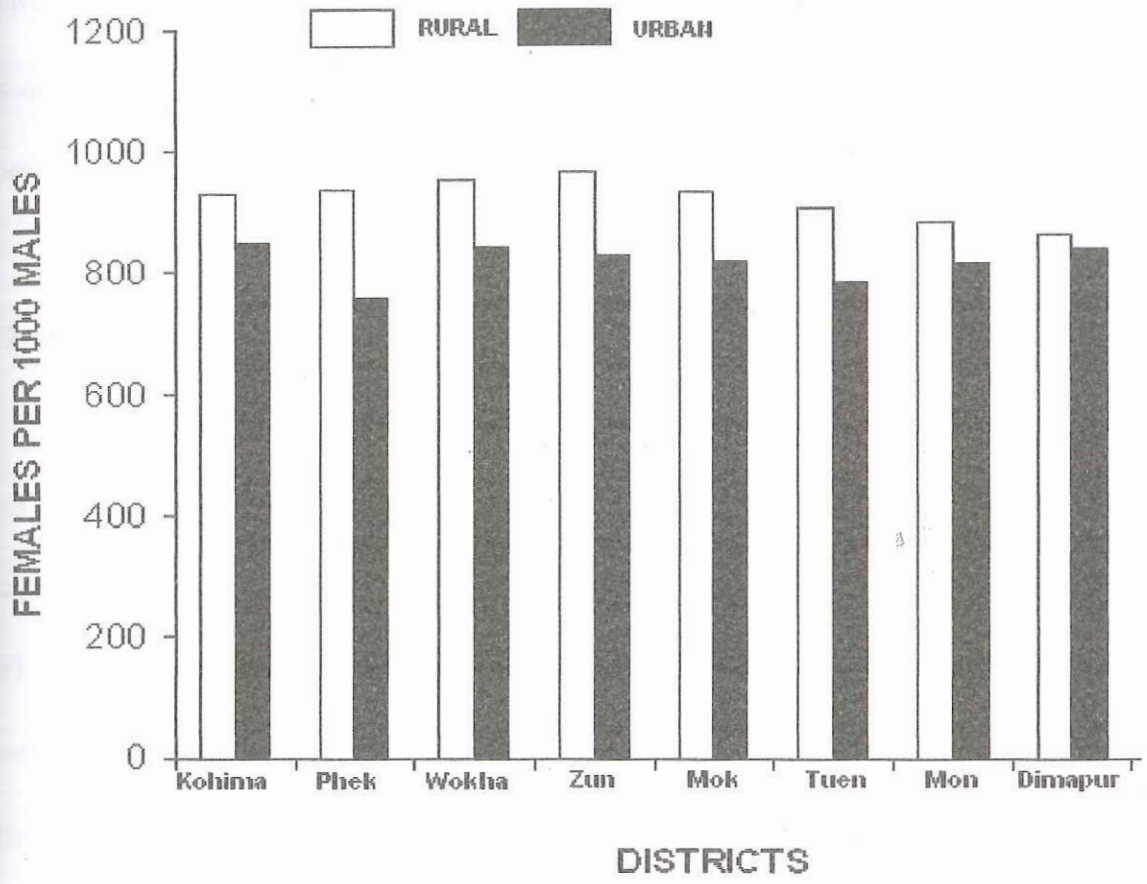

Fig: 3.4

It can be viewed that the urban population in the state is characterized by shortage of females mostly due to the male dominated migration from rural areas to the urban areas in the state. It indicates the selective migration from the rural areas to the urban areas which increases the sex ratio in the rural areas, higher than that in the towns. Thus, inference can be made from the above that the sex ratio in Nagaland has an impact to a certain degree by the presence of male dominated immigrants exceptionally in the urban areas.

3.12 Work participation rate

Work may be defined as participation in any economically productive activity. Such participation may be physical or mental in nature involving not only actual work but affective supervision and direction of work but effective supervision and direction of work as well as unpaid work on farm or in family enterprise. The work participation rate expresses the proportion of workers in a population. It shows the ratio of economically independent to dependent population in a region. As per the record in 2001 census, the percentage of main workers to total population in the state is 35.37. When a comparative study is made amongst the states of North East Region (Fig: 3.5). It is viewed that Meghalaya registered the highest percentage (40.79) of main workers to total population followed by Arunachal Pradesh (37.79) and Nagaland (35.37). In fact, it is observed that the predominantly tribal states like

WORK FORCE IN NORTH EAST INDIA
2001

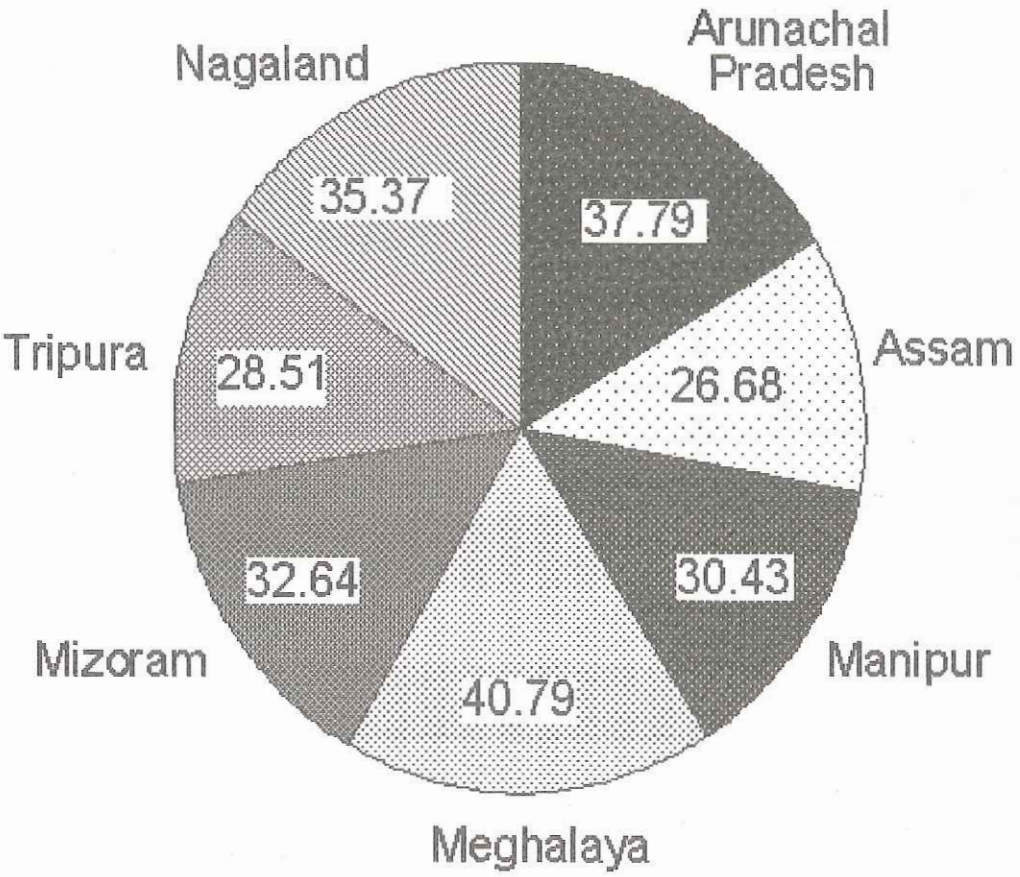

Fig: 3.5

Meghalaya, Arunachal Pradesh and Nagaland have higher proportion of main workers than the predominantly non-tribal states like Tripura and Manipur (Table 11). The comparatively high proportion of working population in the tribal states is chiefly due to the practice of Jhumming or Shifting cultivation which necessitate the participation of a large number of womenfolk and children.

Table 11

Distribution of workers in the States of North East India, 2001

States	Percentage of Main Workers to total population
	2001
Arunachal Pradesh	37.79
Assam	26.68
Manipur	30.43
Meghalaya	40.79
Mizoram	32.64
Tripura	28.51
Nagaland	35.37

Source: Census of India, 2001.

District-wise Distribution of Workers

Amongst the different districts in the state (Fig: 3.6) the highest percentage of main workers to the total population is found in Mon District, while the lowest is in Dimapur District (Table 12). The percentage of main workers to the total population in these two districts is 50.2 and 33.4 respectively. While, the dependency ratio

DISTRICT WISE DISTRIBUTION OF MAIN WORKERS IN DIFFERENT ECONOMIC SECTORS, 2001

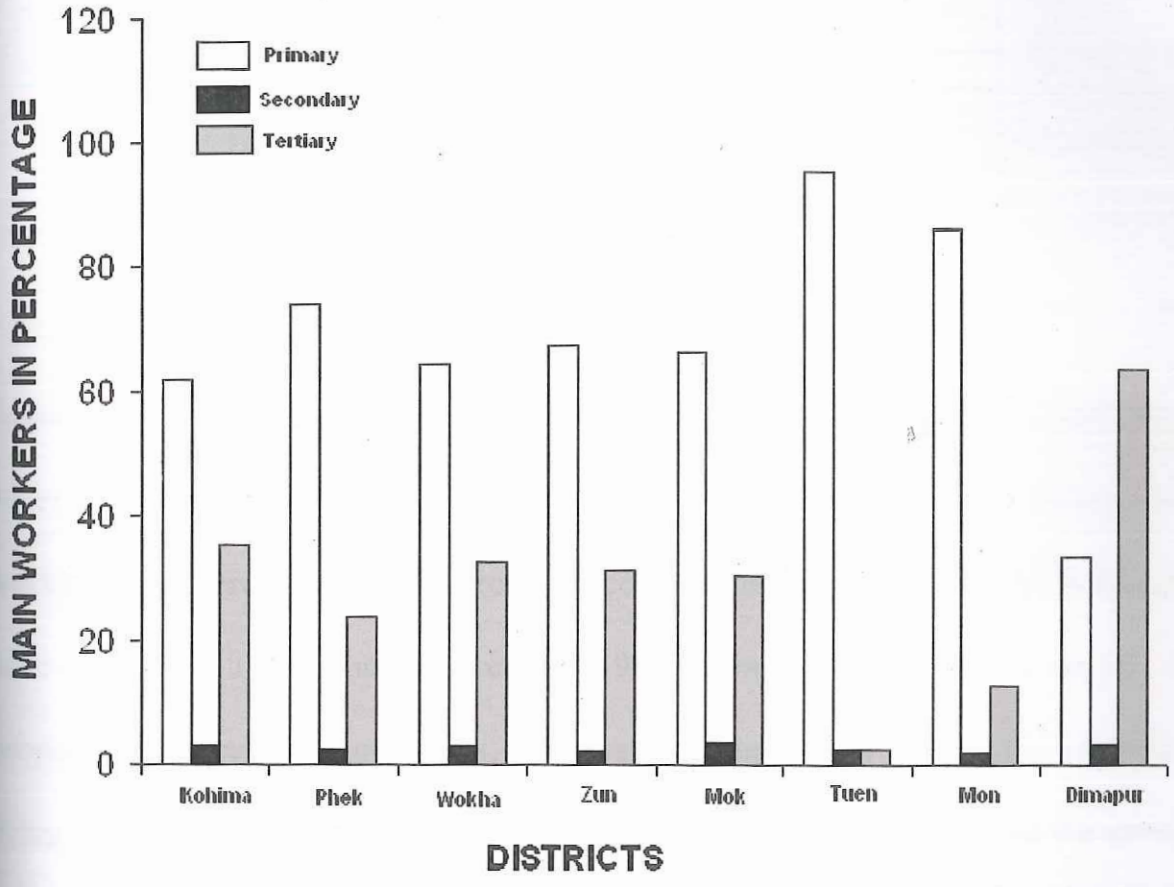

Fig: 3.6

Table 12

District wise distribution of Workers in Nagaland 2001

(in Percentage)

State/ District	Total workers Main workers+ Marginal workers	Non worker
Kohima	43.5	56.5
Phek	48.2	51.8
Wokha	34.9	65.1
Zunheboto	36.9	63.1
Mokokchung	47.1	52.9
Tuensang	44.6	55.4
Mon	50.2	49.8
Dimapur	33.4	66.6
NAGALAND	**42.6**	**57.4**

Source: Census of India, 2001

amongst the districts it is Dimapur district has got the highest economically dependent population whereas, Mon district has the lowest. When the proportion of workers in different economic sector is considered Tuensang District is found to have registered the highest percentage (95.36) engaged in Primary sector. The proportion of tertiary workers is, however, comparatively small, the percentage being 1.56. Dimapur District has the smallest proportion of workers in the primary sector. Here the percentage in primary sector is 33.42 per cent. The highest percentage (63.49) of workers in tertiary sector is recorded in this district (Table 13) and it is followed by that of Kohima District (35.36 per cent). The relatively high percentage of tertiary sector in Dimapur District is obviously due to the location of the commercial center where a large number of people are engaged in different

Table 13

District wise distribution of Main Workers in different Economic Sectors in Nagaland, 2001

State/District	Total Workers	Economic Sectors		
		Primary (%)	Secondary (%)	Tertiary (%)
Kohima	135023	61.62	3.02	35.36
Phek	71398	74.02	2.18	23.80
Wokha	56254	64.35	2.99	32.66
Zunheboto	56783	67.19	1.98	30.83
Mokokchung	109260	66.23	3.35	30.42
Tuensang	184924	95.36	2.29	2.34
Mon	130848	85.84	1.68	12.48
Dimapur	103306	33.42	3.09	63.49
NAGALAND	**847796**	**68.40**	**2.57**	**29.03**

Source: Census of India, 2001

Note: 1. Primary workers include:- Cultivators, agricultural labourers, livestock, forestry, fishing, Hunting, Plantation & allied activities, mining & Quarrying.
2. Secondary workers include :- Manufacturing, processing, servicing and repairs & Constructions.
3. Tertiary workers include :- Trade and Commerce, transport, storage, communication and other services.

economic activities other than in primary sector. In almost all the districts the percentage of workers engaged in secondary sector is low. The highest percentage is seen in Dimapur (3.09) and the lowest in Mon (1.62).

Barring some circles such as Dimapur Sardar, Kohima Sardar and Chumukedima in the western part of the state, the proportion of workers in primary sector is very high in almost all the circles (Appendix III). The respective percentage of workers in primary sector in each of the above mentioned circles are 2.29, 4.39, and 27.6. The relatively low percentage of workers acquired in the primary sector is because of

high percentage in the tertiary sector. Particularly in Dimapur Sardar the percentage in tertiary sector is very high (95.85) as compared to those of other circles. It is closely followed by Kohima Sardar with 94.17 per cent in tertiary sector. The circles with well above 96 per cent of primary workers are Longchen (97.96 per cent), Yongya (97.17 per cent), Monyakshu (96.54 per cent) and Sangyu (96.31). All these circles are located in the eastern and North-eastern part of the state where the economic development has not made notable impact on the socio-economic life of the people. In fact the massive proportion of primary workers is more pronounced and obvious in the eastern part of the state. Among the circles the biggest number of workers engaged in secondary sector is found in Khezakeno (8.37 per cent) which is followed by Longkhim, the percentage being 5.46. The prevalence of such a disparity in working force in different part of the state, particularly between the western and eastern portion is the result of the level of economic development and the availability of employment avenues in various economic activities.

Obviously, the eastern portion which has less economic and educational facilities is less developed from economic point of view. In Longchen, Yongya, Monyakshu and Sangyu areas, since there is no profession besides working in the fields almost all the workers in the primary sector engage themselves in agriculture. However, in the western part, the condition is apparently different as it is relatively more

economically developed. Schooling facilities are also well developed as compared to those in the eastern part. All these factors contribute immensely in alleviating the pressure of workers on agriculture in the western part of the state.

Female participation Rate

It is evident from Table 14 that 29.60 percent of the total female population in Nagaland is in the category of workforce in different economic sectors. Amongst the districts, Tuensang occupies the highest position in female working population (69456 persons), followed by Kohima with 46900 persons. On the other hand Dimapur has the least number of female workers (17118 persons). Phek district has the highest percentage (37.18 percent) of female main workers to its total population, next is Mon with 36.51 percent. The lowest proportion is recorded in Dimapur district with only 12.02 percent. Even for the female working population, it is the primary sector that absorbs maximum proportion of female workers. Nagaland being an agrarian society, most of the female workers are engaged in the process of agricultural production, contributing to the primacy of the primary sector. In 2001, 82.67 percent of the total population of female workers is engaged in the primary economic activities. District wise distribution indicates that 92.71 percent of female workers are engaged in the primary economic activities in Tuensang. It is highest

Table 14

District wise distribution of female workers in different economic Sectors in Nagaland, 2001

State/District	Total Female main workers	Percentage Of Female main workers to total Female population	Economic sectors		
			Primary (%)	Secondary (%)	Tertiary (%)
Kohima	46900	31.72	72.99	2.26	24.75
Phek	26424	37.18	88.1	1.12	10.78
Wokha	20961	27.02	82.33	2.18	15.49
Zunheboto	20142	26.89	81.38	1.49	17.13
Mokokchung	33659	30.28	76.81	2.20	20.99
Tuensang	69456	35.41	92.71	1.83	5.46
Mon	44506	36.51	92.64	1.58	5.78
Dimapur	17118	12.02	47.62	4.55	47.83
NAGALAND	**279166**	**29.60**	**82.67**	**2.01**	**15.32**

Source: Census of India, 2001

amongst the districts and is followed by Mon with 92.64 percent. The least proportion of female main workers in the primary economic sector is recorded in Dimapur with 47.62 percent. Next to the primary sector is the tertiary sector which stands in the second place in absorbing the female work force. In 2001, 15.32 percent of the female main workers are engaged in tertiary economic activities. Amongst the districts, Dimapur recorded the highest proportion of female workers with 47.83 percent. Dimapur is followed by Kohima district with 24.75 percent. Though, Tuensang district has the highest proportion of female workers in the primary sector she recorded the lowest for the share of female workers in the tertiary sector. The least proportion of female workers with only 2.01 percent of the total

population of female workers is engaged in secondary economic activities in 2001. Dimapur district recorded the highest proportion of female workers engaged in this sector with 4.55 percent; it is followed by Kohima with 22.26 percent. Apart from Kohima, Mokokchung and Wokha districts, all the other districts have negligible percentage of female workers in the secondary sector.

The agrarian based economy prevailing in the state is clearly reflected by the size of the working force as well as by the size of the workers engaged in different economic activities. As the nature of jobs in agricultural sector is such that a person can start the work as soon as the family exigencies demand for participation, the work participation rate in the primary sector is high. On the other hand low participation rate in the secondary sector of economy reflects the low level of development or the absence of industries and other organized units. Moreover, their high rate of female participation can be mentioned as a product of the backwardness of the state, particularly the eastern where the female participation rate is higher than that of the western part. The relatively non-availability of professions other than participating in the fields and the lack of schooling facilities certainly leads to the bulging majority of the workforce in Primary sector majority of the workforce in primary sector. The overall situation of female participation in the working force in the state is, is however, successively changing over the years as a result of the introduction of more educational facilities, awakening of educational consciousness

among the people. During the last decade the female participation rate has come down from 37.32 to 29.60 per cent. And there it tells of the trend of social development and the change in the complexion of working force in the state.

3.13 Age-Sex Structure

Age-sex pyramid is a method of representing the population in a stratified way according to age-wise of a particular geographical area. As per 2001 Census, the age structure of the state is more or less similar to that of the country as a whole, having a broad base and a tapering top (Fig: 3.7). This age pyramid is typical of any underdeveloped region of the world. In the state 36.74 per cent of the total population belongs to the age group 0-14 (Table 15). This speaks of the low infant mortality rate which is one of the lowest in the country. Further, about 4.53 percent of the total population of the state is under the category of adult population (above 60 years). When compared between the proportion of young and old population in the state, it becomes evident that Nagaland with a high fertility rate, which is indicated by a large proportion of young age group is in the explosive second stage of the demographic transition, adding a large number of children every year. In each age group the proportion of male to total population is much higher than that of

NAGALAND

AGE – SEX PYRAMID, 2001

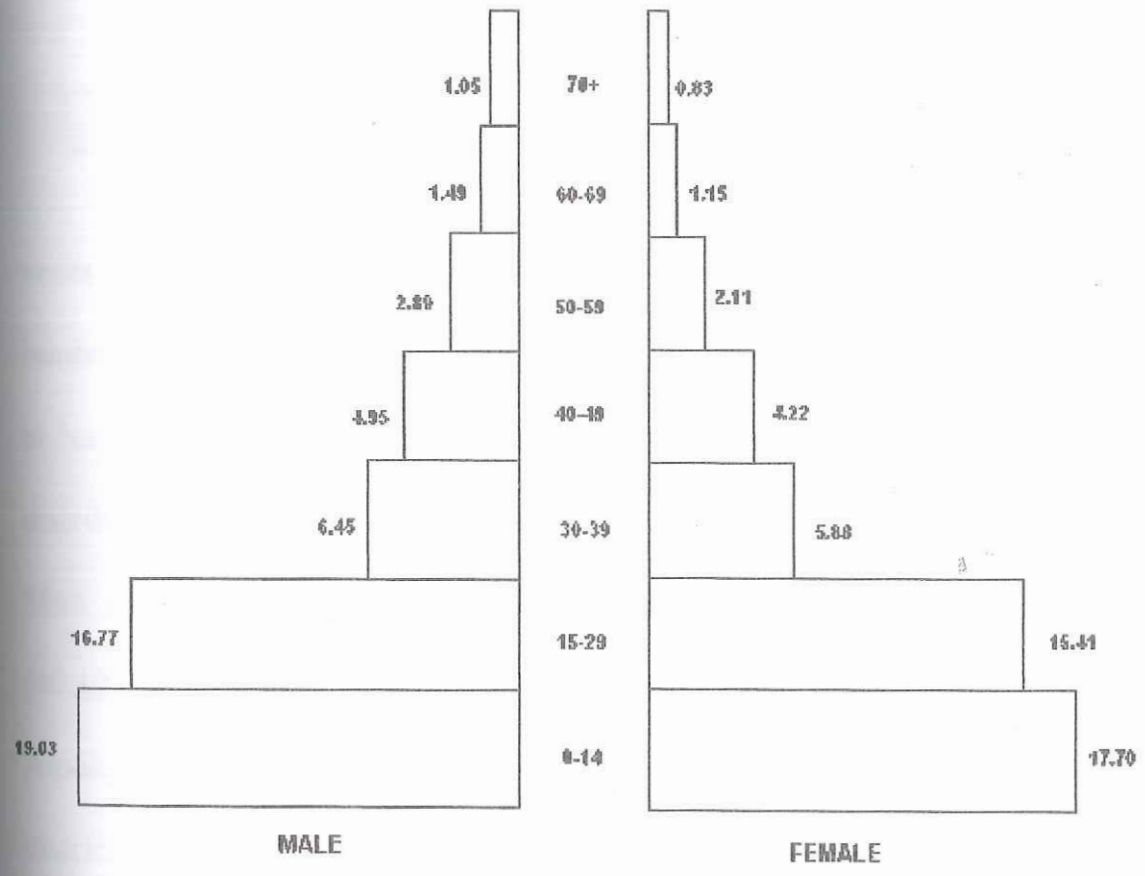

Fig: 3.7

Table 15

Age-sex structure, Nagaland, 2001

Age group	Persons	Proportion to total	Males	Females
0-14	731153	36.74	19.03	17.70
15-29	640476	32.18	16.77	15.41
30-39	245631	12.34	6.45	5.88
40-49	182747	9.18	4.95	4.22
50-59	99706	5.01	2.89	2.11
60-69	52704	2.64	1.49	1.15
70+	37619	1.89	1.05	0.83

Source: Census of India, 2001

years of age. Age dependency ratio is often used as an indicator of the economic burden carried by the productive portion of a population. The total dependency ratio in Nagaland in 2001 i.e., 58.6 percent of the total population. If we study the spatial distribution of age-sex structure, it is observed that in the age group 0-14 (Table 16) Mon district (41.14) occupies the highest which is followed by Phek district (40.12).Mokokchung district (32.88) has the lowest percentage of that age group. Among the Age group 15-59, which is the most economically active, Mokokchung district has the highest percentage which is closely followed by Dimapur (57.77) and Kohima (57.76) districts. In the age group 60 and above, Mon district (7.98) has the highest meanwhile Kohima district (3.34) posses the lowest proportion. The population in the age group 0-14, 60-69 and 70 and above which is an economically dependent group, Mon district (49.12) has the highest percent and Mokokchung district has the lowest percentage of population. Among the female population in the

Table 16

Age-Sex structure in the district, Nagaland 2001

District	Total/ Sex	Age group						
		0-14	15-29	30-39	40-49	50-59	60-69	70 & above
Kohima	**Total**	**38.67**	**31.33**	**13.28**	**8.88**	**4.27**	**2.19**	**1.15**
	Male	19.57	16.64	7.36	5.49	2.65	1.29	0.87
	Female	19.08	14.58	5.92	3.39	1.62	0.90	0.63
Mokokchung	**Total**	**32.88**	**31.06**	**11.71**	**9.7**	**5.97**	**2.85**	**3.1**
	Male	16.30	15.58	6.14	5.30	3.28	1.19	1.79
	Female	16.58	15.48	5.57	4.40	2.69	1.66	1.31
Mon	**Total**	**41.14**	**29.38**	**12**	**8.93**	**6.07**	**4.07**	**3.91**
	Male	20.86	15.64	6.65	4.96	3.49	2.35	2.26
	Female	20.28	13.74	5.35	3.97	2.58	1.72	1.65
Phek	**Total**	**40.12**	**29.29**	**11.77**	**8.65**	**5.36**	**2.95**	**1.85**
	Male	20.81	15.43	6.24	4.90	2.97	1.74	1.08
	Female	19.31	13.86	5.53	3.75	2.39	1.21	0.77
Tuensang	**Total**	**38.75**	**28.26**	**11.81**	**9.8**	**5.55**	**3.4**	**2.41**
	Male	20.05	15.02	5.85	5.19	3.20	2.04	1.54
	Female	18.70	13.24	5.96	4.61	2.35	1.36	0.87
Wokha	**Total**	**39.82**	**29.59**	**11.93**	**8.83**	**5.1**	**2.82**	**1.89**
	Male	20.07	15.18	6.38	4.73	2.86	1.63	1.16
	Female	19.75	14.41	5.55	4.10	2.24	1.19	0.73
Zunheboto	**Total**	**39.36**	**28.31**	**11.63**	**9.54**	**5.51**	**3.45**	**2.2**
	Male	19.65	14.24	5.54	5.02	3.09	2.00	1.36
	Female	19.71	14.07	6.09	4.52	2.42	1.45	0.84
Dimapur	**Total**	**38.57**	**31.24**	**13.3**	**8.92**	**4.31**	**2.21**	**1.44**
	Male	19.53	16.65	7.37	5.51	2.67	1.30	0.84
	Female	19.04	14.59	5.93	3.41	1.64	0.91	0.60

Source: Census of India, 2001

districts, Mon (23.65) carries the largest portion of the dependent population followed by Zunheboto (22) and Wokha (21.67).Mokokchung district has the least portion of economically dependent population. It has 19.55 per cent of the total female population. Thus, from the foregoing deliberation on the various features of population it can be said that the growth of population in Nagaland began to have, especially after the country's Independence, an accelerated rate. Consequently causing concern in view of the limited arable area and scanty resources. Different districts have revealed differential growth rate. While the growth rate during the last decade is as high as 95.15, 87.10 and 74.11 per cent in the case of Wokha, Tuensang and Mon district respectively, it is comparatively low among Kohima, Phek and Mokokchung district. The decennial growth rate at the urban centers is led by Wokha (161.77 per cent) which is closely followed by Dimapur (101.17 per cent) and Chumukedima (87.63). The rest is below the state's decennial growth rate of 64.62 per cent.

The study of population distribution in the context of altitude points out that the altitude ranging from 600-1800 m contains 75.05 per cent of the total population of Nagaland. The percentage of population at the altitude below 600 m is only 14.13 per cent. However, now the population at the lower elevation is increasing at a fast rate as more people are pulling down towards the fertile land of the western low lying areas. Immigration to Nagaland and its impact on the lives of natives cannot

be underestimated. Changes in the values and the way of life of the Nagas can be extensively credited to the influence of the outsiders on them. Local migration, especially the females is also worth pointing out. Female migration which is mostly of the marriage migration in nature reflects the widening of marriage sphere which was till recently restricted to the village.

3.14 Affects of demographic dynamic on socio-economy in Nagaland

For a small geographical area with limited natural resources, it is difficult to provide a specified standard of living for a large and rapidly growing population, particularly in the rural areas of the state. Even though birth rates have been declining, the population growth momentum is such that the net absolute addition to population numbers each year is higher than in the previous year. Such demographic dynamics may lead to what one call the "population poverty trap". Population change also affects both the opportunities for investment in human resource development and the possibilities and the adequate use of these resources. The effects of population change on investment in human resource occur primarily through changes in the demographic structure of society and household. At the societal level, this is expressed partly through the age structure, and partly through the spatial distribution of the population. At the household level, change operates

through household size and composition too affects household investment in the human resources of the members.

In general, Nagaland with nearly half of its population under working force has relatively high unemployment rate. Moreover, a large rural population depending solely on agriculture leads to the increase of underemployment rate. Persistently high unemployment and underemployment rates are the important cause of incidence of poverty among the people. Agriculture is still the source of employment, and the proportion share of workers in agriculture and allied services was as high as 74 percent in 2001. As a result of heavy pressure on rural agricultural sector and lack of other employment opportunities there has been a rapid migration of the labour force from rural to urban areas. In urban areas these new migrants usually end up in the informal sector because of limited job opportunities in their formal sectors. The challenge before the state in not only to ensure the generation of adequate employment opportunities for the growing labour force but also to devote a greater share of resource to enhance the educational attainment and productivity of the labour force. Also Population growth has a direct bearing on savings. In Nagaland where unemployment and underemployment exist at an alarming rate, population growth does not lead to higher output. Rather, consumption increases and savings fall. Savings are also influenced by changes in the age composition. As

the dependency rate grows aggregate savings falls since working age group is mostly responsible fro producing goods and services.

Thus, the prevailing demographic dynamics is a challenge to socio-economic development of the state. Therefore, a proactive family planning policies and human resource policy with a close co-operation between the government, NGOs and other private sectors are required to address the problems.

CHAPTER IV

IMPORTANCE OF HRD STUDIES, MEASUREMENT TECHNIQUES AND INDICATORS FOR NAGALAND

The emerging literature in the field of Human Resource Development indicates the multifaceted meaning of the term. The interpretation of HRD and its thrust areas given by experts belonging to different disciplines varies from one another. In the organizational context, HRD is a process which helps employees of an organization to improve their functional capabilities for their present and future roles to develop their general capabilities to harness their inner potentialities both for their self and organizational culture to sustain harmonious superior-subordinate relationship, team-work, motivation, equality and sense of belonging[71]. Economists became interested in the importance of Human Resource as a form of capital only in the last three decades. John F.Galbraith (1960), a famous economist stated that a well-educated and well-trained workforce was not only an economic resource, but was a nation's greatest form of capital[72]. From the business and industry standpoint, HRD refers to all those educational, training and activities conducted by a business organization to improve the human performance. It is a broad term which includes all activities designed to get employees to work more effectively within a given organization[73]. In the national context, HRD is a process by which the people in various groups (age groups, regional groups, socio-economic groups and community groups etc.) are helped to acquire new competencies continuously so as to make

71. Gulla Amrita; *Human Resource Management: concept & prospects*. Employment News. New Delhi, 24-30 November 2001
72. Galbraith.J.K; *Man and Capital.* Saturday Evening Post. March 1960 p-32
73. Kolekar.B.D; *Human Resource Development: A case study of selected public Sector undertaking in Maharashtra & Goa.*Northern book centre. New Delhi 1993 P-24

them more self-reliant and simultaneously develop a sense of pride in their country[74]. From the view point of an individual enterprise, HRD represents the total of the inherent abilities, acquired knowledge and skills are exemplified in the talents and aptitude of its employees[75]. In a fast changing world, organizations also have to be dynamic. It would like to grow in various ways and forms in response to their environment, and may even like to have considerable impact on them to be able to induce dynamisms in employees through developing their abilities. Human Resources Development is an educational endeavour to improve the human and organizational effectiveness through a planned learning process[76]. According to Leonard (1970), HRD means a series of organized activities conducted within a specified time and designed to produce behavioural change[77].

Human Resources have both quantitative and qualitative dimensions. Characteristics like the size, composition and distribution of population and labour force, the number of hours worked and the output and the earning per head etc are quantitatively measurable and, therefore, lend themselves to statistical treatment. The qualitative characteristics like knowledge, skills, aptitudes, values, motivation,

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74. National HRD Network (Eds) T.V.Rao et.al; *Alternative Approaches and strategies Of Human Resource Development*.Rawat publication.Jaipur 1988 pp-VII & VIII
75. Megginson L.C; Personnel – *Behavioural Approaches to Administration.* Homewood.Illinois.Richard D.Irwin Inc 1967 p-92
76. Mishra R.K & Ravishankar.S; *HRD in Public Enterprises*. The economic times dt 7-12-85
77. Nadle Leonard; *Developing Human Resources*. Gulf publishing & Co-book Publishing division.Houston.Texas 1970 p-3

etc, often lack conceptual and notional clarity and precision, and do not lend themselves as easily to statistical treatment as the quantitative characteristics [78]. Thus, HRD is a process of improving, moulding, changing and developing the skills, knowledge, creative ability, aptitude, attitude, values and commitment etc, based on present and future job and organizational requirement[79].

4.1 Approaches to Human Resource Development

Keeping in mind that the subject deals in developing human resources, it is necessary to examine the approaches to HRD. Sethi (1985) [80] considers that HRD is a set of structural and integrated social programmes whose scope and thrust are so defined as to put it into one of the following relations: (a) as an adjunct (b) as a complimentary and (c) as an alternative strategy. Bogue (1959) put forward that human resources of a country or a region can be studied in two ways: - as a single areal universe and as a collection of sub-universe. The first known as Aggregate Approach, emphasizes the whole and the second known as the Distributive Approach, emphasizes the parts [81]. The two approaches are complimentary, but the

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78. Mehta.M.M; *Human Resources Development planning*. Macmillan Company of India. Delhi 1976 p-9
79. Rao.P.S & Rao.V.S; *Personnel / Human Resource management*. Konard publisher Pvt, Ltd.Delhi 1990 p-14
80. Sethi.J.D; *Human Resources Development-I.* Financial express.9 December 1985
81. Bogue.D.M in population distribution (Eds) P.M.Hauser et.al; *The study of Population; an inventory and Appraisal.* New York. Asia publishing House 1959 P-383

distributive approach which gives spatial patterns of human resources distributed in the country or a region, is more meaningful in geographic study. It, in turn, may be studied in uniform regions or in nodal regions. The former regions are organized around nodes through various kinds of linkages[82]. Biswajeet Pattanayak (1998) [83] presents, by incorporating views of experts belonging to different disciplines nine Approaches to HRD. The approaches are :- (i) Human Capital Approach : It consists of various activities relating to health, on-the-job training, formal education, adult literacy programme and migration. It puts emphasize on individual investment, (ii) Social psychological Approach : It is concerned with the degree of challenges offered by the environment, child-rearing practices in the family, interaction patterns of parents with their children, interacting factors associated with religion and social class and core-religions and social values. All these influence achievement motivation which, in turn, influence economic development, (iii) Poverty Alleviation Approach : A recent approach which seeks to alleviate poverty by identifying existing problems, and encouraging investment in human development to help the poor help themselves, (iv) Queen Bee Approach : This approach stresses the utilization of available resources by an individual for his own development, (v) Brahmanic Approach : The use of resources primarily for the development of an elite group or a section of an organization comes under this,(vi) Input Approach :

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82. Kolars.J.F 7 Nystuen.j.D; *Human Geography; Spatial design in world society*. McGraw Hill. New York 1974 p-199
83. Pattanayak Biswajeet; *Corporate HRD* .Excel books. New Delhi. 1998 pp 5 & 6

This regards HRD as a mechanism of mathematical equation for an assigned input and corresponding output, (vii) Automation Approach : The use of computers in modern technology to oversimplify and rationalize the efforts of HRD is emphasize by this approach, (viii) Motivational Approach : HRD is taken as a means to motivate and activate employees for greater productivity and efficiency and (ix) Creative Approach : This mainly focuses on creativity and innovations of HRD efforts.

When we take human population as a resource, the approach of geographer to population study is primarily distributional. Geographers do not confine themselves to an analysis of patterns of population numbers, but also look at areal pattern in the composition, growth and migration of population[84]. Population characteristics such as density of population, decadal growth of the population, literacy percentage, percentage of non-agricultural workers etc, are statistically combined to obtain certain levels of the resources [85].For the measurement of the Intensity of association between human resource and amenities co-efficient of geographical association or index of concentration is applied[86] .

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84. Clarke.J.I; Geographic influences upon the size, distribution and growth of human Population (Eds) G.A.Harrison & A.J.Boyce; *The Structure of Human Populations.* Clarendon press. Oxford 1972 p-17
85. Singh.J.P; *Human resources and economic planning in Meghalaya.*paper presented to Seminar on Resource base and problems of Regional Development of North-Eastern Region of India. North-Eastern Hill University.Shillong 1977 p-9
86. Smith.D.M; *Patterns in Human Geography.* Penguin book.Harmondsworth 1975 P-165

4.2 Methods and Technique of Human Resource Development

Human Development or Human Resource Development is a process of enlarging people's choices, and is achieved by expanding the knowledge, skill and the capacities of the people in society[87]. It also refers to training, education and development of an organization[88]. Essential capabilities of human development are to lead long and healthy lives, to be knowledgeable, to have access to the resources needed for a decent standard of living and to be able to participate in the life of the community. Without these, many choices are simply not available and many opportunities in life remain inaccessible[89]. But the realm of human development goes further. Essential areas of choices highly valued by people are for being creative and productive, enjoying self respect, empowerment and a sense of belonging to a community[90]. Human resource development also as a concept refers to the abilities and skills of human resource of an area. However, the methodology of human resource development refers to the human capital formation which is parallel to the physical formation in every level and sector of economy and social

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87. Kumar Ashok (Eds) B.S Bhatia et.al; HRD practices: *Assimilation and implication.Vol, 3*.Anmol publication. New Delhi 1991 p-3
88. Armstrong Michael; *A hand book of HRM*. Aditya books Pvt, Ltd.New Delhi 1988 pp-197 to 199
89. UNDP; *Human Development Report 2001 (Making new technology work for Human development)*. New York. Oxford 2001 p-9
90. UNDP; *Human Development Report 2000* (Human Rights and Human Development for freedom and solidarity).New York. Oxford 2000 pp-1 to 13

sphere[91]. It can be spelt out as consisting of qualitative improvement of abilities and skills of manpower enlarging on the core of the development of human resources[92]. We may draw upon Harbinson to say that Human Capital Formation refers to the "process of acquiring and increasing the number of persons who have skills, education and experience which are critical for the economic and social development of a country". It is thus, associated with investment in man and his development as a creative and productive resource"[93]. The vital question and principle in the method of human resource development is to sharpen humans' knowledge, attitude, skills and abilities which are required to perform various obligations, tasks and functioning, to develop the capabilities of individuals. This may enable him to discover and actualize their full potential, utilizing them to the optimal ability of the enterprise, maintaining their quality and amalgamating them with other resources, for their own or organizational developmental process. [94]

The development of natural resources, their proper use and conservation is possible only with the development of human resources. The people in a country form the most important element in the development of resources. The need and aspirations

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91. Tandon.B.B. (Eds) P.P Arya et.al; Human Resource Development. Anmol Publication. New Delhi 1991 pp-7 & 8
92. Ministry of Home Affairs. Government of India; *A manpower programme for Economic Development.* New Delhi. December 1960 p-1
93. Harbinson.F.H; *Human Resource as wealth of Nation*. Oxford university press. London 1973 pp-4 to 14
94. Kolekar.B.D, op.cit, p-30

of the people, their skills and technical training also play an important part in resource development. The natural resources remain underdeveloped in areas inhabited by the tribals because their needs and aspirations are limited and they do not possess the knowledge and skills needed for resource development .Human resources are develop in-order to exploit all the potential resources and to keep pace with the growth of population and to maximize the per capita benefit from those resources one has. The development of human resources refers to the provision of general and vocational education to the people. Not only should they possess the technical skill but they should also have adequate food and medical facilities to lead a healthy life. Further, they are to be made aware of the problems created by wasteful use of resources and pollution of the environment to develop the right attitude towards conservation of resources and protection of environment. Seeing the general development backwardness with a major chunk of the state's population living below the poverty line, the present work attempts to convey the essence of the situation that the development management in this modern world is beyond the capacity of the traditional tribal system of governance and management of resources.

4.3 Measurement Technique

In the last few decades there has been a significant shift in the approach to development. No longer is development seen as growth in per capita income alone. Rather development is now about improving the well-being of the population. Human well-being stretches beyond consumption of goods and services to include the ability to have a better quality of life, better opportunities and enlarged choices, ability to lead a productive and socially meaningful life, gender equality, political freedom and higher standard of living.

The United Nations Development Programme (UNDP) developed several composite indices in 1990 to measure different aspects of human development, and since then it has been constructing Human Development Index (HDI) every year to measure average achievements in basic human development in one simple composite index with the ranking of countries. Other important composite indices include Gender-related Development Index (GDI), Gender Empowerment Measure (GEM) and Human Poverty Index (HPI). Human Development Report 1997 introduced the concept of human poverty and formulated a composite measures of it – the human poverty index (HPI). While the HDI measures average achievement in basic dimensions of human development, the HPI measures deprivations in those

Table 17

HDI, GDI & HPI – Dimensions and Measurement

Index	Longevity	Knowledge	Decent Standard of living	Particip -ation or exclusion
HDI	Life expectancy at birth	1. Adult literacy rate 2. Combined Enrolment ratio.	Adjustment per capita income in PPP $.	-
GDI	Female and male life expectancy at birth.	1. Female and male adult literacy rate. 2. Female and male combined enrolment ratio.	Adjustment per capita income in PPP $based on female and male earned income shares.	-
HPI-1 For Develop -ing countries	Percentage of people not expected to survive up-to age 40.	Adult illiteracy rate	1. Percentage of people without access to safe water. 2. Percentage of people without access to health service. 3. Percentage of under-weight children under five.	-
HPI-2 For Indus -trialized countries	Percentage of people not expected to survive upto age 60	Adult functional illiteracy rate.	Percentage of people living below the income poverty line (50% of median personal disposal income)	Long term un-emplo -yment rate (12 months or more)

Source: UNDP, HDR, 1999

dimensions (Table 17). Accordingly, the Planning Commission of India has identified appropriate development indicators at national and state level to bring about conceptual and methodological consensus on the use of the human

development approach in the country. Thus, the development indices constructed for Country's National Development Report are HDI, GDI, GEM and HPI, and the first national development report was brought out in 2001.

As far as availability of data and information about different aspects of socio-economic parameters are concerned, Nagaland can be considered as a poor state in the country. For example, the Adult literacy rate and mean years of schooling combined at the ratio two-thirds and one-thirds respectively can better represent the level of education as proposed by the UNDP in the modified version of the index. But necessary data estimation mean years of schooling for 2001 are not available. For this reason, literacy rate above seven years is taken here for estimating HDI. The other indicators are Per capita income and Life Expectancy to determine the living standard and the health status to measure the level of human resources in the state.

4.3.1 Literacy

The Human resources development bears a symbiotic relationship with the development of educational attainment of people. The characteristics of modern civilization such as urbanization, globalization, knowledge-based economy and knowledge-based society driven by information technology are closely related to the level of literacy. In modern societies, education tends to become the master

determinant of social transformation because it alone leads to higher occupational achievements. It equips individuals through the process of learning to shoulder the responsibilities of adulthood in society. Education is also taken as a social instrument which functions as a vital agent of socio-cultural change. It increases peoples' awareness of opportunities for advancement and imparts the ability to seize them and paves the way for prosperity and eventually higher quality of life. It is against this background that the present section of the chapter is allotted to the study of literacy analysis of the region in its spatial context.

Literacy in the State

Nagaland has 66.6 per cent of literates according to 2001 census. It is higher than that of the country, which has 65.18 Per cent literates. The top three States in India Union that are having higher percentage of literacy than Nagaland are Kerala (90.92), Mizoram (88.49), Goa (82.32),Delhi (81.82). Among the seven states of North East Region the state of Nagaland ranks fourth position (Table 18). Nagaland literacy is characterized by sharp differences between the literacy rates of males and females. While 56.93 percent of total male populations in the state were literate in 1991; the corresponding figure for the females was only 44.83 percent.

The 2001 census reveals a big leap forward when viewed in the context of the overall literacy rate in the country. The state has recorded 56.89 percent (Table 18) of its population as literate is quite impressive and motivating. The sharp increase in the literacy rate is mainly due to the factors such as accelerated socio-economic development, government policy, and positive attitude of the people towards education.

Table 18

Literacy in North East India, 1991-2001

State	Literacy Rate (Excluding population below 7 Years)		Rank	
	1991	2001	1991	2001
A/Pradesh	41.59	54.3	7	7
Assam	52.89	63.3	5	5
Manipur	59.89	70.5	4	3
Meghalaya	49.10	62.6	6	6
Mizoram	82.27	88.8	1	1
Nagaland	61.65	66.6	2	4
Tripura	60.44	73.2	3	2

Source: Census of India, 2001

Spatial Distribution of Literacy

When spatial distribution of literacy in the state is taken into account at the district level, uneven distribution is clearly observed (Table 19). Mokokchung District with 75.39 per cent as literate occupies the top rung of the literacy ladder. It is followed by Wokha (69.59 percent), Dimapur (65.15 percent), Kohima (63.26 percent),

Zunheboto (57.89 percent) and Phek (57.73 percent). Thus, six districts out of eight have more than 50 percent of their population as literate. Mon District with 35.57 per cent holds the lowest literacy rate in state. The developmental process, be it educational or economic has not been able to gain ground considerably because of the inhospitable and rugged terrain. On the other hand, districts like Mokokchung and Kohima which are located at a comparatively lower elevation bordering the plains of Assam do not face much problem in developmental programmes.

Table 19

Literacy by Sex in the Districts, Nagaland, 2001

State/District	**Literacy Rate (Including population of all ages)**		
	Total	Male	Female
Kohima	63.26	68.50	57.52
Phek	57.73	64.08	50.84
Wokha	69.59	70.07	64.75
Zunheboto	57.89	61.61	53.98
Mokokchung	75.39	77.59	73.00
Tuensang	43.43	47.52	38.87
Mon	35.57	39.92	30.61
Dimapur*	65.15	69.46	60.11
NAGALAND	56.89	61.31	52.19

(*Recognized from 2001)

Source: Census of India, 2001

Thus, there are more educational facilities and hence, the rate of literacy is higher in this part of the state. Tuensang District is another area which is far lagging behind the districts such as Mokokchung, Wokha, and Kohima, etc, in this regard. The

lower rate of literacy in Mon and Tuensang exhibits the imprints of physical constraints on the educational development. For, there are still many areas in these two eastern-most district. Further, analysis of the spatial pattern of literacy at the circle level indicates wide variation from circle to circle (Appendix V). The Lotsu circle in Wokha district has recorded the highest i.e. 87.86 percent of its population; whereas lowest literacy rate is observed in Monyakshu circle (13.17 per cent) which is located at the extreme corner of the Northeastern part of the state. Similar pattern of low rate of literacy is found in almost all the circles that falls under the eastern sector connected to Myanmar. This utterly low rate of literacy particularly in the eastern portion of the state is mainly due to lack of educational facilities, the development of which is largely obstructed by the physical compulsions such as towering hills, rugged terrain and thick vegetation. The circles in the western portion of the state are comparatively higher than their counterparts in the eastern side. The circles with a noteworthy high rate of literacy are Lotsu (87.86); Tuli (87.38), Ongpangkong (86.51), and Kopolong circle (85.48 percent). Interestingly, circles having high literacy rates are located in Mokokchung district; and Phomching circle in Mon district, and Monyakshu circle also in Mon district recorded the lowest male and female literacy rate with 35.28 much ahead of female literacy rate (Fig: 4.1). While Asuto circle in Zunheboto district recorded the highest male literacy rate of 69.05

NAGALAND

DISTRICT WISE LITERACY RATE BY SEX, 2001

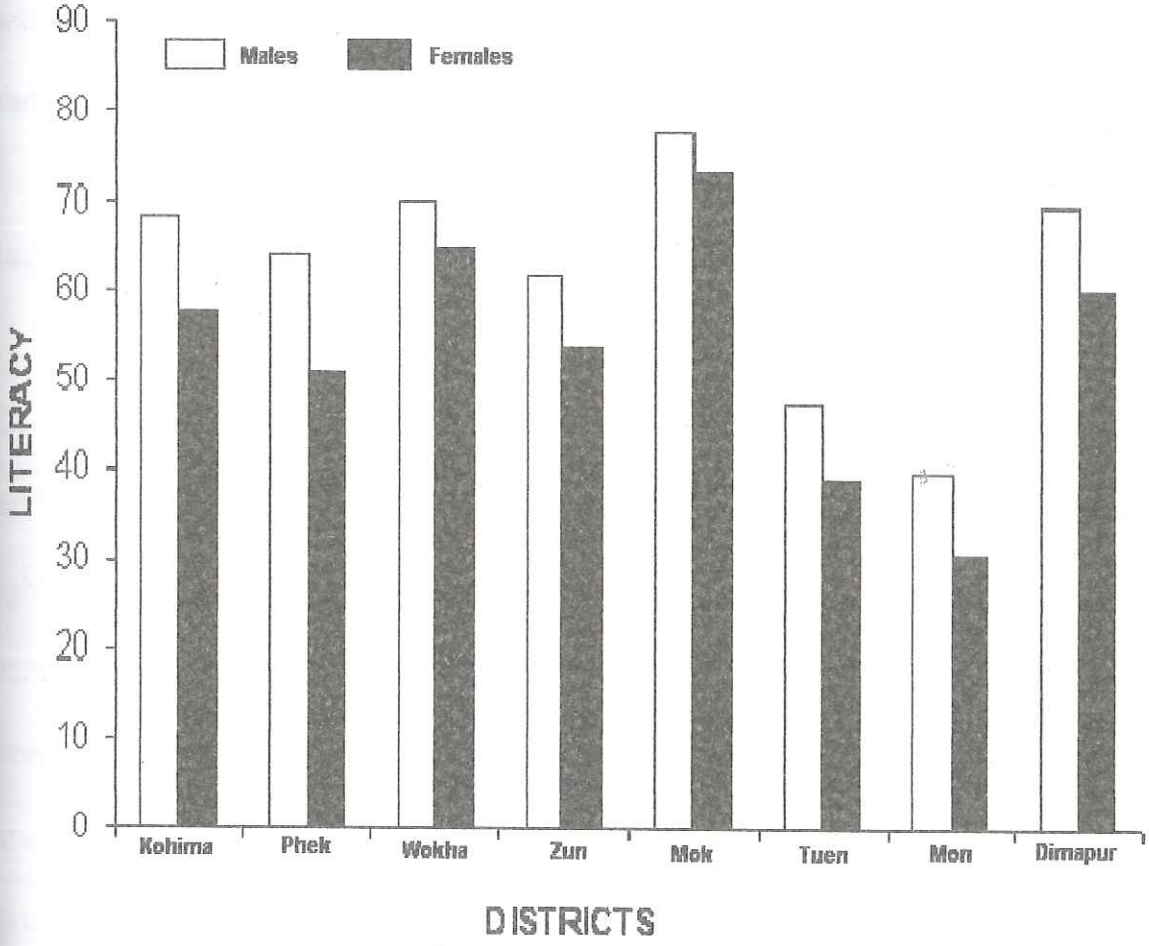

Fig: 4.1

percent, Meluri circle with 71.61 percent recorded the highest female literacy rate among the circles. Various factors as mentioned earlier had kept the females far behind the male counterparts in matter percent and 35.05 percent respectively. In the entire circles male literacy rate is of literacy and education. However, with increasing socio-economic awareness and the educational qualification becoming a matrimonial necessity, the disparity between male and female literacy rate is gradually reducing in Nagaland.

Rural-urban literacy rate

The literacy rate in Nagaland is characterized by sharp differences between the rural and urban populations. The urban literacy of 84.7 percent (Table 20) is obviously higher than the rural literacy of 62.8 percent. This rural- urban difference in the literacy rates of population emits mostly from the differences in the type of economy, social life and the migratory patterns. Mokokchung occupies the highest rural literacy rate among the districts with 82.7 percent, followed by Wokha (77.2 percent) and Dimapur (75.5 percent). The widest difference between rural and urban literacy rate is recorded in Tuensang district with 48.3 percent in rural area, and 81.4 percent in the urban area. Mokokchung district with 92.1 percent has the highest urban literacy rate among the districts followed by Wokha (91.4 percent) and Zunheboto (89.5 percent).

Table 20

District Wise Classification of Literacy Rate in Rural and Urban Areas in Nagaland, 2001.

State/District	Literacy Rate	
	Rural	**Urban**
Kohima	70.5	86.7
Phek	68.9	89.1
Zunheboto	65.7	89.5
Wokha	77.2	91.4
Mokokchung	82.7	92.1
Tuensang	48.3	81.4
Mon	39.2	43.9
Dimapur	75.5	79.1
NAGALAND	**62.8**	**84.7**

Source: Census of India, District profile-2001

The study of literacy rate shows that the urban area situated in the eastern part of the state have very low of literacy as compared to those in the western side. The prevalence of such a phenomenon maybe attributed to the late introduction of education into the areas and also to the physical barriers that stand in the way of any developmental programme in the territories. Moreover, it could also be mentioned that the educational consciousness among the people in these areas has not made substantial headway as it is with others, probably because of their less exposure to the outside world. Education, an important agent of social change, has been playing a vital role among the people in Nagaland. Its impact on the social values and attributes is very noticeable and is tremendous. Consequently, in the wearing off of their conservative way of life and in broadening of their perspective towards inter

village tribal relationships and the outside world. The pursuit of higher education in the urban areas further enhances the possibility of social interaction among people who otherwise belong to different villages. Traditional value systems too have undergone some changes as a result of education. When people from rural areas go to the urban centers in pursuit of further studies they come in contact with a different environment in which they try to assimilate themselves. On return they manifest urban values and these, in turn, help in bringing about changes in the society. Further, education helps in generating a sense of unity and competition among the students. Thus, it can be mentioned that education is highly responsible for bringing social transformation to the people.

4.3.2 Per Capita Income

Income is a very important means of enlarging people's choices and is used in the HDI as a proxy for a decent standard of living. Incomes growth has varied considerably among countries in recent decades, more so than trends in many human development indicators. The distribution of the world's income, and the way this is changing, are thus a vital issue deserving special consideration.

As per the basic statistical report of North Eastern India 2000, the per capita income of the people of north-east India (1993-94) is less than that for the country as a

whole. The per capita income in the north east region ranges between Rs. 1583 in Assam to Rs. 3364 in Arunachal Pradesh (Table 21).The net state domestic product (NSDP) of Nagaland has shown an increase from Rs. 10,547 lakh in 1980-81 to Rs. 233,042 lakh during 2000-01(at constant 1993-94 prices). The per capita income in the State increased from Rs. 1361 during 1980-81 to Rs. 11,473 during 2000-01 (at constant 1993-94 prices) as against Rs. 10,306 for the country as a whole.

Table 21

Per capita State Domestic Product in North East India, 1993-94

State	Per capita State Domestic Product (in rupees)
Arunachal Pradesh	3364
Assam	1583
Manipur	1896
Meghalaya	1681
Mizoram	-
Nagaland	2170
Tripura	1856
India	**8653**

Source: Basic statistic of North Eastern Region 2000
Note: Data for Mizoram was not available.

Spatial distribution of Per capita income

When the spatial distribution of Per capita in come is taken into account in different district of Nagaland, Dimapur district (Table 22) occupies the highest rung of the

income ladder followed by Wokha District, the Per capita district domestic being Rs. 16837 and Rs. 13647 respectively. Mokokchung (Rs. 12305) and Kohima (Rs. 11906) are the other two districts that have Per capita DDP above Rs. 11000. Mon district with Rs. 4500 Per capita DDP is the lowest among the districts. The per capita DDP between the highest producer (Dimapur) and the lowest (Mon) is Rs. 12337. Dimapur being the commercial hub, the population are engaged in various

Table 22

Per Capita District Domestic Product, Nagaland, 2001

State/District	Per Capita DDP(in rupees)
Kohima	11906
Phek	9880
Wokha	13647
Zunheboto	8372
Mokokchung	12305
Tuensang	8149
Mon	4500
Dimapur	16837
NAGALAND	**11119**

Source: Statistical hand book of Nagaland 2001

economic sectors whereas Mon being in the remote area doe not have much of a choice than to engage in primary sector where the income is less. On the whole, the level of socio-economic development in the western regions of Nagaland is higher than in the eastern side. This is because contiguity to Assam provides better

connectivity while on the Myanmarese side accessibility still presents formidable problems.

Despite the progress made in a span of more than 40 years, Nagaland's economy still confronts many developmental challenges. Foremost among them is relative isolation, the difficult terrain, inaccessibility to the rest of the world and continued insurgency. This definitely tells upon the State's endeavors towards industrial and entrepreneurial development, private sector partnership in spearheading development initiatives and all round regional planning. Remoteness and inaccessibility are also the predominant cause for regional disparities in the State.

4.3.3 Life Expectancy

Health is an important form of human capital. The health status of the population measures the quality of life of the people. It is well known that good health contributes to increasing productivity of the economically active population. It also accounts for longevity and well being of children and the aged population. Health confers benefits to the individual in whom it is embodied and also to the society at large. Health status is multidimensional in nature and difficult to measure precisely. It is often captured through a range of indicators such as Infant mortality rate, morbidity, life expectancy at birth, nutritional status or calorie intake and the

medical facilities available. Among these, life expectancy measure is the widely used measure of health status of a population as it is easily observed, objective and less prone to measurement errors. In the following paragraphs attempt is made to discuss the Life expectancy at birth.

Life Expectancy refers to an average age of most of the people of a country up to which they will survive. It is a hypothetical measure because it is based on current death rates and actual death rates change over the course of a person's lifetime. Each person's life expectancy changes as she/he grows older and differs significantly depending on sex, present age. These categories are usually given separately. It is a good indicator of current health conditions. It should be noted that low expectancies in developing countries are in large part the result of high infant mortality rates.

The life expectancy varies both in space and time. Spatially, different regions are at different stages of socio-economic development and technological advancement. Since, the status of health is intimately related to socio-economic and technological background, the cause varies from place to place or from region to region. In the context of Nagaland the life expectancy at birth is improving due to advancement in economic development, propagation of education, improvement of living standard and of the general condition of sanitation. The state's Life Expectancy is 73.4 years (SRS based life tables, 1991 census) as against the national average of 60.7 years.

Spatial distribution of Life Expectancy

When we study the spatial distribution of life expectancy amongst the district of the state, it is observed that there is more or less even distribution of the expected years in the entire districts (Table 23). Mon district (75.0 years) is above the rest which is closely followed by Phek district (74.2 years). Zunheboto (73.6 years) ranks 3rd, Dimapur (73.4) 4th, Kohima (73.2 years) 5th and Mokokchung (72.3 years) 6th,

Table 23

District wise distribution of Life Expectancy, Nagaland, 2001

State/District	Life expectancy (years)
Kohima	73.2
Phek	74.2
Wokha	68.6
Zunheboto	73.6
Mokokchung	72.3
Tuensang	70.8
Mon	75.0
Dimapur	73.4
NAGALAND	**73.4**

Source: Statistical hand book of Nagaland 2001

Tuensang (70.8 years) 7th and Wokha (68.6 years) ranks 8th position of the life expectancy. This high life expectancy prevalent in the state is mostly due to the availability of adequate medical facilities, and the difference between the highest and the lowest ranks is only 6.4 years. The life expectancy in Nagaland is

comparable to that of the developed countries and this can be attributed to her unique culture, and social capital and dietary behaviors that provide the base for a healthy society.

Health status is multi dimensional in nature and difficult to measure precisely. Various indicators ranging from Infant mortality to medical infrastructure are used to measure the health status of the population. The available evidence on health indicators for Nagaland clearly point to the fact that there is a substantial improvement in the health status of the population.

CHAPTER V

GLOBALIZATION AND INFORMATION TECHNOLOGY ON THE SPATIAL PATTERN OF HRD IN NAGALAND

Globalization is defined as the free movement of goods, services, people and information across national boundaries. It creates and, in turn, is driven by an integrated global economy which influences both economic as well as social relations within and across countries. The opening up of an economy increases competition internally as well as externally and leads to structural changes in the economy, altering consumer preferences, life styles and demands of citizens. In this era, communication technology sets globalization apart from any other. The Internet, mobile phones and satellite networks have shrunk space and time, and the nature and character of globalization has been fundamentally altered by new developments in the information and communication technology and the globalization of financial markets.

Wide scope of tremendous technological advances particularly in information technology, formidable rise of transnational corporations, growing involvement of international economic agencies under the aegis of the UN in influencing the policies of member-nations, rise in the proportion of contribution of international trade to the growth rate GNP of all nations, etc. have been promoting the spirit of globalization and the emergence of the global economy into which the economies of countries all over the world including India have been getting willy nilly integrated. The concept of globalization forms an essential element of the country's (India) on going economic reforms programme which entails the processes of privatization,

liberalization and letting the competitive market economy to operate freely. The main objective of the process of globalization is to achieve competitive efficiency for optimization of resource use at the global level. However, this depends on the withdrawal of trade barriers or at least lowering of the levels of tariff walls and loosening of restrictions on flow of resources across national frontiers. The process of globalization is not the universal remedy for the developing countries to quicken the pace of achieving growth and development for eradication of poverty. It, as pointed out by the UNDP, has not ensured the distribution of benefits evenly amongst nations and within nations. It has been particularly violating the principle of equity. Further, it does not only affect economic performances of people but also their social, political and cultural institutions and traditions.

The global perspective of organizing activities in different spheres of life is not an unknown phenomenon in Nagaland. Having access to the phenomenal development of information technology the people of the state is already aware of the global dimension of various development issues that affect their social, cultural, economic and political life-styles and activities. Carrying out of such structural reforms in Nagaland will greatly upset the existing order of its socio-economic and political management system. In the post-Independence period, that is the second half of the twentieth century, the process of state-sponsored and state-directed planned social and economic development within the framework of positive discrimination in

favour of the people has been in progress in Nagaland. An important aspect to this process relates to the enjoyment of preferential treatment in the matter of devolution of financial resources from the Centre for meeting their plan and non-plan expenditures.

As the state is composed of predominantly tribal population there is a constitutional provision for the reservation of jobs in the government services, and public sector enterprises and institutions for the tribals. Similar reservation policy exists for them in both general and technical educational institutions. Moreover, Membership of elected bodies at all levels starting at the local to the state and central levels are also reserved is also for them in proportion to the sizes of their respective populations. Nagaland, of course is not only the state where the people belonging to Schedule Tribe are given these privileges. Though such constitutional safeguards compromise with the principle of free competition for jobs, seats in institutions, etc. they constitute an important component of the socio-economic and political system that has evolved in the state.

Another element of negation of liberalism in economic institutional management system relates to the fact that there does not exist free markets for productive resources, such as land, land-based and other indigenous resources. Freedom of enterprise for the non-tribals in the tribal-majority states and tribal areas is also

largely non-existent. Under the Inner Line Regulation, freedom of entry of citizens from other parts of the country and abroad is also restricted. Formulation and incorporation of all these restrictive and positive discriminatory provisions in our Constitution was necessary because at the given low level of social and economic development of the people and their cultural milieu of egalitarianism the so-called market competition would be disastrous and highly unfair.

In the context of the process of globalization the people of Nagaland need to be empowered to decide and take initiative in improving their conditions by their own enterprise and hard work in accordance with their own perception of development in an equitable manner. There should be a paradigm shift in the on going model of centrally dominated programme of development with centrally provided resources. People of the state must have the liberty to decide what would be the appropriate technology for their productive enterprises and at what pace they would take advantage of the technological changes for improving their social, cultural and economic conditions. They should also be able to control uses of their natural resources so that they can maintain a sustainable growth of theory economy while preserving their rich biodiversity. The new paradigm of development will entail devolution of power to the grassroots level for formulating and executing programmes of development with locally mobilized resources, supplemented by resources provided by the Centre. But the proportion of the former must be greater

than the latter in sharp contrast with the existing ratio. Here, the civil society must play a vital role in ensuring effective participation of the people at the grassroots level in such a planning regime.

The processes of globalization, liberalization and privatization are affecting the population in all the spheres. Now, the challenges faced by Nagaland are to use the forces unleashed by globalization for improving its human development while expanding opportunities for economic growth and over all socio-economic development. This can be only possibly if the human resources are amply developed. The urgency of the development of human resources is substantiated by the following reasons:

1. The future development of economy will require increasing application of science and technology. The quality of education will need to be upgraded so that the knowledge and skills of the labour force can be improved in order to facilitate the introduction of science and technology based processes.
2. Life in the coming decades is likely to bring new tensions together with unmatched opportunities. The coming generations should have the ability to absorb new ideas constantly and to enable oneself to benefit from the designs of HRD. All this implies better education.

3. In the current economic environment, employment is no longer for life; people have to continuously upgrade their skills through education and training.
4. Natural resources are depleting at faster rate because of demand made on them by increasing population. Therefore, in order to increase productivity with smaller use of natural resources, quality of human resources should be improved and
5. The people of the state are relatively young population. Due to better health facilities, the population above 60 is also increasing posing new social and economic problems. The transformation of these problems to our strengths requires development of human resources to the maximum.

5. 1 HRD Strategy: Nagaland

The development scenario in the state of Nagaland since its inception in early sixties has not been an encouraging one. One may produce an ending statistical information matrix about the various aspects of development which has taken place in the state. However, the indicators like literacy, life expectancy at birth and per capita income used for analyzing human resource development indices at village, circle and district level score very low in terms of HDI. This tells in a very pointed manner the dismal affairs of the development which has taken place over the last four decades in the state. A deeper assessment would lead to the facts of the development in Nagaland. The rural areas suffer on account of degradation of environment due to large-scale

jhumming and too much dependence on the paddy field. Community hygiene and health hangs heavily on the people. The community in large villages has organized the links with the neighbouring towns but the small settlements face the problem in a more complicated manner. The urban centers suffer on account of many problems such as shortage of potable drinking water, lack of facilities for the disposal of solid and liquid municipal waste, proper health management, absence of vocational training facilities etc. In the state the life expectancy in years is 73.4 as against the national average of 60.7. On the other hand, the state represents the highest decadal growth of population in the country (64.4 per cent), with a total fertility rate of 3.77 per cent, a demographic challenge for anyone. There has been a phenomenal increase in the levels of literacy, which was 67.11 per cent in 2001 as compared to 21 per cent in 1963. However, against a national increase of 21.39 per cent in the literacy rate during the period 1991 to 2001, the state witnessed an increase of only 8.86 per cent in the same period. The Employment Exchange Record (2001) exhibits that there are 27313 persons enrolled as matriculates and above.

In this scenario, Our HRD strategies for future should concentrate on the following parameters:-

1. **Population Control**: The low standard of living, open and disguised unemployment, poor health, food and nutritional problems etc. are the signs of over

population. There appears to be no alternative but to check the growth of population through various ways and means, acceptable to the people.

2. Employment generation: The total number of persons requiring employment will be millions in the coming years. The provision of employment to all job seekers is going to be a major challenge.

3. Expenditure on HRD: Expenditure in Nagaland though sizeable is highly inadequate in relation to the needs of the growing population. Expansion and utilization of employment opportunities and increase in productivity are strongly influenced by education. We need to build schools, hospitals, institutions of excellence and scientific research, and restructure the system of education to cultivate necessary caliber, skills and value system. Technical Education including management education is one of most potent means for creating skilled manpower required for developmental tasks of various sectors of the economy.

In view of the dismal scenario of the process of development in the state, concerted efforts on the part of all those who are in the policy making bodies including the legislators are called for to streamline the developmental activities. Plan-wise allocated fund needs to be used judiciously and properly for the over all uplift of socio-economic conditions of the state. Since the increase in literacy rate however high it may be reflects, at times, wrongly the improvement upon human resource development proper education should be imparted awakening the conscious of the people to the realities of life. Unless ways and means are explored to open new

avenues for employment, the future seems to be bleak. The state planners need to draw up a long-term HRD strategy covering the next 10-15 years. Such a strategy should clearly identify the HRD objectives that the state hopes to reach.

5. 2 Spatial pattern of HRD in Nagaland

When we observe the spatial pattern of human resource development in India, it reveals the existence of disparities in socio-economic conditions that is disaggregated by regions, gender, ethnic group or rural and urban areas within the country. Disparities of all kinds are interrelated and overlapping. Even within a particular state wide gap of variations in respect of per capita income, literacy rate, life expectancy which form HDI, are found from area to the other exhibiting un-uniformity and un-evenness in the level of development. To bridge the gap between the privileged and the un-privileged and downtrodden re-focusing on the policy making and implementation of the programmes is needed.

Literacy in State / Union Territories : India

According to the Census of India, 2001 the literacy rate in the country is 65.18 percent (male 75.85% and female 54.16%) whereas in 1951 it was 18.33 (male 27.16% and female 8.86%). It has certainly showed a steady progress during the last

Table 24

Literacy Rate of the States of India 2001

Sl. No.	Name of the State	Literacy Rate
1	Andhra Pradesh	61.11
2	Arunachal Pradesh	54.74
3	Assam	61.28
4	Bihar	47.53
5	Delhi	81.82
6	Goa	82.32
7	Gujarat	69.97
8	Haryana	68.59
9	Himachal Pradesh	77.13
10	Jammu & Kashmir	54.56
11	Karnataka	67.04
12	Kerala	90.92
13	Madhya Pradesh	64.11
14	Maharashtra	77.27
15	Manipur	68.87
16	Meghalaya	63.31
17	Mizoram	88.49
18	Nagaland	67.11
19	Orissa	63.61
20	Punjab	69.95
21	Rajasthan	61.03
22	Sikkim	69.68
23	Tamil Nadu	73.47
24	Tripura	73.66
25	Uttar Pradesh	57.36
26	West Bengal	69.22
27	A & N Islands	81.18
28	Pondicherry	81.49
India		**65.18**

Source: Census of India 2001

60 years. But there are wide regional, Rural-urban and male-female differentials in literacy rate (Table 24). Kerala holds the first rank (90.92%) and is followed by Mizoram (88.49), Lakshdweep (87.52%), Goa (82.32%), and Delhi (81.82%). Incidentally, Kerala also holds the first rank in male literacy (92.20%) and female literacy (87.86%). Bihar has the lowest literacy rate (47.53%). The state and Union territories that slug below the national literacy rate are Andhra Pradesh, Arunachal Pradesh, Assam, Jammu & Kashmir and Uttar Pradesh. The level of literacy among the population of different regions of India exhibit that the states located in the northern and southern part is higher than that of the states located at the interior and north eastern part of the country. Nagaland located in the north eastern part of the country has its literacy rate, slightly higher than the national average. Among the State and Union Territories of India, she holds the 16th rank in literacy rate and ranks 4th amongst the north eastern states of India.

NSDP in State / Union Territories : India

When we look Per Capita Net State Domestic Product (NSDP) of the states and Union Territories of India presents a high degree of differences. The State of Goa with an income of Rs.18984 (Table 25) ranked first in per capita NSPD during 1995-1996. The second is of Delhi (Rs. 16779) and is trailed by Punjab (Rs.16004). The other states/union Territories that yield NSDP more than

Table 25

Per Capita Net State Domestic Product of the states of India (1995-96)

Sl. No.	Name of the State	Per capita State Domestic Product (in rupees)
1	Andhra Pradesh	8938
2	Arunachal Pradesh	10205
3	Assam	6288
4	Bihar	3524
5	Delhi	16779
6	Goa	18984
7	Gujarat	11977
8	Haryana	13518
9	Himachal Pradesh	8749
10	Jammu & Kashmir	6181
11	Karnataka	9384
12	Kerala	8924
13	Madhya Pradesh	6518
14	Maharashtra	15457
15	Manipur	6914
16	Meghalaya	7862
17	Mizoram	9570
18	Nagaland	9758
19	Orissa	6192
20	Punjab	16044
21	Rajasthan	6959
22	Sikkim	9472
23	Tamil Nadu	10222
24	Tripura	5083
25	Uttar Pradesh	5874
26	West Bengal	8409
27	A & N Islands	11147
28	Pondicherry	11319

Source: National economic survey 1998-99

Rs. 10,000 are Arunachal Pradesh, Gujarat, Haryana, Maharashtra, Tamil Nadu, Pondicherry and Adaman & Nicobar Islands. This speaks that about 25 per cent of the states in the country produce more than Rs. 10,000. On the other hand, Bihar

with Rs. 3524 produces the lowest NSDP amongst the states in India. In each of the states- Tripura, Uttar Pradesh, Jammu & Kashmir and Orissa the NSDP is as low as Rs. 7000. Among the different states of the country a large degree of disparity exist in the level of economic development in terms of NSDP. It can also be noted that 75 per cent of the total number of states in the country producing less than Rs.10000 NSDP reflects a low standard of living among the people in most of the states.

5.3 Spatial pattern of HDI: Nagaland

The Human development Index is a useful informatics tool for analyzing and assessing development of a region. In a state like Nagaland which is located in the far extreme corner of the country and which is characterized by lofty mountainous ranges, steep slopes, thick vegetation, etc. especially in the eastern section of the state, the developmental process for all spheres of life is not as fast as it is in other states which do not face much environmental constraint. However, by virtue of her geographical size and the number of population which are rather small and low as compared to other state, the developmental activities at present, do not face much of a problem.

According to 2001 Census, the HDI of Nagaland (0.623) compared to that of India (0.472) is in a better position in terms of overall economic development. The state's

good performance and ranking can be best understood by looking at the constituents of the indices and the factors that influence them which include the literacy, health status and income levels. The Per Capita Income of Nagaland during 2000-2001 is almost equal to the national average.

Table 26

Nagaland Human development Index, 2001

Sl. No	**District**	**Index for per capita DDP**	**Combined Index for Educational attainments**	**Combined Index for Health Attainments**	**Human Development Index**
		X1	X2	X3	HDI
1	Dimapur	0.624	0.793	0.781	0.733
2	Mokokchung	0.483	0.866	0.767	0.705
3	Wokha	0.530	0.846	0.632	0.669
4	Kohima	0.468	0.779	0.773	0.673
5	Phek	0.384	0.737	0.834	0.651
6	Zunheboto	0.310	0.713	0.811	0.611
7	Tuensang	0.298	0.530	0.708	0.512
8	Mon	0.031	0.459	0.861	0.450
	Nagaland	**0.438**	**0.661**	**0.769**	**0.623**

Source: Nagaland State Human Development Report 2004

Note: Districts arranged according to rank of Human Development Index

The 2001 state literacy rate is 67 percent as against the national average of 65.2 percent. Within the social framework of the state is education included as a valued asset since its introduction along with the ushering in of Christianity into the region. The unique framework of care and support provision of Naga society finds expression in the better performance of the state, as against the national average in terms of longevity and health status.

Among the districts in the state (Table 26), the HDI is highest in Dimapur (0.73), followed by Mokokchung (0.71). Mon has the lowest HDI (0.45), and it is the only district having less than the national HDI (0.47). The HDI ranking for all the districts is directly related to the position of the districts with regard to DDP and the educational attainments. The combine of DDP, educational attainments and health attainments in all the districts reflect positively on the status of HDI in the state. However, it may be pointed out the districts namely, Tuensang and Mon which are located occupying the extreme north and eastern portion of the state are found to be lagging behind other districts in HDI.

Thus, the foregoing study and discussion highlights the existing situation, the structure, process and the stages of human development in the state. The most significant changes in the human development in Nagaland are the high life expectancy. All the districts have higher than the average of the country's life

expectancy which can be attributed to the investment made in the health and educational sector. In Nagaland, agriculture is a leading sector, which generates more employment and this needs scientific training and temper. Education and health are to be spread meticulously and compulsorily to all. Profit, efficiency, productivity and production which are interdependent can be more positive and progressive once the human resources in the state are properly motivated and geared to attain greater achievements.

CHAPTER VI

SOCIO-ECONOMIC PERSONALITY AND HRD
(A CASE STUDY)

LOCATION OF VILLAGES UNDER STUDY

Fig: 6.1

With a view to understanding the level of human resource development at the micro level, a survey has been carried out during the period 2004-05, covering 22 villages selecting two each from the eleven districts of the state (Fig 6.1).. The aspects included in the study of the villages are their location, population characteristics, socio-economic conditions, etc.

6.1 Lothavi Village

It is a Sema-Naga village located at an altitude of 400 m in the south-western part of Dimapur District. It is about 35 Km from Dimapur town which has a total population of 1,458 (758 males and 700 females). Population in the age-group 0-14 years (Table 27) is higher than those in the other succeeding groups. The percentage share of the age group above 60 years is 4.39. The number of births in the village during 2004-05 was 10, while that of death was only 3. The sex ratio of the village is 924 females per 1000 males, and the life expectancy in the village is 74 years.

Economy and Literacy: Wet cultivation is the main practice of cultivation. It is more productive than jhum cultivation and causes less damage to the ecological balance. Besides wet cultivation, fish culture forms prominent feature of peoples' economy. It is carried out on commercial scale and the produce is readily marketed at Dimapur. Teak plantation is also done in small scale to enhance their income. The

per capita income of the village is Rs. 16500. The total number of literates is 947 (651 males and 296 females) accounting for 65 per cent of the total population.

Table **27**

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	578	301	277
15-29	441	229	212
30-39	179	93	86
40-49	128	67	61
50-59	68	35	33
60-69	39	20	19
70 & above	25	13	12

Source: Survey

6.2 Molvom Village

Located at an altitude of 600 m above the mean sea level, the village comes under Medziphema sub-division. It is the largest Kuki village, at a distance of 37 Km from Dimapur. Total population of the village is 2,274 (1,170 males and 1,170 females) and the sex ratio is 943 per 1000 males. Population between 15-59 years constitutes about 57.08 per cent of the total (Table 28). The analysis of the age structure

indicates that the economically depend population is large. The life expectancy in the village is 72 years.

Table **28**

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	878	452	426
15-29	711	366	345
30-39	279	143	136
40-49	201	103	98
50-59	107	55	52
60-69	59	31	28
70 & above	39	20	19

Source: Survey

Economy and literacy: Main economy of the village is based on Horticulture. Though Jhumming is also practiced in traditional form, it is the Pine Apple cultivation that is more popularly practiced in recent years. It is harvested twice a year and is marketed in Dimapur. The per capita income of the village is Rs. 16500. The total number of literates is 154 forming 48.84 per cent of the total population. There is only one primary school and one high school in the village, besides one private high school which is run by the church.

6.3 Anatonger Village

Anatonger village, situated at an altitude of about 950 m from the mean sea level. The state highway from Tuensang-Kiphire runs at the western edge of this Tikhir-Naga village. On the north it is bounded by Zungro River and on the east by Zunki River. The village is 27 Km away from Kiphire. The total population is 4024(2032 males and 1992 females), and the sex ratio of the village is 980. The total number of children up to the age of 14 is 1550, that is, 38.52 per cent of the total population (Table 29). The percentage of total souls in the age-group 15-59 years is about 55.28, whereas that in the group upwards of 60 years is 6.2 per cent.

Table 29

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	1550	782	768
15-29	1128	568	560
30-39	464	234	230
40-49	398	200	198
50-59	234	118	116
60-69	146	78	68
70 & above	108	52	52

Source: Survey

During the year 2004-05 there were as many as 15 cases of birth and 3 cases of death. The life Expectancy in the village is 71 years.

Economy and Literacy: Main type of cultivation is Jhum. Tikhirs are noted for handicrafts like making of baskets of all sorts, carving woods for domestic purposes and decorations and making of tools for various purposes. The per capita income of the village is Rs.13550. The percentage of literates in the village is 52 %. There is one primary school and one Junior high school, and the number of students is 395.

6.4 Singrep Village

Atop 1010 m from the mean sea level, Singrep village is located in the north-western part of Kiphire District. It is a Sangtam-Naga village encircled by Amahator circle in the northern and western side and by Langkoker and Longthonger village in the south and east respectively. The total population of the village is 2264 (1154 males and 1110 females). The sex ratio in the village is 962 females per 1000 males. With respect to the distribution of population in different age groups those coming between 0-14 years make up a significantly high proportion (Table 30). It is 799, and it accounts for 35.29 per cent of the total population. The percentage of population in the age group 15-59 years is 56.14, while that of above 60 years is

Table 30

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	799	407	392
15-29	658	335	323
30-39	268	137	131
40-49	203	103	100
50-59	142	73	69
60-69	99	51	48
70 & above	95	48	47

Source: Survey

8.57. There have been 55 cases of birth and 10 death cases in 2005. The life expectancy of the people in the village is 72 years.

Economy and Literacy: Jhum cultivation is the main type of cultivation of the people. During the lean period, particularly after the harvest of the crops men actively involve themselves in making of baskets and in carving of woods. Women on the other hand, weave clothes, bags and shawls. The per capita income of the village is Rs. 14340. The total number of literates in the village is 1059 forming 46.80 per cent of the total population. The percentage of male literacy to total male population is 34.83, while that of female literacy to total female population is 16.21.

6.5 Kigwema Village

It is an Angami-Naga village located at an altitude of 1,400 m in the southern part of Kohima District (Jakhama sub-division). The village is situated along Kohima-Imphal Road and is 16 Km away from Kohima. The village population is 3433 (1701 males and 1732 females) as per the survey. The sex ratio is 1018 females per 1000 males. There are 1360 children up to the age of 14 years and it forms 39.61 per cent of the total population of the village (Table 31). The percentage share of the population in the age group above 60 years is 4.31. The life expectancy in the village is 76 years.

Table 31

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	1360	675	685
15-29	1040	516	524
30-39	424	209	215
40-49	297	149	148
50-59	164	80	84
60-69	90	44	46
70 & above	58	28	30

Source: Survey

Economy and Literacy: Terrace cultivation is the main practice of cultivation. Economically, it is more productive than jhum cultivation and causes less damage to the ecological balance of the region. An interesting thing found in this part of the region is the rearing of fish in the fields. This is to supplement their income. The per capita income of the village is Rs. 1600. The total number of literates is 2763 (1620 males and 1143 females) which makes up of 80.74 per cent of the total population. There are one high school and two primary schools in the village. The total enrolment in the high school is 285, whereas that in the two primary schools is 300.

6.6 Nerhema village

The village is located at an altitude of about 1,050 m from the mean sea level in the northern part of Chiephobozou subdivision in Kohima District. Total number of population is 2485 (1247 males and 1238 females), and the number of households is 380 in the village. The sex ratio in the village is 992. There are 985 children up to the age of 14 years (Table 32). Population at the age-group 15-59 years constitutes around 56.05 per cent of the total population. From the age-structure of population, it is evident that the economically dependent population is large. There have been 23 cases of birth during 2004-05and only 6 cases of death during the same period. The life expectancy in the village is 75 years.

Table 32

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	985	449	486
15-29	752	373	379
30-39	305	154	151
40-49	219	111	108
50-59	117	56	61
60-69	65	32	33
70 & above	42	22	20

Source: Survey

Economy and Literacy: The main economy of the village is agriculture. Besides agriculture, people engage themselves in household industries such as weaving and making of baskets. The per capita income of the village is Rs. 15700. The total number of literates is 2013 (1202 males and 811 females). It makes up of 81.00 per cent of the total population. The total school going children is 378. For higher education students preferably go to Kohima which is not far off from the village.

6.7 Yaong Village

Located at an altitude of about 1600 m from the mean sea level, the village is

situated in the northern portion of the state in Longleng District. It is a Phom-Naga village flanked on all sides excepting the west by other Phom villages. The number of households in the village is 538 and its total population is 4706 (2477 males and 2229 females) as per the survey. The sex ratio is 899 which are quite below the state level (900). This can be partly ascribed to the natural birth rate of female population. It is found that the population in the age-group 0-14 (Table 33) is significantly high (38.57 per cent). The percentage share of population in the age-group 15-59 years is 55.18 and in the age-group of above 60 is 6.24. There were 20 cases of birth and 4 cases of death in the village during the period 2004- 05. The life expectancy in the village is 70 years.

Table 33

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	1815	955	960
15-29	1316	693	525
30-39	544	286	258
40-49	464	244	220
50-59	273	144	129
60-69	172	91	81
70 & above	122	64	58

Source: Survey

Economy and literacy: As in any Naga village, the mainstay of the inhabitants of this village is agriculture. The type of agriculture popularly practiced here is jhumming. Except cottage industry there is no other industry in and around the village. The per capita income of the village is Rs. 14000.The village is rated as an educationally advanced village among the Phom villages. Out of 2263 literate persons, 1335 or 59.01 per cent are males, whereas 928 or 40.99 per cent are females. The total number of students in the village is 350.

6.8 Pongo Village

It is a Phom-Naga Village located at an altitude of about 1,400 m in the eastern part of Longleng District. The village is about 22 Km from Longleng town. The total number of population in the village is 4573 (2407 males and 2166 females). The sex ratio of the village is 900 females per 1000 males, and is equal to the state's sex ratio. There are 1762 children up to the age of 14 years which forms 38.53 per cent of the total population of the village (Table 34). The percentage share of the population in the age group above 60 years is 6.25. This points out that nearly 44.78 per cent of the population in the village is economically dependent. The number of births in the village during the period 2004-05 was 40, while that of death was only 7. The life expectancy in the village is 71 years.

Economy and Literacy: Here Jhumming is the main type of cultivation which engages more than 95% of the total workforce. The per capita income of the village is Rs. 14200. The total number of literates is 2332 (1393 males and 939 females) and it forms 51 per cent of the total population. The total enrolment in the junior high school is 74, whereas 326 in the primary schools.

Table 34

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	1762	927	935
15-29	1279	673	606
30-39	528	278	250
40-49	452	238	214
50-59	266	141	125
60-69	168	88	80
70 & above	118	62	56

Source: Survey

6.9 Waromong Village

Located at an altitude of about 900 to 1000 m above the mean seas level, the village is situated at a distance of about 64 Km north-west of Mokokchung town. The total

population of the village is 4442 (2260 males and 2182 females). There has been a rise in population by 550 souls since 2001 when the population was 3892. The sex ratio in the village is 966 per 1000 males. Population in different age groups reveals that there are 1460 children up to the age of 14 years (Table 35) and it represent nearly 32.87 per cent of the total population. At the age group 15-59 years it is 60.44 per cent of the total. During 2004-2005 there had been 95 cases of birth and 11 cases of death. The life expectancy in the village is 76 years.

Table 35

Population Distribution by Age Group and Sex

Age group	Persons	Males	Females
0-14	1460	743	717
15-29	1468	747	721
30-39	521	265	256
40-49	431	219	212
50-59	265	135	130
60-69	159	81	78
70 and above	138	70	68

Source: Survey

Economy and Literacy: The main economy of the village is agriculture where Jhumming is the main type of cultivation. The per capita income of the village

is Rs. 15000. Its literacy rate is 89.99 where male rate is 86.99 percent to total male population, while that of female population is 91.29 percent. There are 3 Primary Schools in the village that caters to 400 students.

6.10 Lirmen Village

Lirmen is an Ao-Naga village, located at a distance of about 32 km north of Mangkolemba, a sud-divisional headquarters of Mokokchung District. The total population is 1656 (854 males and 802 females). The sex ratio of the village is 937. The age structure of population (Table 36) shows that the population in the age-Group 0-14 years is higher than those in the other age-groups. The percentage of total souls in the age-group 15-59 years is about 60, whereas that in the group upwards of 60 years is 6.6 per cent. There have been only 6 cases of death during the period 2004-05, whereas the cases of birth have been as many as 35 during the same period. The life expectancy in the village is 75 years.

Economy and literacy: Jhumming is the main type of cultivation. Besides, people cultivate aromatic plants, betel nut and leaves on commercial scale. Brooms are also collected by females to enhance the income of the family. The per capita income of the village is Rs.15000. The total number of literates is 1341 (685 males and 656

females) which makes up of 81 per cent of the total population. There is one junior high school and one primary school in the village.

Table 36

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	554	286	268
15-29	537	277	260
30-39	194	100	94
40-49	162	84	78
50-59	99	51	48
60-69	59	30	29
70 & above	51	26	25

Source: Survey

6. 11 Wangti Village

The village is located at an altitude of about 998 m from the mean sea level in the south-eastern part of the state in Mon District. It shares the international boundary with Myanmar in the east. The village is about 90 Km away towards south from Mon town. The total population of the village stood at 2,399 (1,235 males and 1164 females). The population in different age-groups reveals (Table 37) that there are 925 children upto the age of 14 years. The number of souls that has crossed 60 years

is 6.25. There were as many as 88 cases of birth and 26 cases of death. The life expectancy in the village is 75 years.

Table 37

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	925	476	449
15-29	671	345	326
30-39	277	143	134
40-49	237	122	115
50-59	139	72	67
60-69	88	45	43
70 & above	62	32	30

Source: Survey

Economy and Literacy: Jhum cultivation is the main type of cultivation of the people. The per capita income of the village is Rs. 12700. The total number of literates in the village is 1013 forming 42.25 per cent of the total population. The percentage of male literacy to total male population is 46.70, while that of female literacy to total female population is 37.12.

6.11 Wakching Village

Located at an altitude of about 880 m from the mean sea level, the village is situated in the western portion of the state in Mon District. It is a Konyak-Naga village flanked on all sides by Konyak villages. The number of households in the village is 750 and its total population is 6412 (3195 males and 3217 females) as per the survey. The sex ratio in the village is 1006 females per 1000 males. Population in the age-group 0-14 (Table 38) is significantly high (28.82 per cent). The percentage share of population in the age-group 15-59 years is 56.58. There have been 80 cases of birth and 12 cases of death in the village during the year 2004-05. The life expectancy in the village is 74 years.

Table 38

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	1848	928	920
15-29	1573	775	798
30-39	812	420	407
40-49	680	339	341
50-59	563	281	282
60-69	472	236	236
70 & above	464	232	232

Source: Survey

Economy and Literacy: The mainstay of the inhabitants of this village is agriculture. The type o agriculture practiced here is jhumming with no sign of either terraced cultivation or wet rice cultivation. The Per capita income of the village is Rs. 13200. The literacy in the village is standing at 51 per cent. Out of 3270 literate persons, 1939 or 59.30 per cent are males, whereas 1331 or 40.70 per cent are females.

6.12 Saijang Village

Saijang, a Kuki village is situated at an altitude of 1,225 meters from the mean sea level. It is about 15 Km away from Jalukie town. The village has a total population of 1288 (660 males and 628 females). The sex ratio of the village is 951. The total number of children up to the age of 14 is 510 that are 39.60 per cent of the total population (Table 39). The percentage in the age-group 15-59 years is 56.05, whereas that in the group upwards of 60 years is 4.35 per cent. The life expectancy in the village is 70 years. There were 26 cases of birth and only 4 cases of death in the village during 2004-2005.

Economy and literacy: Here Jhumming is the main type of cultivation. Traditionally it begins in the early part of February and the harvest is normally done by the first week of September. The per capita income of the village is Rs.13500.

The total number of literates is 882 (497 males and 385 females) which form 68.50 per cent of the total population. There is only one high school in the village. The total number of school going children is 105.

Table 39

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	510	262	248
15-29	390	200	190
30-39	158	81	77
40-49	113	57	56
50-59	61	30	33
60-69	34	18	16
70 & above	22	12	10

Source: Survey

6.13 'B' Jalukie Village

Located at an altitude of 1400 m from the mean sea level, 'B'Jalukie Village falls under the northern part of Peren District. It is a Zeliang-Naga village and is surrounded on all sides by other Zeliang villages. The distance of Dimapur from the village is nearly 58 Km. The village has a total population of 2484 (1253 males and 1231 females (Table 40). The total population in the age is 984 and it accounts for

39.61 per cent of the total population. The percentage of population in the age group 15-59 years is 56.08, while that of above 60 years is 4.31. The life expectancy in the village is 71 years.

Table 40

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	984	496	488
15-29	752	379	373
30-39	305	154	151
40-49	219	110	109
50-59	117	59	58
60-69	65	33	32
70 & above	42	22	20

Source: Survey

Economy and Literacy: Jhum cultivation is traditionally practiced, and the per capita income of the village is Rs14000. The total number of literates in the village is 1329 forming 53.50 per cent of the total population. The percentage of male literacy to total male population is 48.88, while that of female literacy to total female population is 33.91. There is two primary school and one junior high school in the village and the total enrolment in the schools is 350.

6.15 Chozuba Village

It is a Chakhesang-Naga village located at an altitude of 1,500 m at Chozuba sub-division in the north-western part of Phek District. The village is 34 Km from Phek and is surrounded on all sides by other Chakhesang villages. Its population stands at 3368 (1742 males and 1626 females), and the sex ratio is 933 females per 1000 males. It is seen that the population in the age-group 0-14 years (Table 41) is higher than those in the other succeeding groups. The percentage share of the population in the age group above 60 years is 5.17. This points out that nearly 41.45 per cent of the population in the village is economically dependent. The life expectancy in the village is 73.

Table 41

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	1222	632	590
15-29	1114	576	538
30-39	380	197	183
40-49	288	149	139
50-59	190	98	92
60-69	108	56	52
70 & above	66	34	32

Source: Survey

Economy and Literacy: Terrace cultivation is widely practiced by the villages. Rearing of fish in the fields constitute their source of income. The per capita in the village is Rs.14000. The total number of literates is 2320 (1295 males and 1025 females) as per the survey. It makes up of 68.90 per cent of the total population. At present, there is one high school and primary schools in the village.

6.16 Thenizumi Village

The village is above 1,450 meters from the mean sea level and it is in the western part of Phek District. It is a Chakhesang-Naga village. The distance of the village from Phek is about 60 Km. The total population of the village is 2644 (1340 males and 1304 females. The sex ratio in the village is 973 females per 1000 males, and is much above the state level. The age group of 0-14 years makes up 34 per cent of the total population (Table 42). The percentage of population in the age group 15-59 years is 58.35, while that of above 60 years is 7.65. During 2004-2005 there have been 32 cases of birth, while the cases of death have been 14. The life expectancy in the village is 72 years.

Economy and literacy: Terrace cultivation is the main type of cultivation of the people. Fish are also reared in the terrace field to enhance their income. The per capita income of the village is Rs. 13500. The total number of literates in the village

is 135 forming 51.20 per cent of the total population. The percentage of male literacy to total male population is 54.75, while that of female literacy to total female population is 30.15. There is only one primary school in the village and the total school going student is 130. For higher education students go to Phek.

Table 42

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	899	455	444
15-29	822	417	405
30-39	306	155	151
40-49	242	122	120
50-59	173	87	86
60-69	115	58	57
70 & above	87	45	42

Source: Survey

6.17 Chare village

The village is located at an altitude of about 1,650 m from the mean sea level in the western part of Tuensang District. It is one of the biggest villages of the Sangtam-Nagas and is surrounded on all sides by other Sangtam villages. The total population of the village is 2974 (1582 males and 1392 females) and the total number of

households is 300 (as per survey).The sex ratio is 879 per 1000 males .There are 1007 children upto the age of 14 years and it forms nearly 33.86 per cent of the total population (Table 43). Population in the age-group 15-59 years constitutes around 59.44 per cent of the total population. The number of souls that has crossed 60 years is 199. There have been 70 cases of birth during 2004 and 2005 and only 5 cases of death during the same period. The life expectancy in the village is 70 years.

Table 43

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	1007	536	471
15-29	953	507	446
30-39	348	185	163
40-49	288	153	135
50-59	179	95	8
60-69	122	65	57
70 & above	77	41	36

Source: Survey

Economy and Literacy: The main economy of the village is agriculture. Besides agriculture, people engage themselves in household industries such as weaving and making of baskets. The per capita income of the village is Rs. 13700. The number of

literates is 2230, 1218 males and 1012 females which constitutes nearly 75 per cent of the total village population.

6.18 Hakching Village

It is a Chang-Naga village located at an altitude of 1,400 m in the north-eastern part of Tuensang District. The village is about 25 Km from Tuensang and it shares boundary with Maksha in the east, Nakshu in the west, Sangsangnyu in the north and Thimku in the south. The village has a total population of 3210 (1659 males and 1551 females) as per the survey. The sex ratio of the village is 934 females per 1000 males. There children in the age 14 years forms 29.12 per cent of the total population of the village (Table 44). The percentage of population in the age group above 60 years is 14.92. The life expectancy in the village is 71 years.

Economy and Literacy: Jhum cultivation is the main type of cultivation of the people and the per capita income of the village is Rs. 13000. The total number of literates is 1645 (919 males and 726 females) as per the survey. It makes up 51.27 per cent of the total population.

Table 44

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	935	488	447
15-29	727	378	349
30-39	405	209	196
40-49	372	191	181
50-59	292	150	142
60-69	250	127	123
70 & above	229	116	113

Source: Survey

6.19 New Riphyim Village

The New Riphyim is a Lotha-Naga village situated at an altitude about 1010 m above mean sea level. It is 14 Km from Wokha town. The number of households in the village is 180 and its total population is 844 (418 males and 426 females). The sex ratio in the village is 1019 per 1000 males. The age-structure of population shows that the population in the age-group 0-14 (Table 45) is significantly higher (39.22 per cent) than those in the other groups. The percentage share of population in the age-group 15-59 years is 55.45 and in the age-group of above 60 is 5.33. The life expectancy in the village is 70 years.

Economy and Literacy: The main economy of the village is agriculture. Besides, the people are engaged in Horticulture based cultivation. The per capita income of the village is Rs. 14500. This village is regarded as one of the educationally advanced villages in the district. The reasons for such a phenomenon are: (i) the Anganwadi workers teach the children upto 13 years of age and (ii) initiatives taken by the churches for making the children read Bible. The literacy rate of the village is 85.60 per cent.

Table 45

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	331	161	170
15-29	248	122	126
30-39	97	47	50
40-49	76	39	37
50-59	47	26	21
60-69	27	13	14
70 & above	18	10	8

Source: Survey

6.20 Old Ralan Village

It is a Lotha-Naga village located at an altitude of 350 m in the southern part of Wokha District. The village is about 70 Km from Wokha but only 35 Km away

from Dimapur. The total number of population in the village is 1083 (550 males and 533 females) as per the survey. The sex ratio is 967 females per 1000 males. There are nearly 34.89 per cent of the populations in the village who are economically dependent. The number of births was 21, while that of death was only 3. The life expectancy in the village is 70 years.

Table 46

Population Distribution by Age Group, 2005

Age-Groups	Persons	Males	Females
0-14	336	171	165
15-29	297	151	146
30-39	158	80	78
40-49	135	68	67
50-59	115	58	57
60-69	25	13	12
70 & above	17	9	8

Source: Survey

Economy and literacy: Wet cultivation is the main practice of cultivation which is more productive than jhum cultivation and causes less damage to the soil. Besides, fish are also reared on commercial scale. Teak plantation is another source of their income. The per capita income of the village is Rs. 14700. The total number of literates is 532 (274 males and 258 females) as per the survey. It forms 68 per cent

of the total population. At present, there is only one primary school in the village. The total school students are 295. For higher education students preferably go to Ralan town which is not far off from the village.

6.21 Lumami Village

It is a Sema-Naga village rested above 1100 m from the mean sea level. The distance of the village from Mokokchung is only 19 Km. The total population of the village is 1158 (594 males and 564 females). The sex ratio in the village is 949 per 1000 males. There are 381 children upto the age of 14 years (Table 47) and they represent nearly 32.90 per cent of the total population. Population in the age group 15-59 years constitutes about 60.88 per cent of the total. There have been only 4 cases of death during the period 2004-05, whereas the cases of birth have been as many as 17 during the same period. The life expectancy in the village is 73 years.

Economy and Literacy: The main economy of the village is agriculture. The per capita income of the village is Rs. 13500. The total number of literates is 868 (472 males and 396 females) which make up 75 per cent of the total population. The total enrolment in the schools is 121.

Table 47

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	381	190	191
15-29	394	198	196
30-39	131	62	69
40-49	112	59	53
50-59	68	38	3
60-69	44	29	15
70 & above	28	18	10

Source: Survey

6. 22 V.K Village

V.K village is situated at an altitude of about 1050 m from the mean sea level. It is a Sema-Naga village situated at a distance of about 68 km in the north of Zunheboto. The total population of the village is 1651 (836 males and 815 females). The sex ratio of the village per 1,000 males is 974. The age structure of population shows that the number of children upto the age of 14 is 576 (Table 48). The percentage of total souls in the group upwards of 60 years is 6.12 per cent. The life expectation of the people in the village is 72 years.

Table 48

Population Distribution by Age Group and Sex

Age-Groups	Persons	Males	Females
0-14	576	292	284
15-29	496	251	245
30-39	220	111	109
40-49	159	80	79
50-59	99	50	49
60-69	62	32	30
70 & above	39	20	19

Source: Survey

Economy and literacy: Here Jhumming is the main type of cultivation. It starts at the early part of February and the harvest is normally done by the first week of September. The per capita income of the village is Rs. 13500. The total number of literates is 1221 (702 males and 519 females). It makes up 74 per cent of the total population. The enrolment of the school going children is 285. For higher education students preferably go to Mokokchung town which is not far off from the village.

6.2 Level of human development in the villages under study

In order to evaluate the level of human resource development at the grassroots level, 22 villages from different parts of the state have been considered. This has been attempted to ascertain various aspects of life basing on some of the major indicators of human resource development. This has been necessitated by the fact that the required indicators for the purpose are miserably lacking for the circle as well as the district. Hence, a case study was conducted in order to collect the relevant information for the study so as to make it more analytical and in depth study. The indicators taken into consideration at the village level are (a) per capita income, (b) educational attainment and (c) health attainment. After having discussed the geographical location, population characteristics including life expectancy and literacy, economic conditions, etc. of each of the villages, efforts have been made to find out human development index with the help of the above mentioned indicators. However, it is stated that the case study covering a number of villages in no way represents the overall picture of the level of human development in the state. At best it may just help in understanding the general aspect of the state of human resource development in Nagaland.

The indicators when examined for all the villages it is found that variations do exist in per capita income, educational attainment and health attainment amongst the

villages, particularly between the villages in the eastern and in the western part of the state. In terms of per capita income the villages at the higher level are Lothavi and Molvom. Both the village share the same (0.052) index order (Table 49). These villages are closely followed by Kigwema with 0.050. The first two are located as stated above in Dimapur District. Whereas, Kigwema falls under Kohima District, well within the influence of Kohima. Yaong in Longleng District, Chozuba in Phek District and 'B' Jalukie in Peren District attain the lowest level (0.004) of per capita income. All these villages are situated at the eastern and south eastern part of the state where there is less scope for economic activities due to inaccessibility. In educational attainment all the villages score more or less the same level. Waromong with 0.063 and New Riphyim with 0.061 stand out, however. The former is located in Mokokchung District while the latter in Wokha District. Wangti, which is in Mon District occupies the lowest position with 0.030. In respect of health attainment also it is Waromong which tops the index order (0.048). It is followed by Nerhema, Lirmen and Wangti, each with 0.047. Yaong, Saijang, Chare, New Riphyim and Old Ralan villages, each with 0.043 are at the lowest rung of the ladder.

With respect to human development index (HDI) which has been calculated out of the above indicators Waromong with 0.053 is above all others. Closely behind it are Kigwema, Nerhema and Lirmen. The index order for all these villages is 0.051. The villages which reach the level above 0.045 are Lothavi, Chare, New Riphyim,

Table 49

HDI of 22 villages of Nagaland

Sl. No.	Name of the village	Index for Per Capita Income	Index for Educational attainments	Index for Health attainments	Human Development Index	Rank
		X1	X2	X3	HDI	
1	Lothavi	0.052	0.046	0.046	0.048	4
2	Molvom	0.052	0.035	0.045	0.044	8
3	Anatonger	0.043	0.037	0.044	0.041	10
4	Singrep	0.045	0.033	0.045	0.041	10
5	Kigwema	0.050	0.057	0.046	0.051	2
6	Nerhema	0.049	0.057	0.047	0.051	2
7	Yaong	0.004	0.034	0.043	0.027	14
8	Pongo	0.045	0.036	0.044	0.042	9
9	Waromong	0.048	0.063	0.048	0.053	1
10	Lirmen	0.048	0.057	0.047	0.051	2
11	Wangti	0.040	0.030	0.047	0.039	11
12	Wakching	0.042	0.036	0.046	0.041	10
13	Saijang	0.043	0.049	0.043	0.045	7
14	'B' Jalukie	0.004	0.036	0.044	0.029	13
15	Chozuba	0.004	0.049	0.046	0.033	12
16	Thenizumi	0.043	0.036	0.045	0.041	10
17	Chare	0.043	0.053	0.043	0.046	6
18	Hakching	0.041	0.036	0.044	0.042	9
19	New Riphyim	0.046	0.061	0.043	0.050	3
20	Old Ralan	0.047	0.046	0.043	0.046	6
21	Lumami	0.043	0.053	0.046	0.047	5
22	V.K	0.043	0.053	0.045	0.047	5

Source: Survey 2004-05

Old Ralan, Lumami and V.K. And the villages with below 0.040 score are Yaong, Wangti, 'B' Jalukie and Chozuba. Yaong is at the bottom with 0.027, as far as human development is concerned. From the foregoing it is observed that the physiographic layout has a great bearing on the level of human development. Obviously, the villages which are located in the western section of the state facing

the plains of Assam are in a better position than those in the eastern section which is marked by more physical disadvantages in terms of location, relief features, etc.

From the forgoing discussion on various aspects of the 22 villages selected for the micro level study, it is found that more than 95 per cent of the rural villages in the state have their settlement in high altitude and since the topography of the state is hilly, in all the studied rural areas the influence of physiography and its role in shaping population characteristics is more or less common. Different types of cultivation do exist in the state. Terrace cultivation along with pisciculture is practiced Chozuba, Thenizumi, Nerhema, Kighwema, Saijang and 'B' Jalukie Villages, whereas wet rice cultivation is most extensively carried out in Lirmen, Old Ralan and Lothovi villages side by side with Jhuming. In the remaining villages however, jhuming over-shadows other forms of cultivation. Amongst the villages, Wakching with a population of 6412 is the most populous village and New Riphyim (844) is the least. As far as number of birth and death are concerned in the surveyed villages, Waromong village (95) has the highest number of births and Lothavi, singrep and Old Ralan has the lowest number of deaths where its is recorded as 3. The Molvom Village with a dependency rate of 49.92 has the highest economically dependent population which is closely followed by Anathonger village (44.72). This is due high birth rate and low mortality in the village. Whereas Lumami village located in the interior of the state has the lowest dependency rate. Though the sex

ratio in most of the villages is much above that of the state (900), Kigwema (1018) and Wakching (1006) village which has an exceptionally high sex ratio. This can be attributed to the natural growth of more female population and to some extent the out-migration of male members to other places. On the other hand Chare (879) has the lowest sex ratio which is due to inter-marriage of the females with the other neighbouring villages and also due to out-migration to educational centers for higher education. In the health sector, Kigwema and Waromong have attained the highest health status. Each of them has a life expectancy of 76 years. Meanwhile, Yaong, Saijang, Chare and Old Ralan have the lowest life expectancy years of 70. The highest per capita income is enjoyed by Lothavi and Molvom village. Both the village is situatede in Dimapur district. The high income of Rs. 16500 is due to the engagement in cash crop cultivation and pisciculture on commercial scale. On the contrary, Wangti village gets the lowest per capita income of Rs. 12700. In respect of literacy rate, Waromong stands out prominently with 89.10 per cent as literates.

After having discussed the geographical location, population characteristics including life expectancy and literacy, economic conditions, etc. of each of the villages, efforts have been made to find out human development index with the help of the relevant indicators. The indicators are (a) per capita income, (b) educational attainment and (c) health attainment. The indicators when examined for all the villages it is found that variations do exist in per capita income, educational

attainment and health attainment amongst the villages, particularly between the villages in the eastern and in the western part of the state.

Pertaining to health attainment, Waromong village tops the index order (0.048). Yaong, Saijang, Chare, New Riphyim and Old Ralan villages, each with 0.043 are at the lowest rung of the ladder. In regard to per capita income the villages at the higher level are Lothavi and Molvom. Both the village share the same (0.052) index order. Yaong in Longleng District, Chozuba in Phek District and 'B' Jalukie in Peren District attain the lowest level (0.004) of per capita income. In educational attainment Waromong with 0.063 and New Riphyim with 0.061 stand out among other villages. The former is located in Mokokchung District while the latter in Wokha District. Wangti, which is in Mon District occupies the lowest position with 0.030. In terms of human development index (HDI), Waromong with 0.053 is above all others. Closely behind it are Kigwema, Nerhema and Lirmen. The index order for all these villages is 0.051. As far as human development is concerned, Yaong with 0.027 is at the bottom.

The overall study of society and its economy is presented as a backdrop which reveals the characteristics of underdevelopment, such as potential human resources; the predominance of subsistence agriculture; low level of productivity and income; High level of literacy and high dependency rate. The settlements/villages are very

small with poor accessibility and low level of interaction. Cultivated land is limited with scarce irrigation facilities. Low levels of social amenities and infrastructure have led to out-migration of male workers resulting in high imbalance in sex ratio. Though the present situation of socio-economic in the village is that of a changing one under the impact of modernization the socio-economic transformation is taking place simultaneously with its demographic transformation. However, though changes are taking place at rapid strides planned socio-economic development, especially in the fields of infrastructure and development indicates that there are wide regional variations in the level of changes. Social and Economic development are obviously at a slower pace in the eastern part of the state due to relative isolation, difficult terrain and inaccessibility.

CHAPTER VII

SUMMARY AND CONCLUSION

For the socio-economic development of any region a number of factors which mostly operate in association with one another. The prime factors are the physical ones like natural physiographic condition of the land, availability of resources, level of technological knowledge, capital investment, socio-cultural traits of the people, etc. Besides, the development or the socio-economic well-being of the inhabitants has come to occupy a prominent and important place as far as the overall uplift of the people is concerned in a balanced way. For, no region is expected to come up in its economic conditions without the inhabitants being well cared and educated. It is with this that the present work has attempted to study the level of human resource development in the spatial context of Nagaland, not as an end but as a strategy for firming up the development process. In the study are included as a background, the physical setting, economic condition, population characteristics, etc. of the state under study. For the study of human resource development the prime indicators considered are per capita income, health attainment and educational attainment and their spatial distribution. The study of the aspects mentioned above is preceded by the statement of the problem of research and its objectives and significance. It is followed by the review of some relevant works to highlight the subject included in the study of human resources. Further, the physical settings, economic settings, accessibility network have been discussed before the study focuses on its main analytical work.

The Geology of Nagaland is bounded on the western part by the pre-Cambrian Mikir Hills Massif and tertiary shelf sediments of Assam plains, and on the north-west by the Brahmaputra plains through lineaments. The topography of Nagaland depicts a young mountain system that can be classified into four distinct ranges: (i) the Low Mountain Range, (ii) the Middle Mountain Range, (iii) the Patkai Mountain Range and (iv) the Barail Mountain Range System.

The major drainage systems in the state are Doyang, Dikhu that runs towards the west and flow into the Brahmaputra and the Tizu river system that flows towards the east and joins the Chindwin River in Myanmar. These rivers system form the territorial boundaries of different tribal groups in the state.

Nagaland has a typical Monsoon climate with variations from tropical to temperate conditions. According to the prevailing weather conditions, the year is divided into four characteristic seasons: (i) Cold season, (ii) Hot season, (iii) Rainy season and (iv) Cool dry season

The state consists of varieties of soils according to the topographical and geographical pattern of location. The soils of southern part of Nagaland mostly consist of high base status soils of humid regions, shallow black, brown soils.

Recently formed soils and alluvial soils are found in the west part and in the northern part of the state the soils are red loamy, red sandy and alluvial soils. The forest types found in the state are: (a) Sub-tropical moist deciduous forest, (b) Sub-tropical evergreen rainforest, (c) Temperate evergreen highland forest, (d) Coniferous forest and (e) Degraded growth.

The total length of roads in the state is around 8690 Km. The road development in Nagaland cannot be said as uniform due to environmental constraints such as hilly topography, rugged terrain, deep slopes, etc. This physiographic nature inevitably affects the degree of accessibility in the state. The hilly topography of Nagaland forbids development of railways. The main line of the North East Frontier Railway from Guwahati to Dibrugarh passes through Nagaland only in a small area having a station at Dimapur. Another railway line from Simulguri to Naginimora in Mon district was laid as a branch line of the North Eastern Frontier Railway. The only aerodrome in Nagaland is located at Dimapur. In 1970 the Nagaland postal division was created and headquarters was set up at Kohima. Telecommunication services in the state have made significant progress in the last decade, though it is still very inadequate. At present there are 326 post offices spread throughout the State. Mobile phone services have also been recently launched in the State.

The present economy of the state is basically dominated by the primary sector. It is particularly due to relative isolation, the adversities of terrain, inaccessibility to the rest of the world and non-availability of trained manpower. After the attainment of statehood in 1963, remarkable changes and development is taking place in all economic sectors. Participation of workers in different economic activities has also increased. Though, agriculture is the mainstay of the people of Nagaland gradually avenues of other means of living in the secondary and tertiary sectors of economic activities are opening up, decreasing the percentage of people dependent on agriculture. In most parts of the state the practice of jhum cultivation is still in existence. Terrace cultivation is also practiced mostly in the southern part of the state by Angami, Chakesang and Zeliangrong, etc, tribes. Recently, the Government of the state has expanded its activities by introducing tea, pulses, sugarcane, oilseeds and other cash-crops for cultivation. The potentiality for the cultivation of fruits, vegetables, species, plantation crops, medicinal and aromatic plants, flowers and mushrooms, etc in the state is great. Lately, the development of fisheries is making its impact on the economic scene of Nagaland. The state government is making tremendous efforts for the development of fishery sector. The state has already been brought under the mineral map of India. Coal and lime stones are now commercially extracted in the state. Building materials such as sandstone, slates, stream gravels and boulders are found in large quantities in the state. In the western part of Nagaland surveys have been conducted by the Assam Oil Company and the Oil and

Natural Gas Commission. It is revealed that this part holds good hydrocarbon prospects in the Champang area in Wokha district.

Nagaland is still in its infancy in the field of industry. Lack of raw materials, power, market, transport and technical labour are some factors that hinder the development of industries in the state. At present, few medium scale industries have been set up in the state. Even though the industrial landscape of Nagaland had only a few medium sized industries, the state abounds in cottage and small scale industries which are found in almost all the Naga villages.

The total population of Nagaland according to 2001 Census is 1,990,036 out of which male forms 1,047,141 and females 942,895. It is distributed over a geographical area of 16,579 Sq.Km. The state forms 0.19 per cent of the country's total population. It occupies the 25th rank in population size amongst all the states and union territories in the country. The Schedule Tribe constitutes 89.14 per cent of the total population in the state. Thus, the composition of population in the state is almost entirely tribal. The population growth rate of 64.5 percent in the state during 1991-2001 is recorded as the highest growth rate amongst the states and union territories in the country which recorded an average of only 21.54 percent during the decade.

As per 2001 census, the state's urban population is 342787 persons constituting 17.22 per cent of the total population. It is below the percentage of India which is 25.75. Wokha recorded the highest increase of urban population (161.77 per cent), while Mokokchung has the lowest increase of 25.84 per cent. In the state, the rural population constitutes 82.78 per cent. When the growth rate of rural population is measured amongst the districts, it is perceived that Tuensang (81.72 per cent), Wokha (81.11 per cent), and Mon (7.69 per cent) districts have registered the growth rate above that of the state. Kohima district has the lowest growth rate (13.74 per cent) amongst the districts in the state. The growth rate disparity amongst the districts shows that the population in the district has not uniformly increased.

In the state, the total number of migrants stood at 359457 in 2001 accounting for nearly 18.06 per cent of the total population as against 10.49 per cent in 1991. According to 2001 census, the total number of immigrants in Nagaland from the States and Union Territories of India and also from countries beyond India is 93534 persons constitutes for 4.7 per cent of the total population. Out of the total number of immigrants, 23.79 per cent are from other States of the country and the rest 2.22 per cent are from other countries. Dimapur district accommodates the largest number (130366 persons) or 36.26 per cent of the total migrants. The smallest number of immigrants is found in Phek district, the total number is 13370persons constituting only 3.71 per cent of the total in the state.

As per 2001 census, sex ratio in Nagaland is 900 females per 1,000 males as against the all India ratio of 933. Nagaland occupies the 6th position amongst the states in the North East India with respect to sex ratio on a descending order. Higher mortality rate of the females and the immigration of defense, paramilitary personnel, and bureaucrats and technocrats to various socio-economic services are the main reasons behind this phenomenon. It is observed that there is a wide spatial variation in the sex ratio in different parts of the state. The highest sex ratio is found in Zunheboto District (947). Other districts that display relatively high sex ratio above the state average include Wokha, Phek and Mokokchung with 927, 921 and 919 females per thousand males respectively.

As per the record in 2001 census, the percentage of main workers to total population in the state is 35.37. Amongst the different districts in the state the highest percentage of main workers to the total population is found in Mon District, while the lowest is in Dimapur District. When the proportion of workers in different economic sector is considered Tuensang District is found to have registered the highest percentage (95.36) engaged in Primary sector. Dimapur District (33.42 per cent) has the smallest proportion of workers in the primary sector. Nagaland being an agrarian society, most of the female workers is engaged in the process of agricultural production, contributing to the primacy of the primary sector. In 2001, 82.67 percent of the total population of female workers is engaged in the primary

economic activities in the state. Next to the primary sector is the tertiary sector which stands in the second place in absorbing the female work force in the state. The least proportion of female workers with only 2.01 percent of the total population of female workers is engaged in secondary economic activities in 2001.

Comparing between the proportion of young and old population in the state, it becomes evident that Nagaland with a high fertility rate, which is indicated by a large proportion of young age group is in the explosive second stage of the demographic transition, adding a large number of children every year. In each age group the proportion of male to total population is much higher than that of females. Compared to the mainland India the proportion of population below 15 years of age in Nagaland is relatively high, while India displays an average of 35.3 percent of population below 15 years of age in 2001; Nagaland recorded an average of 36.74 percent of the total population. The total dependency ratio in Nagaland in 2001 is 58.6 percent of the total population.

The interpretation of HRD and its thrust areas varies with the expert's concept belonging to different disciplines. It has both quantitative and qualitative dimensions. Characteristics like the size, composition and distribution of population and labour force, the number of hours worked and the output and the earning per head etc are quantitatively measurable and the qualitative characteristics are

knowledge, skills, aptitudes, values, motivation, etc. The HRD is a process of improving, moulding, changing and developing the skills, knowledge, creative ability, aptitude, attitude, values and commitment etc, based on present and future job and organizational requirement.

Bogue and Biswajeet were the two scholars among the other scholars who have contributed well defined approaches HRD. Bogue put forward that human resources of a country or a region can be studied in two ways: - as a single areal universe and as a collection of sub-universe. The two approaches are complimentary, but the distributive approach which gives spatial patterns of human resources distributed in the country or a region, is more meaningful in geographic study. Biswajeet Pattanayak incorporated views of experts belonging to different disciplines and deduced nine approaches to HRD. The approaches are :- (i) Human Capital Approach, (ii) Social Psychological, (iii) Poverty Alleviation Approach, (iv) Queen Bee Approach,(v) Brahmanic Approach, (vi) Input Approach, (vii) Automation Approach, (viii) Motivational Approach and (ix) Creative Approach .

Most commonly used technique for measuring human resource development is composite indices constructed by the United Nations Development Programme (UNDP) to measure different aspects of human development. The indices are human development index (HDI, gender related development index (GDI), gender

empowerment measure (GEM) and the human poverty index (HPI). To measure the stage of human development in the state like literacy rate, life expectancy and per capita income were considered.

Nagaland has 66.6 per cent of literates according to 2001 census. It is higher than that of the country, which has 65.18 Per cent literates. Among the seven states of north east region the state of Nagaland ranks 4th position. The state high literacy rate is mainly due to the factors such as accelerated socio-economic development, government policy, and positive attitude of the people towards education. Amongst the districts and circles, Mokokchung district (75.39 per cent) and Lotsu circle in Wokha district (87.86 percent) recorded the highest literacy rate.

The per capita income of the State is Rs. 11,473 during 2000-01(at constant 1993-94 prices) as against Rs. 10,306 for the country as a whole. In the spatial context of the state, Dimapur district (Rs. 16837) occupies the highest rung of the income ladder and Mon with Rs. 4500 Per capita DDP has the lowest per capita income among the districts.

The state's life expectancy is 73.4 years as against the national average of 60.7 years. Among the districts Mon (75.0 years) is above the rest Wokha (68.6 years) ranks the 8th position in the life expectancy years in the state. The life expectancy in

Nagaland is comparable with the range for developed countries which is due to Nagaland's unique culture, social capital and dietary behaviour that provide the base for a healthy society.

Wide scope of tremendous technological advances particularly in information technology, formidable rise of transnational corporations, growing involvement of international economic agencies under the aegis of the UN is influencing the policies of member-nations. Rise in the proportion of contribution of international trade to the growth rate GNP of all nations, etc. promotes the spirit of globalization and the emergence of the global economy into which the economies of countries including India are integrated. The concept of globalization forms an essential element of the country's (India) on going economic reforms programme which entails the processes of privatization, liberalization and letting the competitive market economy to operate freely. The main objective of the process of globalization is to achieve competitive efficiency for optimization of resource use at the global level.

In the context of the process of globalization the people of Nagaland need to be empowered to decide and take initiative in improving their conditions by their own enterprise and hard work in accordance with their own perception of development in an equitable manner.

The spatial pattern of human resource development in India reveals the existence of disparities in socio-economic conditions that is disaggregated by regions, gender, ethnic group or rural and urban areas within the country. And disparities of all kinds are interrelated and overlapping.

According to the Census of India -2001 the literacy rate is 65.33 percent (male 75.85% and female 54.16%). Kerala holds the first rank (90.92%) and it also holds the first rank in male literacy (92.20%) and female literacy (87.86%). Bihar has the lowest literacy rate (47.53%). Among the State and Union Territories of India, Nagaland holds the 16th rank in literacy rate and ranks 4th amongst the north eastern states of India.

The per capita net State domestic product (NSDP) of the States and Union Territories of India reveals a high degree of differences in per capita income amongst the state. The State of Goa with an income of Rs.18984 ranked first in per capita NSPD. On the other hand, Bihar with Rs. 3524 produces the lowest NSDP amongst the states in India. Among the different states of the country a large degree of disparity exist in the level of economic development in terms of NSDP. It can also be noted that with 75 per cent of the total number of states in the country

producing less than Rs.10000 NSDP reflects a low standard of living among the people in most of the states.

The HDI of Nagaland (0.623) compared to India (0.472) in 2001 is in a better position in the terms of overall economic development. The social framework of the Nagaland has placed education as a valued asset since its introduction along with the ushering of the Christianity. The unique framework of care and provision of Naga society finds expression in the better performance of the state, as against the national average, in the terms of longevity and health status. Among the districts in the state the HDI is highest in Dimapur (0.73); Mon district has the lowest HDI (0.45). The ranking of district is directly related to the position of district with DDP and with the educational attainments. This indicates a positive relationship between the income levels, the educational attainments and human development in the state. Tuensang and Mon districts are consistent underachievers in all the indicators of HDI in the state. The study of human resources is vital from the point of view of both economic and social welfare. Labour is highly perishable, which needs constant training for up gradation of information. If manpower is utilized optimally, certainly the state will grow rapidly. In Nagaland, agriculture is a leading sector, which generates more employment and this needs scientific training and temper. Education and health are to be spread meticulously and compulsorily to all. Profit, efficiency, productivity

and production are interdependent, which are positive and progressive, when human resources are skillful.

With a view to understanding the level of human resource development at the micro level, a survey has been carried out during the period 2004-05, covering 22 villages selecting two each from the eleven districts of the state. The aspects included in the study of the villages are their location, population characteristics, socio-economic conditions, etc.

Different type of cultivation does exist in the state. Terrace cultivation along with pisciculture is practiced Chozuba, Thenizumi, Nerhema, Kighwema, Saijang and 'B' Jalukie Villages, whereas wet rice cultivation is most extensively carried out in Lirmen, Old Ralan and Lothovi villages side by side with Jhuming. In the remaining villages however, jhuming over-shadows other forms of cultivation. Amongst the villages, Wakching with a population of 6412 is the most populous village and New Riphyim (844) is the least. As far as number of birth and death are concerned in the surveyed villages, Waromong village (95) has the highest number of births and Lothavi, singrep and Old Ralan has the lowest number of deaths where its is recorded as 3. The Molvom Village with a dependency rate of 49.92 has the highest economically dependent population which is closely followed by Anathonger village (44.72). This is due high birth rate and low mortality in the village. Whereas

Lumami village located in the interior of the state has the lowest dependency rate. Though the sex ratio in most of the villages is much above that of the state (900), Kigwema (1018) and Wakching (1006) village has an exceptionally high sex ratio. This can be attributed to the natural growth of more female population and to some extent the out-migration of male members to other places. On the other hand Chare (879) has the lowest sex ratio which is due to inter-marriage of the females with the other neighbouring villages and also due to out-migration to educational centers for higher education. In the health sector, Kigwema and Waromong have attained the highest health status. Each of them has a life expectancy of 76 years. Meanwhile, Yaong, Saijang, Chare and Old Ralan have the lowest life expectancy years of 70. The highest per capita income is enjoyed by Lothavi and Molvom village. Both the village is situated in Dimapur district. The high income of Rs. 16500 is due to the engagement in cash crop cultivation and pisciculture on commercial scale. On the contrary, Wangti village gets the lowest per capita income of Rs. 12700. In respect of literacy rate, Waromong stands out prominently with 89.10 per cent as literates.

After having discussed the geographical location, population characteristics including life expectancy and economic conditions, literacy, etc. of each of the villages, efforts have been made to find out human development index with the help of the relevant indicators. The indicators are (a) per capita income, (b) educational attainment and (c) health attainment. The indicators when examined for all the

villages it is found that variations do exist in per capita income, educational attainment and health attainment amongst the villages, particularly between the villages in the eastern and in the western part of the state. Pertaining to health attainment, Waromong village tops the index order (0.048). Yaong, Saijang, Chare, New Riphyim and Old Ralan villages, each with 0.043 are at the lowest rung of the ladder. In regard to per capita income the villages at the higher level are Lothavi and Molvom. Both the village shares the same index order (0.052). Yaong in Longleng District, Chozuba in Phek District and 'B' Jalukie in Peren District attain the lowest level (0.004) of per capita income. In educational attainment Waromong with 0.063 and New Riphyim with 0.061 stand out among other villages. The former is located in Mokokchung District while the latter in Wokha District. Wangti, which is in Mon District occupies the lowest position with 0.030.

In terms of human development index (HDI), Waromong with 0.053 is above all others. Closely behind it are Kigwema, Nerhema and Lirmen. The index order for all these villages is 0.051. As far as human development is concerned, Yaong with 0.027 is at the bottom.

The overall study of society and its economy is presented as a backdrop which reveals the characteristics of underdevelopment. These are wide regional variations in the level of changes. Socio-economic development is obviously at a slower pace

in the eastern part of the state because of relative isolation, difficult terrain and relative inaccessibility.

The over-all scenario of human development in Nagaland remains far from satisfactory as it has failed to reduce wide-ranging disparities and provide the poor and disadvantaged groups equal opportunities. HRD has become all the more necessary for Nagaland which has been experiencing phenomenal growth of population during the last 60 years.

By the year 2015 all villages in the state should have electricity, road and internet connectivity, more schooling facilities, clean and uninterrupted water supply, etc. The State should become not only a leading player in information technology but must emerge as a regional gateway to south east Asia. It has also set a target of 8 percent growth per annum and double the per capita income by 2020.

Economic security can be enhanced by faster economic productivity with social justice and self-reliance. There is immense scope for change in work culture for raising productivity. It also needs upgradation of skills and promotion of skills/knowledge based professions. This certainly needs promotion of literacy to 100 per cent with more emphasis on female education for equalizing gender

inequalities. There is a good case for scientific manpower planning for harnessing the skills and energies of the million citizens of the state.

The public policies should be pro-poor and based on the principle of equity and social justice. Whatever policy is framed relating to development needs to be translated into action by expanding health, nutrition and medical facilities. Education has to be given top priority for achieving the set targets and in reducing poverty and population growth rate. In fact these basic elements are inter-linked and their improvement will raise levels of human development and quality of life, and strengthen the foundation of an egalitarian social order.

APPENDIX

Appendix I

Decennial growth of population in circles, Nagaland, 1991 – 2001

Sl. No.	Circles	Total Population		Decennial Growth Rate (percentage) 1991 – 2001
		1991	2001	
1	2	3	4	5
1	Tenning	12484	29739	138.22
2	Nsong	3488	8171	134.26
3	Athibung	10353	12310	18.90
4	Jalukie	17281	23274	34.67
5	Peren	7206	8861	22.96
6	Pedi	5699	8411	47.58
7	Niuland	18679	31479	68.52
8	Chumukedima	42697	83744	96.13
9	Medziphema	16776	24401	45.45
10	Kuhoboto	11174	12699	13.64
11	Nihokhu	8443	12155	43.96
12	Dhansiripar	11929	17088	43.24
13	Dimapur Sardar	59457	127458	114.37
14	Tseminyu	30583	52864	72.85
15	Chiephobozou	20225	24333	20.31
16	Kohima Sardar	80340	91082	13.37
17	Kezocha	7060	12216	73.03
18	Jakhama	21481	23987	11.66
19	Sechu	11610	14836	27.78
20	Khezakeno	2660	4129	55.22
21	Pfutsero	21647	34181	57.90
22	Chizami	10902	15289	40.24
23	Meluri	11138	14911	33.87
24	Pokhungri	1725	3502	103.04
25	Phek Sardar	21326	29422	37.96
26	Sakraba	5743	9676	68.48
27	Chetheba	9635	14299	48.40
28	Chozuba	10820	13540	25.13
29	Sekruzu	6560	9246	40.94
30	Pughoboto	9958	15088	51.51
31	Gathashi	7792	9547	22.52
32	Satakha	13371	19849	48.44
33	Atoizu	8764	14460	64.99
34	V.K	3340	5635	68.71
35	Akuluto	4858	6665	37.19

1	2	3	4	5
36	Surhoto	7998	14660	83.29
37	Asuto	5994	7445	24.20
38	Zunheboto Sardar	19852	38569	94.28
39	Aghunato	10801	16713	54.73
40	Satoi	3490	5324	52.55
41	Ralan	3407	7312	114.61
42	Wozhuro	5667	11777	107.81
43	Lotsu	2642	6026	128.08
44	Bhandari	7629	13466	76.51
45	Changpang	3454	4892	41.63
46	Aitepyong	8309	13226	59.17
47	Sungro	5516	14100	155.62
48	Chukitong	5582	8564	53.42
49	Wokha Sardar	34435	72236	109.77
50	Sanis	3954	6534	65.25
51	Baghty	2017	3090	53.19
52	Ongpangkong	38000	85667	125.43
53	Mangkolemba	12128	22356	84.33
54	Longchem	9169	12972	43.03
55	Alongkima	9618	16960	76.33
56	Tuli	19239	27735	44.16
57	Changtongya	12975	23560	81.57
58	Chuchuyimlang	18275	22149	21.19
59	Kubolong	14167	20686	46.01
60	Tamlu	19601	25039	27.74
61	Yongya	16863	33033	95.89
62	Longleng	31239	63509	103.30
63	Noksen	8221	17931	118.11
64	Chare	8202	11622	41.69
65	Longkhim	11528	15894	37.87
66	Tuensang Sardar	40247	63896	58.75
67	Noklak	13479	19962	48.09
68	Panso	5369	8730	62.60
69	Tsurungtho	3024	7371	143.75
70	Thonoknyu	7186	13631	89.68
71	Kiusam	3718	6714	80.58
72	Pungro	10005	24075	140.62
73	Longmatra	2711	8100	198.78
74	Kiphire Sardar	14640	18094	23.59
75	Sitimi	5672	11746	107.08
76	Seyoching	10349	20867	101.63
77	Amahator	571	11836	128.89
78	Chessore	7512	16045	113.59

1	2	3	4	5
79	Shamator	10169	16723	64.45
80	Tobu	5482	15319	179.44
81	Mopong	8586	11846	37.96
82	Longching	12553	22692	80.76
83	Aboi	8952	12199	36.27
84	Wakching	10234	23676	131.34
85	Naganimara	7441	12587	69.15
86	Tizit	9940	18535	86.46
87	Hunta	6156	6779	10.12
88	Mon Sardar	27745	46332	66.99
89	Shangnu	4412	7066	60.15
90	Phomching	7955	11315	42.23
91	Longshen	13593	25710	89.14
92	Chen	18677	23989	28.44
93	Monyakshu	10164	22607	122.42

Source : Census of India, 1991 and 2001.

Appendix II

Distribution of sex ratio in circles, Nagaland. 2001.

Sl No	Circles	Sex Ratio Females per 1000 Males
1	2	3
1	Tenning	938
2	Nsong	946
3	Athibung	961
4	Jalukie	954
5	Peren	951
6	Niuland	953
7	Chumukedima	863
8	Medziphema	905
9	Nihokhu	933
10	Dhansiripar	915
11	Dimapur Sardar	792
12	Tseminyu	963
13	Chiephozou	947
14	Kezocha	819
15	Jakhama	931
16	Sechu	810
17	Khezakeno	959
18	Pfutsero	949
19	Chizami	943
20	Meluri	861
21	Pokhungri	882
22	Phek Sardar	861
23	Sakraba	922
24	Chetheba	1002
25	Chozuba	904
26	Sekruzu	944
27	Pughoboto	974
28	Gatashi	966
29	Sataka	927
30	Atoizu	1004
31	V.K	952
32	Akuluto	921
33	Surhuto	965
34	Asuto	920

35	Zunheboto Sardar	902
36	Aghunato	992
37	Satoi	988
38	Ralan	879
39	Lotsu	962
40	Bhandari	946
41	Champang	879
42	Aitepyong	975
43	Sungro	933
44	Chukitong	965
45	Wokha Sardar	903
46	Sanis	978
47	Baghty	869
48	Ongpangkong	887
49	Mangkolemba	897
50	Longchem	1011
51	Alongkima	951
52	Tuli	902
53	Changtongya	909
54	Chuchuyimlang	1010
55	Kubolong	941
56	Tamlu	861
57	Yongya	906
58	Longleng	891
59	Noksen	921
60	Chare	926
61	Longkhim	923
62	Tuensang Sardar	852
63	Noklak	919
64	Panso	933
65	Thonoknyu	847
66	Kiusami	902
67	Pungro	898
68	Longmatra	843
69	Kiphire Sardar	887
70	Sitimi	898
71	Seyochung	910
72	Amahator	943
73	Chessore	977
74	Shamator	954

75	Tobu	876
76	Mupong	873
77	Longching	923
78	Aboi	879
79	Wakching	948
80	Naganimara	888
81	Tizit	762
82	Hunta	947
83	Mon Sardar	839
84	Phomching	860
85	Longchen	870
86	Chen	892
87	Monyakshu	916
88	Pedi	925
89	Shangnyu	942
90	Tsurungto	938
91	Kuhoboto	965
92	Wozhuro	992
93	Kohima Sadar	865

Source: Census of India, 2001

Appendix III

Distribution of main workers in circles, Nagaland, 2001

Sl No	Circles	Total Main Workers	Total Main Workers To total Population	Total number of main workers In different economic sectors, In percentage.		
				Primary	Secondary	Tertiary
1	2	3	4	5	6	7
1	Tenning	11367	38.22	84.24	0.94	14.82
2	Nsong	3586	43.89	92.03	1.56	6.41
3	Athibung	5782	46.97	92.56	2.59	4.85
4	Jalukie	8597	36.94	74.08	2.88	23.04
5	Peren	3491	39.40	62.53	4.95	32.42
6	Niuland	7170	22.78	75.17	3.31	21.52
7	Chumukedima	22083	26.37	27.6	2.02	70.38
8	Medziphema	7969	32.66	52.3	1.26	46.44
9	Nihokhu	2967	24.41	86.39	1.01	12.60
10	Dhansiripar	5061	29.62	75.75	2.03	22.22
11	Dimapur Sardar	38546	30.24	2.29	1.86	95.85
12	Tseminyu	19186	36.29	82.21	1.04	16.75
13	Chiephozou	10049	41.30	60.57	1.41	38.02
14	Kezocha	5470	44.78	70.34	2.21	27.45
15	Jakhama	9551	39.82	54.78	1.09	44.13
16	Sechu	6795	45.80	49.06	1.10	49.84
17	Khezakeno	1007	24.39	65.85	8.34	25.81
18	Pfutsero	11678	34.17	68.34	1.51	30.15
19	Chizami	6907	45.18	82.81	0.53	16.66
20	Meluri	5755	38.60	70.81	0.29	29.53
21	Pokhungri	1176	33.58	79.77	0.93	19.30
22	Phek Sardar	12347	41.97	62.04	0.59	37.37
23	Sakraba	4253	43.95	91.59	0.42	7.99
24	Chetheba	4824	33.74	74.82	1.30	23.88
25	Chozuba	5324	39.32	72.23	0.52	27.25
26	Sekruzu	4183	45.24	83.14	0.66	16.20
27	Pughoto	5567	36.90	78.56	1.20	20.22
28	Gatashi	3815	39.96	84.78	1.15	14.07
29	Sataka	6025	30.35	62.33	0.63	37.04
30	Atoizu	3717	25.71	65.2	1.61	33.19
31	V.K	2462	43.69	81.82	1.09	17.09

32	Akuluto	2104	31.57	56.05	2.51	41.44
33	Surohuto	3871	26.41	68.68	1.36	29.96
34	Asuto	767	10.30	53.33	0.91	45.76
35	Zunheboto Sardar	11511	29.85	40.36	2.33	57.31
36	Aghunato	5501	32.91	72.12	0.49	27.39
37	Satoi	2151	40.40	89.22	0.23	10.55
38	Ralan	3228	44.15	87.37	0.77	11.86
39	Lotsu	1905	31.61	88.41	0.26	11.33
40	Bhandari	4158	30.88	70.14	0.96	28.90
41	Changpang	7554	38.21	95.14	0.63	4.23
42	Aitepyong	4561	34.49	81.71	1.33	16.96
43	Sungro	3680	26.10	70.28	2.71	27.01
44	Chukitong	3507	40.95	87.46	0.14	12.40
45	Wokha Sardar	19362	26.80	42.25	2.44	55.31
46	Sanis	2255	34.51	63.2	0.53	36.27
47	Baghty	773	25.02	38.95	0.38	60.67
48	Ongpangkong	20267	34.65	65.55	1.76	32.69
49	Mangkolemba	7113	31.82	61.17	1.64	37.19
50	Longchem	4238	32.67	83.94	1.62	14.44
51	Alongkima	7479	44.10	86.96	0.42	12.62
52	Tuli	9720	35.05	66.81	2.40	30.79
53	Changtongya	9297	39.46	65.18	2.66	32.16
54	Chuchuyimlang	8808	39.77	81.2	2.40	16.40
55	Kubolong	5821	28.14	79.86	2.00	18.14
56	Tamlu	10494	41.91	91.79	1.16	7.05
57	Yongya	15655	47.39	97.17	0.62	2.21
58	Longleng	22614	35.61	89.57	3.05	7.38
59	Noksen	7511	41.89	87.95	0.43	11.62
60	Chare	4102	35.30	82.99	1.14	15.87
61	Longkhim	6462	40.66	78.56	5.46	15.98
62	Tuensang Sardar	19624	30.71	57.38	1.48	41.14
63	Noklak	7768	38.91	83.55	1.62	14.83
64	Panso	4617	52.89	73.85	1.16	24.99
65	Thonoknyu	6112	44.84	89.19	1.91	8.90
66	Kiusami	3179	47.35	90.00	1.10	5.47
67	Pungro	8737	36.29	89.76	1.57	8.67
68	Longmatra	2587	31.94	77.75	1.50	20.75
69	Kiphire Sardar	5513	30.47	55.38	2.03	42.59
70	Sitimi	4624	39.37	90.35	1.16	8.49
71	Seyochung	8590	41.17	85.61	3.13	11.26

72	Amahator	5659	47.81	95.68	0.88	3.44
73	Chessore	5736	35.75	90.18	0.85	8.97
74	Shamator	4688	28.03	78.7	2.62	18.68
75	Tobu	6937	45.28	92.49	1.45	6.06
76	Mupong	5468	46.16	91.83	0.40	7.77
77	Longching	7826	34.49	92.62	1.57	5.81
78	Aboi	4335	35.54	77.72	3.48	18.80
79	Wakching	10152	42.87	93.64	0.58	5.78
80	Naganimara	3694	29.34	50.63	1.19	48.18
81	Tizit	6264	33.79	52.55	0.90	46.55
82	Hunta	1615	16.51	90.85	0.49	8.66
83	Mon Sardar	15027	32.43	60.89	4.30	34.81
84	Phomching	5626	49.72	94.53	0.55	4.92
85	Longchen	13797	53.66	97.96	0.77	1.27
86	Chen	11718	48.85	92.92	0.78	6.30
87	Monyakshu	12158	53.78	96.54	1.25	2.21
88	Pedi	2672	31.77	74.93	3.89	21.18
89	Shangnyu	3589	50.79	96.31	0.80	2.89
90	Tsurungto	2678	36.33	90.64	1.45	7.91
91	Kuhoboto	3785	29.81	76.65	2.40	20.95
92	Wozhuro	4381	37.20	85.61	1.50	12.89
93	Kohima Sadar	27910	30.64	4.39	1.44	94.17

Source: Census of India, 2001

Appendix IV

District-wise classification of working population by sex in Urban & Rural areas, 2001

NAGALAND	Total Population		
	Total	Male	Female
Total	1990036	1047141	942895
Rural	1647249	859716	787533
Urban	342787	187425	155362
	Main Workers		
	Total	Male	Female
Total	703977	424811	279166
Rural	608335	348972	259363
Urban	95642	75839	19803
	Marginal Workers		
	Total	Male	Female
Total	143819	64157	79662
Rural	133104	57887	75217
Urban	10715	6270	4445
	Non workers		
	Total	Male	Female
Total	1142240	558173	584067
Rural	905810	452857	454953
Urban	236430	105316	131114
KOHIMA	Total Population		
	Total	Male	Female
Total	310084	162251	147833
Rural	233054	120590	112464
Urban	77030	41661	35369
	Main Workers		
	Total	Male	Female
Total	114456	67556	46900
Rural	91094	50212	40882
Urban	23362	17344	6018
	Marginal workers		
	Total	Male	Female
Total	20567	8785	11782
Rural	18812	7833	10979
Urban	1755	952	803
	Non workers		
	Total	Male	Female
Total	175061	85910	89151
Rural	123148	62545	60603
Urban	51913	23365	28548

PHEK	Total Population		
	Total	Male	Female
Total	148195	77141	71054
Rural	135331	69818	65513
Urban	12864	7323	5541
	Main Workers		
	Total	Male	Female
Total	57454	31030	26424
Rural	52595	27570	25025
Urban	4859	3460	1399
	Marginal workers		
	Total	Male	Female
Total	13944	6327	7617
Rural	12466	5671	6795
Urban	1478	656	822
	Non workers		
	Total	Male	Female
Total	76797	39784	37013
Rural	70270	36577	33693
Urban	6527	3207	3320

WOKHA	Total Population		
	Total	Male	Female
Total	161223	83670	77553
Rural	123587	63259	60238
Urban	37636	20411	17225
	Main Workers		
	Total	Male	Female
Total	49679	28718	20961
Rural	42125	22970	19155
Urban	7554	5748	1806
	Marginal workers		
	Total	Male	Female
Total	6575	2768	3807
Rural	5630	2316	3314
Urban	945	452	493
	Non workers		
	Total	Male	Female
Total	104969	52184	52785
Rural	75832	37973	37859
Urban	29137	14211	14926

ZUNHEBOTO	Total Population		
	Total	Male	Female
Total	153955	79056	74899
Rural	130874	66438	64436
Urban	23081	12618	10463
	Main Workers		
	Total	Male	Female
Total	47491	27349	20142
Rural	41090	22787	18303
Urban	6401	4562	1839
	Marginal workers		
	Total	Male	Female
Total	9292	3761	5531
Rural	8815	3497	5318
Urban	477	264	213
	Non workers		
	Total	Male	Female
Total	97172	47946	49226
Rural	80969	40154	40815
Urban	16203	7792	8411

MOKOKCHUNG	Total Population		
	Total	Male	Female
Total	232085	120929	111156
Rural	200871	103748	97123
Urban	31214	17181	14033
	Main Workers		
	Total	Male	Female
Total	82160	48501	33659
Rural	72743	41160	31583
Urban	9417	7341	2076
	Marginal workers		
	Total	Male	Female
Total	27100	12515	14585
Rural	25494	11699	13795
Urban	1606	816	790
	Non workers		
	Total	Male	Female
Total	122825	59913	62912
Rural	102634	50889	51745
Urban	20191	9024	11167

TUENSANG	Total Population		
	Total	Male	Female
Total	414818	218678	196140
Rural	385046	201985	183061
Urban	29772	16693	13079
	Main Workers		
	Total	Male	Female
Total	156950	87494	69456
Rural	149680	81325	68355
Urban	7270	81325	68355
	Marginal workers		
	Total	Male	Female
Total	27974	13232	14742
Rural	27365	12860	14505
Urban	609	372	237
	Non workers		
	Total	Male	Female
Total	229894	117952	111942
Rural	208001	107800	100201
Urban	21893	10152	11741

MON	Total Population		
	Total	Male	Female
Total	260652	138753	121899
Rural	244062	138753	121899
Urban	16590	9138	7452
	Main Workers		
	Total	Male	Female
Total	108206	63700	44506
Rural	103199	60132	43067
Urban	5007	3568	1439
	Marginal workers		
	Total	Male	Female
Total	22642	9669	12973
Rural	22135	9378	12757
Urban	507	291	216
	Non workers		
	Total	Male	Female
Total	129804	65384	64420
Rural	118728	60105	58623
Urban	11076	5279	5797

DIMAPUR	Total Population		
	Total	Male	Female
Total	309024	166663	142361
Rural	194424	104263	90161
Urban	114600	62400	52200
	Main Workers		
	Total	Male	Female
Total	87581	70463	17118
Rural	55809	42816	12993
Urban	31772	27647	4125
	Marginal workers		
	Total	Male	Female
Total	15725	7100	8625
Rural	12387	4633	7754
Urban	3338	2467	871
	Non workers		
	Total	Male	Female
Total	205718	89100	116618
Rural	126228	56814	69414
Urban	79490	32286	47204

Source: Census of India, 2001, Nagaland, Economic Tables

Appendix V

Literacy by sex in circles, Nagaland, 2001.

Sl.No	Circles	Percentage of Literacy (Including of all Ages)		
		Persons (to total population)	Males (to total literate population)	Females (to total literate population)
1	Tenning	62.20	56.89	43.11
2	Nsong	39.95	58.90	41.10
3	Athibung	73.25	54.56	45.44
4	Jalukie	73.17	55.60	44.40
5	Peren	70.76	56.73	43.27
6	Niuland	71.23	54.81	45.19
7	Chumukedima	77.09	57.27	42.73
8	Medziphema	80.08	56.12	43.88
9	Nihokhu	59.09	55.85	44.15
10	Dhansiripar	65.26	56.81	43.19
11	Dimapur Sardar	80.53	58.90	41.10
12	Tseminyu	70.61	55.34	44.66
13	Chiephozou	77.39	55.90	44.10
14	Kezocha	60.34	64.12	35.88
15	Jakhama	74.64	57.70	42.29
16	Sechu	80.12	58.72	41.28
17	Khezakeno	68.45	56.79	43.21
18	Pfutsero	77.44	55.85	44.15
19	Chizami	57.64	59.33	40.67
20	Meluri	73.02	28.39	71.61
21	Pokhungri	66.46	58.72	41.28
22	Phek Sardar	76.15	59.10	40.90
23	Sakraba	56.97	59.51	40.49
24	Chetheba	74.60	55.09	44.91
25	Chozuba	70.83	5809	41.91
26	Sekruzu	55.05	60.65	39.35
27	Pughoboto	63.68	54.00	56.00
28	Gatashi	73.89	53.86	46.14
29	Sataka	74.68	55.32	44.68
30	Atoizu	59.65	53.66	46.34
31	V.K	74.17	52.01	47.99
32	Akuluto	75.37	55.30	44.70

33	Surhuto	58.55	54.39	45.61
34	Asuto	53.10	69.05	40.95
35	Zunheboto Sardar	77.82	55.09	44.91
36	Aghunato	66.24	53.85	46.15
37	Satoi	67.70	53.74	46.26
38	Ralan	73.52	56.17	43.83
39	Lotsu	87.86	52.87	47.13
40	Bhandari	73.25	55.42	44.58
41	Changpang	71.68	56.21	43.79
42	Aitepyong	73.64	55.39	44.61
43	Sungro	76.21	56.47	43.53
44	Chukitong	75.80	54.13	45.87
45	Wokha Sardar	85.45	55.54	44.46
46	Sanis	82.39	54.41	45.59
47	Baghty	83.04	56.05	43.95
48	Ongpangkong	86.51	53.60	46.40
49	Mangkolemba	85.40	54.09	45.91
50	Longchem	83.99	51.96	48.04
51	Alongkima	80.16	53.71	46.29
52	Tuli	87.38	53.92	46.08
53	Changtongya	81.19	54.25	45.75
54	Chuchuyimlang	77.83	51.38	48.62
55	Kubolong	79.61	52.50	47.50
56	Tamlu	64.44	56.50	43.50
57	Yongya	32.67	57.53	42.47
58	Longleng	43.39	57.08	42.92
59	Noksen	53.73	52.24	44.76
60	Chare	66.08	53.89	46.10
61	Longkhim	56.28	55.81	44.19
62	Tuensang Sardar	67.31	58.17	41.83
63	Noklak	50.59	57.76	42.24
64	Panso	35.98	58.65	41.35
65	Thonoknyu	39.28	59.49	40.51
66	Kiusami	38.73	64.48	35.52
67	Pungro	42.78	60.33	39.67
68	Longmatra	42.57	58.68	41.32
69	Kiphire Sardar	71.63	57.67	42.33
70	Sitimi	59.46	56.47	43.53
71	Seyochung	49.90	58.54	41.46
72	Amahator	33.08	60.39	69.61

73	Chessore	40.50	59.37	40.63
74	Shamator	41.95	60.13	39.87
75	Tobu	29.88	60.79	39.21
76	Mupong	27.31	64.32	35.68
77	Longching	30.37	61.66	38.34
78	Aboi	54.00	59.81	40.19
79	Wakching	35.75	62.50	37.50
80	Naganimara	62.93	57.86	42.14
81	Tizit	63.98	62.20	39.80
82	Hunta	50.23	56.81	43.19
83	Mon Sardar	68.69	58.06	41.94
84	Phomching	21.43	64.72	35.28
85	Longchen	41.39	57.72	42.28
86	Chen	26.83	58.46	41.54
87	Monyakshu	13.17	64.95	35.05
88	Pedi	70.55	56.94	43.06
89	Shangnyu	29.01	57.88	42.12
90	Tsurungto	52.41	55.01	44.99
91	Kuhoboto	75.27	54.07	45.93
92	Wozhuro	77.97	52.74	47.25
93	Kohima Sadar	85.48	56.48	43.52

Source: Census of India, 2001

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