



सत्यमेव जयते



GOI - UNDP PROJECT

*Strengthening of State Plans for Human Development*



Government of Nagaland  
DEPARTMENT OF PLANNING AND COORDINATION  
NAGALAND - KOHIMA 797 001

NAGALAND - **KOHIMA** DISTRICT HUMAN DEVELOPMENT REPORT



# NAGALAND - **KOHIMA**

DISTRICT HUMAN DEVELOPMENT REPORT







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# KOHIMA

## 2009

GOI - UNDP PROJECT

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Government of Nagaland  
Department of Planning and Coordination  
Nagaland - Kohima 797 001

## DISTRICT HUMAN DEVELOPMENT REPORT - KOHIMA

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GOVERNOR  
NAGALAND, KOHIMA



NIKHIL KUMAR

## MESSAGE

Nagaland is one of the States, implementing the GOI - UNDP project “Strengthening State Plans for Human Development”. With the support of GOI - UNDP, the State Government has prepared the Human Development Report for Kohima.

The District Human Development Report, Kohima has captured the quality of life and the status of delivery of public services at the district level despite data deficiency. The report has made an attempt to identify gaps or indicators of deficiency, thereby signaling areas which require specific policy attention. I am sure that this document will not only provide the necessary information required for understanding the present status of many aspects of socio – economic development of people but would also help in providing inputs for devising future strategies for development planning.

I would like to thank the UNDP and the Planning Commission, Government of India for bringing out the Kohima District Human Development Report. I am certain that this partnership will grow stronger in the days to come.

*November 15, 2010*

  
(NIKHIL KUMAR)





CHIEF MINISTER  
NAGALAND, KOHIMA



NEIPHIU RIO

## MESSAGE

I am happy to know that Nagaland is one of the States involved in the GOI-UNDP Project, Strengthening of State Plans for Human Development. Such project provide insights into the impact of the intervention programmes on the quality of life of the people. In partnership with GOI-UNDP the State brought out its first State Human Development Report 2004 (SHDR). This Report has been hailed as a significant document and has become a reference vision document for the State. And as envisaged by the Government of India, I am sure the District Human Development Reports will serve as a vision document for the districts.

The District Human Development Report Kohima assesses and captures the human development attainment, gender and livelihood issues in Kohima district. It also identifies the gaps and potentials of the district. The chapter *"Voices of the People"* is the outcome of the inter-active session with stakeholders of the district and reflect the views of the people.

It is heartening to know that both GOI and UNDP are taking keen interest in the well being of the Naga people. I on behalf of the State Government acknowledge their efforts. I am sure the District Human Development Reports will serve its purpose of providing the basis for the district plans and in harnessing synergies for district planning. I also hope it generates more discussion for financing human development in Nagaland in general and in the district in particular.

October 25, 2010



(NEIPHIU RIO)





MINISTER  
PLANNING & CO-ORDINATION  
NAGALAND, KOHIMA



T. R. ZELIANG

## MESSAGE

The goal of all developmental planning is well being of the human being. And status of development in the social and livelihood sectors and its impact on quality of life can be assessed through Human Development Reports.

The District Human Development Report, Kohima, makes a realistic assessment of the state of development and its impact on the people vis-à-vis the investment made. It identifies the institutional strengths and weaknesses and indicates the way forward for improving the quality of life of the people. The Report will hopefully be a strong tool for planning and will go a long way in enabling prioritization of human development issues in the district. It would help in reassessing our investment strategy.

I would like to place on record my appreciation of the United Nation Development Programme and the Planning Commission, Government of India for having taken the initiative to implement this programme in the State. The academia, NGOs, Civil Societies of Kohima District, experts from outside the Government and officials of the Government of Nagaland deserve mention for putting together their collective efforts to bring out this publication. I do hope that the DHDR Kohima will reorient our development strategy in a more meaningful way to improve the quality of life in the district.

(T. R. ZELIANG)

*October 29, 2010*





CHIEF SECRETARY  
NAGALAND, KOHIMA



LALTHARA, IAS

## MESSAGE

When the first Nagaland State Human Development Report was brought out in 2004, it was felt that there should be a regular assessment of the level of advancement of people at the grassroots, and the efficacy of various Government policies and projects on the ground, and the District Human Development Reports are the outcome of this process. I thank the Government of India and the UNDP for sponsoring this important project.

This document provides an in-depth study of the three districts of Kohima, Phek and Mon representing three stages of development within the State. It is heartening to note that within the intervening period of five years, while the pace of development is still slow, there have also been many perceptible positive changes. The document also offers practical insight into the level of development in the three districts, and also the various Government programmes and policies which are designed to bridge the socio-economic disparities.

I congratulate all those who have contributed towards the compilation of the District Human Development Reports which will serve as a much needed reference point in framing new planning initiatives, including preparation of district plans, for the all round development of the State.

*November 2, 2010*

  
\_\_\_\_\_  
(LALTHARA)





## FOREWORD

Economic development of a State and higher Gross State Domestic Product does not necessarily reflect the actual well being of its people. Therefore, Human Development Indices are advocated to measure the improvement and status of well-being of the people. The concept of human development focuses on the actual well-being of the people in terms of indicators like education, health-life expectancy, income and gender equity.

With financial assistance and support of the Planning Commission, Government of India and the United Nations Development Programme, the State Planning and Coordination Department took the initiative in preparing the District Development Report for three districts in the State – namely Kohima, Phek and Mon. The districts were selected keeping in mind the relative range of development status of the district. The reports have been prepared in consultation with experts and academicians from within and outside the government under the guidance of Dr Manoj Pant, Professor of Jawaharlal Nehru University, New Delhi. One of the main objectives has been to quantify development sector wise, thus throwing light on areas needing improvement.

The report summarizes the overall development of the district. It is hoped that the District Human Development Report will serve as an important tool in planning for growth, social justice, and equity in the districts. This report is also expected to help in reassessing the investment strategy in the future and, if the challenges identified in the report are tackled, the district would be at par with any district in the country.

I take this opportunity to thank United Nations Development Programme and the Planning Commission, Government of India for having taken the initiative to foster this partnership with the Government of Nagaland. The credit for the report goes to the experts from outside the Government and the officers of the Government of Nagaland for putting together their collective efforts in order to finalise this publication. I hope that the report will help in reorienting our development strategy in a more meaningful way for the creation of a more equitable and humane quality of life in the districts in particular and in the State of Nagaland as a whole.

***Alemtemshi Jamir, IAS***

*Additional Chief Secretary and  
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The District Human Development Report, Kohima is an outcome of joint efforts. The Nagaland Human Development Research and Co-operation team take this opportunity to thank everyone involved in the preparation of the Report.

The Report was facilitated and conceptualized with the support of the Planning Commission, Government of India and the United Nations Development Programme. Its preparation was co-ordinated by the Planning & Co-ordination Department, Government of Nagaland with Additional Chief Secretary and Development Commissioner, Shri. Alemtemshi Jamir, IAS as the State Principal Co-ordinator. Despite his busy schedule, he was actively involved in the process for preparation of the Report from identifying authors and convening meetings at the headquarters and leading the consultative workshops in the districts to contribution of the last chapter 'The Way Forward'. He was the chief mentor, support and guide for the project team.

Prof. Manoj Pant of School of International Studies, Jawaharlal Nehru University, New Delhi was the lead co-ordinator and the architect of the Report. Besides, technical inputs for the various chapters, he was the principal author for the chapter on Human Indices. We are indebted to Prof Manoj Pant for being available for this project.

The process of preparation of the Report included several rounds of discussions in the headquarters and in the districts. The active and enthusiastic participation of policy makers, civil societies, stakeholders, lead co-ordinator, authors, the Deputy Commissioner, Kohima and his team of officials made the consultation workshops meaningful and fruitful. It enriched and ensured ownership of the Report.

The background papers and chapters which form the basis of the Report were contributed by subject experts, academia, officials of the State Government, members of the civil societies and Non- Governmental Organisations. We are grateful to all of them for diligently and painstakingly researching and completing the task assigned to them within stipulated time.

We also acknowledge the contribution of Ms. Devika Tiwari and Shri. Ravi Ranjan, research scholars of the Jawaharlal Nehru University, New Delhi for the assistance in the preparation of the human development indices and Prof. Kulkarni of Centre for Studies in Regional Development, Jawaharlal Nehru University, New Delhi for the assistance in calculating life expectancy rates for the district.

We wish to thank Shri R. Sridharan, IAS, and Shri T. K. Pandey, IAS, former and present Joint Secretary, Planning Commission, Shri. Rajat Sachar, IES, Director (SP-Coord) and Dr. K. K. Tripathy, IES, Project Manager, SSPHD, Planning

Commission and Ms. Diedre Boyd, former UNDP Country Director, Ms. Caitlin Wiesen, Country Director, UNDP, India, Ms. Sumitra Banerjee, UNDP Country Representative and Ms. Ritu Mathur, UNDP Programme Officer for their support, suggestions and encouragement.

The Report would not have been possible without the guidance and critical inputs of the State Empowered Committee headed by Shri. Lalthara IAS, Chief Secretary, Government of Nagaland. We would like to thank them for supporting this endeavour. The suggestions provided by the Peer Review Committee consisting of Shri. I. Himato Zhimomi, IFS, Commissioner & Secretary, Department of Tourism, Art & Culture and Shri. Charles Chase, Freelance Journalist and the editorial support provided by the team consisting of Shri. Visielie Kezo, IRS, Officer on Special Duty, Department of Finance, Government of Nagaland, Ms. Kevilezo-ũ Savino, Freelance Journalist and Shri Tiatemsu Gyi, Freelance Journalist enhanced the quality of the Report. We thank them for willingly taking up the task and for their valuable inputs.

Conduct of survey and tabulation of disaggregated data and information was possible due to the team of officers of the Directorate of Economics and Statistics (DES). Shri Charles N. Kikon, Statistical Officer helped in designing and testing of the sample questionnaire and in scientific conduct of the survey. Ms. Theyieneinuo Belho, Assistant Director and Ms. Vikeyielienuo Chielie, Statistical Officer of Directorate of Economics and Statistics led the team of investigators in conducting the field surveys and in tabulation of the data. While Shri. I. Chuba Jamir, Deputy Director and Shri. H. Haikum, Deputy Director of the DES co-ordinated the efforts of the DES team which conducted the survey. We are grateful to all of them.

The different layers of maps were provided by Er. Mhathung Kithan, Project Analyst and the Nagaland GIS and Remote Sensing Centre. While the layout and chapter separators were designed by Shri Merimvu Doulo of Artworks. We acknowledge their contribution.

The team would also like to place on record the efforts of the in-house officers and staff; Ms. Kevimhietuo-ũ Sorhie and Shri. Bendangtoshi, the UN volunteers, Shri. T.L. Anungba, Assistant Development Commissioner, Smt. Amenla Sashi, Smt. Shikali Wotsa, Ms. Vikehieno Zhasa and Ms. Khriengu-ũ Thevo for efficiently coordinating the meetings with the authors and stakeholders, for co-ordinating the chapters, and for the long hours past office hours to proof read and carry out last minute changes in the finalization of the Report.

***Kevileno Angami, IES***

*Officer on Special Duty and  
Human Development Resource Co-ordination Team,  
Planning & Co-ordination Department  
Government of Nagaland*

## PREFACE

Implementing the District Human Development Reports (DHDRs) for the State of Nagaland is a daunting task. Our first task was to pick the three districts to be covered. In the choice of these districts for which DHDRs are to be implemented we decided to base our decision on the forerunner to this report, the State Human Development for Nagaland, 2004. The general idea was to pick three districts representing one which is reasonably well developed, one which is moderately so and one which represents the extreme in terms of lack of development. This gave us the three districts of Kohima, Phek and Mon; Kohima and Mon representing the extremes of developed and least developed districts respectively. This is the first of the three reports and pertains to the district of Kohima.

What makes the implementation of DHDRs particularly challenging is the lack of reliable data at the district level compiled in a format that is amenable to statistical analysis. In addition, there is the problem of total lack of statistics at the district level on crucial human development issues like gender discrimination, implementation issues in areas like the communitisation program etc. To overcome this handicap to some extent, we conducted in 2009 a fairly large but systematic random sample survey covering about 7476 households in the three districts of Kohima, Phek and Mon. For Kohima, a total of 13 villages and 20 urban blocks were selected and over 3500 respondents were covered. The details of the survey are given in a later chapter. Here it is sufficient to note that the database generated, though only representing a single point snapshot of the issues, was an important part of the database used in the various chapters of this report. The survey reports were made freely available to all the authors. Apart from this, we also commissioned some district level data from Indicus Analytics, Pvt. Ltd. For the rest, we have relied on the official data of various departments and the Directorate of Economics and Statistics (DES) of the Government of Nagaland.

One of the challenge in DHDRs is the need to ensure ownership by the stakeholders of the State. This we ensured by two methods. One, in choice of authors for the various chapters of this report, we selected academicians from Nagaland University, bureaucrats in the State Government and members of civil societies and non-governmental organizations (NGOs). Second, after the chapters were written, they were presented to a wide group of stakeholders drawn from various interests groups of the State. In a fairly innovative move, we decided to include the opinions of these stakeholders in a separate section called Voices of the People. We believe we are the only State that has done so. We have added this section even though some of the opinions voiced contradicted the assertions of the main chapters. From dissent comes consensus, this was our view.

As with all such reports a very wide set of individuals got together to make the final report possible. Our foremost gratitude goes to the Planning Commission and the United Nations Development Program (UNDP) who initiated the process of funding under the project of Strengthening State Plan for Human Development. I am also hugely indebted to the Additional Chief Secretary and Development Commissioner, Government of Nagaland, Shri. Alemtemshi Jamir (IAS), who took great personal interest in coordinating the various meetings and also contributing to the last chapter of this report. It would not be wrong to say that without his personal intervention this report might have never seen the light of day. I also thank Smt. Kevileno Angami, Officer on Special Duty, Planning and Coordination, Government of Nagaland for undertaking the task of coordinating the entire project.

The next major credit goes to the principal authors of the various chapters in this report who took time off from their official preoccupations to make sure the chapters were completed in time. The chapters on Agriculture and Basic Services were provided by Dr. Kilangla Jamir and Dr. Temjenzulu of the Lumami campus of Nagaland University and Ms. Bonnie Konyak, a journalist, respectively. The chapters on Economic Livelihood and the Unorganized Sector were contributed by Shri. Mhonlumo Kikon and Dr. Kanihar Kant respectively. The chapter on Education was a great team effort comprising the lead author Shri. F.P. Solo, Commissioner & Secretary of Higher Education of the Government of Nagaland, Dr. Buno Liegise of the Nagaland University, Kohima campus, Shri. Pheluopfelie Kesiezie, Principal of Baptist Higher Secondary School, Kohima, Shri. C.J. Lohe, Joint Director, Department of School Education, Kohima and Shri. Rokus Chasie, former Deputy Director, Health and Family Welfare. There was also the great team of Dr. Nandira Changkija, Project Director, Nagaland State AIDS Control Society, Kohima Late Dr. Kumuni Kathipri, former Director, Department of Health and Family Welfare, Government of Nagaland and Ms. Ela Mary of Youth Action for Resource Development who wrote the chapter on Health.

A crucial issue in hill states is one of Connectivity and Infrastructure. The chapter on these were written by the team of Shri. Athili Kathipri, Addl. Director, Information Technology and Technical Education and Smt. Temjenrenla Kechu, Assistant Director, Department of Urban Development, Government of Nagaland. No HDR can be complete without giving due attention to Gender Issues. This chapter was a team effort of Smt. Chozüle Kikhi, Deputy Director, Department of Horticulture, Dr. Kedilezo Kikhi, Lecturer, Lumami campus, Nagaland University and Padmashree Sentila T. Yanger. We have noted in this report that the issue of environment is fast becoming critical in human development. This is particularly important for hill states like Nagaland. The chapter on Forests and Natural Resources was written by the efficient team



of Shri. Vengota Nakro, Joint Director, Department of Soil and Water Conservation, Shri. Elusing Meru, Secretary, Forest and Environment and Shri. Koratemjen, Officer on Special Duty, Geology and Mining. Finally, Shri. Alemtemshi Jamir took on the responsibility of contributing the last chapter on 'The Way Forward'. I am personally indebted to Ms. Monalisa Tase and Dr. Buno Liegise of Nagaland University who provided me useful background material on the district and Ms. Devika Tiwari and Shri. Ravi Ranjan, research scholars of the Jawaharlal Nehru University, New Delhi who helped me in the exceptionally daunting task of generating human development indices. I would also like to express my gratitude to Professor Kulkarni of Centre for Studies in Regional Development, Jawaharlal Nehru University for providing invaluable help in calculating life expectancy rates for the Kohima district.

It would be foolish to pretend that this report could have been written without the help of supporting staff. I am greatly indebted to Shri. Charles N. Kikon of the Department of Economics and Statistics (DES) who helped design and implement the sample survey. He was helped by the team consisting of Ms Theyieneinu Belho and Ms. Vikeyielienue Chielie, of Directorate of Economics and Statistics who directed the surveys in the three districts and the efficient army of about 40 field investigators. I would also like to thank Shri. I. Chuba Jamir and Shri. H. Haikum of the DES for their help in coordinating the efforts of the DES which conducted and tabulated the survey report.

The next note of gratitude goes to the in-house staff of the UN project which coordinated the work among authors and helped in the final editing of the report. Here I am particularly indebted to Ms. Kevimhietuo-ũ Sorhie and Shri. Bendangtoshi, the UN volunteers who helped coordinate the editing work and my own interactions with the various chapter writers. I am also indebted to the administrative staff of the project Smt. Shikali Wotsa, Ms. Vikehienuo Zhasa, Ms. Khriengu-ũ Thevo and Smt. Amenla Sashi who efficiently coordinated the stakeholders meetings in the various districts.

Finally, writing such a report requires review and careful editing. This was made possible by the help extended by the Chairman of State Empowered Committee, Shri. Lalthara, IAS, Chief Secretary, Government of Nagaland, Shri. Alemtemshi Jamir IAS, Additional Chief Secretary & Development Commissioner, Smt. Banuo Z. Jamir IAS, Additional Chief Secretary and Commissioner Nagaland, Shri. R. Sridharan, IAS, Joint Secretary State Plans, Planning Commission, Government of India, Shri. Rajat Sachar IES, Director (SP-Coord) Planning Commission, Government of India, Shri C.J. Ponraj, IAS, Principal Secretary, Shri. Temjen Toy, IAS, Commissioner & Secretary, Works and Housing and P & AR Department, Shri. Mathung Kithan IAS, Commissioner & Secretary for Department of School Education and former Director, ATI, Nagaland, Shri. Menukhol John, Commissioner & Secretary, Health and Family

Welfare, Shri. Viketol Sakhrie, Commissioner & Secretary, Rural Development, Shri. I. Imkonglemba IAS, Commissioner & Secretary, Industries and Commerce, Shri. F.P. Solo, Commissioner & Secretary, Higher Education, Shri Abhishek Singh, IAS, former Secretary IT, the Peer Review Committee consisting of Shri. I. Himato Zhimomi, IFS, Commissioner & Secretary, Department of Tourism, Art & Culture and Shri. Charles Chasie, freelance journalist and the editorial team of Ms. Kevilezo-ũ Savino, freelance journalist, Shri. Tiatemsu Gyi, freelance journalist and Shri. Visielie Kezo, IRS, Officer on Special Duty, Department of Finance who all efficiently reviewed the research output. I would like to conclude by saying that the process of putting together the DHDRs had taken us about 8 to 10 months. The lack of data makes this a particularly commendable task. As Lead Coordinator of the project, I must admit that it has been a personal challenge for me to get the work done within the given time frame with all the data problems we encountered. It suffices to say that I could not have done this without the team effort of all those I have mentioned above.

My sincere thanks to all of them for making this report possible.

***Prof. Manoj Pant***

*Centre for International Trade and Development  
School of International Studies  
Jawaharlal Nehru University, New Delhi*

## ABBREVIATIONS

ABL	: Activity Based Learning
AIDS	: Acquired Immuno Deficiency Syndrome
ANC	: Antenatal Check-up
ANM	: Auxiliary Nursing and Mid-wifery
APMC	: Agricultural Produce Marketing Committees
ART	: Anti Retro-Viral Therapy
ARWSP	: Accelerated Rural Water Supply Programme
AS	: Alternative Schooling
ASER	: Annual Status of Education Report
ASHAs	: Accredited Social Health Activists
ATMA	: Agricultural Technology Management Agency
B.Ed	: Bachelor of Education
BPL	: Below Poverty Line
CAL	: Computer Aided Learning
CEDAW	: Convention to Eliminate All Forms of Discrimination Against Women
CHC	: Community Health Centre
CIC	: Community Information Centre
CME	: Continuing Medical Education
CPTe	: Certificate for Primary Teachers Education
CSC	: Community Service Centre
DEO	: District Education Officer
DHDR	: District Human Development Report
DC	: Deputy Commissioner
DIET	: District Institute of Education and Training
DNB	: Diplomate in National Board
DISE	: District Information System on Education
DMA	: District Mission Authority
DWSM	: District Water and Sanitation Management
EA	: Entrepreneurs Associates
EBRCs	: Educational Block Resource Centres
EGS	: Education Guarantee Scheme
EI	: Electricity Index
FRU	: First Referral Unit
GAD	: Gender and Development
GER	: Gross Enrolment Ratio
GDI	: Gender Development Index
GDL	: Division of Labour
GDP	: Gross Domestic Product
GMS	: Government Middle School
GNM	: General Nursing and Mid-wifery
GPK	: Government Polytechnic Kohima
GPS	: Government Primary School
GSDP	: Gross State Domestic Product
HBE	: Home Based Education

HDI	: Human Development Indices
HIMS	: Health Information Management System
HIV	: Human Immuno - Deficiency Virus
HPI	: Human Poverty Index
HQ	: Headquarters
HSLC	: High School Leaving Certificate
HTM-NE	: Horticulture Department under Women Development
ICTC	: Integrated Counseling Testing Centre
IDRC	: International Development Research Centre
IEC	: Information Education Communication
II	: Infrastructure Index
IMR	: Infant Mortality Rate
IPC	: International Potato Centre
IPHS	: Indian Public Health System
ISTE	: In-Service Teacher Education
IT	: Information Technology
ITES	: Information Technology Enabled Services
JSY	: Janani Suraksha Yojana
KOMUL	: Kohima District Milk Producers' Union Limited
KVK	: Krishi Vigyan Kendra
LMP	: Licentiate in Medical Practice
LPCD	: Litres Per Capita Per Day
LPS	: Lower Primary School
MDG	: Millennium Development Goals
MMR	: Maternal Mortality Rate
MO	: Medical Officer
MOU	: Memorandum of Understanding
MIT	: Ministry of Information Technology
MU	: Metering Unit
MW	: Megawatt
NBSE	: Nagaland Board of School Education
NCF	: National Curriculum Framework
NDDP	: Net District Domestic Product
NE	: North East
NeGP	: Nagaland Electronic Government Programme
NEPED	: Nagaland Empowerment of People through Economic Development
NER	: North Eastern Region
NER	: Net Enrolment Ratio
NFHS	: National Family & Health Survey
NRHM	: National Rural Health Mission
NGO	: Non Governmental Organization
NIC	: National Informatics Centre
NPSC	: Nagaland Public Service Commission
NSACS	: Nagaland State AIDS Control Society
NSDP	: Net State Domestic Product
NST	: Nagaland State Transport
NRBC	: Non-Residential Bridge Course

PCI	: Per Capita Income
PCO	: Public Call Office
PHC	: Primary Health Centre
PHED	: Public Health Engineering Department
PKR	: Phesunyu Khenyu Rumesinyu Range
PMGY	: Pradhan Mantri Gramodaya Yojana
PSTE	: Pre-Service Teacher Education
PTR	: Pupil Teacher Ratio
RAP/ILP	: Restricted Area Permit/Inner Line Permit
RBC	: Residential Bridge Course
R&D	: Research and Development
RDI	: Road Infrastructure Index
RGNDWM	: Rajiv Gandhi National Drinking Water Mission
RNTCP	: Revised National Tuberculosis Control Programme
SARS	: Agricultural Research Station
SC	: Sub-Centre
SCERT	: State Council of Educational Research and Training
SHDR	: State Human Development Report
SHG	: Self Help Group
SIS	: Sub Inspectors of Schools
SPM	: Single Point Metering
SSA	: Sarva Shiksha Abhiyan
SSI	: Small Scale Industries
STD	: Sexually Transmitted Disease
TB	: Tuberculosis
T&D	: Transmission & Distribution
TEK	: Traditional Ecological Knowledge
TFR	: Total Fertility Rate
TFC	: Twelfth Finance Commission
TLM	: Teaching & Learning Equipment
TSC	: Total Sanitation Campaign
T&WRC	: Terrace and Wet Rice Cultivation
UNDP	: United Nations Development Programme
VDBs	: Village Development Boards
VEC	: Village Education Committee
VEMBs	: Village Electricity Management Boards
VHC	: Village Health Committee
WATSAN	: Water and Sanitation Committees
WEC	: Ward Education Committee
WHO	: World Health Organization
WLL	: Wireless in Local Loop



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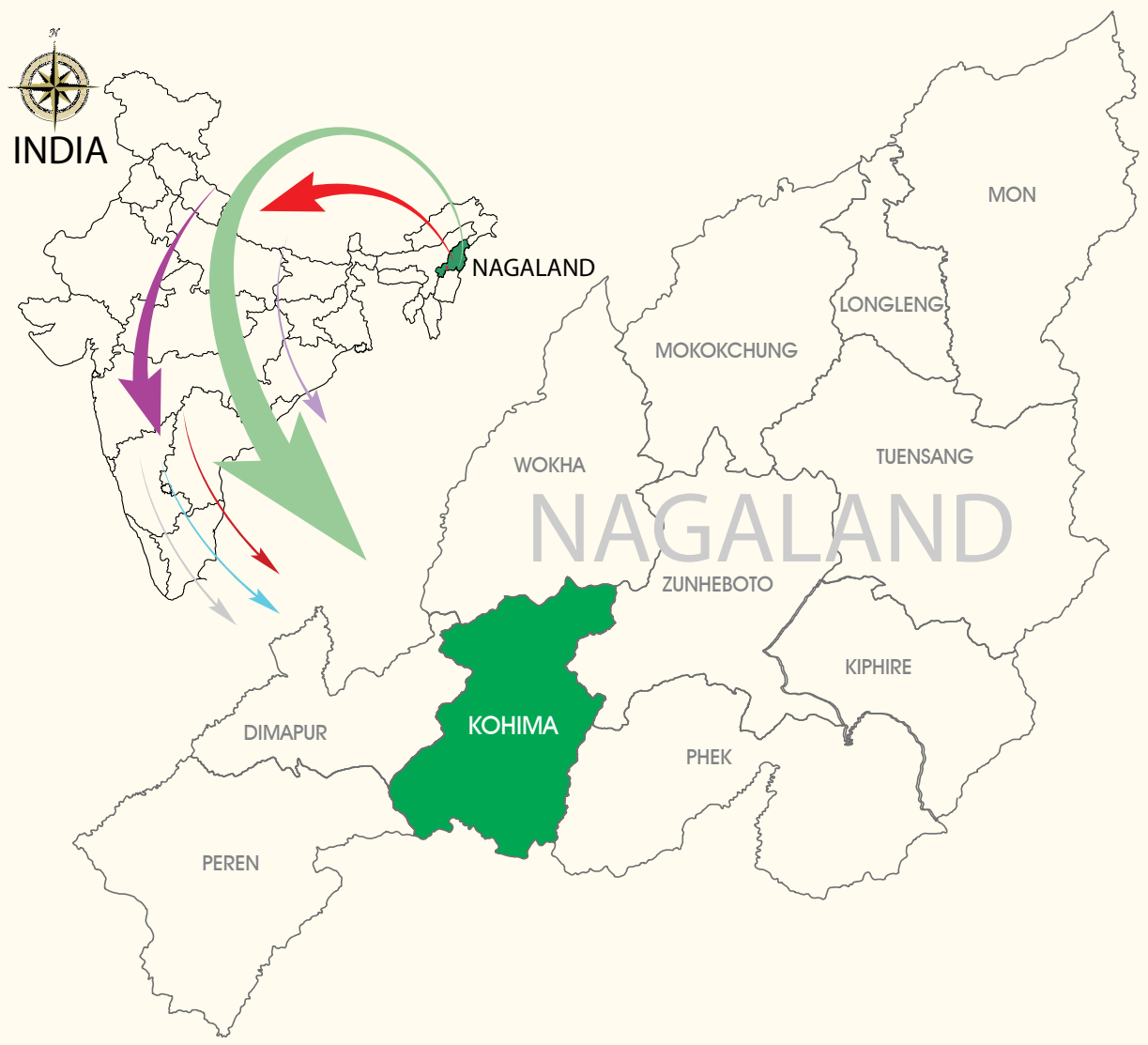
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# NAGALAND - KOHIMA



# *Kohima*

A PREVIEW



<i>State capital</i>	Kohima
<i>Original name</i>	Kewhira
<i>Area</i>	17.5 sq. km
<i>Altitude</i>	1, 444. 12 m above sea level
<i>Climate</i>	Generally pleasant throughout the year
<i>Average rainfall</i>	2000 mm
<i>Population</i>	78, 584 (Census of India 2001)
<i>Population mix</i>	Cosmopolitan
<i>Common languages</i>	Tenyidie, English, Nagamese, Hindi.
<i>Communication</i>	Dimapur, the nearest airport and railhead, is 74 kms away. Taxi and bus services are available from Dimapur at all times Kohima can be reached in about 2 hours. All communication facilities such as telephones, cell phones, telegraphs, faxes and internet are available.
<i>Best time to visit</i>	Between October and April
<i>Places of interest</i>	The State Museum, Kohima Village, the Naga Heritage Village at Kisama, the World War II Cemetery, the World War II Museum, the Civil Secretariat, the Cathedral, Phizo's grave. For the nature lover and adventurous, there is the historic village of Khonoma which is also the first Green Village in India, Mount Japfü, the second highest peak in Nagaland, the famed Dzükou valley and other nature trials of flora and fauna to explore.
<i>Accommodation</i>	Hotel Japfü, Cimorb, Heritage, Razhü Prü, Grandeur, Holiday Inn and Millennium are centrally located. Dimori Cove, 14 kms from Kohima at the foot of Mount Japfü and the Tourist Village at Tuophema, 41 kms from Kohima on NH 61 have more natural settings.







# SECTION 1

## Chapter 1 KOHIMA - A PROFILE











# SECTION 1

## CHAPTER - 1

# KOHIMA-A PROFILE



## 1.1 KOHIMA- A PROFILE

The name Kohima was adopted by the British from Kewhimia which means the 'people of Whio'. According to local legend, the Angami Naga village formerly named Kewhira was chosen for settlement by a man called Whio<sup>1</sup>.

Kohima became the headquarters of the Naga Hills under British administration in 1878. It then became the capital of Nagaland in 1963 when the State was formed. The total area of Kohima district is about 3.11 lakh hectares constituting about 19 percent of total area of Nagaland. There are 12 circles, 4 Rural Development Blocks, 180 inhabited villages and 22 uninhabited villages in Kohima. Situated in the south of Nagaland, Kohima rests at an altitude of about 1444 meters above sea level.

One of the oldest of the eleven districts of the State, it is the first seat of modern administration as the headquarters of the Naga Hills district that was initially under the British. After India's independence it came under Assam. In 1959 the Naga Hills district was divided into two – Kohima and Mokokchung with the office of the Commissioner remaining at Kohima to also look after the Tuensang Area that formed the NHTA (Naga Hills Tuensang Area). After Statehood, Kohima district has been divided thrice - in 1973 to create Phek district, in 1998 to create Dimapur district and in 2003 to create Peren district. The Pughoboto area was also transferred to Zunheboto district in 1989.

Kohima has the advantage of being centrally located – having boundaries with Dimapur district on the west, Wokha district on the north, Peren district on southwest, Zunheboto and Phek districts on the east and the State of Manipur to the south. Situated along National Highway 39, Kohima town is located on top of a high ridge and winds all along the top of surrounding mountain ranges. 'Kohima Village' called 'Bara Basti' or 'large village', which is the largest village in Asia, forms the northeastern part of Kohima urban area.

The Angamis and Rengmas are the indigenous inhabitants of Kohima district and thereby form the dominant tribes of the district. However, the district is very cosmopolitan in nature with the presence of a large number of other communities. The reason for the emergence of the Angamis as a dominant tribe of Nagaland from the early days is due to the geographical character of the territory they occupied and the advanced cultivation technologies they imbibed. Angami settlements are well connected with the region of Assam on the one side and Manipur on the other. From both directions they adapted the use of technology in agriculture, craftsmanship, trade and other livelihood techniques including a highly advanced form of Wet Terrace Rice cultivation.

<sup>1</sup>Sanyu Visier ed. (1996), 'A History of Nagas and Nagaland: Dynamics of Oral Tradition in Village Formation'.

The Angami settlement area is endowed with rich forests, pastures, flora, fauna, springs and streams which irrigate their lands and enable cultivation<sup>2</sup>. The district has a pleasant and moderate climate. Of its population, 90 percent are Christians, 7 percent Hindus and 3 percent others.

Kohima has a large number of festivals linked to sowing, harvest and the weather. The important festivals of the district are the Angami festival Sekrenyi celebrated in the month of February and the Rengma festival Ngada celebrated in the last week of November. Since 2000, the Hornbill Festival which celebrates the song, dance and culture of the entire State in a week of festivities, is being celebrated annually in December as a State festival. The Hornbill festival is celebrated at Kisama, a location close to Kohima town. It now features as a major national and international event. Kisama has become a major tourist attraction as a site where the homes and living styles of all the major Naga tribes are on permanent display. The historic war cemetery which is the outcome of the last battle between Great Britain and Japan during World War II and in which the Nagas also played a major role in resisting the Japanese advance into India is located in Kohima.

As detailed in the Nagaland Human Development Report, 2004, Kohima had one of the highest Human Development Indices (HDI) for the year 2001, the figure being only marginally lower than that of Mokokchung and Dimapur. The HDI reflects attainment in areas like economic development, health and education. HDI of Kohima indicate that the progress in these areas have been relatively better. Kohima had the number one rank in terms of the Gender Development Index (GDI). In the calculation of Human Development Indices (HDI), the issue of environmental degradation (or improvement) has not been incorporated yet. In the profile, however, in addition to the three aspects of human development, environmental issues have also been discussed. The profile on Kohima will therefore, cover economic issues, on education, quality of life, gender and environmental issues. In the introductory chapter, all these dimensions will be discussed briefly. The remaining chapters will look at these issues in greater detail. The concluding chapter will indicate how the district's human development indices have moved over the last few years.

<sup>2</sup> Ibid

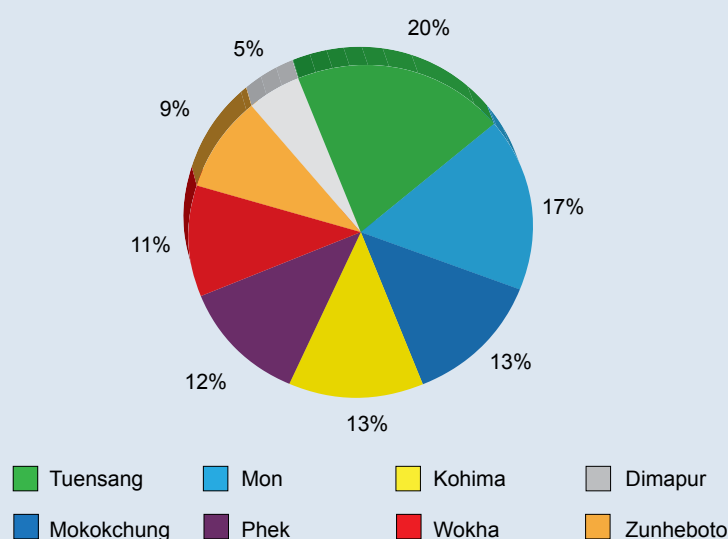
## 1.2 ECONOMIC DIMENSIONS

One of the main problems encountered in capturing the economic development of any district in Nagaland is the lack of adequate district disaggregated data. This is also true of Kohima. Historical data on Kohima has the additional problem since the district, as already noted, has been fragmented over time into four smaller districts. In this report we have relied on data published by the Directorate of Economics and Statistics (DES) along with estimates generated by extrapolation of data from the two national Censuses of India 1991 and 2001. In addition, in 2009, the DES also conducted a quick random survey covering 3609 respondents in 20 urban blocks and 13 villages in the district. Where published data was not available, the results of the DHDR Survey have been extensively used. The details of the survey and the questionnaire are given in Appendices.

According to the Census of India 2001, as compared to the rest of the State, Kohima is slightly more urbanized with about 29 percent of the population living in urban areas as compared to about 20 percent for the State as a whole. This figure is likely to have changed considerably given migration from the neighbouring districts in the recent years. However, it is unlikely that the rural nature of its population would have been altered completely. The increasing urbanization of Kohima is also clear from the fact that in 2005-2006, Kohima accounted for only about 13 percent of the State's Gross Domestic Product (GDP) in agriculture. However, as Figure 1.1. shows, Kohima's contribution to agricultural output is still quite substantial in relative terms. Commodity wise, it contributes almost 25 percent of the potato output of the State.

*Figure 1.1.*

*District Domestic Product (Agriculture At Current Prices) 2005 - 2006*



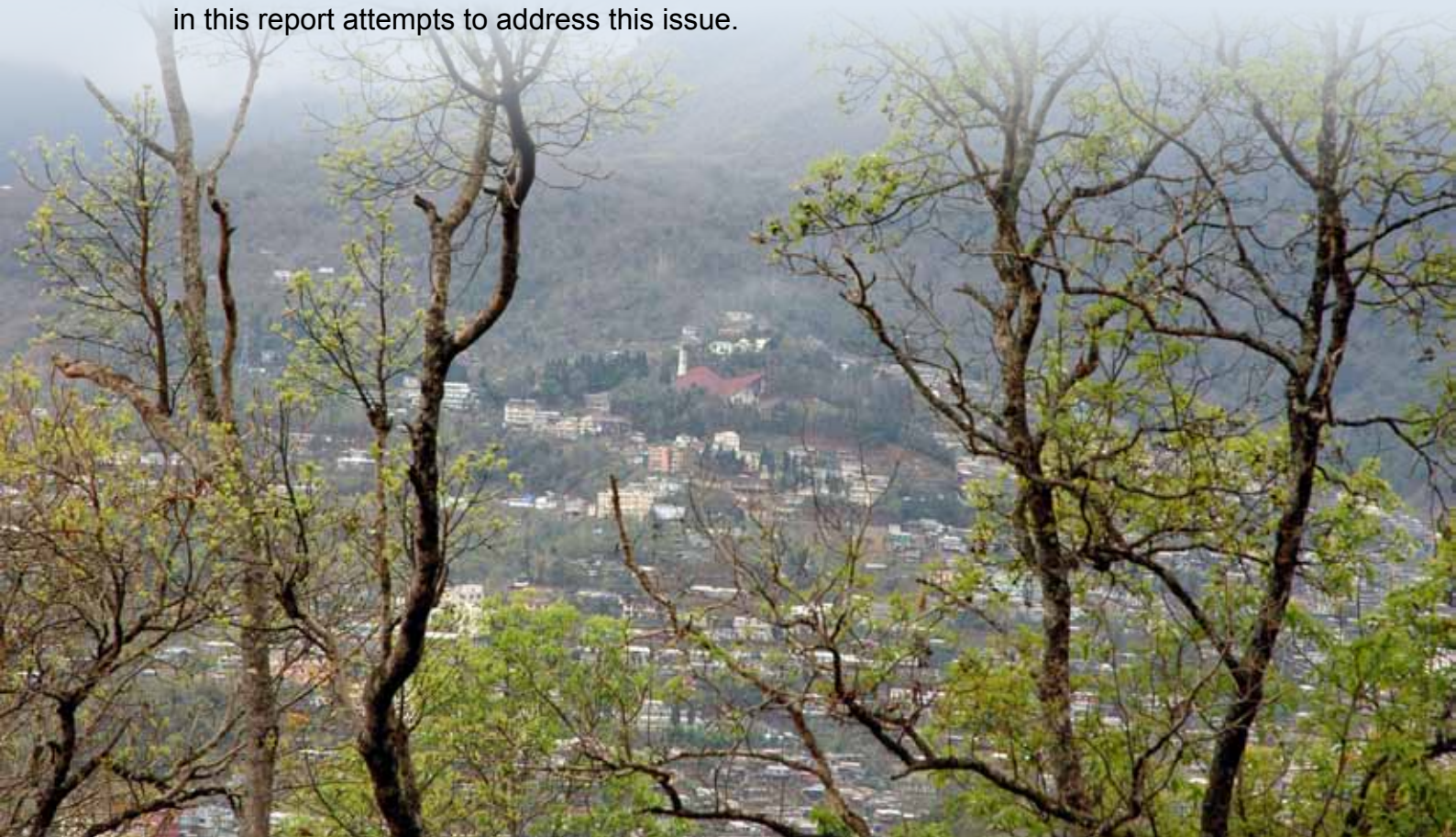
Source: Estimates by Indicus Analytics Pvt. Ltd., Indian Agri Scape Nagaland



Like the rest of the State, paddy is the principal crop of Kohima. The other major cereal is maize. Beside these, other crops cultivated in Kohima are jowar, small millets and barley. Kohima produces more than 10 percent of all commercial crops of Nagaland. There is some production of pulses like arhar, moong and peas though their contribution to the agricultural output is insignificant. Hence, while being largely urbanized, Kohima still has a significant sector under agriculture.

Predominantly hilly states like Nagaland (and hence districts like Kohima) are not expected to have large industry base. Secondary sector is normally limited to small scale units. The other sector which is essential to economic livelihood is the tertiary sector. While looking at the economic dimensions for the development of Kohima, the structure of its secondary and tertiary sectors needs to be studied since they are important sources of employment and livelihood.

It is clear that urbanization of Kohima stems from two aspects. One being the Government employees, who come from all over the State to work in the capital and the other being the influx of rural populace in search of employment, to access better education facilities for children and better prospects for livelihood. While there are no large industries, there is an informal sector consisting of handicrafts (mainly traditional) and a large service sector. The service sector in turn consists largely of retail and construction trade. The largest service sector employer is the Government. Therefore, an obvious challenge is to provide alternate source of employment outside Government and the agricultural sector. Hence, the future progress of the secondary and tertiary sectors are likely to be major development issues. The chapter on economic livelihood in this report attempts to address this issue.







*The then Deputy Commissioner's Bungalow, constructed in 1946 now a Heritage Hotel*



## *Kohima*, THE HEADQUARTER OF THE THEN NAGA HILLS

*The name Kohima is derived from the Angami village Kenhira, on whose land the township was established. The British Administration decided to shift the headquarter from Wokha to Kohima after a visit to the Naga country by Colonel Keating, the then Chief Commissioner of Assam. Apart from the strategic advantage of more effective control over the warring tribes from Kohima, the favourable climatic condition was an added attraction. Thus, Kohima became the headquarter of the Naga Hills and G.H. Damant took charge as the first Political Officer, on November 14, 1878. The occupation of Kohima was not, however, without resistance from the fiercely independent Angami villages that were opposed to establishment of administrative control in their land. Khonoma, Mezoma and other villages including some Chakhesang villages offered stiff resistance, which resulted in the death of G.H. Damant and many others.*

*- Heraldng Hope*





## 1.3 HEALTH

Discussion of the human development of a district is incomplete without including its health status. However, statistics of health and demographic indicators for some districts are very poor and in some cases not even be available. In such a backdrop, the under five mortality rate is 88.6 percent in Kohima which is higher than the national average of 43.9 percent but less than that of other districts of Nagaland like Tuensang district (at 73.2 per thousand). The district has also achieved 29 percent full immunization. On the negative side, the drop-out-rate before attaining full immunization is quite high at 66.4 percent and only 27.9 percent women receive 3 or more antenatal check-ups (ANC) while the contraceptive prevalence rate is 49.6 percent.

The availability of health facilities is reasonable. There is one urban hospital, 9 Primary Health Centres and 49 Sub-Centres providing health facilities in Kohima. The notable health institutions are the Naga Hospital Authority, Mental Hospital and T.B. Hospital (Khuzama). Kohima also has the highest number of doctors, one third of the State's total as compared to other districts. The Naga Hospital Authority has facilities for tele-medicine connectivity with the Apollo Hospital at Delhi where specialized physicians can be consulted. In addition to these, the district has several privately managed, well equipped nursing homes and clinics.

As the chapter on health indicates, the real problem is institutional delivery of health services, in rural areas. With the communitisation of the health care sector there is expectancy that the implementation of the decentralized health program would lead to improvements. This seems to be the main developmental challenge and there is expectancy that the implementation of a decentralized health program under the State's communitisation program would lead to improvements.

## 1.4 EDUCATION

As in most parts of Nagaland, Kohima has a high literacy rate of 74.54 percent, with male literacy rate at 81.44 percent and female literacy rate at 66.64 percent. As per Census 2001, of the total literate persons in Kohima, 3 percent are literate without any formal educational, 19 percent are literate with below primary level education, 25 percent with primary level education, 19 percent with middle level education, 26 percent with matric or higher secondary or diploma level education and 8 percent with graduate and above. One measure of educational development is the enrollment rate at various educational levels. Kohima has 9 percent of the total number of primary schools and 10 percent of

the pupil enrollment of the State. In case of middle school and high school enrollment, Kohima accounts for about 25 percent and 21 percent of the total enrollment in the State respectively. The dominance of Kohima district in high school level education is evident since it accounts for around one fourth of the high school teachers in Nagaland. Yet the pressure of numbers is such that Kohima's teacher-student ratio are lower than that of other districts. Thus, the ratio is 3 teachers per hundred for primary schools compared to 4 for the State as a whole. The corresponding figures for middle school are 5 and 7 respectively. However, the figures are comparable with the State's ratio for high schools<sup>3</sup>. In terms of facilities for higher education, there are five colleges in Kohima affiliated to the Nagaland University whose main campus is located in Lumami in Zunheboto district.

#### Box No.1.1. School Statistics 2005-2006

District/ State	No. of Schools				Enrolment			Teachers	
	Pre-Primary	Primary	Middle	High/Higher Secondary/ Intermediate	I-V	VI-VIII	IX-XII	PPS/ PS	MS
Kohima	0	138	47	87	21740	20828	11297	741	1139
Nagaland	0	1520	481	449	224715	92271	54635	7948	6263

Source: Ministry of Human Resource and Development (MHRD), Government of India, <http://education.nic.in/stats/StateProfile0506.pdf>.

The above statistics imply that Kohima is one of the districts of the State with high enrolment rates and with better teaching workforce. However, as the chapter on education will indicate, challenges for institutional delivery of educational services still exists. Government schools are given importance only at the primary level. Private schools tend to perform better at the secondary and higher levels of schooling. While at the intermediate and higher educational level, Government institutions dominate. The obvious challenge is improving the performance of Government secondary schools and review of the existing curriculum to address problem of increasing educated unemployed.

<sup>3</sup> Ministry of Human Resource and Development (MHRD), <http://education.nic.in/stats/StateProfile0506.pdf>.

## 1.5 BASIC AMENITIES - DRINKING WATER, SANITATION AND ELECTRICITY

Human development has a crucial poverty dimension often calculated as the Human Poverty Index (HPI). Apart from income, the poverty of an individual is reflected by his or her living conditions. Some parameters which are used in quantifying this aspect of poverty are the availability of essential infrastructure, facilities like drinking water and sanitation. To these we may add the availability of electricity.

Like most metropolis of India, the inward migration into Kohima town has lead to pressure on the basic infrastructure adversely affecting the quality of life. For instance, only less than half of the households of the town have provision of safe drinking water. This has affected the aggregate of Kohima district making it one of the worst performing districts in India in terms of provision of safe drinking water (ranked 507). Meanwhile, 60.8 percent of households have toilet facilities and 76.3 percent of the households are electrified.

It may be noted that there is very little geographical separation between the urban and rural areas of Kohima. Yet the rate of inward migration is much higher due to better facilities and access to public utility services. This has put tremendous pressure on the urban infrastructure. Kohima district is therefore in urgent need of reforms and renewal of its infrastructure. The villages in Kohima also need renewal as much as the urban centers. The rural areas in Kohima district may however be faring better than their counterparts in other districts in terms of access to certain public services.

## 1.6 DEMOGRAPHIC DIMENSION

In discussing human development, demographic dimensions need to be taken into account. Thus, the gender component of a society is essential in calculating the Gender Development Index (GDI). Similarly, gender wise breakup of the work force is essential in calculating the demographic dimensions of human development.

The total population of the district stood at 3,14,366 as per Census 2001, with 1,61,701 males and 1,52,665 females. As of 2001 the population density of the district was 302 persons per square km. The decennial growth rate of population of Kohima was 49.96 percent for 2001 whereas for Nagaland it was 64.41 percent. Approximately, 30 percent of its population is in Below Poverty Line (BPL) category as against the State's BPL

population of 32.67 percent. More than 75 percent of the population of Kohima district live in rural areas and more than 90 percent of its population are scheduled tribes.

Sex ratio (female per 1000 male) for Kohima was 944 as on 2001 with 970 for rural areas and 870 for urban areas. Sex ratio for 0 to 6 year olds was 967. Live birth rate (per 1000 population) was 26.05, death rate (per 1000 population) was 2.1 and infant death rate (per thousand live births) was 4.87 for the year 2000 for Kohima. While the corresponding figures for Nagaland was 20.34, 2.75 and 6.68 respectively. In 2001, 10 percent of the population was under 0 to 4 year age group, 26 percent under 5 to 14 years, 59 percent under 15 to 59 years and 4 percent 60 years and above age group. There are around 1.50 lakh workers in Kohima, of which more than a lakh are main workers. While the total number of non workers is 1.75 lakh. More than half of the working population is engaged in cultivation. Of this more than 50 percent are women. Of the total workers 5 percent are agricultural labourers and 3 percent are industrial workers. And out of the total industrial workers, close to three fourths are women. More than one third of the total workers in Kohima are engaged in occupations other than agriculture and industry.

#### Box No.1.2. Sex Wise Population 2001

District/State	Total Rural /Urban	Total Persons	Male	Female	Sex Ratio (Female per 1000 Males)
Kohima	T	314366	161701	152665	944
	R	235782	119668	116114	970
	U	78584	42033	36551	870
Nagaland	T	1988636	1041686	946950	909
	R	1635815	846651	789164	932
	U	352821	195035	157786	809

Source: Statistical Hand Book of Nagaland 2008, Directorate of Economics and Statistics, Government of Nagaland.

The break up of the working population clearly indicates the crucial role played by women. However, as the chapter on gender issues will indicate the existence of gender bias in gender division of labour reflecting the need for gender mainstreaming.

## 1.7 THE ENVIRONMENTAL DIMENSIONS

Like other states of the North Eastern Region (NER), Nagaland has an extensive forest cover of about 50 percent. In Nagaland, State reserved forests accounts for only about 12 percent of the forest cover and about 88 percent of the forests are privately owned. And a large section of the rural population derive 40 to 50 percent of their income indirectly from the forests and its products. Prior to the Supreme Court's ban on felling of trees in 1996, revenue from forests was a dominant part of the State's GDP. The contribution of the forest sector to the State's GDP was quite sizeable with revenue earnings of about ₹ 531 crore in 1985-1986. However, with the apex Court's order this declined considerably and also led to considerable occupation relocation for a section of the population.

Given its growing urbanization, Kohima's forest cover of 30 percent of its geographical area is still considerable though less than many other districts like Mon and Tuensang.

The real problem in Kohima, as in other districts of Nagaland, is the considerable loss of private incomes after the Supreme Court ruling of 1996. The crucial issue therefore is how well has Kohima optimized other resources of wealth from forests, more specifically, non-timber forest products like herbs, medicinal plants, gums, resins and the like. The chapter on forestry in Kohima discusses the role of forests in carbon fixation, its contribution in terms of balancing soil quality and the above issues in detail.

The ensuing chapters will provide more insight into the developments, constraints and potentials in the various sectors. The preparation of this report is an outcome of in depth research and consultation and meetings with the stakeholders. The opinion of the people is reflected in the chapter entitled "Voices of the People". The concluding chapter dwells on the quantitative estimates of change in the Human Development Indices of Kohima since 2002 along with comments on the direction of policy response for improving human development indicators for Kohima.





## *The Legend* - WHINUO OF KEWHIRA

*The general belief is that Whinuo came from a southern or southeastern route. His sojourn was more as an initial survey of possible habitation rather than a definite plan to settle down. The first night after an initial survey of the layout of the land – a significant night in the Naga context – Whinuo had a strange dream. He did not see any habitation but he heard the sounds of “children laughing, playing, and frolicking” and “of mourning”, as if coming from a village. In the morning, Whinuo religiously tried to interpret his dream. He knew the sounds of mourning protended “death and sorrow” but he was also sure that the playful sounds of children were a good omen, signifying great population and prosperity of the village.*

- Heraldng Hope











## *Khonoma*, THE FIRST GREEN VILLAGE

*Situated 20 km west of Kohima and synonymous with greenery, Khonoma village in Kohima district offers a delightful view of its natural beauty and ecological diversity. The Khonoma Nature Conservation and Tragopan Sanctuary was established in 1998 with an aim to protect the Blythe's Tragopan, a rare pheasant of Nagaland.*

*Apart from it, a multitude of wild animals are preserved.*

*The Sanctuary is privately owned and managed by the Village Community. Khonoma is also famed for the fallow management of its alder trees, which balances nature and surrounding areas.*

*Here, 20 types of paddy are grown, cultivation of each variety depend on elevation and soil of particular blocks of fields.*





# SECTION 2

*Chapter 2* AGRICULTURE

*Chapter 3* INFORMAL SECTOR

*Chapter 4* ECONOMIC LIVELIHOOD (NON -RURAL)





## ECONOMIC LIVELIHOOD ISSUES

*As discussed in the profile, while human development has important non economic dimensions, it also improves the economic well being of the population.*

*The district of Kohima has a large agricultural component and a sizeable part of its population is dependent on income from agricultural activities.*

*Kohima has also urbanized at a rapid pace.*

*Being the capital city of Nagaland it attracts migrants who eventually get absorbed in the service and unorganized sector in activities like marketing, construction, retail and other such trades.*

*In this section we look at these aspects of economic livelihood.*







## SECTION 2

### CHAPTER - 2

# AGRICULTURE

LANDUSE/LAND COVER MAP OF KOHIMA DISTRICT



## 2.1 AGRICULTURE AND HUMAN DEVELOPMENT

Agriculture is an integral part of the economy. A strong agricultural foundation is recognized to be a prerequisite for sustained economic and social progress and its poor performance invariably leads to low human developmental outcome. It has been demonstrated that there is a two way relationship between agricultural performance and human development. On one hand, improvement in agricultural performance can positively influence human development that is associated with acquisition of knowledge and skill. This creates a sense of self confidence and opens doors to horizons beyond the rural area. On the other hand, improvement in human development can enhance agricultural performance through application of essential intermediary factors. Upgraded skills and techniques acquired by the farmers enable them to effectively use new technology and input, access markets, research and extensive services and make better use of services provided by the public and the private sectors<sup>4</sup>. Due to these strong linkages, the agriculture sector is well placed to contribute not only to income and food security but also to other aspects of human development that are spelled out in the Millennium Development Goals. Keeping the interface between agricultural performance and human development in view, this chapter attempts to bring out the performance of agricultural sector in the economy.

Agricultural sector is the key contributor to the overall progress of the economy in Kohima district as this sector engages the highest proportion of the working population and contributes significantly to State Domestic Product (SDP). Agriculture is the main source of livelihood of the rural population that constitutes more than 75 percent of the district's total population. Its performance has both direct and indirect impact on human welfare. Increased crop and livestock production positively impacts the consumption and hence nutrition level of the producers and vice versa.

## 2.2 AGRICULTURAL SYSTEMS

The dominant agricultural system in the district is "*terrace rice cultivation*", which is traditionally practiced on the hill slopes with terrace benches using irrigated water from streams. The major crop is paddy, cultivated mainly during kharif season. This farming system is a form of settled cultivation which seems to be more sustainable, productive and ecologically less deleterious than jhum cultivation. "*Zabou*" system is another method of settled cultivation based on integrated watershed system generally practiced in Kohima and Phek districts. Under the system, run off water from the upper catchments is harvested in ponds and used for growing paddy along with fishes and

<sup>4</sup>Nagaland State Human Development Report 2004

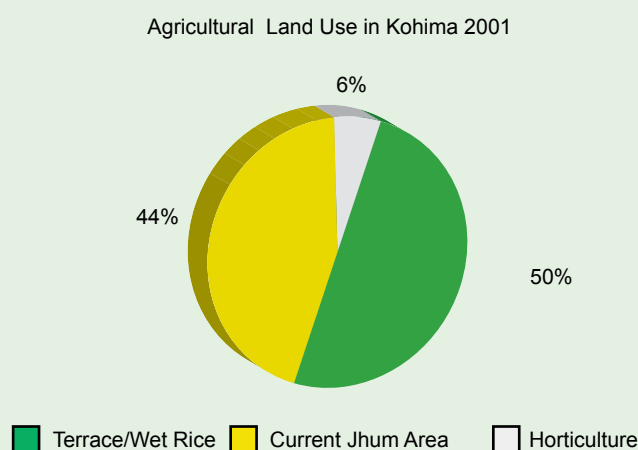


snails in the kharif season and for cultivating vegetables in rabi season. In 2001, about 13 thousand hectares was put under the settled cultivation system that accounted for 50 percent of the total agricultural area. (Table No.2.1)

Another prevailing traditional farming system is “*jhum cultivation*”, commonly known as shifting cultivation, practiced along side terrace cultivation on the hilly areas where mixed cropping pattern is followed during kharif season. Rice is the dominant crop, followed by maize, yam, pulses and varieties of vegetable crops. Under this system, the field or plot is rotated instead of crops. A plot is cultivated for 2 (two) years, thereafter, it is abandoned and kept fallow for 9 (nine) years, so that its fertility is regenerated through natural process. The years of jhum cycle has been reduced considerably due to population pressure, resulting in lower productivity<sup>5</sup>. Jhum cultivation being labour intensive and subsistence in nature provides limited opportunity to earn additional income. Further it is associated with deforestation, degradation of forests and land resources due to loss of top soil, destruction of flora and wildlife habitats. Jhum farmers undertake soil conservation measures (mechanical and vegetative barrier) and jhum plantation activities to prevent soil erosion and faster re-growth of vegetative cover and fixation of atmospheric nitrogen in the soil. However, these indigenously developed techniques of soil conservation and management are not effective. In 2001, about 9,17,087 hectares was under jhum cultivation in the State. The total area under jhum cultivation was 1,26,036 hectares in Kohima district alone.

In recent years, cultivation of horticultural crops and cash crops have gained ground. The total area under horticulture was 1,542 hectares that constituted for 9.98 percent of the total agricultural area in 2001<sup>6</sup>.

*Figure 2.1. Land Use Under Different Agricultural System*



Source: Nagaland Village Profile 2001, Department of Agriculture, Government of Nagaland.

<sup>5</sup> Vanloon, Grey W (2005) *Agricultural Sustainability, Strategy for Assessment*, Sage Publication, New Delhi.

<sup>6</sup> Human Development Report 2007 : *Rediscovering Agriculture for Human Development* Uganda , Oxford University Press, New York 2003



## 2.3 AGRICULTURE RESOURCE

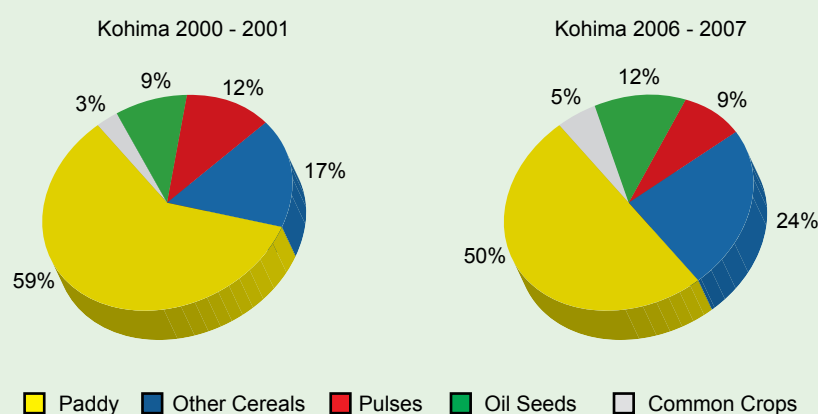
Land and labour resources are key factors of production. Thus the distribution and the utilization of these resources should be the primary concern in policy making.

### 2.3.1 LAND USE PATTERN

Kohima district is well endowed with fertile land and good climatic condition, suitable for crop and livestock production. The present agricultural land use pattern reveals that half of its total cultivated area is being utilized under Terrace and Wet Rice Cultivation (T&WRC), followed by jhum, horticulture and cash crop production. Kohima alone accounted for 17.11 percent of T&WRC area, 13.74 percent of jhum area and 9.98 percent of horticulture cropped area in the State in 2001. (Table No.2.2)

In 2007, about 45 thousand hectares was the cropped area in the district. This constituted 19 percent of the State's total cropped area. More than 51.09 percent of the cropped area was used for growing paddy mostly under terrace cultivation. Cereal crops occupied more than 70 percent of the total cropped area followed by oilseeds, pulses and other commercial crops. As compared to 2001, the share of cropped area under paddy and pulses declined in 2007, while that of other cereal crops, oil seeds and commercial crops increased. This implies that there has been a shift in the area between crops and also within the sub-crop group. Cereals being the staple food of the people in the district, the share of cereal cropped area was the largest, underlining the subsistence nature of agricultural sector. However, the significant increase in cropped area under oil seeds and commercial crops indicate the extent of commercialization and production of high value crops. (Table No. 2.3)

*Figure 2.2. Share of Crops in Gross Cropped Area*



Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

### 2.3.2 IRRIGATION

From time immemorial, cultivation of paddy irrigated in terrace fields has been the practice amongst the Angami and Chakhesang communities in Nagaland. This practice has spread to other parts of the State under the initiative of the State Government. Since irrigation is one of the key inputs for enhancing agricultural production and is also an important factor to steer jhum cultivators towards settled cultivation, its development has been the main concern of the Government. In 2001, total irrigated area in Kohima district was 16, 850 hectares, out of which, 18 percent was put under double cropping. The intensity of cropping was 118 percent. (Table No.2.4)

### 2.3.3 WORK FORCE IN AGRICULTURE

Acquisition of knowledge and skill, improvement in health and life expectancy in rural areas is associated with improved agricultural performance and transformation. In Kohima district, the literacy rate was 74 percent and life expectancy was 73 years. The indices for education (0.81), human poverty (33), health (0.80) and human development (0.67) of the district were better than the State's averages in 2001<sup>7</sup>. These facts reflect better human resources in the district.

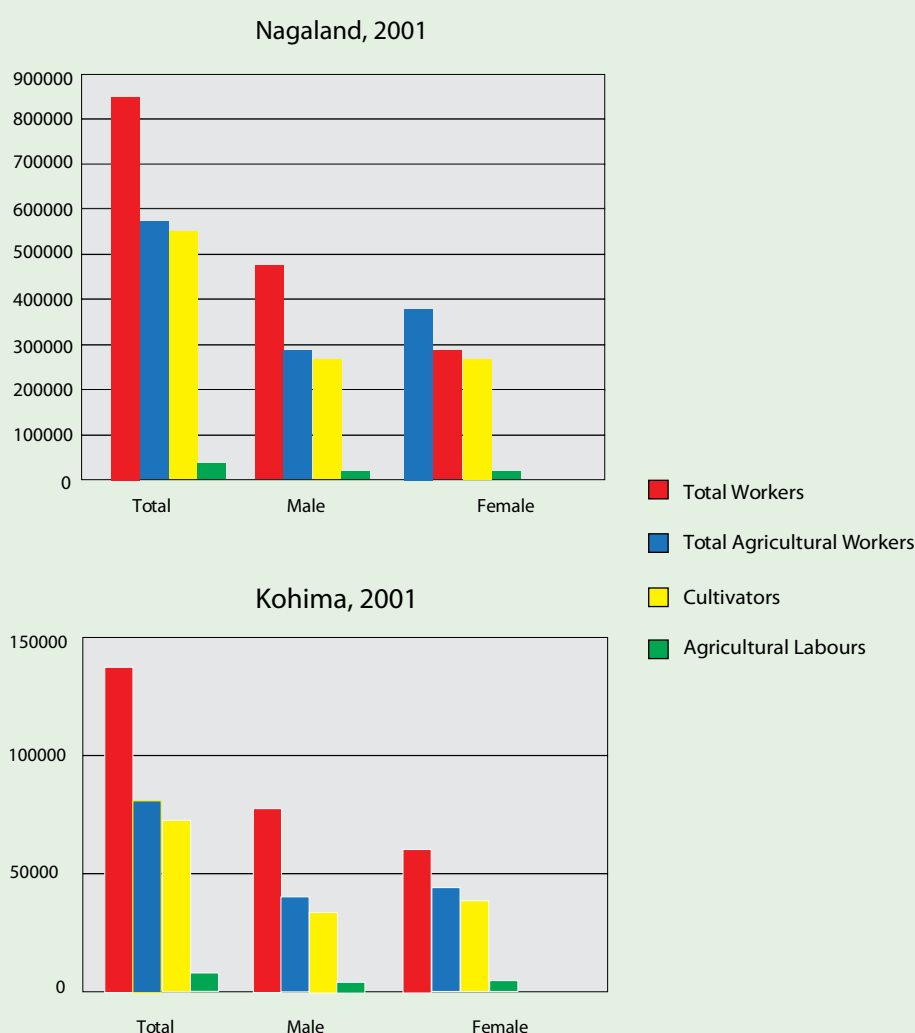
Agriculture is still the primary economic activity of the people in the district. Agriculture sector alone engaged about 59 percent of the total working population in 2001 as against the State's averages of 68 percent. Out of the total agricultural workers, 92 percent were cultivators and only 8 percent were agricultural labourers. (Tables No.2.5 and 2.6)

In the distribution of workers by gender, more than half of the agricultural workers (cultivators and labourers) were women. And as high as 73 percent of total working women population in the district was engaged in agriculture as against the male average of 49 percent. The land-man ratio (cropped land area) was 0.63 hectare per worker.



<sup>7</sup>Nagaland State Human Development Report 2004

Figure 2.3. Work Force in Agricultural Sector



Source: Statistical Hand Book of Nagaland 1996 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

## 2.3.4 OTHER INPUTS

Agricultural production in Kohima district is dependent on land and labour resources. The crops are grown under rain fed condition using organic manure. Use of chemical fertilizers, pesticides and modern tools are limited and the extent of mechanization is also insignificant. In 2004, there were only 36 tractors. Consumption of fertilizer declined from 8.36 kg to 1.59 kg per hectare as against the State's average of 3.09 kg and 1.75 kg between 2000-2001 and 2005-2006. Lately, there has been an increase in usage of improved seeds. (Table No.2.7)

## 2.4 CROP PRODUCTION AND PRODUCTIVITY

Productivity is the primary goal of any agricultural enterprise, as food crop production holds the key to improving food security and nutritional status of the rural population. This is possible only by enhancing productivity<sup>8</sup>. A wide variety of food crops are cultivated in Kohima district, reflecting the diverse agro-ecological endowments. Recent trends of major food crop production reveal that although the total cropped area has declined, the production and yield increased during 2000-2001 to 2006-2007. The acreage yield increased from 1.64 to 2.09 tonnes per hectare. The labour productivity was 0.63 tonnes and per capita availability of food was 0.30 tonnes in 2001. (Tables No.2.8, 2.9 and 2.10)

More than 30 crops are grown in the district; the major crops being paddy, maize, jowar, millet, arhar, Naga dal, beans, pea, soybean, mustard seeds, potato and ginger. For present analysis, the crops have been grouped under the following broad categories viz. cereals (paddy and other cereal crops), pulses, oil seeds and commercial crops. There are variations among the individual crop groups in terms of production and productivity which may be summarized as follows.



- i. *Paddy*: Paddy, although its share in the district's total production and area have taken a downtrend during the current decade, it is still the most dominant crop that has accounted for 42 percent of the production and 50 percent of the area in 2006-2007. On the other hand, its yield (72 tonnes per hectare) has increased by 7 percent during the same period. However, the increase in yield could not offset the impact of decline in area of production, as production and area both declined by a large extent.
- ii. *Other Cereals*: Other cereal crops (maize, jowar, millets, barley and job's tears) gained substantially both in acreage and production. The percentage share in total crop production and yield of these crops declined while the area increased during the current decade. In 2007, it was 24 percent of the total cropped area and was about 15 percent of the total production. The increase in production can therefore, be attributed to expansion in area rather than yield. Total cereal crops including paddy added up to 74 percent of total cropped area and to 57 percent of the total crop production in 2007.

<sup>8</sup>Vanloon, Grey W (2005) *Agricultural Sustainability, Strategy for Assessment*, Sage Publication, New Delhi.



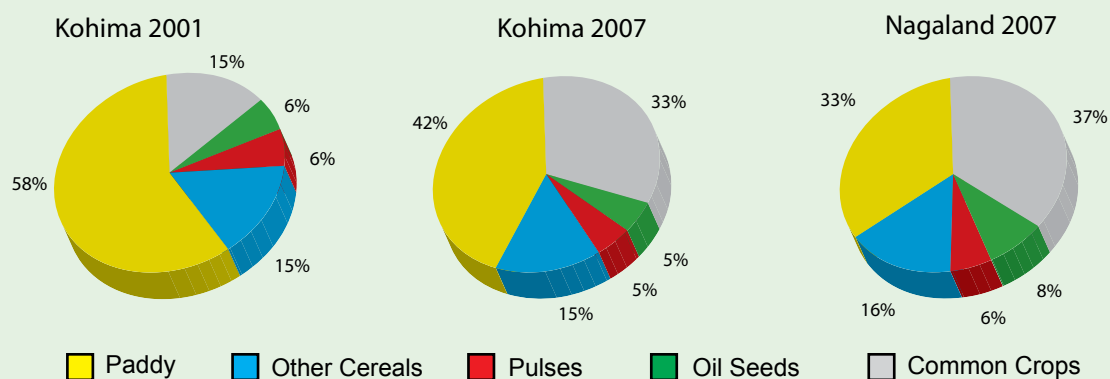
- iii. *Pulses*: This group includes crops like arhar, moong dal, beans, peas, lentil and gram. In 2006-2007, it occupied only 9 percent of the gross cropped area and contributed 5 percent to the total crop production in the district. The yield per hectare was 1.23 tonnes, almost the same as the State's average. There has been a considerable decline in its cropped area while its yield increased significantly. The increase in production, although marginal, could be attributed to improvement in yield in recent years.
- iv. *Oil Seeds*: Crops like ground nut, soybean, sesame, niger, mustard and linseed fall under this category. During the current decade, oilseeds have gained importance in acreage allocation. Its percentage share in total cropped area and production in 2007 was 12 percent and 5 percent respectively. Its yield declined from 1.11 tonnes per hectare to 0.88 tonnes during 2001 and 2007 respectively. Consequently, despite gain in acreage, the production declined by 9 percent.
- v. *Commercial Crops*: Commercial crops like potato, sugar cane, tea, ginger, cardamom are commonly grown in the district. This crop group has become the second most important category of crops in the district, only next to cereal. There has been a remarkable increase in both area and yield during the current decade, resulting in increase in production (148 percent). It may be noted that, while it occupies only 5 percent of the cropped area, it has contributed about 33 percent to total crop production in the district. Besides yield, the phenomenal increase in production is due to other factors which have propelled its production. Proximity to urban market, easy access to credit, information, inputs and Government support services are some of the factors. Moreover, the availability of better human resource in the district may have facilitated adoption of progressive farming practices.

The current food production pattern shows that the share of cereals, pulses, oilseeds have declined while the share of commercial crops has increased remarkably. With starchy cereal food dominating the diet of the district, the current food production pattern in the district show an imbalance in the demand-supply of food. This has implication on nutritional balance and food security of the population, as the production of crops with higher nutritional value was low. This imbalance affects nutrition and which in turn affects human development. On the other hand, the increase in production of commercial crops have a positive impact on income of farmers.



According to the State Department of Agriculture, the identified potential crops for Kohima district are vegetables, potato, ginger and cardamom<sup>9</sup>.

*Figure 2.4. Percentage Share of Crop Production*



Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

## 2.5 COMMERCIALIZATION

The process of diversification and commercialization of crops is generally the outcome of technological change and changing food habits due to increase in personal disposable income. Growth in commercial and non-crop production indicate the extent of diversification of farm sector. It implies a shift in production towards fruits, meat, milk and poultry. Fruits and other non-cereal crops are grown not only for domestic consumption but also for their market potential.

### 2.5.1 HORTICULTURAL CROPS

Horticultural crops are sub categorized into fruits, vegetables and plantation crops. In 2007, among the top ten fruits grown in the district, orange occupied the largest area, followed by pineapple, passion fruit, banana, papaya, lemon, mango, guava and plum. The highest produced fruit was banana, followed by pineapple, guava, orange, papaya, mango, apple, pears, plum and passion fruit. The highest yield per hectare was also banana with 7.87 tonnes, followed by apple with 5 tonnes, pomelo with 4 tonnes, mosambi with 3 tonnes and pears with 2 tonnes.

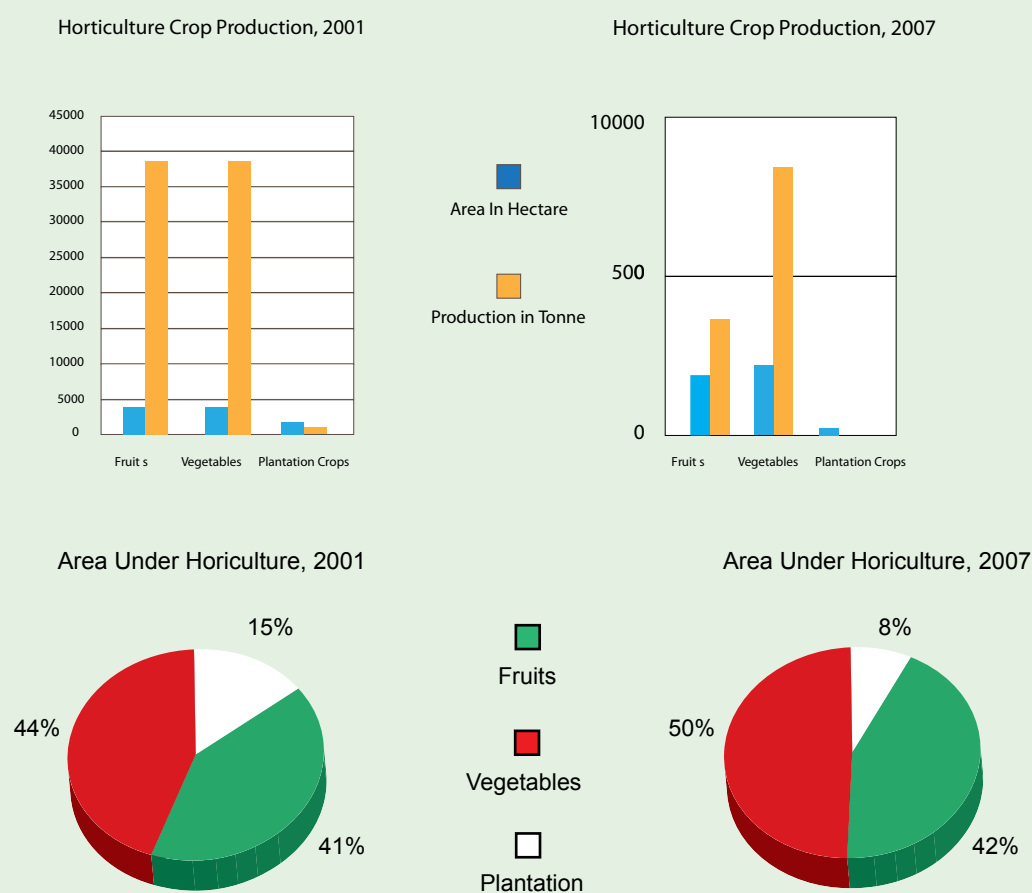
Among the top ten vegetable crops, the area under ginger cultivation is the highest, followed by leafy vegetables, colocassia, chowchow, tomato, chilli and others. In terms of production the highest was colocassia, followed by chowchow, tapioca, ginger, leafy vegetables, tomato, chilli and others. The yield per hectare for tapioca with 12 tonnes

<sup>9</sup>Annual Administrative Report 2008-2009, Department of Agriculture, Government of Nagaland

was the highest followed by chowchow with 10 tonnes, colocassia with 9 tonnes, peas with 7 tonnes, tree tomato with 6 tonnes, garlic with 3.8 tonnes and turmeric with 3 tonnes. Cash crops such as cardamom, cashew nut and coconut were also cultivated in the district.

During the decade, overall area, production and yield of horticultural crops declined. However, among the horticultural crops, vegetables gained in area as well as in production. This indicates the shift of priority of farmers towards vegetable production due to its quick returns, low investment and ready market. Floriculture too has taken ground in recent years especially among the urban population. This is primarily due to good climatic condition, demand both within and outside the State and the Government support services. With the realization of its importance, cultivation of medicinal and aromatic plants is also being undertaken in several pockets of the district. Among medicinal plants ginseng is the most valuable plant, with potential for exports while there is high demand for the citronella plant for its use in making perfumes, mosquito repellents, ointments and sprays. (Table No.2.11 to 2.16)

*Figure 2.5. Horticultural Crop Production in Kohima District*



Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

### 2.5.2 LIVESTOCK

Rearing of livestock provide additional income and employment to farmers besides meeting the farmers' daily protein requirement. The major livestock reared in the district are cattle, buffalo, pig, mithun, poultry and dog. During 1997 to 2003, the total production of the following livestock witnessed increasing trends. Production of sheep increased by 272 percent, ducks by 163 percent, buffaloes by 133 percent, dogs by 84 percent and rabbit by 2 percent. The overall production of livestock however declined by 9 percent. Correspondingly, the per capita availability also declined by 39 percent. (Table No.2.17)

The State's production of milk, egg and meat, the main source of protein in food have increased considerably during the current decade. The increase in per capita availability was higher with increase in meat production by 218 percent, followed by milk with 87 percent and egg with 61 percent. However, the current quantum of production of these food items is not sufficient to meet the demand. The gap is therefore being filled by supplies from outside the State. There is an urgent need to encourage farmers to enhance production of these items, which will not only give them additional income but improve their nutritional level<sup>10</sup>. (Table No.2.18)

## 2.6 CONTRIBUTION OF AGRICULTURAL SECTOR TO NET DISTRICT DOMESTIC PRODUCT (NDDP)

The share of agriculture in the Net State Domestic Product (NSDP) highlights the significance of the sector. Kohima district alone contributed about 13 percent to the State's agricultural sector in NSDP during 2005- 2006. The Net District Domestic Product (NDDP) of agriculture per capita was about ₹ 8000. While NDDP per person in rural area was about ₹ 10,000 per agricultural worker (cultivator and labour). It was about ₹ 31, 000 as compared to the State's average of ₹ 12, 500 and ₹ 38, 370 respectively. The district witnessed an annual growth rate of 12 percent, which was lower than the State's average growth rate of 14 percent during 2000-2001 to 2005-2006. (Table No.2.19)

In Nagaland, the share of agriculture in NSDP has increased from 29.13 percent to 30.45 percent while the percentage share of tertiary sector has declined from 54.48 to 49.28 percent and the share of secondary sector has increased from 12.59 to 16.06 percent during the period 2000- 2001 to 2006- 2007. The pattern of this structural change in the district could not be ascertained due to lack of relevant data. This is not in conformity with the traditional concept of structural change theory which holds that

<sup>10</sup> The analysis on the district level could not be made due to paucity of data for the same

both the labour force and the share of agriculture in NSDP are expected to decline as the share of other sectors increase in the process of economic growth. The scenario in the district does not reveal pattern of changes. There is high concentration of labour force in agriculture. This may be an indicator of underdevelopment of the industrial and service sectors in the economy, the ramification of which is the non absorption of the growing work force in these sectors in the district. The increasing share of agriculture in labour employment and NDDP underlines the importance of this sector for economic and human development. (Table No.2.20)

The increase in the share of agriculture in NSDP may be an indicator of improvement in the agricultural sector in recent years. However, transition towards modernization and commercial farming is still a gigantic task in the district. The major challenges are:

- i. Low productivity of agriculture; which is below its potential.
- ii. High and increasing concentration of labour force in the sector.
- iii. Transformation of subsistence agriculture into commercial agriculture.

However it is possible to overcome these challenges with substantial human development in the rural sector.

## 2.7 OTHER FACTORS INFLUENCING AGRICULTURAL PERFORMANCE

### 2.7.1 MARKET

Efficient marketing system and infrastructure is vital for economic development. However, a market is unable to function efficiently without institutional and legal support. Therefore provision of physical infrastructure, policy and credit support and market reforms is crucial. Lack of marketing infrastructure and linkages has been one of the major impediments for growth of the agriculture sector in the State. There is no regulated market in the entire State and transport bottlenecks exist. In Kohima district, there were only 4 (four) mandis in 2004. There is no facility for cold storage, proper warehousing and grading.

Although, the Government has taken initiative to develop and strengthen the marketing system by providing platforms, organizing agri expo, identification of viable commercial crops, construction of agri-link roads, marketing yards and constitution of Agricultural Produce Marketing Committees (APMC) in the districts yet this area still requires more attention.



### 2.7.2 CREDIT SUPPORT

Access to credit is an indispensable input for agricultural development. Investment in new technology, land development, crop production, inputs and marketing require credit support. The agricultural banks and farmers' cooperatives can play an important role in credit advancement for these purposes. Commercial banks in the country have been directed to provide agricultural loans on subsidized interest rates to farmers and play a complementary role to the farmer cooperatives.

In Kohima district, the quantum of agriculture credit of all scheduled commercial banks as on March 2001 was ₹ 22097 lakhs. It amounted to 11.04 percent of the State's total. The district's agricultural direct finance constituted 8 percent while indirect finance accounted for 49 percent of the State's total. In 2005, the proportion of total credit increased to 22 percent, of which direct finance was 23 percent and indirect credit 40 percent of the State's total. Kohima district received substantial share of credit and this may be one of the factors responsible for the movement towards commercialization of farming. Besides the commercial banks, presence of other financial institutions and private source of credit have also benefited the farmers. However secondary data on private source of credit is not available although their contributions have been significant.

### 2.7.3 KNOWLEDGE AND INNOVATION

Human resource development in agriculture and other rural sectors entail acquisition and building of scientific knowledge and skills of farmers. As farmers increase their knowledge and skills, their performance in agriculture improves. Consequently, they gain confidence, broaden their horizon and also change their outlook<sup>11</sup>. Other linkages generated through transformation of this sector are research, extension, trade, agro-processing, transport, finance, marketing and education among others. The three key factors that contribute to building of human capacity in this sector are:

- i. Research and technological adoption
- ii. Extension and technical services
- iii. Agricultural education

Accordingly, the Government of Nagaland has focused on intensifying agricultural production and productivity through provision of public goods and services that facilitate agricultural growth. The policy objective of the Government is *"to promote technically sound, economically viable, environmentally non-degrading and socially acceptable use of natural resources, so as to promote sustainable development of agriculture"*.

<sup>11</sup> Human Development Report 2007, Rediscovering Agriculture for Human Development Uganda, Oxford University Press, New York 2003

Introduction of new inputs and technologies can result in increase in yield levels, which can be made possible only when farmers acquire knowledge and skills. To fulfill the objectives, from 11th Five Year Plan onwards, there has been a major shift in Government policy and activities. Transformation of subsistence agriculture into commercialization, at the same time, meeting the food requirements and human development is being targeted through plan strategies such as:



- i. *Research and Training:* The State Government has set up research centres like State Agricultural Research Station (SARS), integrated extension training centre, seed farms, bio-control and soil testing laboratories. It has also been working closely with the other organizations like Krishi Vigyan Kendra (KVK), International Potato Centre, Environment Protection in Agro-Forestry Development (NEPED), International Development Research Center (IDRC), Spice Board of India, Agricultural Technology Management Agency (ATMA) for agricultural research and technology dissemination.
- ii. *Trainings* for development of skills and knowledge have been imparted to farmers with special emphasis on 'learning by doing'. The focus has been on techniques and inputs for higher production of crops like rice, maize, pulses, oil seeds, cardamom, medicinal and aromatic plants and tea, food processing, production of organic manure, post harvest and pest management, awareness for intensification of jhum cultivation and fallow land management, watershed development for rain fed areas specially for conservation and harvesting of land and water resources. Support is also provided for students undergoing degree course in agricultural services and for extension field workers.
- iii. *Agricultural Information and Extension* programmes like farmers' fairs, exhibitions at local, state, national and international levels have been organized to disseminate information on the latest scientific developments and to facilitate linkages between various agencies. It covers information access, diversification of farming systems, commercialization and sustainable agricultural practices that enhance productivity.
- iv. In order to enhance *production and productivity*, farmers have been encouraged to grow high yielding variety of paddy with shorter gestation period in the kharif season followed by mustard, linseeds, wheat, pulses, vegetables in rabi season. This is to bring about an increase in



cropping intensity by converting mono cropping area into double and multiple cropping. In order to promote productivity and modernization through mechanization, farm equipments like power tillers, pump sets and sprayers have been made available. Improved seeds, bio fertilizers and extension support have been also provided. To encourage organic farming, efforts are being made to acquire organic certification for a number of crops in the State.



Abandoning the practice of jhum cultivation is neither possible nor feasible in the State due to physical and social factors. Therefore, as a part of jhum stabilization programme, improved farming practices and intensification of indigenous fallow management system like plantation of fast growing trees on fallow land, construction of terrace benches, multi cropping have been introduced.

- v. Special emphasis has been made to improve the status of *women in agriculture* through self help groups, by giving them financial assistance for crop and livestock production, capacity building and exposure tours.
- vi. To promote *agricultural marketing*, through the APMCs, financial and transportation assistance is provided to farmers. Marketing yards and storage facilities have also been built at strategic areas and agri-link roads have been constructed to strengthen rural infrastructure<sup>12</sup>.

Dimensions of development linked to agricultural performance, human development and poverty reduction are discussed in the ensuing paragraphs. Any change in these variables can either slow down or enhance agriculture and economic progress.



#### i. Access to Land or Tenure System

There is a correlation between inequality in access to productive land and food insecurity and poverty in the rural areas. Rights over land vary widely between regions, districts and communities in Nagaland. However, even when farmers have access to land, insecurity of tenure or structure of tenurial rights may inhibit investments in agriculture and land development.

In Kohima district, like any other district, both individual and communal ownership patterns exist. Generally, individual land ownership prevail

<sup>12</sup> Annual Administrative Report 2004-2005 to 2008-2009 Department of Agriculture, Government of Nagaland.





among the settled cultivated land, where the farmer has the sole right to use, own, transfer and even sell if he wishes to. Communal land consists of clan land, village land and kinship land which are normally used as forest and jhum farming. Every member of the community has user right but has no individual right to own or sell it. Individual ownership being more prevalent, the district has witnessed a high degree of commercialization and large area is being put under settled cultivation.

## ii. Gender Dynamics in Agriculture

Women constitutes more than half of the total work force in agriculture. Rural women work for longer hours a day as compared to men and thus experience time poverty. This prevents women in accessing training programme, agricultural support services and inputs, market information, education and credit which have direct bearing on productivity. Fuel wood is the major source of energy and non timber forest products are major source of food supplement and additional income. These are mainly collected by women, the process of which is laborious and time consuming. Forest degradation makes the task more difficult for women as they have to walk longer distance and spend more time for the purpose, which is in conflict with her time for working in the farm and for household chores. Further, traditional land tenure system denies women's access to property, land and income from agriculture and livestock. This further prevents access to institutional credit which put her and her family in a disadvantageous position.





## 2.8 CONCLUSION

Although the process of transition towards commercialization has been initiated under the State Government programmes, agriculture in Kohima district is still subsistence in nature, where production of cereal crops dominate the cropping pattern. However, farmers are comparatively more progressive, adopting innovative practice of land and water resource management. As far as food and nutrition security of the district is concerned, the rapid rate of population growth is undermining agricultural growth by putting more pressure on land and forest resources. This means, agricultural sector needs to grow fast enough to provide more food to feed the growing population. Government should take action to speed up diversification of the sector, increase labour productivity and develop industrial and service sectors to absorb the growing working force in the district.

Further, technology suited for upland agriculture need to be developed. It is vital to strengthen rural infrastructure like roads and transportation, storage facilities appropriate for agricultural produce, electrification and irrigation. Moreover, information, credit and training support needs to be intensified. Cooperative system needs to be encouraged for marketing the produce of small farmers to gain bargaining power against middlemen and overcome other impediment. Setting up of agro processing units at strategic producing areas will provide ready market to the farmers.

To foster the process of transition from traditional subsistence agriculture into commercialization, effective diverse set of policies such as enhanced agricultural research, extension services, access to credit, effective marketing infrastructure both input and output, public investment in infrastructure and macro policies are crucial.











# INFORMAL SECTOR



### 3.1 INTRODUCTION

Almost 70 percent of the State's workforce is dependent on agriculture and related activities for its livelihood. The State lacks any appreciable manufacturing activity. And the tertiary or the service sector in the State is largely limited to Government employment, small shops and business establishments. The majority of Nagas living in the numerous villages of the State still live a life resembling that of 'primitive communism'. Traditionally, the Naga villages functioned as fully independent village states which were self governing and self-reliant, situated in a contiguous geographical area. But these characters of the villages have more or less disappeared due to the overall changing socio-economic scenario.

During the 1970s a lot of emphasis was laid for the development of forest and agriculture based industries such as paper, plywood and sugar. This trend continued till the 1990s. However, there were many factors that hindered this development strategy. The prevailing insurgency situation led to deterioration of law and order and was detrimental to industrial growth. In terms of manpower and skills there were limitations at management level, lack of skilled personnel, overstaffing and lack of proper direction. The State, therefore was not able to tap its full potential for industrial growth. Consequently employment generation and growth in income suffered.

However, there have been some positive developments in the past one decade or so. Peace and stability has given the much needed momentum for industrial growth and the number of industries has gone up during the period.

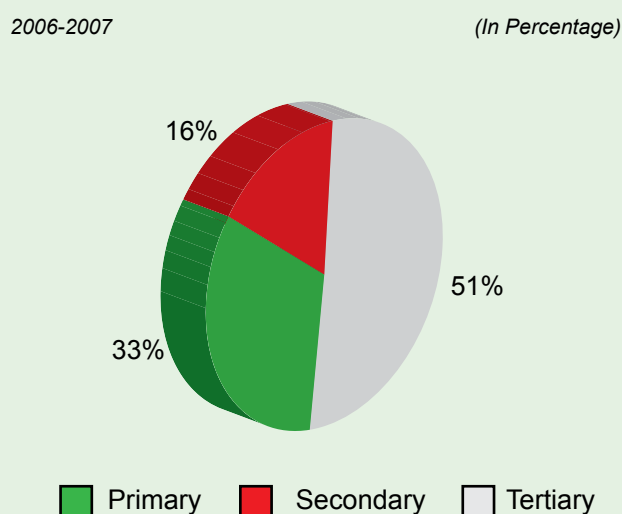
According to the 'State Human Development Report 2004', there were 1014 establishments in the organized sector as on March 2000, of which 851 were in the public sector and remaining 163 (32 large and 131 small units) in the private sector. The total employment provided by these establishments was 76,938 of which the share of public sector was 72,834 and the private sector accounted for employment of 4,104 persons. The concentration of organized sector establishments was highest in Kohima/Dimapur districts with 313 units. Mokokchung and Zunheboto were the other districts having high number of establishments at 196 and 120 respectively. (Table No. 3.1. & 3.2)



The secondary sector of Nagaland's economy has failed to grow and contribute to the economic growth of the State. According to the data published by Directorate of Economics and Statistics, Government of Nagaland, in 2006-2007 the contribution of the secondary sector to the Gross State Domestic Product (GSDP) at constant prices was ₹ 79007 lakhs as against ₹ 159565 lakhs of the primary sector and ₹ 246420 lakhs of the tertiary sector. This shows the contribution of the secondary sector was hardly 16 percent, whereas primary sector contributed 33 percent and the tertiary contributed 51 percent to the State's economy during the same period. (Table No.3.3)

The tertiary sector in the State though the largest contributor to the GSDP is still not fully evolved. It is dominated by a few sectors like public administration, road transport, real estate and business services, trade, hotels and restaurants. These four sectors together constituted 76.35 percent of the total tertiary sector contribution in the State in 2006-2007<sup>13</sup>. Out of the total ₹ 246420 lakhs contributed by the tertiary sector the contribution of the above mentioned four sectors was ₹ 188150 lakhs.

*Figure 3.1. Comparative GSDP at Constant Prices for Industries of Origin 2006 -2007*



Source: Directorate of Economics and Statistics, Government of Nagaland

<sup>13</sup> Directorate of Economics and Statistics, Government of Nagaland

## 3.2 UNORGANIZED SECTORS - A REVIEW OF KOHIMA DISTRICT

This section is based on the economic indicators for the State as a whole since there is no data at the disaggregated level to work out district level reviews.

### 3.2.1 ECONOMIC SITUATION

Kohima had ranked fourth amongst 8 districts covered in the State Human Development Index (HDI) assessment according to State Human Development Report (SHDR) 2004. The 8 districts covered were Dimapur, Kohima, Phek, Mokokchung, Mon, Tuensang, Wokha and Zunheboto. Kohima being the State capital is one of the better developed districts in terms of income and employment. The tertiary sector, particularly the service sector is predominant and employ a large number of people. However the service sector in Kohima is dominated by Government employment with rudimentary organized private sector participation in services.

The total population of Kohima is 314366 as per 2001 Census. The SHDR calculated per capita income (PCI) for the district in 2003 at ₹ 11908. The district has second highest number of bank branches; 18 branches after Dimapur which had 22 branches in 2005. It has the largest number of post office branches with 53 branches in 2007. In terms of land line telephone connections, Kohima had 14035 connections in 2003-2004, the second highest after Dimapur which has 18694 connections. The literacy percentage of the district is also high at 74.28 percent.

The unorganized sector of the economy in Kohima district consists of a large number of trades and activities employing a large number of people. Being the State capital, Kohima town has a very cosmopolitan population with diverse mix of both Nagas and non-locals (non-Nagas). Kohima is the centre of Government and decision-making. The education sector in Kohima is fairly developed in comparison to other parts of the State. All these attract a large number of Nagas and non-Nagas from different parts of the State and the country.

There is no study or comprehensive data on the unorganized sector in the State. Thus it is hard to calculate and analyse the exact impact and contribution of the sector to the State's economy, even though this sector has significantly contributed to the economy both in terms of employment and revenue generation. The unorganized sector is an important contributor to the tertiary sector of the economy. There is also considerable

annual outflow of revenue from within the State to outside as this sector employs a large number of non-Nagas who remit money to their home towns from their earnings.

The analysis of Kohima district is based on the study done by Directorate of Evaluation, Government of Nagaland in 2006, on 'Employment Opportunities Forgone by Nagas and Employment of Non-Nagas in the State'. This study was limited to the urban centers of Dimapur, Kohima and Mokokchung. The content of the study was mostly related to the unorganized sector. The study may not be representative of the State as a whole but it gives a fair idea of the structure, nature and composition of the unorganized sector in the State.

### 3.3 CHARACTERISTICS OF THE UNORGANIZED SECTOR IN KOHIMA

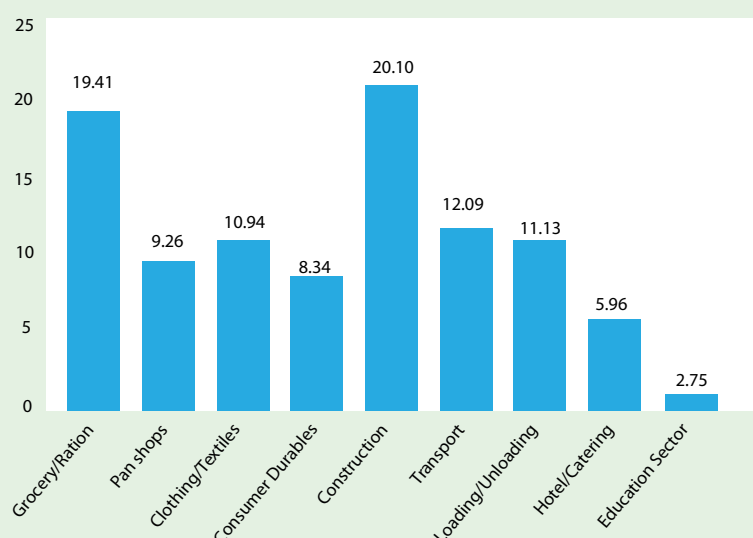
According to the study, there are roughly 67 types of establishments or sectors that constitute the unorganized sector in Kohima. Around 8000 business establishments come under these 67 categories of establishment or sectors. About 23000 persons were employed in this sector in Kohima town during the survey period of July to October 2006 out of which 10900 were non-Nagas. Roughly 80 percent of the total employed was male and 20 percent was female. The employed females were generally Naga women. The few non-Naga women employed in this sector were engaged in small grocery shops or as vegetable vendors. The total annual income generated by the unorganized sector in Kohima town in 2006 was ₹ 238 crore.

It is estimated that 10900 non-Nagas employed in this sector in Kohima earn about ₹ 90 crore in a year. Assuming that 40 percent of the total annual earnings of the non-Nagas are retained in the State as cost of living, an amount of ₹ 54 crore would be the annual outflow of revenue in a year. Thus out of the total income of ₹ 238 crore generated by the unorganized sector in Kohima ₹ 54 crore go out, that is 23 percent of the total income of the sector.

The study by Directorate of Evaluation also indicates that the income levels of many unskilled people engaged in the unorganized sector in Kohima are higher than many Government employees in Nagaland. The study indicates that the service sector in the unorganized sector does not require heavy capital investment and can be capitalized for employment of a large section of the unemployed youth.



*Figure 3.2. Employment in Select Unorganized Sectors- Kohima  
(As Percentage of the Selected, 2006)*



Source: Directorate of Evaluation, Government of Nagaland

The above figure depicts the prominent unorganized sectors that employ the bulk of people in Kohima. Out of the estimated 23000 persons employed, 68 percent i.e. 15640 persons are employed in the above mentioned 9 sectors. The rest 7360 are distributed in the remaining 58 sectors of the unorganized economy of Kohima. The figures in columns illustrate the percentage of persons employed in different sectors like grocery, pan shops, transport etc. out of 15640 persons employed in the 9 sectors. The figures show that construction is one of the most prominent activities in the unorganized sector in Kohima. This is a corollary of the rapid pace of urbanization taking place particularly in Kohima municipal area. Other activities like consumer durable shops, transport related activities and grocery shops all illustrate the pace of urbanization in Kohima.

Of the 9 sectors, income generated in the loading and unloading sector was the highest. The contribution of this sector was 15.19 percent to the yearly income generated by the top 9 unorganized sectors of economy in Kohima. Clothing and textile contributed 12.75 percent. Pan shops contributed 11.28 percent and grocery business contributed 9.12 percent to the income in 2006. Out of the 9 sectors, the income from hotel and catering and education sectors was 2.57 percent and 1.94 percent respectively. The total income of the unorganized sector in Kohima for the year 2006 was ₹ 238 crore out of which the contribution of the 9 sectors was ₹ 162 crore.



## *Nagaland Bee Keeping and Honey Mission (NBHM) - A Sunrise Industry*

*To harness the potentials and make bee keeping sector into a vibrant agro based industry, the Government of Nagaland launched the Nagaland Bee Keeping & Honey Mission (NBHM) in August 2007. Kohima district holds one of the highest number of bee keepers and the number of hives an average household keep ranges from 2 to 20. The bees are mostly reared in homestead areas and fields in traditional hives of logs, crude wooden boxes and even underground dug-outs. Mima village was selected as the district Api Model Village. Some other prominent and upcoming bee keeping villages in the district are Kohima Village, Rüsoma, Nachama, Gariphema, Jotsoma, Meriema, Tuophema, Mezoma, Kiruphema, Chiephobozou, Chunglikha, Tergvunyu and Nsunnyu.*

*Bee keeping has not only generated income and employment but has also provided gainful employment to many unemployed youths through bee box manufacturing units. - NBHM*



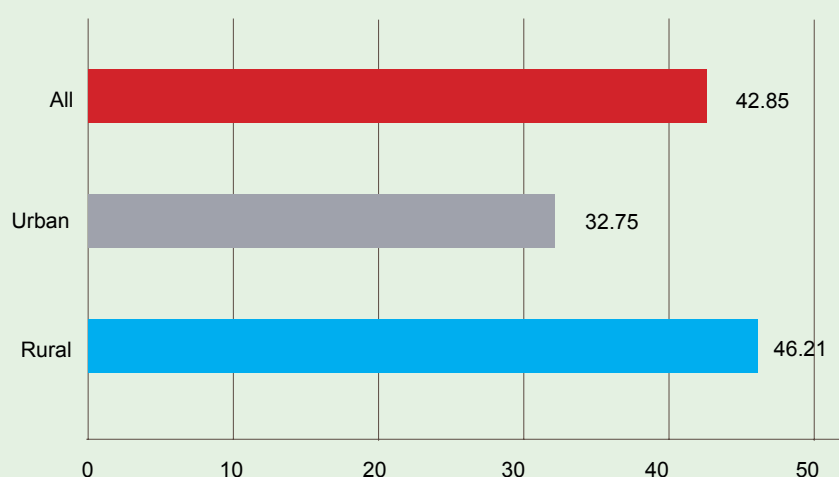
### 3.3.1 SMALL SCALE INDUSTRIES (SSI)

The total number of registered SSI units in Kohima in 2006-2007 was 69<sup>14</sup> with 718 persons employed in these units. Trade wise break up of the 69 registered SSI units is as follows; furniture manufacture -11, manufacture of of fabricated meat products -11, manufacturing of weaving apparel -4, manufacturing of rubber and plastic products -3, manufacturing of food products and beverages -2, manufacturing of coke and refined petroleum products -2, motor garage -2, 1 each for wood product except furniture and publishing and printing, 2 for other business activity and 30 for other service activity. From 25 in 2005-2006, the number of people employed in these units also increased more than 2.5 times to 278 in 2005-2006 to 718 in 2006-2007.

### 3.3.2 NATURE OF ENERGY CONSUMPTION

The total power consumption was 49.93 Megawatt (MW) in Kohima during 2006-2007, of which the domestic or household consumption was 34.55 MW. Commercial and industrial establishments consumed only 12.61 MW. Thus the share of domestic consumers was 70 percent of the total consumption and that of commercial and industrial establishments 25 percent. This shows that the secondary and tertiary sectors (organized) of the economy is not fairly large.

*Figure 3.3. Distribution of Workers in Kohima, 2004*



Source: Directorate of Economics and Statistics, Government of Nagaland

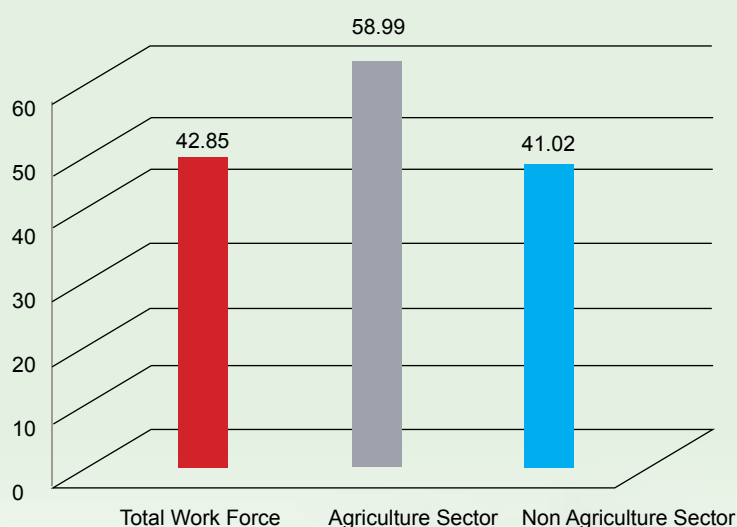
The above figure shows the total workers as percentage of the total eligible workforce in the district. The employment percentage in Kohima is not very impressive and lags behind districts like Phek and Dimapur. Out of this, the total employment in agricultural

<sup>14</sup> Statistical Hand Book of Nagaland 2007, Directorate of Economics & Statistics, Government of Nagaland



sector is 58.99 percent and employment in the non-agricultural sector is 41.02 percent. Thus of every 10 workers employed in Kohima 5.89 work for the agricultural sector and 4.10 for the non-agricultural sector. It shows that even in a fairly developed district like Kohima, in comparison to the other districts of the State, the percentage of agricultural workers is quite high. The percentage of non-agricultural workers is also high in Kohima, second only to Dimapur district because of its extensive network of Government offices and workplaces. Apart from Government employment, the unorganized sector employs the highest number of people in Kohima. It implies that the 3 most prominent economic sectors which employ the maximum number of people in the district are the agricultural sector, Government employment and the unorganized sector. The secondary and the tertiary sectors apart from Government service and the unorganized sectors are very rudimentary in Kohima.

*Figure 3.4. Participation of Work Force in Kohima during 2004*



Source: Directorate of Economics and Statistics, Government of Nagaland



*Handmade Bamboo Toys*



## *Few Success Stories of Kohima*



*There have been quite a few modest but impressive success stories in the unorganised sector in Kohima. One of this has been Kohima District Milk Producer's Union Limited (KOMUL) that was established in 1985-1986 by the State Department of Veterinary and Animal Husbandry with its central dairy at Dimapur. With a modest start of a meager collection of only 100-200 litres of milk, KOMUL (name changed to DIMUL after the creation of Dimapur district out of Kohima) handles about 7000 liters of milk every day, with a number of milk vans collecting milk traveling over 500 km twice daily. During 1998-2000, Nagaland Dairy Industry was declared one of the top 10 fastest growing dairies in India.*

KOMUL Plant







### *Entrepreneur's Associates (EA)*

*with its micro - credit system for assisting the unemployed youth in the State to set up their businesses is another instance. Set up in 2000, EA follows a simple process whereby public are invited to invest a minimum sum of ₹ 1000 at an interest rate of 8 percent per annum. EA then uses the money to advance loans to suitable persons selected through detailed interview. The amount is loaned at 16 percent per annum. Government funding is not involved. EA has helped many deserving entrepreneurs to set up their own successful businesses over the years.*

*'Tuophema' an Angami Naga village situated north of Kohima is another example. Tuophema Village Development Board (VDB) has devised a unique way to preserve its culture and to benefit the village economically. Well planned cottages have been constructed by the various clans in the centre of their own living space. The facilities include a well equipped seminar hall, a museum, crafts workshop and community centre. The simple but innovative way of show casing the culture and traditional practices attract hundreds of tourists every year, many of them from abroad. This has led to employment and increase in incomes of the villagers.*



Tuophema, Tourist Village





## 3.4 CONSTRAINTS AND WAY FORWARD

The economic development of any place depends on economic, social, political and psychological factors. Capital formation and its supply in the State are very limited. This has, to some extent, to do with the unique situation of land ownership which do not allow for the use of land as collateral to access loan from banks. Private source of funding becomes unrealistic due to its high rate of interest. The lack of proper infrastructure in terms of poor quality of roads, lack of communication facilities in remote areas, lack of storage for goods, insufficient banking and insurance facilities and overall law and order situation, particularly illegal taxation by various underground factions have hampered growth of industry and business in the State.

### 3.4.1 PROSPECTS AND OPPORTUNITIES IN KOHIMA

There are many areas where the district can create opportunities and generate employment. Tourism and hospitality industry, eco-tourism, rural tourism and adventure sports are some potential areas. Enhancement of infrastructure and building linkages in the rural areas is however required to realize these prospects. The potentials have to be packaged, advertised and marketed professionally. Travel agents, travel services, organizers, tourist guides, caterers, shop owners, hoteliers and restaurateurs are related and associated professions in this sector.

Value addition, marketing and export of different agro-based products are viable entrepreneurial activities for the district. Meat processing is another lucrative option given the food habits of the people and its market. Since Kohima lacks entertainment avenues, opening of cinema theatres, recreational and theme parks, cafes and eating joints would generate employment and income.

Eco-tourism in Kohima has the potential to be a major revenue and employment generating enterprise. States like Rajasthan and Kerala which earn revenue and generate employment in lakhs due to their thriving tourism sectors needs to be emulated. To promote tourism in Nagaland, issues relating to infrastructure, roads, boarding/lodging facilities and connectivity have to be strengthened. Restricted Area Permit/Inner Line Permit (RAP/ILP) issues have to be made more tourist friendly.

Kohima also has potential for the development of 'sunrise and knowledge based industry' like Information Technology Enabled Services (ITES) and Biotechnology. Call centres, human resource outsourcing, payroll processing, technical helpdesk, business

process management in airlines and insurance services can be established. Nagaland enjoys certain advantage in these fields because of the use of English as the medium of instruction in schools and colleges. However all these require investment in power, bandwidth availability and accommodation for employees. In 2004 the Government signed a memorandum of understanding (MOU) with a private investor for setting up a call centre but the project did not materialize due to shortfalls in meeting the bench mark by both the parties. Nagaland has cutting edge potential for research in agriculture, medicine and industrial products due to its rich biodiversity. Kohima has an advantage over the other districts due to its location and relatively better transport and communication facilities and educational institutes. But without clear cut policy guidelines and requisite infrastructure for research and development (R&D), it would not be possible to materialize these prospects.

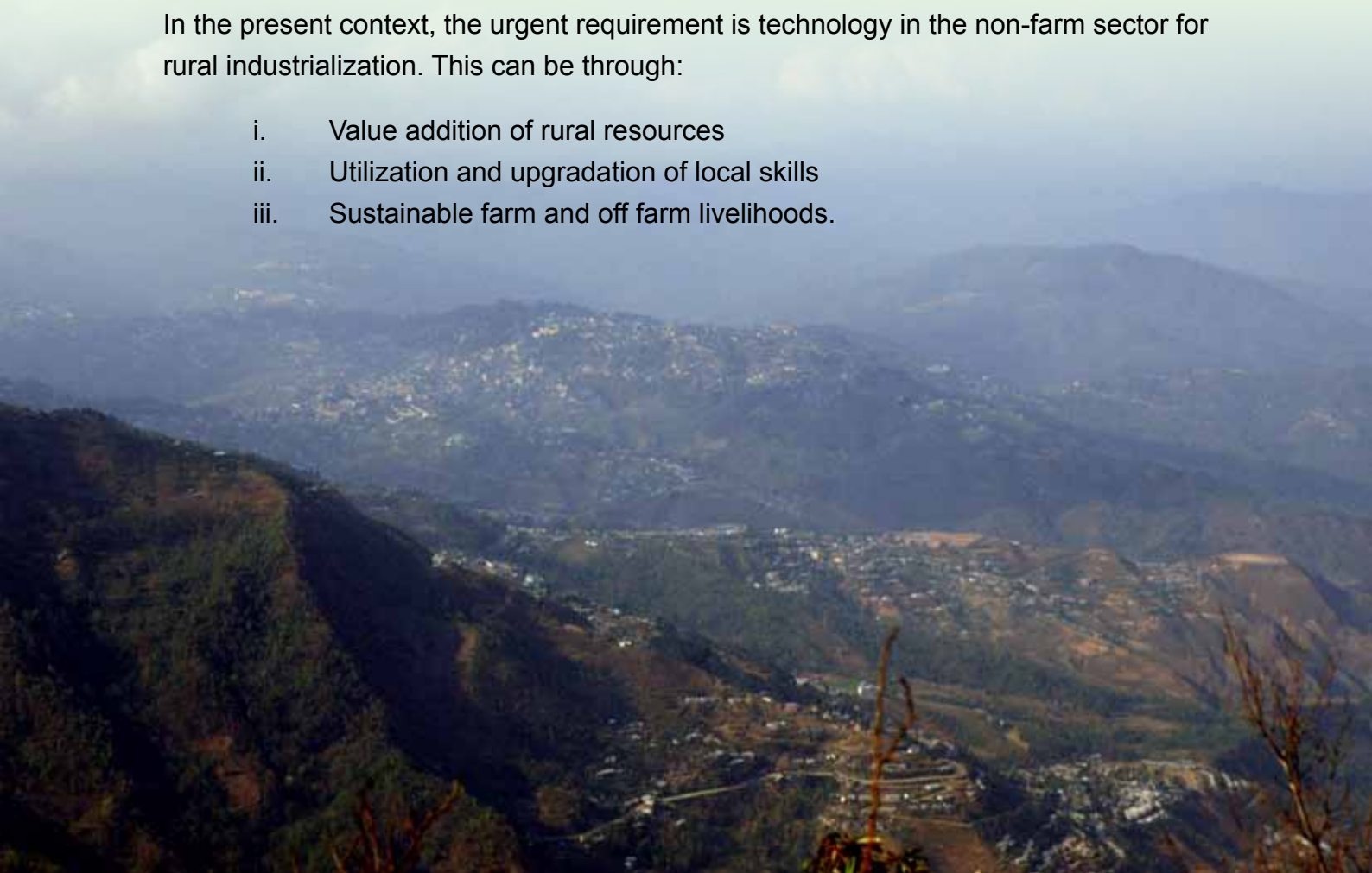
### 3.4.2 NEED FOR TECHNOLOGY TRANSFER

Appropriate technologies have to be developed and adopted in rural areas for:

- i. Income and employment generation
- ii. Reduction of drudgery
- iii. Upgrading habitat and social infrastructure
- iv. Improving overall quality of life

In the present context, the urgent requirement is technology in the non-farm sector for rural industrialization. This can be through:

- i. Value addition of rural resources
- ii. Utilization and upgradation of local skills
- iii. Sustainable farm and off farm livelihoods.







## SECTION 2

### CHAPTER - 4

# ECONOMIC LIVELIHOOD (NON-RURAL)

LANDUSE/LAND COVER MAP OF KOHIMA DISTRICT



## 4.1 INTRODUCTION

The economic livelihood (non-rural) chapter seeks to explore and understand the course and the source of development in Kohima district with reference to its characteristics, opportunities and constraints. It also seeks to examine whether development in the State is substantially State-centric or largely influenced by roles played by the non-state actors. The chapter highlights the linkages between the flow of population between the rural and urban centres and focuses on the urban-rural linkages.

An analysis of local means of livelihood is essential for proper understanding of the impact of unemployment, conflict or market dislocation. The location of the household is also an important determinant in enabling a household to opt for a means of livelihood. The other important factor would be wealth and access to finances which would determine the ability of the household to exploit the available options within the given zone. Land is just one aspect of wealth, and wealth groups are defined not only in terms of their land holdings but also in terms of their livestock holdings, capital, education, skills, power over labour availability and social capital.

Households are the key elements in the dynamics of non-rural livelihoods. The study attempts to situate the household unit and their members' decision making abilities at the centre of analysis. This is essential for the purpose of garnering knowledge about the realities and the strategies adopted by the poor in situations that arise therein. Rather than being purely extractive, this method will aim to contribute towards programme and policy initiatives which are participatory and rooted in the ground realities. It would also ensure that respondents are joint owners of the knowledge and of the data generated and thereby would enable them to participate in policy debate and project planning at various levels.

The report is divided into three sections. The first section gives the context under which the survey was undertaken and dwells briefly on the reflective realities in the State of Nagaland as observed in the district of Kohima under the broad aspects:

- i. Employment: Opportunities and limitations
- ii. Land use and patterns of ownership
- iii. Rent

The second section of the report is a detailed analysis of the results of the survey conducted in the district. The concluding note of the report points out the general picture emerging from the data.

## 4.2 EMPLOYMENT : OPPORTUNITIES AND LIMITATIONS

The State of Nagaland is increasingly moving towards chronic unemployment. It has been observed that the structure of employment and nature of unemployment is contributed by both the natural population growth and by influx of migrants. As per the data of the Directorate of Employment and Craftsmen Training, Government of Nagaland, more than 50,000 youths were registered with the employment exchange in 2009. The number continues to increase with more than 3,500 graduates being added every year<sup>15</sup>. The actual figures of unemployed persons would be much more if the number of unregistered unemployed youth is taken into account.

As per the Census of India 2001, the population size of the State of Nagaland as being close to 2 million. It was growing at a rate of 4.98 percent per annum during the decade 1991-2001. This has resulted in a sharp increase in the density of population from 73 persons per sq. km. in 1991 to 120 in 2001.

Agriculture still continues to employ the maximum number of the populace in Nagaland. However, off-farm activities have increased over the years. There are no big manufacturing units in the State. Households and small scale industries are the only production units in the State. However, Kohima district does not make up for even a quarter of the manufacturing units in Nagaland.

In nearly three decades the structure of urban employment has not changed in Nagaland. In Kohima, it was found that the highest employer is the State Government. The percentage of people doing business or petty trade (both retail and wholesale) was high in Kohima. While it may not be the case, the DHDR sample survey undertaken in 2009 showed that there were very few daily wagers registered in Kohima. The services provided by daily wage earners are varied and the need for this group of people has grown over the years following the growth in construction business. The data generated shows a rising phenomenon of urban unemployment in the areas under study. (Table No. 4.1)

According to Census of India 2001, the share of workers in total population was 135,023 in Kohima and the share of non workers was 175,061. Between the two census years i.e. 1991 and 2001, the district experienced some percentage point increase in work participation rate. In Kohima, the work participation rate is higher for males compared to females. The overall increase in work participation is also reflected in the falling dependency ratio (expressed as a ratio of non-working population to working population) between the two latest census years. However, it is important to note that

<sup>15</sup> Nagaland Post, 29/04/09.



in Kohima, increasing overall work participation has been associated with an increasing share of marginal workers in total work force. By census definition, marginal workers are those who do not work for major part of the year, which could either be due to lack of opportunity or other reasons. (Table No. 4.2)

We now look at block wise variation in work participation. According to the DHDR sample survey 2009, all blocks in Kohima have more than 30 percent of their population in the work force. However, there are some blocks in which the work participation rate is more than 40 percent. In the urban areas, in general, the percentage of marginal workers in total workers is much lower compared to the rural areas. Higher work participation might be either due to expanding employment opportunities that acted as the 'pull factor' or due to economic hardship that compelled people to accept any kind of job, or a combination of both. Although a fall in agriculture based workforce is considered as a positive change from development point of view, not all blocks surveyed have experienced such positive changes to a significant level.

The employment opportunities in NGOs and the Church are often not considered seriously. But the Church especially, is an important employer in Nagaland. At least 1 to 2 percent of the population in the districts is employed by the churches. The NGO sector comprises a small, but not negligible number of the workforce in the district headquarters. However, they are yet to make a marked impression in people's mind in terms of their ability to provide and facilitate the provision of amenities and for the conservation of natural resources as evident in the data.



### 4.3 LAND USE AND PATTERN OF OWNERSHIP

Land is a major natural resource. Population growth in the urban centres has resulted in increased demand for land and higher housing costs. Land use is changing rapidly in the urban centres from use as agricultural land to residential areas and Government office sites.

Land still remains the single most important physical possession for the Naga people. On the one hand, land resource apparently measures one's social status and temporal power. On the other, cultural, socio-political and economic considerations have prompted the ethno genes to attach land with primordial significance. Changes in agricultural practices have also resulted in significant changes in the land use pattern of the State.

Traditional community based governance and ownership of land is one of the significant features of Nagaland. The village community owned and regulated the land and its resources according to the traditional customs and practices. There are variations in the forms or patterns of traditional institutions and practices vis-à-vis the management and ownership of land among the different communities. In general, the traditional system of ownership of land in Nagaland is fundamentally of three types, village land, clan or khel land and private land. In recent times, the State Government has also acquired and owns land for the construction of Government institutions, for developmental and conservation purposes. Traditional system of ownership of land is highly complex and elaborate on the one hand and highly diverse among the different communities on the other. In the case of some tribes, there are village councils or elected representatives of elders who regulate the village affairs and control the village resources. In most cases, there are village land, owned and regulated by the village, there are clan land, owned and managed by the clan, and the individual land, owned and utilized by the individuals.

The discourse of ownership of land has changed over the years, especially in Kohima and Dimapur where the concentration of settlers is higher than in any other district of Nagaland. There is opportunity for any Naga to buy land in Kohima and Dimapur as per economic capacity.

In the hills, as a legacy of the British India, individual rights granted to tribal chiefs used to be handed down from generation to generation. The Government of India has since then granted implicit cognizance under the Directive Principles of State Policy, where the documents issued by the District Magistrate or the Sub-Divisional Officer to

the tribal chiefs are treated as equivalent to land patta in the valley. In the attempt to codify and bring a uniform law in the administration of the village, the Government of Nagaland passed the Nagaland Village and Area Council Act in 1978. It was through this Act that Village Councils were established in every village in Nagaland. According to the Act, "Village Council shall consist of members, chosen by villagers in accordance with the prevailing customary practice and usages." This provision of the Act allows the Village Council to practice its specified customary laws in the village administration. The Village Council also chooses a member as Chairman and a Secretary of the Council. The Village Council has been given administrative power and duties at the local and village level.

### 4.3.1 RENT

Households with lower incomes spend a larger part of it on necessities. As income increases and biologically pressing but easily satiable wants are met, the socially determined and psychologically spurred wants take over. These socially and psychologically spurred wants are multidimensional due to their non physical origin.

The household profile of Nagaland as per Census of India 2001, lists the percentage of livable houses<sup>16</sup> a little higher than the good houses<sup>17</sup>. Between 2001 and 2009 the overall scenario has not changed much as per the DHDR sample survey, 2009. The urban sectors invest time and energy mainly on education and health. However they lag behind the rural sectors in terms of social capital and basic necessities. This is a clear indication of the kind of choices people make with the kind of resources available to them.

Rent issue or rentable house, for example, is a commodity which has a demand and often this demand is dependent on the house rent, disposable income of the person and the number of members in the family. If all houses had been exactly identical, rent, income and family size would certainly have been sufficient to determine the demand for houses. But on the contrary, each house differs from another house in at least one characteristic. For Kohima, an analysis of primary data collected from the households inhabiting several parts of the town suggests that tenants of rented houses consider floor area, water supply and power supply complementary to each other and other characteristics of the house as substitutes of the floor area. It has also been observed that in the district, a rented house is possibly an inferior or sticky commodity and its income elasticity for the overall sample is negative, although statistically insignificant.

<sup>16</sup> Livable houses: Houses that require minor repair.

<sup>17</sup> Good houses: Houses that do not need repair.



## 4.4 ANALYSIS OF KOHIMA DISTRICT

In the district of Kohima, the larger proportion of the population in urban Kohima is employed in Government services. A large section of the population is also employed in businesses and other occupations. Farmers and wage earners, though less in number also exist.

In the urban areas, majority of the people live in rented houses, followed by people who own houses and Government employees who live in Government quarters. Majority of the people live in four plus room rented houses followed by three room and two room houses. All the houses selected for the survey were electrified. A large number of houses in Kohima did not have water pipe connection and people accessed water mostly through water reservoir and rain water harvesting. Majority of the houses had concrete latrines. Drainage system existed in all the areas surveyed. A section of the people used common open space and private composite unit for disposal of garbage while majority of the respondents did not have arrangements for disposal of garbage. Public transport was available in the areas surveyed and most people use local private buses for travel. On an average, the daily spending of an individual on local transport from her/his house to place of work was not less than ₹ 20.

The survey reveals that most people prefer to live in the rural areas and as opposed to the number of the people who felt that the urban areas provided better quality of life. However, people migrate to Kohima town in search of better livelihood opportunities, education, health care and various other lifestyles that are not available in the villages.

### 4.4.1 LIVELIHOOD

Population density, scarcity of resources, spatial and sectoral patterns of the market, access to affordable transport and demand for services by the wealthier groups determine the nature and scale of employment opportunities. In the urban areas of Kohima, a large proportion of the population was employed in Government services and businesses. People employed in other occupations were also in substantial numbers, whereas the number of wage earners was low. Within households, gender and generational differences were factors resulting in diversification of livelihood activities. As a result the family as the traditional unit of production and consumption has been replaced by more individualistic priorities.

The potential of economic livelihood in non rural areas in Kohima district is severely affected by the extent and nature of employment of non-Nagas in different sectors of the State's economy. The phenomena of the locals losing out significant livelihood opportunities is due to lack of entrepreneurial acumen and due to their inability to come out of their comfort zones. This has resulted in regular outflow of the State's revenue. According to a study by Directorate of Evaluation, Government of Nagaland, it is up to 36 percent of the State's annual plan outlay of ₹ 760 crores (2006-2007 State's Annual Plan).

In terms of employment, 45,815 opportunities can be assumed to have been forgone by the Nagas while the number of unemployed Nagas has risen. The study estimates existence of a work force of 10900 non Nagas in Kohima. This can be attributed to;

- i. The inability of the locals to look beyond the traditional employment sectors, inability to venture into new areas and a culture of excessive dependence on the Government.
- ii. Cheaper rates and higher productivity offered by the non-local labourers.

Construction sector has the highest non-Naga workforce. The growth of the construction industry has propelled employment in this sector. Being the State capital, construction of office buildings of the State Government Departments, conventional halls, hotels, roads etc. are centralized in Kohima. This sector is followed by the loading and unloading sector, with people earning their livelihood through loading and unloading of goods in the bus stations and godowns. Employment in the above two sectors does not require any specific training, education or skill but only require hands-on training, physical ability and willingness to work.

The third largest work force of the non-Nagas is in the trading and entrepreneurial activity. A sizeable number of pan shops, gumti shops, hotels and restaurants are also being run by non-Nagas. In Kohima about 6000 non- Nagas were engaged in entrepreneurial activities.

The study indicates that except for a few employed in the automobile workshops, servicing centres and in restaurants, the workforce in the service sector is largely unskilled. A comparison of the earnings in the different sectoral enterprises indicates higher earnings for persons dealing in essential items, cosmetics and clothing.

On account of increase in Government investment in construction of administrative offices, health centres, other facilities, investment of individuals in homes and the policy

of the Government to shift activity to the suburbs, opportunities in the construction sector have emerged in many rural areas. At the same time, traditional rural non farm activities such as weaving have declined due to competition from cheap imports, lack of inter sectoral linkages and inadequate infrastructure.

Wherever road maintenance is poor, operating costs for transporters are high and this hampers interest from competing enterprises and results in a monopoly of sorts.

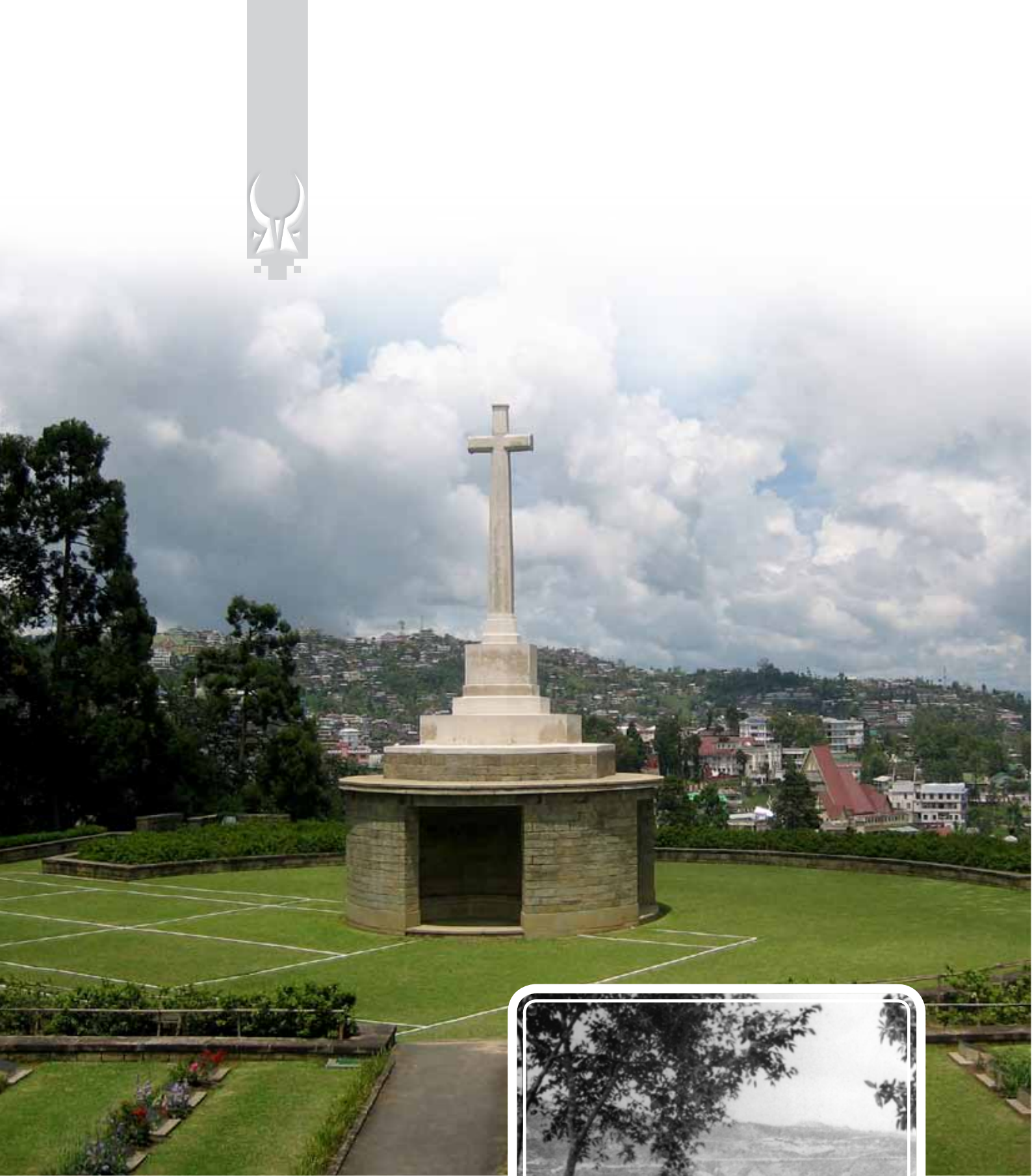
Mobility and migration are closely interrelated with livelihood diversification. In the rural areas surveyed, the rural to urban migration has transformed the pattern of housing and livelihood. It is however observed that the volume of rural to urban migration was relatively low in Kohima district. This perhaps could be because of the relatively better housing and transport facilities available in the rural areas of the district and shorter distance to be traveled between rural to urban areas as compared to other districts.

## 4.5 CONCLUSION

Livelihood strategies can be broadly classified as natural, human, financial, physical and social. The DHDR sample survey shows that most of the respondents consider natural and financial assets as being very important. It facilitates access to the other three aspects. The respondents perceive these assets as facilitators for accessing physical and social assets e.g. housing and transport, human assets e.g. good health, skills and education and natural assets e.g. land and water.

The non-rural livelihood strategies adopted are mostly outcomes of survival instincts and constraints, availability of resources and of opportunities. The role of the local Government in providing an enabling environment for market led economic growth and for facilitating livelihood opportunities needs to be understood in the wider context of the changing global trade and production patterns.





*Kohima War Cemetery Then and Now*



# *Kohima War Cemetery*

*Kohima captured the world headlines during the Second World War when the Japanese invaded the Naga Hills in April of 1944. Kohima became the chief battlefield where the fiercest battle was fought between the Japanese and the Allied Forces. The sixty four days' battle at Kohima has been described as "one of the most stubborn, close and bloody fighting in the whole of the Second World War". The memory of those who died lives on in the spectacular and immaculately maintained Kohima War Cemetery. The cemetery lies on the slopes of Garrison Hill, in what was once the Deputy Commissioner's tennis court which was the scene of the Battle. The memorial was constructed under the aegis of the Commonwealth War Graves Commission and continues to be maintained by the Commission. The epitaph carved on the memorial of the 2nd British Division in the cemetery has become world famous as the Kohima Epitaph. It reads...*







# SECTION 3

*Chapter 5* HEALTH

*Chapter 6* BASIC SERVICES





## QUALITY OF LIFE

*It is now clear that human development must go beyond economic issues. Is a person living in a congested, unkempt and dirty surrounding any better off? Even more important, how poised is the individual to benefit from the fruits of development?*

*In this section we look at two crucial factors; the status of the health sector in Kohima district and the availability of basic services.*



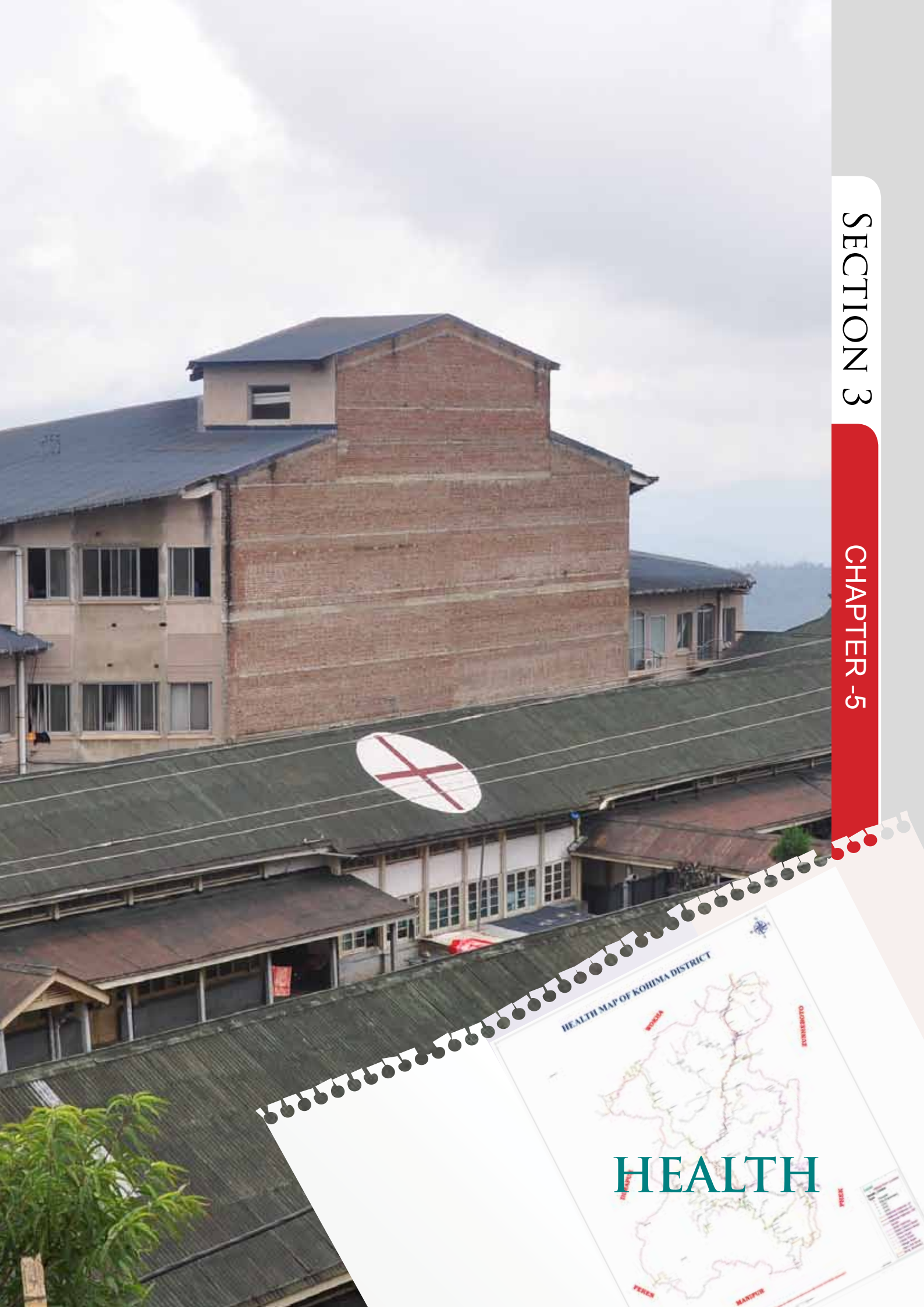


*View of the Naga Hospital Authority, Kohima*



## SECTION 3

### CHAPTER -5



HEALTH



## 5.1 INTRODUCTION

The most basic capabilities for human development are to lead a long and healthy life, to be educated, have access to resources needed for a decent standard of living and be able to participate in the activities of the community.

“Essential health care should be made universally accessible to individuals and families in the community by means acceptable to them through their full participation and at any cost that the community and country can afford” (WHO, 1978). The recognition of ‘right to health’ is the first essential step in ensuring availability and accessibility of quality health services to all sections of the community. While understanding that the public health initiatives over the years have contributed to improvement of these health indicators, disparities in health still continue to persist between communities and populations. Health policy initiatives also include the access to services, quality of health services, locations, socio-economic differences and clients’ needs.

## 5.2 HEALTH PROFILE

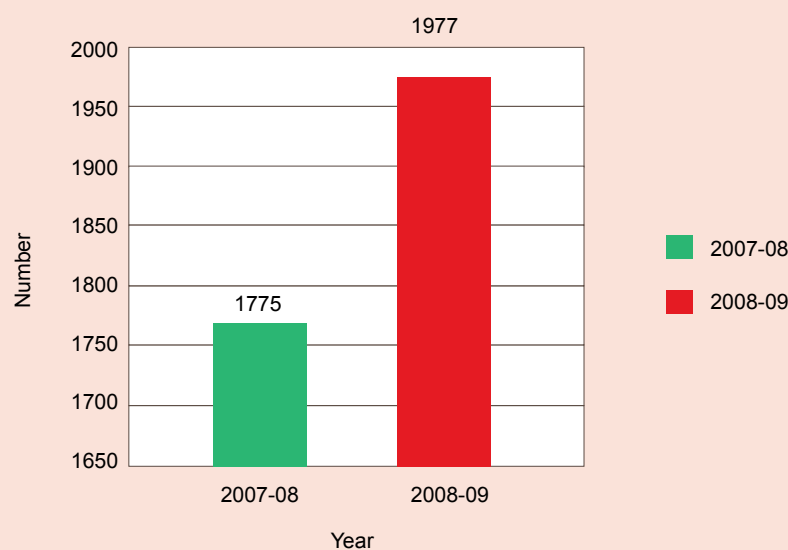
### 5.2.1 HEALTH INDICES

While availability of data is critical in planning strategies it is unfortunate that key health indices for the district such as Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR) and Total Fertility Rate (TFR) are either unavailable or unreliable. Strengthening the State and the districts towards development of a reliable Health Information Management System (HIMS) is the need of the hour.

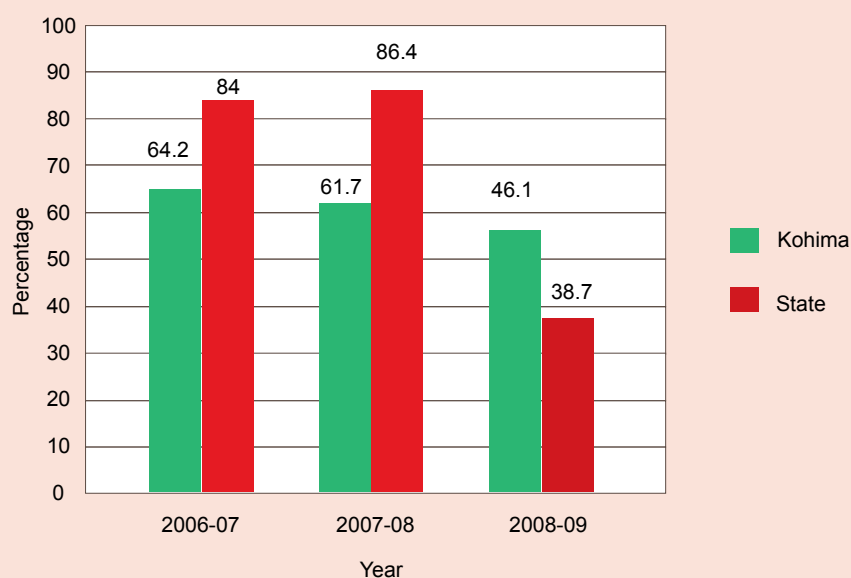
### 5.2.2 INSTITUTIONAL DELIVERY

Institutional delivery in the State was among the lowest in the country with a figure of 12 percent as per the National Family and Health Survey (NFHS-3). However, with the introduction of Janani Suraksha Yojana (JSY) and the enactment of communitisation of the health sector, the figures have improved both in the State as well the in districts. Increase in the number of institutional delivery for Kohima district during the last few years is indicated in the figures below.

*Figure 5.1. Institutional Delivery in the State after Introduction of JSY.*



*Figure 5.2. Institutional Delivery in Kohima District after Introduction of JSY*



### 5.2.3 IMMUNIZATION

With the increase in awareness of the importance of immunization and the introduction of the system of conducting immunization camps in the year 2006-2007, the level of immunization both at the State level and in Kohima district has increased. However, in 2008-2009 support and assistance provided for organizing immunization camps was stopped. This led to a drop in the immunization status.

### 5.2.4 HEALTH COVERAGE

The district fairly covers the health needs of the people. The district hospital (presently the Naga Hospital Authority Kohima), which also functions as the State Referral Hospital caters to the entire State including neighbouring states. With the autonomous status granted to the hospital, the functioning, management and delivery of the health services has been enhanced.

The district has 3 Community Health Centres (CHC) out of the total of 21, 14 Primary Health Centre (PHC) out of 86 and 40 Sub-Centres (SC) out of 397, 1 Mental Hospital and 1 Tuberculosis (TB) Hospital. It also has 4 private nursing homes and a number of private clinics. The district has 369 anganwadi centers and 96 Accredited Social Health Activists (ASHAs). Many of the health centers have not been located as per Government of India norms. These units have very small population coverage as against the prescribed coverage of 20,000 per PHC and 3000 per SC. However it is difficult to strictly follow the Government of India norms due to the topography and terrain of the State. In Nagaland, achieving the expected outcome as per Government of India norms is a challenge because of the small catchment areas of many of the health units.

### 5.2.5 INFRASTRUCTURE

For optimum health service delivery, basic and health care infrastructure including quarters for staff is a must. However, in many of the health units the size and number of rooms are inadequate and staff quarters are lacking. This gives room for excuse of absenteeism. With the support of different agencies like National Rural Health Mission (NRHM) and communitisation, infrastructures of health units have improved to a large extent. Infrastructure particularly for those centres that have been upgraded to strengthen the institutional delivery services require labour room facilities, medical equipments, manpower and staff quarters.

### 5.2.6 ACCESSIBILITY TO HEALTH SERVICES

Access to health services has been very imbalanced in terms of location, facilities, infrastructure, medical personnel and vulnerable sections of the population. Due to poor transportation facilities in the State, access to health care units is not easy in the rural areas except for areas located near or along the highways. In Kohima district the



villages in and around Botsa circle and Tseminyu circle are the areas of concern in terms of access to health services. The possibility of upgrading or shifting of location to increase accessibility is a challenge since the villages do not qualify for a health center due to the size of their population. Health services have however improved through the 'Village Health and Nutrition Day' held once a month since 2006. The PHCs and CHCs extend these services through mobile vans and ambulances provided to the CHCs at Viswema, Tseminyu, Chiephobozou and for the PHC at Botsa. In relation to other districts, the delivery of health care facilities is far better due to better communication, connectivity and proximity to other facilities. Immunization, pre and ante-natal check-ups, de-worming of children are activities undertaken on the day. This has improved the health status of the villagers.

The health consciousness however needs to be improved with more education and awareness through Information Education Communication programmes. Health care is directly linked to the citizens. Hence developing a system for evaluating the delivery of health care services at the grassroot level is crucial.

### 5.2.7 QUALITY OF HEALTH SERVICES

The National Rural Health Mission's (NRHM) objective is to provide accessible, affordable and quality health care to the rural population, especially the vulnerable sections through strengthening of manpower and through improving of the existing health care facilities. Through programmes under the National Rural Health Mission (NRHM) and through institutionalization of communitisation, health care infrastructure, equipments and supply of medicine have considerably improved in Kohima district. However there is still room for improvement. Shortage of manpower and poor infrastructure adversely affect the delivery of quality health care services. These issues have to be effectively addressed through review of policies, modernization and quality control.



## 5.3 OTHER FACTORS AFFECTING HEALTH

### 5.3.1 DRUG USE AND HIV AND AIDS

In Nagaland the estimated population of drug users through injection is 27,774. Injecting of drug is one of the channels for transmission of HIV and AIDS and incidence of the disease amongst drug injecting users was high during the initial years. From an increasing trend, incidence of HIV prevalence has shown a downward trend from a growth rate of 1.27 percent in 2005-2006 to 1.25 percent in 2007-2008. This could be attributed to the targeted intervention programmes of the Nagaland State AIDS Control Society (NSACS) started in 1999 to reduce transmission of HIV amongst injecting drug users. Although HIV prevalence has decreased, the prevalence of AIDS cases and number of orphans due to AIDS have become more. The location of the Anti Retro-Viral Therapy (ART) centre and the AIDS hospice, Kohima has been an advantage to the people of the district. Out of a total of 1229 patients treated in the State, 605 were male, 549 were female and 75 were children. Kohima district has recorded a total of 564 AIDS patients on ART treatment with 460 alive on ART treatment.

### 5.3.2 HEALTH CORRELATES

The relationship between health and other related interventions need to be comprehensive in approach and should provide a complete health package for all. Water supply, sanitation, housing, nutrition and communication facilities are variables for improvement of medical and health care facilities.

Sanitation and safe drinking water facilities are accessible to most of the urban population in Kohima district. Access to drinking water is through the private water suppliers, the Public Health Engineering Department (PHED), Government of Nagaland and privately dug wells. In rural areas, in most cases drinking water is from ponds, springs and tanks. Sanitation and waste management is an area of concern for both the urban and the rural population. Housing facilities both in urban and semi-urban areas in Kohima district have substantially improved during the last one decade. This could be attributed to the improvement in economy of the State and to the various housing programmes of the Rural Development Department. However to ensure overall health, housing conditions and sanitation practices of all habitats should be improved.

Most of the district blocks are well connected. Communication facilities such as telephone, radio, television and the print media are available in all the habitats. The media is extensively used as a medium for dissemination of information to the

# Naga Hospital, Kohima



The Naga Hospital Kohima in 1949

*The Naga Hospital was established during the end of the Second World War. Earmarked for a high school and used as a Naga Wrestling ground, the present site of the Naga Hospital was converted into a refugee camp during the Second World War. In acknowledgement of the outstanding services extended to the success of the Allied Forces in the Battle of Kohima, Lord Wavell, Viceroy of India conveyed the decision of the British Government of India to provide a hospital as requested on behalf of the Nagas by Mr. C.R. Pawsey, the then Deputy Commissioner of Kohima.*

*The hospital was handed over to the Provincial Government of Assam in June 1949 and was named Naga Hospital.* - Heraldng Hope



The Naga Hospital Kohima in 2009



grassroot. The media can be a channel for bringing about behavioural changes. The communication gap between the service providers and the rural population should be reduced to ensure timely availability of information and access to health services.

### 5.3.3 WOMEN AND HEALTH

The objective of health care delivery systems is to improve the overall health status of the society. There is a correlation between women's awareness and access to health care facilities and their socio-economic status. Health care facilities are accessed more by women having better education and having better socio-economic status. In the urban and semi-urban areas the number of women who received maternal and child health care facilities increased. Although the JSY has considerably contributed to increased institutional birth, most of the deliveries still take place at home assisted by a health worker or a traditional birth attendant. Women's health and nutritional status influences not only their health but also the well being of their children. Access to health care facilities, particularly of rural women, is largely determined by the income of the household, information and enabling environment. Disparity in the health status of people in the urban and the rural areas in the district are distinctly visible. This can be attributed to the education and awareness level, the availability of health care facilities and command over resources.

## 5.4 COMMUNITISATION

'Communitisation' of public utility services in the State was enacted in the year 2002 to delegate responsibility and to strengthen and mobilize community ownership of the assets and facilities created by the Government. With the enactment of communitisation of health sector, there has been tangible change in community support and ownership of the health centres. The impact of communitisation was evident through the following changes.

- i. Better attendance of staff in health units.
- ii. Health Committee members taking collective decisions for maintenance, mobilization of resources, deduction of pay of truant health staff.
- iii. Better sanitation practices.
- iv. Better access to health services.
- v. Improved infrastructure.

Example of a health centre where community participation has brought about significant change is Khuzama Sub-Centre.

## COMMUNITISATION OF SUB-CENTRE, KHUZAMA VILLAGE

*Khuzama village lies on the southern tip of Kohima district bordering Nagaland and Manipur. The National Highway 39 runs through the village. Almost all the households are engaged in farming, both terrace and jhum cultivation. Khuzama village has 1 Lower Primary School (LPS), 1 Primary School (PMS) and 1 Middle School (GMS) run by the Government, 2 High Schools and an orphanage 'Eden Garden' run by a faith based organizations. The health facilities in Khuzama village comprise of 1 Sub-Centre and a TB Hospital. The Sub-Centre refers clients to Viswema Community Health Centre.*

*In 2002, with the enactment of the communitisation of the health sector, the Village Health Committee (VHC) was constituted comprising of a Chairman, Secretary, members of the Village Development Board (VDB), pastors from the three christian denominations in the village, the Chairperson of the village Women Society, President of the Youth Club, President of Khuzama Students' Union, the 15 Anganwadi workers, and the village ASHA worker. The Medical Officer attached to the Viswema CHC was the Member Secretary. Initially, none of the members were aware of their roles and responsibilities. The Committee met once every quarter. During these meetings, the VHC discussed issues relating to purchase of medicines, work plans for the SC, health camps to be organized at the village and issues pertaining to staff management. The detailed records of patients attending the health centre, doctor's prescriptions and medicine procurement and distribution were recorded. The centre attends to an average of 15 patients daily and more than 50 patients on Mondays when the doctor visits the Sub-Centre. The success of the Khuzama VHC could partly be credited to the documentation system maintained at the Sub-Centre. During the period April 2008 to July 2009, 2579 patients were treated in the health centre.*

*The challenge in the SC was provision of medicines to patients seeking treatment at the Sub-Centre. Funds sanctioned to the VHC was insufficient to procure the required quantum of medicines. The VHC therefore decided to approach the VDB to contribute funds towards purchase of medicines. The VHC also organized social work for growing vegetables and started a piggery farming project to generate money for purchase of medicines. The VHC organizes immunization camp every second Friday of the month, organizes school health check-up twice a year and organizes 'Village Health Day' once a year.*

*The VHC in co-ordination with the village youth takes up sanitation drives, clean public toilets and the areas surrounding the village and the Sub-Centre. The personnel of the SC volunteer for provision of first-aid and assist in home delivery for pregnant mothers. The attendance of staff is regularly checked and signed by the Medical Officer and VHC Chairman every month. Erring staffs are penalized and salary is either deducted or any other action deemed fit and decided by the Committee members is taken. In 2003, the Medical Officer (MO) was awarded for his contribution to health care -the first among the Angami tribe.*

*In order to ensure effective health care service delivery at the grassroot level, the pre-requisites are health awareness campaigns, deployment of adequate medical personnel, provision of support for improvement in infrastructure and facilities and supply of sufficient medicine. Continuous capacity building for the health workers and health committee members is also necessary.*

## 5.5 WAY FORWARD

- i. *Health Coverage:* On account of the shortage of doctors and other medical personnel, the Medical Officers posted to small health units covering relatively small population should be entrusted to provide medical care to neighbouring health units through a strategically located health unit.
- ii. *Development of a Reliable Health Information Management System (HIMS):* Lack of a reliable HIMS in the State and district hampers strategic planning of activities. Hence, to strengthen programme management it is imperative to set up a reliable HIMS in the district.
- iii. *Integrating Health Related Programs of Allied Departments* e.g. Social Welfare, Rural Development, Women and Child Development, Education etc. All centrally sponsored vertical programs or projects should be coordinated and integrated without duplication. This will facilitate achievement of desired goals and ensure better utilization of resources both manpower and monetarily.
- iv. *Health Units and Staffing Pattern in the State Cannot Conform to the Laid Down Norms of Indian Public Health System (IPHS):* Policy makers on staffing pattern of the health sector in the State should be realistic about the situation, about the population, topography and other specific needs of the region and not blindly conform to the laid down norms.
- v. *Capacity Building of Staff:* A number of staff have practically become non-functional due to various reasons. Such personnel should be capacitated to become multi-skilled through capacity building programmes. The process would ensure better staffing of health units.
- vi. *Strengthening Safe Home Deliveries:* While the State is making all efforts to increase institutional deliveries, due to reasons like transportation problems and economic situations, home delivery continues to be the main mode of delivery in the rural areas. Hence, ASHAs in the villages should be compulsorily trained in safe home delivery. This will bring down the MMR and IMR.



- vii. *Strengthening Public Awareness on Health Issues:* Additional efforts need to be made towards educating the masses on health issues especially promoting the following:
  - a. Health seeking behavior
  - b. Access to family planning services
  - c. Immunization
  - d. Community participation and empowerment
- viii. *Strengthening Health Infrastructure:* While support is being provided for strengthening infrastructure through different systems, each department should set up quality control boards to ensure provision of optimum infrastructure.

## 5.6 CONCLUSION

The existing health care facilities are unsatisfactory. Any attempt to improve the status must be inclusive and should involve the administration and the community. The task of the health professionals is to provide health care. But it must be recognized that policy and financial systems are crucial in the delivery of health care. The existence of disparities in the health care services between those at the periphery and the urban areas must be realized. This must be followed by ensuring accessibility and quality health care through comprehensive health packages suitable for all sections of the society and according to the modern standards of health practices.





## SECTION 3

### CHAPTER -6

# BASIC SERVICES





## 6.1 INTRODUCTION

Basic services refer to the services and facilities which contribute to human capital formation and human development. Basic services are education, health and medical care, housing, sanitation, communication, water supply and electricity. These services are crucial in the development process apart from their intrinsic importance to the individual. Adequate provision of basic services is both necessary and sufficient for attaining higher economic growth with social justice.

The chapter deals with the status of water supply and sanitation in Kohima district. Other basic services like education, health and medical care are not discussed as they are dealt with in the other chapters.

Drinking water and sanitation projects are fundamentally essential for promoting public health. Proper sanitation facilities prevent the transmission of oral and faecal diseases. Sanitation reduces exposure to diseases and breaks the cycle of diseases. Proper sanitation include disposal and hygienic management of human and animal excreta, refuse and waste water, control of disease vectors and provision of proper washing facilities and domestic hygiene. Human Development Report 2006 reported that around the globe almost 2 million children die each year for want of a glass of clean water and adequate sanitation. Millions of women and young girls are forced to spend hours collecting and carrying water, restricting their livelihood opportunities and their choices. Water borne infectious diseases hold back poverty reduction and economic growth in some of the world's poorest countries.

Safe drinking water plays a major role in the overall well being of people. The poor, both in rural and urban areas, bear a proportionately higher burden of the non-availability of water and its poor quality as well. Fetching of water for domestic use from far flung sources is time consuming and is a physical burden. Apart from repercussions on health, this also affects the overall well being. In many urban areas, water supply is inefficiently managed resulting in waste of massive investment. With rapid urbanization of town and other nearby areas water supply continues to be a major challenge.

## 6.2 WATER AND SANITATION IN KOHIMA

### 6.2.1 DRINKING WATER IN NAGALAND

The provision of clean drinking water has been given priority in the Constitution of India, with Article 47 conferring the duty of providing clean drinking water and improving public health standards to the states. In Nagaland, the Public Health Engineering Department (PHED) is the nodal agency for water supply and sanitation in the rural areas. The State Government is committed to improve the level of living standards of the rural population and to bring it at par with the standards prevalent in urban areas.

Although state governments are responsible for supply of drinking water in the villages, central assistance is provided under the Accelerated Rural Water Supply Programme (ARWSP) with 100 percent grant-in-aid subject to a matching provision by state governments under 'Minimum Needs Programme'. The feasibility of providing sustainable safe drinking water to the entire rural population is being explored under the Rajiv Gandhi National Drinking Water Mission (RGNDWM).

The main sources of water in Nagaland are the numerous perennial springs and rivers. However, the flow of water varies from one season to another, leading to inadequacy in supply during certain seasons. As per the definition of Census of India, if a household has access to drinking water supply from a tap or hand pump or tube well situated within or outside the premises, it is considered as having access to safe drinking water. The data in the Census of India 2001 shows that in 1981 about 45.6 percent of the households had access to drinking water. This increased to 53.4 percent in 1991 and then decreased to 46.5 percent in 2001. Data also indicate that rural areas have a higher percentage of households having access to drinking water. In 2001, 47.5 percent of the rural households had access to drinking water compared to 42.3 percent in urban areas.

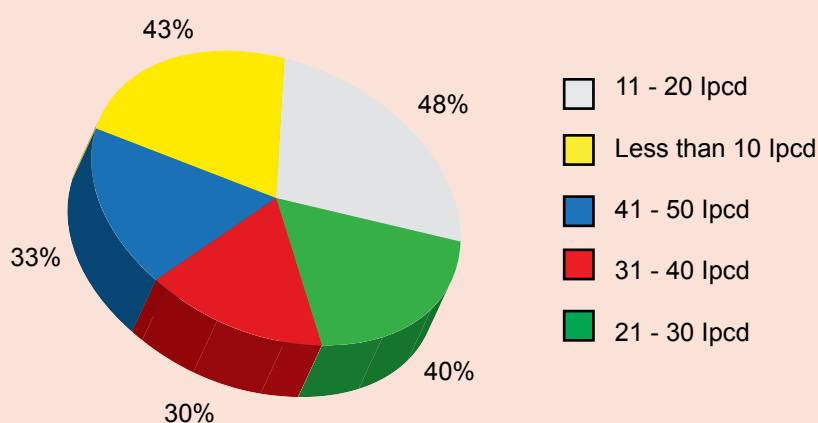
The 2009 National Family Health Survey (NFHS) for Nagaland (2005-2006), estimated that 63 percent of households use improved source of drinking water, of which 69 percent was of urban households and 60 percent of rural households. Only 19 percent have water piped into their dwelling, yard or plot, of which 27 percent was of urban and 16 percent was of rural households. Another 21 percent of households get their drinking water from a public tap or standpipe. About 89 percent of households in Nagaland treat their drinking water to make it potable: 86 percent boil the water, 17 percent use a ceramic, sand or other filter, 1 percent strain the water through a cloth and 3 percent treat it in some other way<sup>18</sup>.

<sup>18</sup> H.Lhungdim, Sulabha Parasuraman, Sunita Kishor and B. Amenla Nuken (2009), *National Family Health Survey (NFHS-3), Nagaland 2005-2006*, Ministry of Health and Family Welfare, Government of India, International Institute for Population Sciences, Deonar, Mumbai.

## 6.2.2 DRINKING WATER IN KOHIMA DISTRICT

A number of projects for supply of drinking water have been taken up under the various government schemes in Kohima district. During 2001-2002 the actual expenditure incurred under ARWSP and PMGY was ₹ 376.95 lakhs, of which ₹ 103.15 lakhs was under ARWSP and ₹ 273.8 lakhs under PMGY. During 2002-2003 the expenditure was ₹ 433.7 lakhs of which ₹ 228.8 lakhs was under 'basic minimum services'. The expenditure during 2002-2003 comes to around 12 percent of the total expenditure of the State on various water supply schemes. During 2003-2004 13 projects were undertaken under ARWSP and 14 projects under PMGY. Table No.6.2 shows the coverage of rural water supply and the quantity of water received in Kohima district.

*Figure 6.1. Quantity of Water Received in Villages in Litres Per Capita Per Day (lpcd)*



As on January 2003 only 3 percent of the rural inhabitants were not covered by water supply. Even though 97 percent of the rural inhabitants were covered by drinking water supply, the amount of water received was very low. Only 17 percent of the rural inhabitations received the 40 lpcd norm set at the national level. As per the World Health Organization (WHO), the minimum is set at 50 lpcd to cover the requirements of consumption and hygiene.

The January 2009 data indicates that 69 percent of rural habitations were fully covered under water supply, 8 percent were partially covered and 16 percent slipped back. Seven percent of the rural areas were not covered at all. As on 31st January 2009, 93 percent of the rural areas were covered by drinking water supply serving a population of 1,45,916. (Table No.6.3)



## *Kohima and its Water Pipes*

*Through out history people have devised systems to make supply and use of water more convenient. With the acute shortage of water in Kohima, private water suppliers have made it possible for many households to access piped water. Water is sourced from the streams in the hills around Kohima using rubber pipes. These pipes are not laid on the ground but are hung overhead. The geographical layout of Kohima town incapacitates many households from accessing water even through these private water connections. In such cases, private water tankers and carriers cater to their need. Water being a common public utility, many entrepreneurs are now involved in water supply as it has become a profit making business.*



Water Cables in a locality in Kohima

According to the DHDR sample survey 2009, in Kohima district 35 percent of the households have water pipe connections. Interestingly, this is less than Mon and Phek district. Mon has 37 percent of households connected with water pipes while in Phek, 44 percent of households have water pipe connection. According to latest estimates, 32 percent of the rural households have water pipes connected to their houses. The condition of the urban areas is no different, only 37 percent of the households in urban areas have water pipe connections. Rural habitations have a better record of having water reservoirs. In rural areas 72 percent of the households have water reservoirs and in the urban areas only 25 percent have water reservoirs. Around 84 percent of the villages have community wells while in urban areas it is 48 percent. About 80 percent of households practice rain water harvesting in rural areas and 16 percent in urban areas. And 99 percent of the rural households are concerned about quality of drinking water. Non Government Organizations (NGOs) are not involved in providing water to rural areas in Kohima district. In urban areas however, NGOs and individuals are involved in the provision of drinking water. In rural areas, 86 percent of the people feel that drinking water facilities have improved post-communitisation of water supply. However, 30 percent of the rural areas are yet to be communitised.

*A Private Water Carrier*







### 6.2.3 WATER SUPPLY IN KOHIMA TOWN

The augmentation of water supply to Kohima town, the State capital, has been planned at an estimated cost of ₹ 44.37 crore. The project is to bring 107 lakh litres of drinking water per day from Dzūkou and Teupuiki streams through 250 mm diameter, 50 km gravity galvanized mild steel pipeline. This project can feed 2,14,000 populations @ 50 litres per capita per day (lpcd). Expenditure to date is ₹ 1941.04 lakhs for procuring 33180 meters, 250 mm diameter, galvanized mild steel main gravity pipe line, for construction of 8 km footpath approach road to the water source intake structure site, finalization of 50 km main gravity pipeline alignment and construction of transit camp at 8 km away from the water source. The Government of India has agreed to provide ₹ 2911.56 lakhs for this project out of which ₹ 1941 lakhs has already been released. The State Government is required to provide ₹ 1526 lakhs as State share during 2009-2010 for completion of the project by 31st March 2010.



## 6.2.4 SANITATION IN NAGALAND

Sanitation is a basic requirement for ensuring better quality of life. The Government of Nagaland aims to achieve complete sanitation coverage in the State through Total Sanitation Campaign (TSC) in keeping with the Government of India's target of "Clean Villages by year 2012".

Total Sanitation Campaign (TSC) initiated by Government of India prescribes a funding pattern of Centre: State: Beneficiary in the ratio of 60:20:20 in respect of individual household latrines. During 2006-2007 this programme was taken over by the PHE Department from District Rural Development Agency, an agency under the State Urban Development Department. The objective of the programme is to completely do away with open defecation in all the villages in the country and also to achieve clean villages, by providing proper systems for solid and liquid waste disposal by 2012 to achieve sustainable good community health. Total Sanitation Campaign (TSC) focuses on sanitation through subsidized latrines by promoting community action, based on information and communication (IEC) with incentives only for BPL households. Government of Nagaland also aims to achieve complete sanitation coverage in the State by 2012. The main challenge to achieving the target of total sanitation is change of unhygienic cultural habits and inculcating hygienic practices. In Nagaland, Total Sanitation Campaign is being implemented in 9 districts of Nagaland-Kohima, Dimapur, Zunheboto, Mokokchung, Mon, Peren, Wokha, Phek and Tuensang.

In Nagaland, while manual scavenging is not practiced, open defecation is not uncommon in rural areas. According to the Census of India 2001, about 64 percent of the households have some latrine facility within their premises, of these 47 percent have pit latrines.

### 6.2.5 SANITATION IN KOHIMA DISTRICT

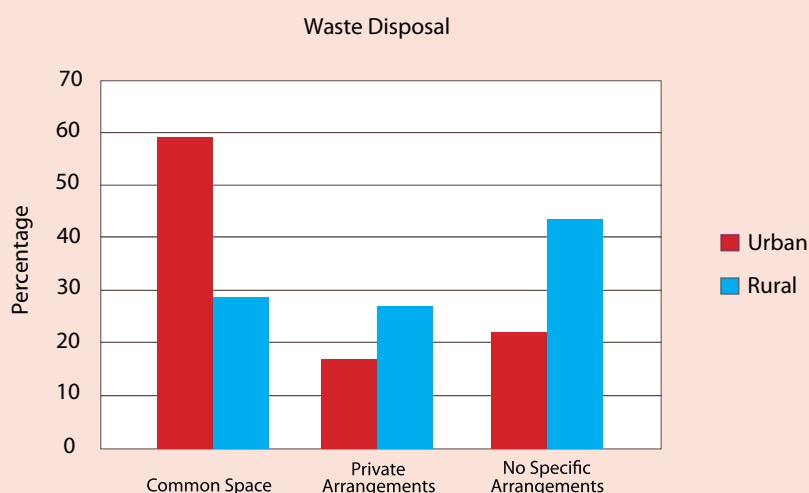
Total Sanitation Campaign (TSC) projects are under implementation in Kohima district. These are being implemented in coordination with the District Rural Development Agencies. These projects are monitored by the District Water and Sanitation Management Committee under the chairmanship of the Deputy Commissioner. Details of the progress of TSC in Kohima district is given in Table No.6.4, 6.5 and 6.6.

According to Total Sanitation Campaign report, as of 2004, 37 percent of the targeted projects were completed at a cost of ₹ 59.62 lakhs. The projects include individual household latrines and school toilets. Data for January 2009 reveals achievement of 49 percent out of the proposed target. Out of the total targeted project of 39414, 15045 were completed.

Data of DHDR sample survey 2009, reveals that in Kohima district, 48 percent of households have temporary septic tank and 52 percent have concrete septic tank. In rural areas 70 percent of the households have temporary septic tank and 30 percent have concrete septic tank. It is relatively better in the urban areas with 26 percent of households having temporary septic tank while 74 percent have concrete septic tank. In urban areas 65 percent of the households have latrine exclusively for their household, 34 percent share and 1 percent use public or community latrines. The percentage of households having their own latrines is less than that of Mon with 69 percent and Phek with 66 percent. In Kohima district, rural areas have properly maintained drainage system. On the contrary, in urban areas only 86 percent of the households have proper drainage system.

Clean and healthy environment is an outcome of proper disposal and management of waste. In rural areas 29 percent use a common space to dispose waste, 27 percent have their own private compost pits and 44 percent have no specific arrangements. In urban areas 59 percent use a common space, 18 percent have their own private compost pits and 23 percent of the households have no specific arrangements. Around 86 percent of the households feel that communitisation of water supply has improved sanitation facilities in rural areas.

Figure 6.2. Waste Disposal



### 6.3 COMMUNITISATION OF RURAL WATER SUPPLY AND SANITATION

The word communitisation was first coined by the Government of Nagaland. Communitisation means community empowerment for their development. In other words, Community + Democratisation = Communitisation. Experience has shown that mere creation of physical infrastructure alone is not sufficient to make the systems sustainable, unless the real users are involved in all stages of the project implementation, in the operation and maintenance of the infrastructure created.

The nodal agency for water supply and sanitation is the Public Health Engineering Department (PHED). The PHE therefore supervises the process of communitisation of water supply and sanitation. Communitisation of Public Institutions and Services Ordinance, 2002, is in consonance with the Sector Reforms Programme of the Department of Drinking Water Supply, Ministry of Rural Development, Government of India. Communitisation of these basic services is implemented by delegating the responsibility of implementing the rural water and sanitation schemes to the Water and Sanitation (WATSAN) Committees. These Committees have been constituted in all those villages notified as communitised villages for water supply and sanitation. The WATSAN Committees consist of village council members and other village functionaries. Urban water supply is the responsibility the State Public Health Engineering Department while the sanitation aspect in the urban areas is the responsibility of the municipal councils and town councils.



Water supply and sanitation systems in all the villages of the district are to be communitised under funding of the Twelfth Finance Commission (TFC) in phased manner in a span of 5 years from 2005-2006 to 2009-2010. Villages having proper water supply i.e., 40 lpcd and above have been selected to be communitised first to be followed by others. The main principle of communitisation is to develop the capacity of the beneficiary villages for management of the existing water supply and sanitation assets with the ultimate goal of producing a sustainable water supply and sanitation system.

## 6.4 CONCLUSION

The provision of safe drinking water supply and sanitation facilities is a crucial input in achieving the goal of 'health for all'. Provision of safe drinking water and sanitation is a state subject and is the primary responsibility of the State. However, the Central Government has been supplementing the efforts of the states through financial and technological inputs under centrally sponsored schemes.

There can be little doubt that water and a clean environment are basic necessities for the survival of human beings. There is interplay of numerous factors that govern access and utilization of water resources and in the light of increasing demand for water it becomes important to look for holistic and people centred methods of water management. Clearly, drinking water and sanitation is too fundamental and serious an issue to be left to one institution alone. It needs the combined initiative and action of all. Provision of safe drinking water and clean sanitation can be assured, provided there is a will to address it.

The district has witnessed an improvement in water supply with increasing coverage of areas. A large volume of financial resources has also been made available. A series of schemes aimed at improving the supply of drinking water through monitoring and ensuring quality are in the pipeline. The past few years have seen greater emphasis on water quality monitoring and surveillance with specific allocation being made under central grants.

However, awareness, surveillance, monitoring and testing, mitigation measures, availability of alternate water sources and adoption of hygienic practices continue to remain roadblocks. There is also a need to promote sanitary inspection along with the community. Water quality monitoring and surveillance committee at the grassroot level could be a mechanism to identify problems and to take corrective measures.



# SECTION 4

- Chapter 7* EDUCATION
- Chapter 8* GENDER ISSUES
- Chapter 9* INFRASTRUCTURE AND CONNECTIVITY



## ACCESS TO DEVELOPMENT

*As development takes place, people must have access to the fruits of development.*

*This access can however be denied because of lack of capacities, discrimination, physical remoteness or distance from growth centres.*

*In this section, we look at issues of access to education, gender, infrastructure and connectivity.*









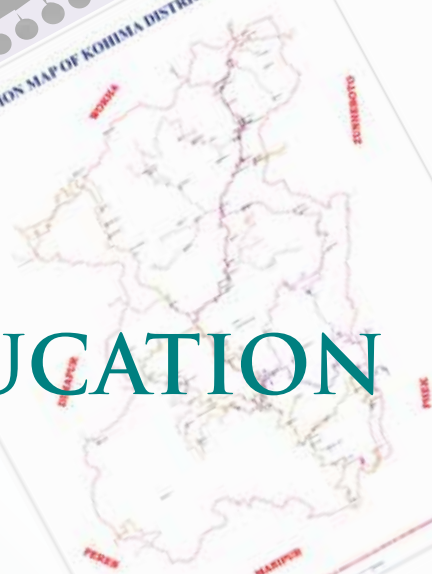
## SECTION 4

## CHAPTER -7



# EDUCATION

EDUCATION MAP OF KOHIMA DISTRICT



## 7.1 INTRODUCTION

It is now well recognized that one of the factors determining the income levels of individuals is their educational achievement. The role of education is explicit in calculation of Human Development Index (HDI). In addition, education is seen as removing gender disparities as reflected in the calculation of the Gender Development Index (GDI). This chapter dwells on the educational profile of Kohima district, the development of the educational sector, communitisation process and Sarva Shiksha Abhiyan (SSA) and its impact, improvement in access to education and policy recommendations.

## 7.2 EDUCATION IN KOHIMA DISTRICT

Kohima became the headquarters of the Naga Hills in 1878 under the British rule. This opened the way for American missionaries to come and set up a school as part of their evangelical programme. As there was no script and the Angamis never heard of their language in written form, they feared that their words would be scripted and used for worshipping other gods which would result in unwanted consequences.

In the early days, it was difficult to get children to go to school. There was a time when children were lured with money to study in school. The first school started with the study of the Assamese language. Students wore dhotis and saris to school. Even up to the 1960s there were older generations who read their Bible in Assamese. But with the publication of reading materials in Angami language, all medium of learning took place in Angami language, now called Tenyidie. Gradually English became part of the syllabus and with subjects like English talking class, students became familiar with the English language. And to pursue further studies knowledge of English was necessary. Thus English language became firmly established as the official language when Nagaland attained statehood.

The first American Baptist missionary to start a school in Kohima was Mr. C.D. King. This was followed by Rev. S.W. Rivenburg who printed many books in the Angami language. A missionary educationist by the name Mr. George W. Supplee took over the school in 1923 after Rev. S.W. Rivenburg retired and returned to America. Rev. Supplee with the help of Mr. C.R. Pawsey, the then Deputy Commissioner of Naga Hills started Kohima Government High School and became its first Headmaster in 1941. The present Government Higher Secondary School, Kohima is thus the outcome of the vision of this American missionary on whose land the school still stands today.



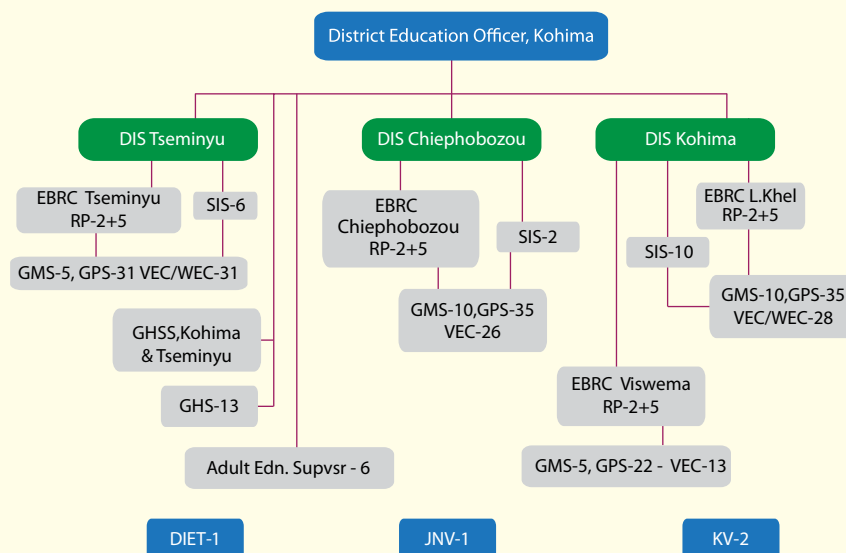
Because of such strong educational foundation, the citizens of Kohima district were pioneers in many fields amongst the Nagas. Prominent among them are Dr. Haralu the first Naga medical doctor who earned the Licentiate in Medical Practice (LMP) in early 1911, Dr. Khosa Zinyü the first Angami Medical Doctor, Mr. A. Kevichusa the first Naga graduate who did his B.A. from Kolkata, Dr. Neilhouzhü the first matriculate and Smt. R.S. Lungalung the first lady graduate. Mr. L. Lungalung was the first Naga graduate in science stream (PCM) and Dr. Khrielieü Kire was the first Naga medical lady doctor.

### 7.2.1 PRESENT ORGANIZATIONAL STRUCTURE OF SCHOOL EDUCATION

The school administration in the district is headed by the District Education Officer (DEO) and functions under the administrative control of the Directorate of School Education. The DEO is assisted by 3 Deputy Inspectors of Schools (DIS) who in turn are assisted by 18 Sub Inspectors of Schools (SIS). The district administrative setup of school education is given in the following chart.

*Chart 7.1*

*Organization Chart of School Administration in Kohima District.*



In Kohima district 2 Government Higher Secondary Schools and 13 Government High Schools are directly under the administrative control of the Kohima DEO. The DEO visits, inspects and supervises the functioning of all the Government Higher Secondary and High Schools in the district. The overall functioning and performance of the Government Higher Secondary and High Schools to a great extent is dependent on the initiative of the DEO although he does not have any cognate or financial powers.

The Deputy Inspectors of Schools who are in charge of Government Primary and Upper Primary Schools function under the direct control and supervision of the DEO. The Sub Inspectors of Schools under the DIS are the field functionaries who conduct visits, inspections and other checks of all the Government Primary and Middle Schools in the District. The DIS and SIS also examine proposals for upgradation of schools, conduct of classes, examinations and other works that may be entrusted to them by the DEO.

A check list or questionnaire for assessment of the performance of Village Education Committee, Ward Education Committee, School or Community on the implementation of the communitisation of education is used during inspections by the DIS and SIS. The inspection notes are submitted to the next higher authority for taking remedial or follow up actions.

### 7.2.2 LITERACY RATE IN THE DISTRICT

The literacy rate of the district (including Peren district) at 74.28 percent (males 81.44 percent and females 66.64 percent) is higher than that of the State average of 67.11 percent as per the Census of India 2001. But the district's literacy rate is lower than those of Mokokchung which is at 84.27 percent and Wokha with 81.28 percent. Concerted efforts are required to improve the literacy rate of the district.

### 7.2.3 SCHOOLS IN THE DISTRICT

According to the District Elementary Education Report Card 2004-2005, there were a total of 401 different categories of schools in the district. Out of these, 275 schools were in the Government sector and 126 were in the private sector. In the rural areas, there were 348 schools, 260 in Government sector and 88 in private sector. In the urban areas there were 53 schools.

However, as per District Information System for Education 2008-2009, there were 266 schools, 166 in the Government sector and 100 in the private sector in the district. One hundred and forty seven Government schools and 54 private schools were located in the rural areas whereas 19 Government schools and 46 private schools were in urban areas. The vast difference in the number of schools between the two sources is probably due to inclusion of schools in the present Peren district and also Pughoboto Sub-Division of Zunheboto District in the Report Card of 2004-2005.



## *Kohima Orphanage - A Home for the Homeless*

*The Kohima Orphanage was set up by late Smt. Zaputuo-ü, an Angami lady hailing from Dihoma village, under Kohima district. It all started in 1973, when Smt. Zaputuo-ü Angami, a nurse in the Kohima Government Hospital witnessed the death of a mother immediately after giving birth to a baby boy in the hospital. The father, instead of parenting the child, left the baby behind to its fate. Moved by the soulful cries of the baby, late Smt. Zaputuo-ü Angami, a widow of an army jawan and mother to a year old baby girl then, took a decision which changed the lives of many parentless children. Since its inception till date, she mothered 650 children some of whom have joined the Indian Army, some employed as Government servants while some married and well settled. Late Smt. Zaputuo-ü Angami was a recipient of Rajiv Gandhi Manav Sewa Award and Hero's of India by Reliance and CNN-IBN and other State awards.*

- Family sources



Late Smt. Zaputuo-ü with her children



According to the Nagaland Board of School Education (NBSE), during 2008, there were 77 high or higher secondary schools, 16 in the Government sector and 61 in the private sector in the district. Out of these, 1 Government school and 34 private schools were in the urban areas while 15 Government schools and 27 private schools were in the rural areas. A total of 22 educational institutions, 2 Government higher secondary schools, 10 private higher secondary schools, 2 Government colleges and 8 private colleges offer courses in arts, science and commerce.

It is observed that while the bulk of the Government schools i.e. 123 out of 166, were primary schools, almost all the private schools were from pre-primary to high school or higher secondary levels. It is also seen that more than 88 percent of Government schools and 54 percent of private schools in the district are in the rural areas. As per Annual Work & Budget 2009-2010 of Kohima District Mission Authority (DMA), there are 6 wards under DMA (SSA) Kohima without primary school facility. Children from these wards have to walk 4 to 5 kms to reach the nearest primary schools while children in the other wards do not have to walk that far. It can thus be inferred that most children in the district do not have to travel long distances to attend school, at least up to the primary level.



*John High School, Viswema*

## 7.2.4 ENROLMENT IN SCHOOLS

In the primary and upper primary classes, the district has a total enrolment of 40,966 children, 19,871 in the rural and 21,095 in the urban areas. Of these, 11,242 students were enrolled in 166 Government schools while the remaining 29,724 students in 100 private schools<sup>19</sup>.

The Nagaland Board of School Education (NBSE) shows a total enrolment of 10,019 in classes IX, X and XII in the district during 2008. Out of these, 1,777 were enrolled in 16 Government schools and the remaining 8,242 in 61 private schools. Between 2002 and 2008, out of the total enrolment of 19,379 students in the district in class XII, only 2,681 students were enrolled in Government schools, whereas 16,698 students were in private schools.

It is seen that the rate of enrolment of children from primary to higher secondary schools in the private sector is 2.64, 3.70 times more than that of the Government sector. The enrolment share of private sector increases from primary section to higher secondary section. Also, the total enrolment in the urban area is more than the rural areas in the district.



<sup>19</sup>District Information System on Education 2008-2009



The percentage of children enrolled in the schools in the age groups of 6 to 11 years and 11 to 14 years, measured in terms of Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER), in the district as given in Table No. 7.1, are better than that of the State average.

Analysis of enrolment, dropout and completion rate in the district during 2006 to 2008-2009 showed a steady growth in both the 6 to 11 years age group and 11 to 14 years age group. The drop out rate also showed a steady decrease in both the age groups. The transition rate from primary to upper primary also showed a healthy trend from 87.13 percent in 2006-2007 to 96.40 percent in the following year to 97.58 percent in 2008-2009. However, despite the improvements, the completion rate has decreased from 92.55 percent in 2007-2008 to 75.19 percent in 2008-2009.

### 7.2.5 OUT OF SCHOOL CHILDREN

According to the Annual Work Plan & Budget, 2009-2010 of District Mission Authority, the district has a total population of 39,693 children, 20,157 boys and 19,536 girls, in the age group of 6 to 14 years. Out of these children, 1358, (643 boys and 715 girls) are 'out of school children'. The district with only 3.3 percent of children remaining out of school is better than the State average of 5.0 percent (Assessment, Survey, Research and Evaluation, 2006). Nevertheless, the fact that there so many children out of school is a matter of great concern.

These 'out of school children' are proposed to be covered under alternative schooling (AS) scheme of SSA during 2009-2010. 1,091 children in the age group of 6 to 11 years are to be covered with Non-Residential Bridge Course (NRBC) and 267 in the age group of 11 to 14 years with Residential Bridge Course (RBC) during the year.





### 7.2.6 PERFORMANCE OF SCHOOLS

As per the source of DISE, the district's completion rate at 92.55 percent and transition rate from primary to upper primary at 96.40 percent in 2007-2008 are better than those of the corresponding State figures of 84.97 percent and 86.75 percent. While the transition rate in the district improved to 97.58 percent, the completion rate dropped to 75.15 percent, which is lower than the State average of 78.54 percent in 2008-2009. In terms of completion and transition rates the performance of primary and upper primary sector, even among the Government schools is satisfactory.

The percentage of students who passed the class IV and VIII board examinations in the district is not available. However, out of a total of 7,550 and 5,583 students from Government schools who passed the two examinations between 2004-2005 and 2008-09 respectively, only 977 i.e. 12.94 percent in class IV and 498 i.e. 8.92 percent in class VIII secured more than 60 percent and above marks. This poor percentage speak volumes of the quality of students who migrate to high schools from Government elementary schools.

A comparison of the pass percentage of students who appeared classes X and XII examinations conducted by the Nagaland Board of School Education (NBSE) between 1998 and 2008 shows that the performance of students in class X in Government institutions at 36.63 percent is way behind private institutions at 74.98 percent. Interestingly the Government institutions performed better in class XII examinations during the same period with pass percentage of 74.55 against the private institutions at 64.52.



As per the information furnished by DEO Kohima, the total enrolment of students in class X in 17 Government high schools in the district between 2007 and 2009 was 1,123. Out of these, 848 appeared and only 445 passed the class X examinations, achieving an average pass percentage of 8.73 per school per year during the 3 years. In the 2009 High School Leaving Certificate (HSLC) examinations, 13 out of the 17 Government high schools produced single digit pass percentage results while 1 produced nil result. Perhaps, a review on restructuring, reorganizing or merger of several Government high schools in the district is required.

#### 7.2.7 TEACHERS IN SCHOOLS - TRAINING STATUS & PUPIL TEACHER RATIO (PTR)

DISE for 2008-2009 indicates that there are a total of 2,835 teachers, 1,297 in Government schools and 1,538 in private schools in the district. However DMA Report, 2009-2010 shows a total of 1,270 Government school teachers, 795 in primary schools while the remaining 475 in upper primary schools. Two Government primary schools in the district have the dubious distinction of having joined the infamous club of 58 single teacher schools in the State.

Only 454 or 35.75 percent of the teachers have been trained under the new pedagogy and the remaining 816 or 64.25 percent are yet to be trained. At the primary level, 317 out of 795 teachers and at the upper primary level only 137 out of 475 teachers have been trained. Thus at the upper primary level, 71.16 percent of the teachers are yet to be trained. While the number of untrained teachers in Government schools is very high, there is no mechanism in place for training teachers in private schools. Untrained teachers and absence of training mechanism will have adverse impact on the quality of education in the district. Exact figures are not available but the DMA, Kohima has indicated the presence of a number of unqualified teachers in Government schools in the district. This aspect along with the issue of untrainable teachers needs to be viewed seriously by the Government.

The district as a whole has a Pupil Teacher Ratio (PTR) of 14:45 which is better than the normal norm of 40. However there is a lot of disparity between Government and private schools and also between the urban and rural areas. Government schools have an average PTR of 8:66 with 11:44 in the urban and 7:93 in the rural areas. In private schools the average PTR is 19:32; 20:76 in the urban and 17:47 in the rural areas. The PTR amongst Government schools also vary. Schools like Government high school, Jotsoma has 27 teachers for 150 students whereas Government higher secondary school, Kohima has only 72 teachers for 1000 students in 2009.

## 7.2.8 DISTRICT INSTITUTE OF EDUCATION AND TRAINING (DIET).

With a view to reorganize and restructure teachers' education, to bring about qualitative improvement in elementary education, District Institute of Education and Training (DIET) under the State Council of Educational Research and Training (SCERT) was set up at Kohima in 1993. The institute was subsequently shifted to Chiechama in 2003.

Since its inception DIET, Chiechama has been conducting the following training programmes:

- i. Under combined two years *Pre-Service Teacher Education (PSTE)* and *In-Service Teacher Education (ISTE)* for elementary school teachers, five batches numbering about 200 teachers were trained during 2003 to 2008. The duration for PSTE was reduced to one year from the batch of 2008-2009.
- ii. Under six months *Certificate for Primary Teachers Education (CPTE)*, launched in 2008, with an intake capacity of 50 per batch, three batches have been trained.
- iii. Under *Heads of Primary Schools* training programme which is conducted three to four times a year for heads of primary schools, about 100 to 145 head teachers are trained every year.
- iv. The institute has the capacity to train about 200 *Village Education Committee (VEC)* members in a year.
- v. *Village Community Awareness Programmes* for representatives each village is conducted six times in a year.
- vi. Resource support is given to teachers from private as well as Government primary schools under *Content Enrichment Programme*. This is conducted four times in a year with an intake capacity of 50 teachers per batch.
- vii. Support is given to students, teachers, parents and the community in schools where there is high enrolment but poor performance under *Laboratory Area Programme*.
- viii. Different cells have been set up in the institute to undertake research to deal with specific problems prevailing in schools under *Action Research*<sup>20</sup>.

The performance of DIET Chiechama in the field of education and in training of teachers of Government elementary schools in the district is commendable. However, despite the efforts of DIET Chiechama, Kohima district has a very high percentage of untrained teachers. The infrastructure, the institutional capacity and intake capacity of DIET therefore, needs to be strengthened.

<sup>20</sup> State Council of Educational Research & Training



## 7.3 STATUS OF HIGHER AND TECHNICAL EDUCATION

Kohima Science College was founded in 1961, two years before Nagaland attained statehood with the initiative of a group of learned people. The group was headed by Dr. Neilhouzhü, Shri. K. Angami, Shri. Vizol Angami, Shri. J.B. Jasokie, Shri. Akum Imlong, Shri. Keduonyü Sekhose, Shri. S.L. Haizotuo Munshi and Shri. U.M. Deb. While Kohima College, the second college in the district and the third in the State was conceived by four visionaries of Kohima Village; Dr. Neilhouzhü Angami, Dr. Satuo Sekhose, Shri. Vilalhoulie Belho and Shri. Vibeilie Solo to meet the aspirations and need of the upcoming youth in humanities. Hence Kohima College initially, as an evening college was established in 1967<sup>21</sup>.

Today with 2 Government colleges, 11 private secular colleges, 1 college of teachers' education, 1 law college and 2 theological seminary mostly located in and around Kohima, the district has made tremendous strides in the field of higher education. The total enrolment in colleges has increased from 6,200 in Government colleges and 5,293 in private colleges in 1999-2000 to 10,567 in Government colleges and 7,767 in private colleges in 2008-2009. Student enrolment in Government colleges has gone up to 26.50 percent in 2008-2009 from a mere 14.63 percent in 1999-2000. However, with a percentage share of 73.50 in student enrolment, private institutions continue to play a dominant role in the higher education sector in the district.

The district as a whole has Pupil Teacher Ratio (PTR) of 30:11 with Government colleges at 21:88 and private colleges at 34:83 which are within the normal range of 40. However, some of the larger private colleges like Alder College with a PTR of 49:45, St. Joseph's College with 46:38 and Mount Olive College with 40:94 have higher than the prescribed PTR.

The Gross Enrolment Ratio (GER) for children in the age group of 18 to 23 years for the district is not available. But the State average enrolment of about 9.56 percent in higher education is less than the national average of 11 percent and much less compared to the world average of 23.2 percent. It is also less than that of countries in transition with 36.5 percent and that of developed countries with 54.6 percent. If the State is to achieve the national target GER of 15 percent by 2012, massive expansion in institutional and infrastructural capacity is called for<sup>22</sup>.

Kohima district has only one polytechnic, which was established as Women Polytechnic in 1999. Between 2000-2001 to 2005-2006 altogether 762, 192 men and 570 women, were trained under Man Power Training through Community Polytechnic Scheme. The course covers various trades like carpentry, hair cutting, stuffed doll making, pot painting, masonry, weaving, catering, salesmanship, candle making, hollow brick making, garment making and computer applications. Women Polytechnic was upgraded under a World Bank project in 2005-2006 and has been renamed Government Polytechnic Kohima (GPK) offering 3 years diploma course in Computer Science & Engineering, Modern Office Practice and Fashion Technology. The fact that there are not enough applicants for the courses, necessitates review of the courses offered and placement arrangement of the trainees after completion of their training<sup>23</sup>.

### 7.3.1 GOVERNMENT INITIATIVES

Two major initiatives taken by the Government in the field of elementary education in the recent past are communitisation of the education sector and Sarva Shiksha Abhiyan (SSA). Both these initiatives introduced by the State Government between 2002 and 2003 have the potential to transform the elementary education scenario in the State.



<sup>21</sup> Kohima Science College Illume & Kohima College Silver Jubilee Souvenir

<sup>22</sup> Directorate of Higher Education, Government of Nagaland

## 7.4 COMMUNITISATION

With the launching of communitisation of elementary education in the State in 2002 under the 'Communitisation of Public Institutions and Services Act, 2002' there has been a complete paradigm shift from the earlier notion on schooling and education. The community has been delegated with powers to control, manage and improve the schools in their respective villages, towns and wards. Under the provision of the Communitisation Act, each village/town/ward is required to constitute Education Committees. The Village Education Committees (VECs) in villages are constituted by Village Councils, while in towns and urban areas, Municipal Councils, Town Councils, and Ward Committees set up the Urban Education Committees and Ward Education Committees (WECs). All primary and upper primary schools in the district are communitised and are now managed by 118 VECs and 27 WECs. In all these communitised schools, Parent-Teacher Associations have also been formed.

The Department of School Education launched an intensive capacity building programme to sensitize and create awareness about the communitisation programme in 2008. Under this programme, altogether 642, out of a total of 870 VEC and WEC members were trained. This programme was conducted on 19th – 20th May, 2008 in all four EBRCs in Kohima, Viswema, Chiephobozou and Tseminyu.

### 7.4.1 SARVA SHIKSHA ABHIYAN (SSA)

The SSA scheme in Nagaland was introduced in the year 2003-2004 to fulfill the constitutional obligation of universalization of elementary education with quality improvement. The State Mission Authority of Nagaland, a State level autonomous society implements the SSA Scheme. The Central Government extends financial grants to the State Government in the ratio of 75:25. The SSA Scheme would culminate by 2012. At the district level, the programme is implemented by the District Mission Authority (DMA), headed by the Deputy Commissioner and with the District Education Officer as member secretary. The major components of the SSA Scheme include-infrastructure development, provision of teaching-learning materials, teachers training, care and assistance to children with special needs, education guarantee scheme, alternative schooling and computer assisted learning amongst others. Table No.7,2. shows the completed civil works under SSA from 2002-2003 to 2009-2010 in Kohima district.

Initially, communitisation and SSA programmes evoked mixed feelings of enthusiasm and skepticism. Spot interview of teachers at the Government Middle School (GMS) L. Khel, Kohima village reveal that the computer lab and learning station installed





## *Enable - Providing care for the differently abled*

*Enable was launched in 2008 by a group of parents of children with disabilities. The core group headed by its coordinator Smt. Neikule Doulo, Dr. Asunu Thong and Smt. Renbeni Odyuo aims to create awareness and provide basic facilities for children with special needs. The main concern was to sensitize schools on the needs of children with disability and integrate them in class rooms. Core group of Enable includes heads of schools, playschools and other concerned individuals keen to work in this area. Through their initiative about 12 schools in Kohima have opened their doors to include special children and two schools have special teachers to assist the children. Two of the playschools in Kohima, run by members of Enable, have special classes for such children.*

*The group has also brought resource persons from Kolkata, United Kingdom and United States of America to train teachers and parents to help persons with disability and to understand their issues. In 2009, funded by the Government of Nagaland, the organization conducted research in Kohima and Phek districts to ascertain the types of disability and the number of people affected by disability. The group has also helped in getting sponsors for children to enable them to get required therapies. The long term goals of the organization is to create resource centers providing required intervention for persons with disability in various parts of the State. Awareness and involvement of other social organizations is one of their long term goals.*

- Enable



in the school with SSA funding were functional and students were enthusiastic to explore the facility. Teachers were positive about the concept of communitisation and they acknowledged the receipt of more financial aid for various development works. Provision of mid day meals in the school was not on a daily basis but was provided occasionally which was more practical both for the students and teachers.

Rain coats and school bags were supplied to students in the school. And a register was maintained in the school with record of those who have availed the benefits and those who have not availed. Most teachers in the school were trained except the older teachers. The common examination at class IV and VIII levels were viewed with skepticism. Detention up to 50 percent in class VIII level was reported. Although the Department of School Education is of the view that examination is a mechanism to assess the quality of teaching, there should be other methods to check the performance of teachers. Examinations should be viewed as an assessment of students' abilities and should not be tools to check the performance or regularity of teachers.

## 7.5 EDUCATION AND UNEMPLOYMENT

As per the records of Directorate of Employment and Craftsman Training, the number of graduate and above and under graduate applicants on the Live Register of Employment Exchange, Kohima, recorded an increase from 17,450 in 1999 to 20,012 in 2007. In 1999, there were 15,363 undergraduates and 2087 graduates and above, while the corresponding figures in 2007 were 15,335 and 4677. The figures for the State as a whole were 35,463; 32,505 undergraduates and 2,958 graduates and above in 1999 and 46,263; 38,920 undergraduates and 7,343 graduates and above in 2007. Although these figures may not reflect the actual unemployment situation, it indicates the growing trend of unemployment in the district and the State.

Between 2000 and 2008, an average of 2,319 students; 2,100 graduates and 219 post graduates per year completed their studies under Nagaland University (NU). Besides NU, a large number of students pursue undergraduate and post graduate courses outside Nagaland. While the number of students completing graduate and post graduate courses is steadily increasing, opportunities in the Government sector have not shown much progress. Between 1997 and 2006, a total of 31,137 candidates appeared the State Civil Service Examinations conducted by Nagaland Public Service Commission (NPSC) for 419 posts in the Nagaland Civil Service, Nagaland Police Service and Allied Services<sup>24</sup>.

<sup>24</sup> Nagaland University and Nagaland Public Service Commission

## 7.6 CONCLUSION AND POLICY RECOMMENDATIONS

The service provided by the primary schools in the villages especially in the remote areas is commendable. They cater to the needs of the economically weaker section of the society. However, wherever there is a private run school, the number of students in Government schools in the area is considerably reduced. It is observed that all families including the poor, endeavour to send their children to private schools. One of the primary reasons is to develop communication skills in English on account of the visible difference between students from Government and private schools in the usage of the English language.

The private sector plays a dominant role in providing quality education in the district. This significant contribution made by the private sector must be recognized. Provision of support and assistance in the form of grant-in-aid and redeployment of surplus teachers from Government schools and colleges to private schools and colleges could be considered by the Government.

In Kohima district, one of the major benefits under the SSA programmes has been development of buildings in all the primary schools, provision of materials such as raincoats and free text books to students. However, there is room for improvement. Some schools reported receipt of the books much after the date of re-opening of schools. Quantity of food items for midday meals were not adequate for provision on a daily basis. In terms of the quality of food, some schools served quality food only after an interval of two to three weeks.

To improve the quality of education in Government run schools it is necessary to restructure the school administration system. An example, the Department of School Education has the second highest number of employees in the State. However, there is only one Director to control the quality of education as well as to oversee departmental administration and establishment issues. The Department incidentally has the highest number of pending court cases. The SCERT and the NBSE deal with curriculum, printing and selection of text books. It is the Director of School Education who is responsible for ensuring whether quality learning is actually taking place in the class rooms. The assignments and responsibilities are beyond the capability of a single Director. Hence it would be more beneficial to have one Director to manage the administration of the offices and another Director for supervision of the quality of teaching and for ensuring quality education.



Considering the annual turn out from the universities and colleges, the actual unemployment figures would be much higher than the official employment exchange figures. Therefore, there is need for the Departments concerned to undertake detailed surveys to assess the unemployment scenario and for the Government to take appropriate measures.

The Government must review the present curriculum in schools and colleges to match education with the demands of the job market. The Directorate of Higher Education, the Directorate of Technical Education and the Directorate of Employment & Craftsmen Training must identify the potential areas for employment and build the capacities of the youth to take advantage of the available opportunities. The State Government would do well to address the problem of unemployment through skill building of the youth in areas such as horticulture, floriculture, eco-tourism, tea industry etc.

Teachers' training programmes for all levels must be given priority. Child centered activity based learning (ABL) approach, particularly in the field of elementary education is imperative. In this regard the initiative taken by the SSA-SMA and State Government in the field of primary teachers' training needs to be continued. The secondary teachers' training program i.e. B.Ed course also requires review on the lines of development initiatives in the field of elementary and secondary school education. The Nagaland University could be requested to take the initiative in this regard.





*A school constructed under SSA Scheme at Bayavü*

There are facilities and programmes available for the teachers of higher education in the State in terms of refresher courses and orientations but these are not enough. An Academic Staff College must be established in the State to impart training to the college and university teachers. At present, teachers get the benefit of such programs only outside the State.

‘Board’ examinations are conducted at the class IV level in Government schools and at class VIII and IX levels for all categories of schools in the State. This is in violation of the National Curriculum Framework (NCF). Board examination is recommended only in class XII and as an option in class X level. The Education Department need to seriously review these issues.









# GENDER ISSUES

## 8.1 INTRODUCTION

The third of the Millennium Development Goals (MDG) declared by the UN in 2000, aims to 'promote gender equality and empower women'.

Gender inequality leads to unequal distribution of power and property. A number of gender issues continue to determine the nature and shape of our society. Like most traditional societies in India, women in the State do not enjoy average quality of life as that of men; in terms of life expectancy, health, mortality, access to education, access to employment, access to legal freedom and meaningful exercise of civil and political rights. Women are key agents for effective implementation of poverty reduction programmes and economic regeneration at the grassroot level.

In Nagaland, non participation of women in decision making; in the Village Development Boards (VDBs), in the all powerful church, legislature, municipal bodies, discrimination in inheritance, in the control over resources, disparity in wages, education and discrimination of the girl child are reflections of the existence of gender conflicts in the State.

The biggest challenge in the preparation of this chapter has been the non-existence of gender disaggregated data. The data reflected is based mostly on the DHDR Sample survey conducted by the Directorate of Economics and Statistics, Government of Nagaland in 2009. To address gender issues realistically, gender disaggregated data is necessary.

This chapter is intended to look at gender inequality between men and women with the objective of gender mainstreaming at various levels, at policy, planning, implementation levels in the Kohima context. In this section, we will look at areas where gender discrimination exists. In the next section, we will look specifically at evidences in the district of Kohima. The last section will consist of policy recommendations.



## 8.2. GENDER DISCRIMINATION

Among the parameters which define gender inequality, the specific ones that are discussed are those relating to political and legal rights, income disparity, discrimination in the workplace, education, health and violence against women.

### 8.2.1 POLITICAL AND LEGAL RIGHTS

In the Naga society, women in general are poorly represented at all levels of decision making; at the village, regional and national levels. The extent of existence of gender bias in Nagaland is clearly visible by the fact that no women has been elected to the State Legislative Assembly ever since the attainment of statehood. With the exception of Smt. Rano Shaiza, who was elected to the Lok Sabha in 1977 there has been no women representative in the highest decision making body in the state. To facilitate women's participation in the political process and to involve them in decision making, the Nagaland Municipal Act 2001, Amendment Act 2006 and the 108 Amendment Act, 2008 (Women Reservation Bill) were passed by the Nagaland Legislative Assembly. The Act grants 33 percent 'political rights' to women. However, the Women Reservation Bill could not be implemented in the Mokokchung Municipal Election 2008 as seen from the case study 8.1.

#### Case Study 8.1

#### 33 Percent Reservation for Women in Mokokchung Municipal Council Election, 2008

*The 33 percent Reservation Bill for women went through the real litmus test when the State Government tried to implement the Act during the Mokokchung Municipal Council Election in October 2008. The filing of nominations was opposed by volunteers from 16 wards of Mokokchung town and landowners consisting of four villages; Khensa, Ungma, Mokokchung and Chuchuyimlang citing customary laws. According to them reservation of seats for women was "irrelevant" particularly to the Aos and that "Mokokchung town should not be used as a testing ground for women reservation" <sup>25</sup>.*

<sup>25</sup>Nagaland Post 16.9.2008



At the grassroot level of the Naga society there are 'customary laws' that derive their legitimacy from customs and tradition. These customary laws are usually flexible and contain many rules that are not referred to by any legal system. The Naga customary laws discriminate against women on inheritance and social issues such as sexual abuse and rape. Only minor punishment is meted out on the male offender and rapist.

## 8.2.2 ECONOMIC INEQUALITY

*"Gainful employment empowers impoverished women in various spheres of their lives, influencing sexual and reproductive health choices, education and healthy behaviour"*<sup>26</sup>.

Economic empowerment is a key to changing the gender relations within society: a larger degree of economic independence can give women more self confidence, a greater voice in the family, and a way out in the case of abuse and violence.

When NEPED integrated gender component in its programmes in 1995, women Self Help Groups (SHGs) did not exist in villages. Taking existing traditional institutions like the village women society, VDB or the church women as 'entry' point, sensitizing rural women and organizing them to form economic SHGs with monthly thrift saving was introduced. Through this programme, 30 women groups purchased land and invested in the land through plantation of trees and cash crops. Such economic empowerment enabled the women to overcome cultural subordination.

Most Agriculture and Allied Departments have integrated women into the economic development process through the formation of women specific Self Help Groups (SHGs). Horticulture Department under Women Development Programme (HTM-NE) in particular has organized 7281 women into 686 economic SHGs during 2007-2008<sup>27</sup>. These SHGs facilitated in building linkages for production and marketing of goods. This positively impacted the economic status of women which eventually impacted their status in the family and the society.

## 8.2.3 WAGE DISPARITY

In Nagaland, except in Government jobs, wage disparity exists between men and women. A female daily wage earner is paid less than the male worker both in the urban as well as in rural areas. In the rural areas women take on the added burden of household reproductive and maintenance works without any remuneration.

<sup>26</sup>UNFPA Workshop Report 2007

<sup>27</sup>Annual Administrative Report 2008-2009, Department of Horticulture, Government of Nagaland



## *First Naga Lady Member of Parliament From Kohima District*



Smt. Rano Mese Shaiza

*Smt. Rano Mese Shaiza was born to Lt. Dr. Sevilie Iralu and Vitulie-ü Iralu of Khonoma Village in Kohima district on 11<sup>th</sup> November, 1928. The fifth child in a family of thirteen, she became the first President of the Naga Women Federation during 1945 to 1946. It should be noted that during this period, it was unusual for women to take up leadership because of the patriarchal system and the rigid customary laws. She contested the elections from the 8<sup>th</sup> Western Angami Assembly Constituency in Kohima district in 1969 and became the President of United Democratic Front in 1974. Smt. Rano Mese Shaiza became Member of Parliament (MP) of the 6<sup>th</sup> Lok Sabha from 23 March, 1977 to 22 August, 1979 after defeating the then sitting Chief Minister of Nagaland, Shri. Hokishe Sema. She is the only Naga lady politician to have been a Member of Parliament till date.*

- Family Sources

## 8.2.4 EDUCATION

*“Education is one of the most important means of empowering women with knowledge, skills and self confidence necessary to participate fully in the development process”<sup>28</sup>.*

Education can have ripple effects within the family and across generations. Educated girls are most likely to marry late and have smaller and healthier families. Such women recognize the importance of health care and seek it for themselves and their children.

## 8.2.5 HEALTH

The fifth of the MDGs aims to reduce by three quarters the maternal mortality by 2015. To improve the delivery of health services, the Department of Health and Family Welfare, Government of Nagaland has ‘communitised the health’ sector. With the communitisation of the health sector in 2002, management of the health institutions and services was delegated to the community. For this purpose Village Health Committees in the rural areas and Ward Health Committees in the urban areas were constituted. As per the guidelines for implementation of the communitisation process it was mandatory to have women representatives in the Health Committees. This was to ensure that women health concerns were addressed. In Kohima district, all the Health Committees which were covered under the study ‘Communitisation and Health Care Delivery’, a publication of the Department of Health and Family Welfare, Government of Nagaland, had women members.

The six highest HIV and AIDS affected states in India includes Nagaland. There is need for quality sensitization on the gender roles in the spread of HIV and AIDS. Men are more mobile than women for political, social or economic reasons and therefore can be primary carriers in the spread of AIDS.

## 8.2.6 VIOLENCE AGAINST WOMEN

Gender based violence both reflects and reinforces inequities between men and women. It compromises the health, dignity, security and autonomy of its victims. It encompasses a wide range of human rights violation, including sexual abuse, rape, domestic violence, assault and harassment, trafficking of women and girls and several harmful traditional practices.

<sup>28</sup> International Conference on Population and Development (ICPD) Programme of Action, 5 -13th September 1994, Cairo, Egypt, paragraph 4.2.



### Gender Discrimination at Different Stages Throughout a Woman's Life

Phase	Type
Prenatal	Prenatal sex selection, battering during pregnancy, coerced pregnancy (rape during war)
Infancy	Female infanticide, emotional & physical abuse, differential access to food & medical care
Childhood	Genital cutting, incest & sexual abuse, differential access to food, medical care, education, child prostitution
Adolescence	Dating and courtship violence, economically coerced sex, sexual abuse in the workplace, rape, sexual harassment, forced prostitution
Reproductive age	Abuse of women by partners, marital rape, dowry abuse & murder, partner homicide, psychological abuse, sexual abuse in the workplace, sexual harassment, rape, abuse of women with disabilities
Old age	Abuse of widows, abuse of elders (which affects mostly women)

Source: World Bank 1994

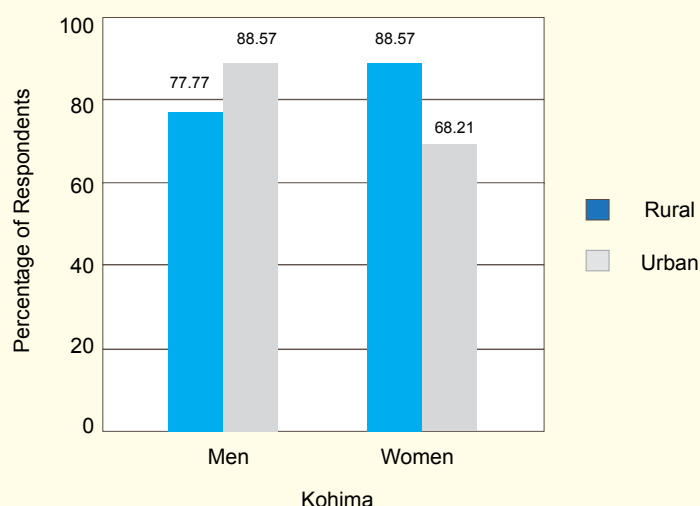
Ending gender based violence will mean changing cultural concepts about masculinity and that process must actively engage men, whether they are policy makers, parents, spouses or young boys.

## 8.3 GENDER ISSUES IN KOHIMA DISTRICT

This section dwells specifically on Kohima district. The inferences are based on the survey conducted by the Directorate of Economics and Statistics in 2009.

### (A) POLITICAL

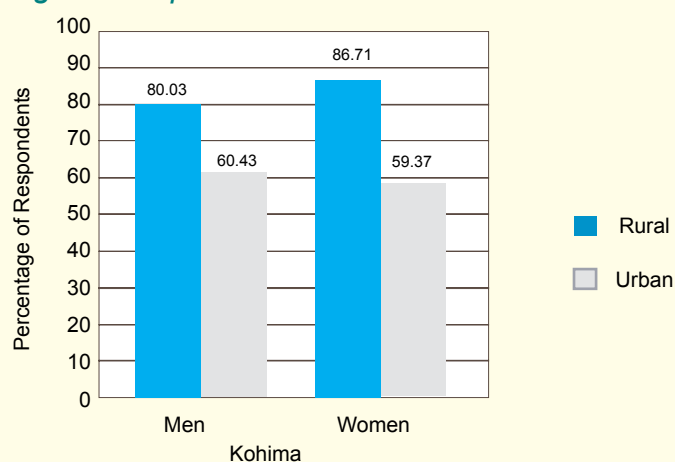
To facilitate womens' participation in the political process and in decision making, Government of Nagaland passed the Women Reservation Bill by which seats would be reserved for women in the Municipal Council, Town Committee and the Nagaland Legislative Assembly. In the DHDR sample survey the questionnaire included questions on women reservation issues. People's opinion in the reservation issue in the sampled villages is reflected in figure 8.1.

*Figure 8.1. Percentage of People in Favour of Women Reservation Bill*

Source: DHDR Sample Survey 2009

As shown in figure 8.1 in Kohima district, 77.77 percent of the male respondents and 88.57 percent of the female respondents in the rural areas, and 88.57 percent of the male respondents and 68.21 percent of the female respondents in the urban areas supported the 33 percent reservation for women in the Municipal Councils and Town Committees. The data shows that the percentage of both men and women in support of the reservation bill in the rural areas is quite high. However, more men than women in the urban areas were in support of reservation for women. To ensure women's participation in decision making, and to ensure gender equality the State Government should implement 33 percent reservation for women.

During the survey, respondents were asked if women were in decision making, whether gender friendly policies such as provision of drinking water, maternal and child health care and education would be better. The findings are presented in figure 8.2.

*Figure 8.2. Percentage of People in Favour of Women in Decision Making*

Source: DHDR Sample Survey 2009

Figure 8.2 shows in rural areas of Kohima 86.71 percent of the female respondents and 80.03 percent of the male respondents supported women in decision. In urban areas 59.37 percent of female respondents and 60.43 percent of the male respondents favoured women in decision making for improving drinking water facilities, maternal and child health care, education and health services.

## (B) CUSTOMARY LAWS

Customary laws are the norms and practices followed by people in settlement of social disputes and allocation of resources. In Nagaland, only male members called Dobashis are the custodian of the customary laws. Therefore, social issues concerning women in the customary courts might be observed only from the male's perspective, overriding women's rights and interest. Some experiences with customary laws are given in box 8.1.

### Box 8.1. Author's Experience on Working with Men and Women

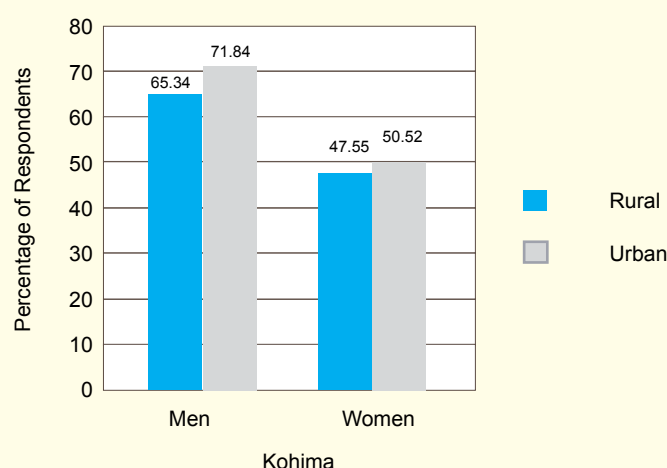
*Women in villages were planting trees and cash crops with micro credit on a plot of a land they did not own. Before they could reap the benefits of the trees planted by them the land was sold off. Hence they could not reap the full benefit of the trees or get more credit to grow cash crops due to acquisition of the land. Women do not have land rights and have no share when assets are acquired or sold.*

*None implementation of 33 percent Women's Reservation Bill, sexual abuse or domestic violence against women have been justified by customary laws as being masculine acts, with none or only mild punishment for men.*

Respondents from the sample villages were asked whether customary laws favoured men and discriminate against women. The result is given in figure 8.3.

Figure 8.3. Opinion on Customary Laws

Percentage of respondents who are of the opinion that customary laws are in favour of men and discriminate against women



Source: DHDR Sample Survey 2009



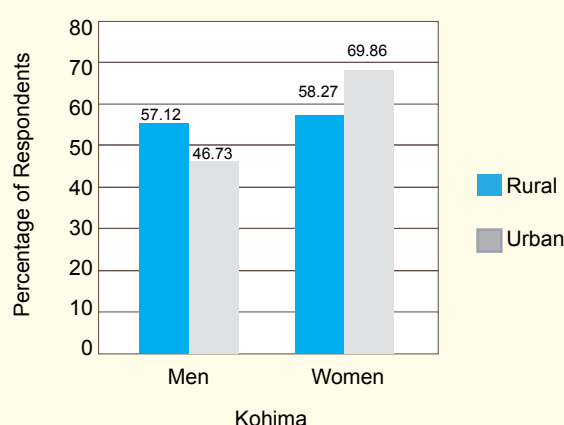
According to figure 8.3, 65.34 percent of the male respondents in the rural areas and 71.84 percent of the male respondents in the urban areas of Kohima opine that customary laws do not favour men and discriminate against women. Likewise women, in rural areas and urban areas of Kohima feel that customary laws do not discriminate women. The socio cultural factors cocoon women within the system and prevent women to think out of the box. As long as gender relations are sound, there are no problems. But when cordiality within the family breaks down or when things are not done as culturally or as socially accepted, customary laws show up with ugly tentacles. Thus, gender biased customary laws that discriminate a particular gender may need to be rectified within the broad framework of the national and international laws.

## 8.4 ECONOMIC DEVELOPMENT

To involve both men and women in the economic development process gender and development approach should shift its focus from looking at women in isolation to a more holistic view of both men and women and their inter-relationship. The local Village Development Boards (VDBs) could actively involve women in developmental planning and implementation. The VDB guidelines stipulate women representation in its composition. However, the level of awareness of both men and women on the stipulated norms for the VDB composition is given in figure 8.4.

*Figure 8.4. Womens' Representation in Village Development Board*

Percentage of respondents aware of the provision which stipulates womens' representation in the Village Development Board



Source: DHDR Sample Survey 2009

As shown in figure 8.4, on women's representation in the VDB composition, the awareness level of female respondents in rural areas with 58.27 percent and in urban areas with 69.86 percent is higher compared to the male counterparts with 57.12 percent in rural areas and with 46.73 percent in the urban areas. This perhaps is because VDB is considered to be a male domain.



## *Kohima Old Age Home*

*The Kohima Old Age Home was established in 2005, pioneered by Mrs. Neithonuo T. Liegise under the aegis of Good Samaritan Women Society.*

*The Home, located at Kohima was started voluntarily to support and aid the needy old citizens in Nagaland.*

*The aspect that makes this Old Age Home 'unique' is the blending of children with the ageing ones.*

*It may seem a little odd to find children put in the old age home, but the 'magic sprinkle' here is the effort to bring up the kids with good moral ethics under the guidance of the experienced.*

*This combination makes both the old and the young get the feeling of having grand parents and grand children.*

*Into The Sunset With Dignity  
Old Age Home, Kohima*

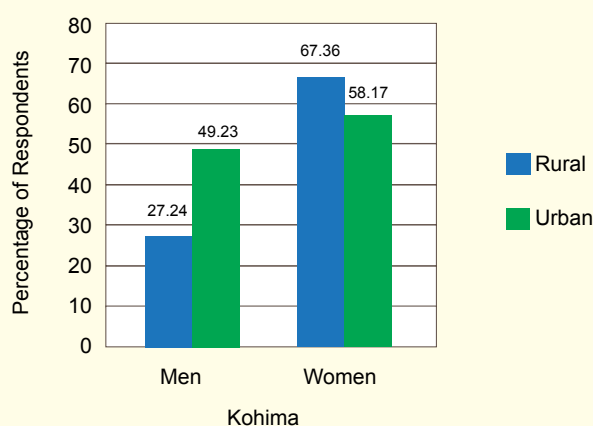


## 8.5 NATURAL RESOURCES

The role and responsibilities, access to and control over natural resources vary between men and women. Access to land resources for women is mostly through male relations. Women's control rights over land resources is dictated by the inheritance and customary laws. Figure 8.5 shows the proportion of respondents in support of equal rights for women in matters of acquired land or property.

*Figure 8.5. Property Rights for Women*

Percentage of respondents in favour of equal property rights for women



Source: DHDR Sample Survey 2009

Figure 8.5 indicates that only 27.24 percent of the rural male respondents and 49.23 percent of the urban male respondents were in favour of equal rights on acquired property for women. However, the percentage of female respondents from both the rural and urban areas who supported equal rights was much higher with 67.29 percent and 58.17 percent respectively. This may be on account of enforcement of traditional practices and inheritance laws at grass root level in Kohima district.

## 8.6 SOCIAL INEQUALITY

This section discusses gender issues in relation to unpaid work and formal employment, education, health and HIV and AIDS.

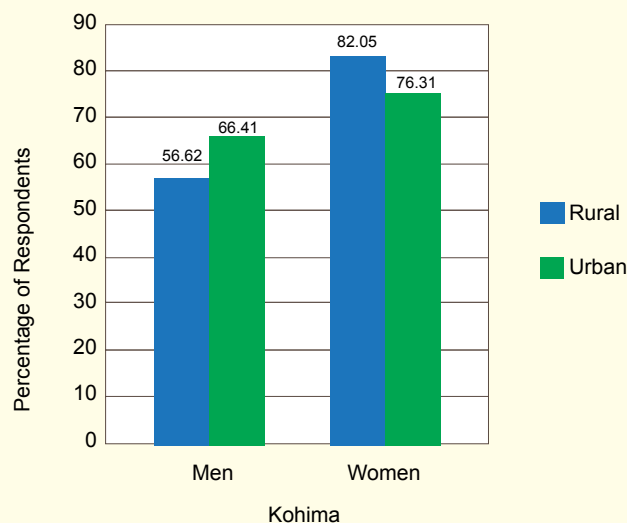
### (A) UNPAID WORK AND FORMAL EMPLOYMENT

The unpaid work of women are unaccounted, invisible and is not measured or included in the Gross Domestic Product. This adversely affects women with less decision making powers. It also causes wage gap and results in casual, informal jobs and low paid desk jobs. Women as compared to their male counterparts are marginalized. They have less free or leisure time. The survey result on sharing household reproductive work between men and women is presented in the figure 8.6.



**Figure 8.6. Sharing of Household Reproductive Works**

Percentage of respondents in favour of equal household reproductive works for men and women



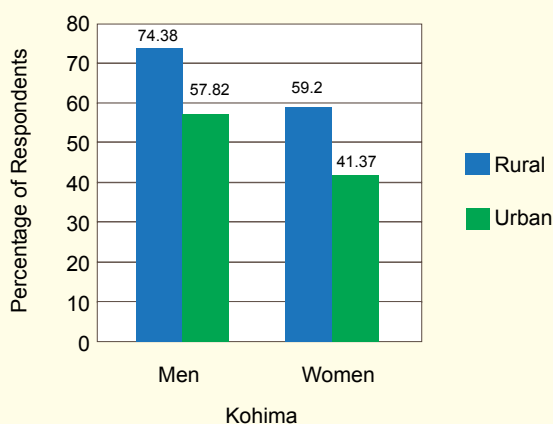
Source: DHDR Sample Survey 2009

The figure indicates that 56.62 percent of the male rural respondents and 66.41 percent of the male urban respondents support equal sharing of household reproductive work between men and women. The percentage of female respondents in support of this view was higher in both rural and urban areas with 82.05 percent and 76.31 percent respectively.

The Indian Constitution under Article 39(c) grants 'equal pay for equal work'. However, wage disparities still exist. This may be due to ignorance about the rights and entitlement or may be due to cultural and social factors. Respondents from the sample villages were asked whether they were in favour of the existing wage gap between men and women.

**Figure 8.7. Wage Disparity**

Percentage of respondents in favour of the existing wage gap between man and women



Source: DHDR Sample Survey 2009

The analysis of figure 8.7 shows that 74.38 percent of the male respondents from rural areas and 57.82 percent in urban areas are in support of existing wage disparity between men and women. While the percentage of female respondents in support of this practice was lower both in rural and urban areas with 59.20 percent and 41.37 percent respectively. Perhaps the women supporting the wage differentiation between male and female could be ignorant of the existing rules, privileges and entitlements.

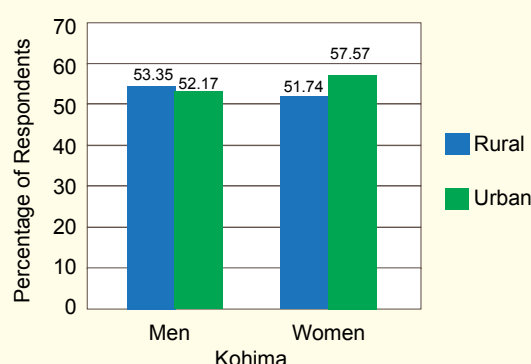
## (B) EDUCATION

While there is no discrimination between boys and girls in access to formal education in well to do households, in the economically weaker households, preference is given to the boy rather than the girl. The girl is expected to help in the farm and household works and contribute to livelihood activities. This is one of the causes for school drop-outs amongst girls.

The enrolment of students in schools in the state as shown in Table No.8.1 during 2000-2001 is 406509 and in 2007-2008 is 461204, an increase of above 5000. In Kohima district, there has been drastic increase in enrolment of students at primary and middle school levels during 2007-2008 and a fall in the enrolment in high school and higher secondary levels as compared to enrolment during 2000-2001. The reason for the fall in the number of students' enrolment could be due to economic or social factors. The findings of the survey on children getting quality education from Government schools is given in figure 8.8.

**Figure 8.8. Quality of Education in Government Schools**

Percentage of respondents satisfied with the quality of education in Government schools



Source: DHDR Sample Survey 2009

As provided in figure 8.8, 53.35 percent of the male respondents in the rural areas and 52.17 percent in urban areas of the district opined that Government schools offer quality education. The response of the female respondents for the respective areas was 51.74 percent and 57.57 percent. The author's field experience to one Government school is given in case study 8.2.

## Case Study 8.2. Education in Government Primary School in Kohima District

*The quality of education imparted in most Government schools can be inferred from the student teacher ratio. In one Government primary school in Kohima district in 2002, there were three teachers taking six classes from Classes A – IV at one time. Students were herded to a common classroom due to shortage of teachers, although the need of each student vary depending on age and class. Such practices jeopardizes and undermines the motivation to learn and the need to mould the potential of each student.*

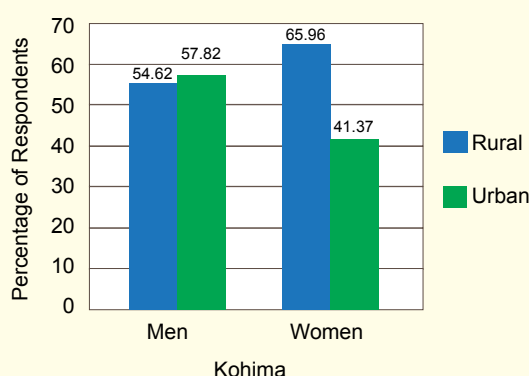
Source: NEPED's Field Work in Kohima District [2002]: C. Kikhi

If Government schools can provide cost effective and quality education, girls dropping out of schools could be minimized.

### (C) HEALTH

Respondents from the sample villages were asked if they were satisfied with the basic health services available in their areas. The survey result is given in figure 8.9.

Figure 8.9. Basic Health Services



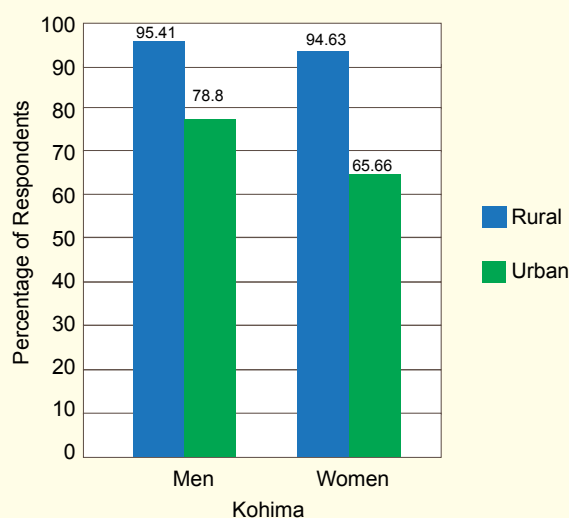
Source: DHDR Sample Survey 2009

As shown in figure 8.9, the percentage of male respondents in the rural areas of Kohima who were satisfied with the availability of basic services was 54.61 percent and in urban areas it was 57.82 percent. The corresponding figures for women respondents are 65.96 percent and 41.37 percent respectively. In general, this data reflects that less female respondents in urban areas of Kohima were satisfied with the available basic health care services. While more rural women were satisfied with the health care amenities.

HIV and AIDS is a global concern and an issue everywhere. Hence, awareness campaign on the mode of HIV transmission and its prevention is crucial for both genders. Figure 8.10 shows the awareness level of men and women on the mode of HIV and AIDS and STD transmission.



Figure 8.10. Awareness on HIV/AIDs and STD Transmission



Source: DHDR Sample Survey 2009

From figure 8.10, it is seen that 95.41 percent of rural male respondents in Kohima district are aware about the mode of HIV and AIDS and STD transmission. Awareness level of urban male respondents is lower than the rural respondents with 78.80 percent. While the awareness level of female respondents in both the rural and urban areas is slightly lower than the male respondents with 94.63 percent for the rural areas and 65.66 percent for the urban areas. The rural respondents, both men and women were better informed than their urban counterparts. Hence, HIV and AIDS sensitization programmes should be oriented to target urban areas.

## 8.7 CONCLUSION

Gender issues are global concerns as it is prevalent in every sphere. The biggest challenge in studying the gender issue for the Kohima DHDR has been the non existence of gender disaggregated data. The findings of the survey conducted by the Directorate of Economic and Statistics in 2009 with its own limitations has been the only source of reference data. Questionnaires are closed ended. However, an effort has been made to highlight gender inequality and discrimination within the parameters of political & legal rights, income, workplace, education, health and violence against women.

Gender discrimination and inequalities are summarized below:

- i. The level of one's participation in decision making is an indication of how much power one has. Respondents from Kohima both male (80.03 percent) and female (86.71 percent) feel that involvement of women

in decision making will lead to gender friendly policies and effective implementation.

- ii. The customary laws with only male custodians are discriminatory against women with regards to control over productive resources and social issues. Male respondents in Kohima for both rural and urban areas are of the opinion that customary laws do not discriminate against women. However, the partisan nature of customary laws becomes evident when the structured practices are disturbed for example, the obstacles to 33 percent reservation for women in Mokokchung Municipal elections in October 2008, or when the cordial relationships in a family breaks down e.g. divorce.
- iii. The Village Development Board (VDB) reserves 25 percent of its funds for women development programmes. Many women however are still ignorant of this provisions and therefore do not get its benefits. The main cause can be attributed to low level of literacy. The survey results in Kohima however indicated that participation of women in VDB was high.
- iv. The adverse effects of natural resource degradation is more on women. It increases work load and drudgery resulting in poor productivity. This leads to feminization of poverty. It affects women's health and reduces work efficiency. Soil fertility depletion leads to poor productivity which in turn leads to feminization of agriculture. And even if women's labour turns into productive assets, women still do not have a share in the assets due to inheritance laws. As against 67.36 percent rural women, 58.17 percent urban women aspire to own immoveable assets acquired after marriage. Awareness level and consciousness on environment degradation is high in both male and female respondents from Kohima.
- v. On sharing of reproductive work that consumes most of womens' time, rural women respondents with 82.05 percent and urban women respondents with 76.31 percent opined that reproductive work should be shared as against the views of 56.62 percent of the rural male respondents and 66.41 percent urban male respondents.
- vi. 74.38 percent of the male respondents in rural areas are still not in favour of the bridging the wage gap between men and women as against 59.2 percent female respondents. Urban women who support wage gap

between men and women is 41.37 percent as against 57.82 percent in rural areas.

- vii. Girls from poor households do not have equal access to education and training opportunities as against their male siblings. This lead to low female literacy levels and employment only in low paid jobs. If Government schools can provide cost effective quality education, girls dropping out of schools due to financial constraints could be minimized. Both male and female respondents in the sample villages in Kohima expressed satisfaction with the quality of education in the Government schools.
- viii. Health is gender neutral. However, pre-natal care, maternal and child care are specific health care needs of women. The survey results show that 65.96 percent of female respondents in rural areas are satisfied with basic health care facility available in their area as compared to 41.37 percent of the female respondents in urban areas. This indicates health care facility in urban areas are comparatively better than rural areas.

## 8.8 WAY FORWARD

- i. The first step to address gender inequality and discrimination is to have gender disaggregated data. Secondly, policy intervention should be gender sensitive and should address strategic gender needs and promote gender equality.
- ii. To facilitate gender equality in political decision making, implementation of 33 percent Women Reservation Bill in the local municipal bodies and State Legislative Assembly is necessary. Gender friendly legal or customary laws that promote justice, mutual trust and gender equality should be enacted and enforced. Sensitization on legal framework and customary laws for all categories of people will also help in developing the right perspective and approach to solve problems.
- iii. Gender and development approach with participatory planning to identify needs and priorities is necessary for economic development. The Village Development Board (VDB) must involve women in planning and implementation of programmes for realistic development at the grassroot level. Women based activities must be constantly encouraged and



updated with technical inputs and capacity building. Gender budgeting should be introduced in all schemes of financing to address strategic gender needs.

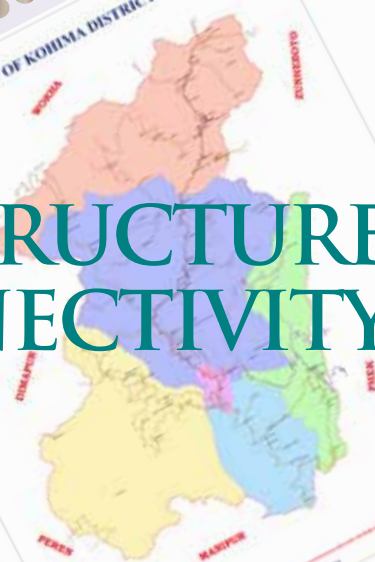
- iv. Both women and men should be involved in formulation of policies for natural resource conservation, preservation and in its management.
- v. Unpaid reproductive work should be shared between family members or labour should be hired for provision of assistance wherever feasible. Facilities such as day care centres or crèches should be set up to enable mothers to keep their children in the custody of safe hands and to enable them to attend to their work without having to worry for their children.
- vi. 'Minimum Wages Act' and 'equal pay for equal work' should be effectively implemented to bridge the wage gap.
- vii. Steps should be taken to improve the quality of education in Government schools and to reduce financial burden on parents on account of schooling. This will check school drop-out rate of girls. Merit scholarship for girl student should be instituted to enable merit students to pursue education without being a liability to the family.
- viii. The institution of the Village Health Committees should be capitalized through capacity building of its members specially on issues relating to nutritional care for mothers and children. This in turn will ensure proper implementation of programmes for women and children at the village level.
- ix. HIV and AIDS sensitization programmes should be designed for all sections of the society both in rural as well as urban areas. Gender disaggregated data on HIV and AIDS patients should also be generated.
- x. Steps should be taken to advocate sensitization programs to educate and empower women on the existing legal framework to protect and safeguard women from domestic violence.





# INFRASTRUCTURE AND CONNECTIVITY

ROAD MAP OF KOHIMA DISTRICT





## 9.1 INTRODUCTION

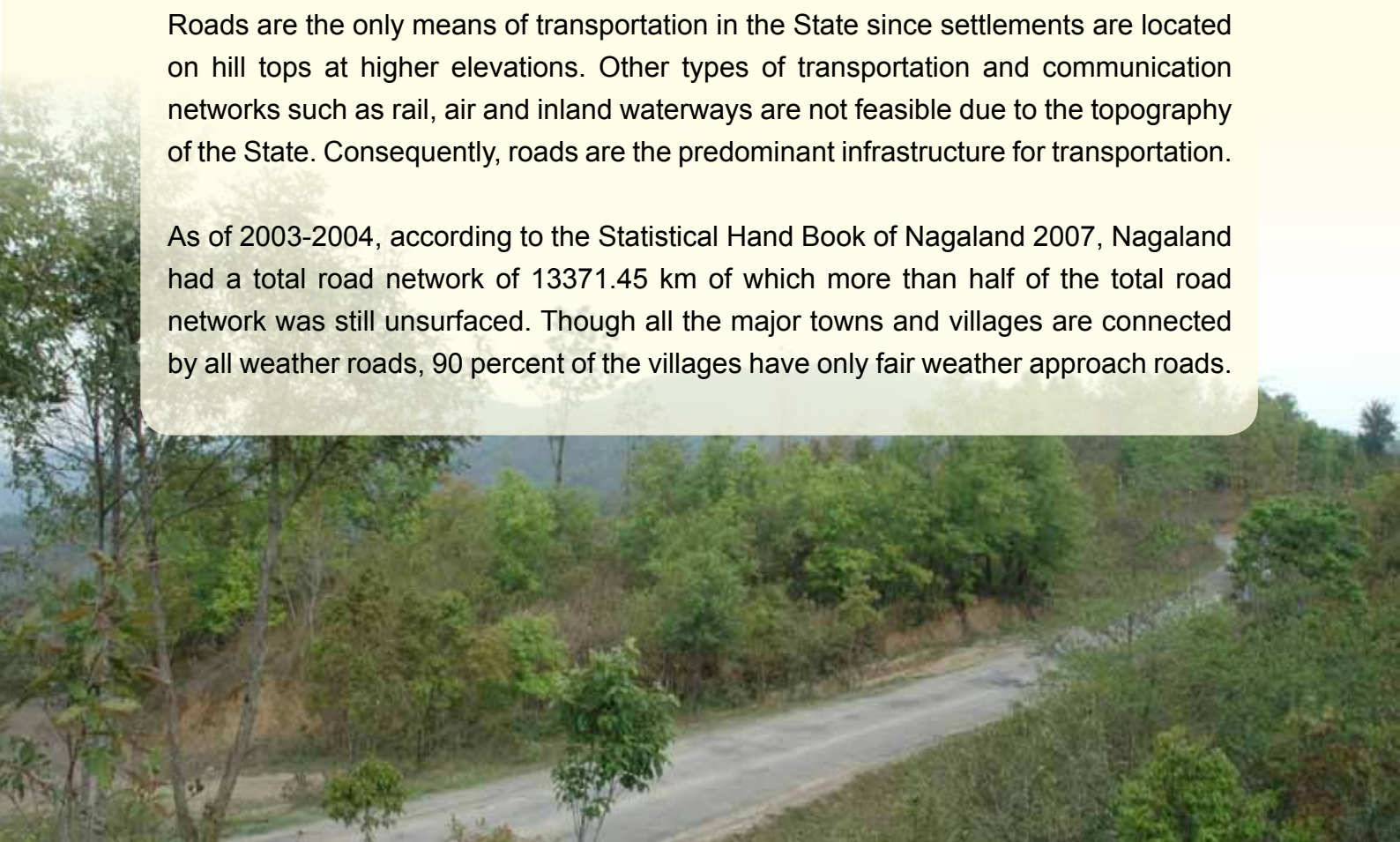
A nation's basic infrastructure is transportation, communication and other aspects such as power. Building and maintenance of roads, bridges, sewages and electrical systems provide millions of jobs nationwide. For developing countries, building its infrastructure is the first step towards economic development. Economic and physical development of rural areas depend on good transportation and communication facilities. Trade and commercial activities cannot grow unless there is good transportation and communication facilities.

Connectivity and infrastructure development is the cornerstone of development. However, in Nagaland infrastructure deficiency is a major concern. The State is predominantly rural with 75 percent of its population living in the rural areas. It is an agricultural driven economy. The State does not have any major industry. Majority of its urban population is dependent on the Government for employment and livelihood. Due to the reciprocal relationship between industrial development and infrastructure building, the latter assume an even greater significance in the context of Nagaland. Only by building a strong infrastructure can the State's economy shift from an agricultural economy to that of an industrial one. Additionally, percolation of developmental policies to all areas of the State is possible only when the State's infrastructure is robust.

### 9.1.1 ROAD INFRASTRUCTURE

Roads are the only means of transportation in the State since settlements are located on hill tops at higher elevations. Other types of transportation and communication networks such as rail, air and inland waterways are not feasible due to the topography of the State. Consequently, roads are the predominant infrastructure for transportation.

As of 2003-2004, according to the Statistical Hand Book of Nagaland 2007, Nagaland had a total road network of 13371.45 km of which more than half of the total road network was still unsurfaced. Though all the major towns and villages are connected by all weather roads, 90 percent of the villages have only fair weather approach roads.



### 9.1.2 TELECOMMUNICATIONS

Because of the difficult terrain of the State, development of telecommunication and Information Technology (IT) connectivity is crucial. Telecommunication services in several districts are still inadequate. About 85 percent of the total telephone connections in the State is concentrated in Kohima, Dimapur and Mokokchung districts alone. Of late, mobile phone service providers have made significant progress in the provision of communication and network services both in urban and rural areas. However, while telecom and mobile services are adequately available in urban areas, in rural areas there is still a huge gap with almost 50 percent of the households having no access to telephone facilities and 90 percent of households lacking access to public amenities.

### 9.1.3 INFORMATION TECHNOLOGY CONNECTIVITY

Development of Information Technology (IT) within the State is still in its nascent stage. The National Informatics Centre (NIC) has set up centres in all district headquarters of the State. Internet connectivity through V-Sat at the block level is being provided by Ministry of Information and Technology (MIT) through 'Community Information Centres' (CICs) in all 52 Rural Development Blocks of the State. Integrating these CICs into the proposed 220 Community Service Centres (CSCs) within the State is underway through the Nagaland Electronic Government Programme (NeGP) of the MIT. However, though awareness about IT and internet usage is increasing, it is largely confined to Kohima and Dimapur. Usage of CIC or Cyber cafes is practically non-existent in rural areas.

Development of IT connectivity would enable all sections of the society to be equipped with informative knowledge such as progress of monsoon, weather, prices, market trends, profitable outlets, new agricultural technology etc. It would provide a level playing field. Access to such a knowledge bank would enable the farmers to plan ahead and take better decisions for farming and other activities.

### 9.1.4 POWER INFRASTRUCTURE

Nagaland continues to face acute power shortage since it is deficient in power generation. It is almost wholly dependent on the central sector power allocation. About 82 percent of the total power requirement is from central power stations while 18 percent is from internal generation. During the lean season, the State faces acute power shortage since power generation is only from hydel sources, with availability of only 40-50 percent mega watts as compared to 80 percent availability during monsoon.

The seasonal variation along with high transmission and distribution losses, transformer failures and low voltage has a significant impact on the quality of power supply in the State.

There is a need to assess the existing infrastructure across the districts to ensure resource allocation as per the actual needs, with focus on transport, power and tele communication sectors. The District Human Development Report is envisaged to come up with parameters on which villages and blocks in a district will be ranked based on the Infrastructure Index (II). This will further be subdivided into components like Road Infrastructure Index (RDI), Electricity Index (EI) etc. Accordingly the ranking in the Infrastructure Index can be taken into account for according priority in the planning process and for resource allocation.

Along with flow of substantial funds for development, a set of policies aimed at equalizing the provision of infrastructure and services across the districts is important. This is a significant issue because if a balance is not struck in development of districts it could lead to alienation of a section of people or area.

## 9.2 INFRASTRUCTURE PROFILE: KOHIMA

Kohima district is strategically located in the southern part of the State and is an important route for traffic and transportation, trade and supplies to the State and Manipur State as well. The rate of urbanization in Kohima district is high with 22.47 percent of total urban population of the State living in Kohima. There are no significant industrial activities in this region. In addition to lack of financial resources, paucity of technical know how, lack of marketing facilities, inadequate communication and transportation facilities are factors standing in the way of industrialization of the district.

### 9.2.1 TRANSPORT AND CONNECTIVITY

A well developed transport and communication system plays a vital role in ensuring sustained economic growth. The road length and density per unit area for Kohima district is given in Table No. 9.1 and 9.2. 17.7 percent of the total road length of the State is in Kohima district alone with a total of 2367.5 km as of 2003-2004. More than 65 percent of the roads in the district are surfaced as compared to the State average of 46.4 percent. Table No. 9.2 also reveals that density of surfaced roads per hundred square kilometers in Kohima district is much higher than the State average for surfaced



roads. This indicates that the district is better off than other districts of the State with respect to road network and condition of roads.

Communication as well as road condition is vital for economic development of rural villages. Inhabitants of villages which are approachable by either metalled or non metalled roads can easily communicate with urban areas of the district and vice versa. Out of 180 villages, 115 villages i.e. 63.9 percent of the total rural areas in the district are approachable by metalled road<sup>29</sup>. Many of the non metalled roads in the villages are not all weather roads and are therefore not motorable during rainy season.

In view of the rapid urbanization in recent years, 'the corresponding growth of population and spurt in economic activities has resulted in ever increasing demand for urban transport, causing excessive pressure on the existing transport infrastructure in bigger towns like Kohima and Dimapur'<sup>30</sup>. With better road infrastructure in the district, there has been a steep increase in the number of vehicles on the roads in recent years. This is indicated by the number of vehicles registered in the district as compared to the total registration in the State during 2005-2007. Maximum registration of vehicles was in Kohima district with 27.3 percent. (Table No. 9.3)

With the increase in activities associated with urbanization and the corresponding increase of vehicular traffic, the existing road infrastructure in the major urban centres has become inadequate particularly in the capital town, Kohima. Kohima town is 'facing acute traffic management problems leading to air pollution, congestion and resultant loss of productivity'<sup>31</sup>.

*A view of NST Bus Terminus, Kohima*

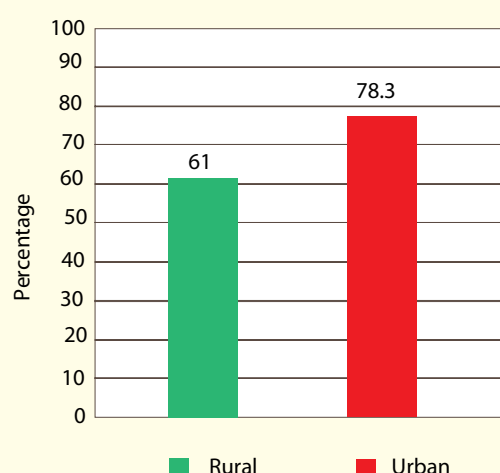


<sup>29</sup> Census of India 2001

<sup>30</sup> Annual Administrative Report, 2007-2008, Department of Urban Development, Government of Nagaland

<sup>31</sup> Ibid

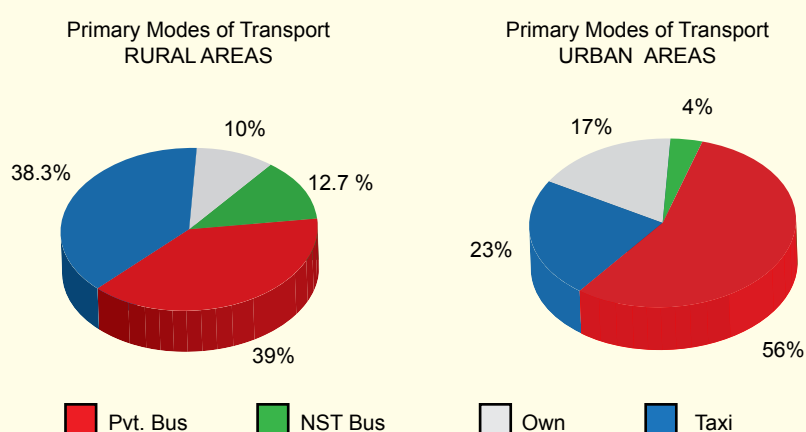
Figure 9.1. Percentage of People Expressing the Need for Additional Roads



Source: DHDR Sample Survey 2009

Figure 9.1 indicates that while the road network and public transport amenities in the district are better developed, the total road length per 100 sq. km is lower than the State average. This corroborates the results of the DHDR sample survey shown in figure 9.1 where majority of the respondents expressed the need for more road linkages. More than 78 percent of the respondents from urban areas and 61 percent of the respondents in rural areas of the district indicated the need for more road. With the gradient of the soil of Kohima unsuitable for flyovers, the solution for easing the vehicular congestion in Kohima town would be construction of new road networks, better traffic management and improvement of the public transportation system.

Figure 9.2. Primary Modes of Transportation

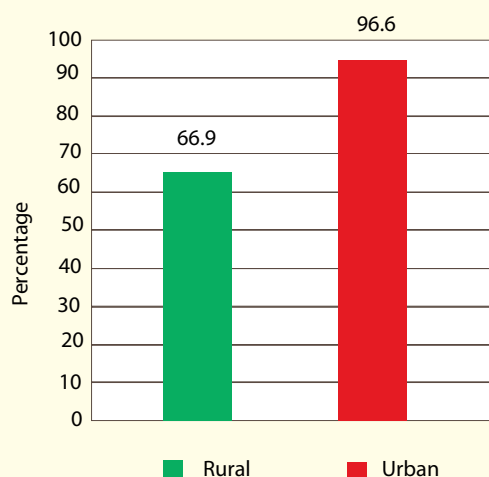


Source: DHDR Sample Survey 2009

As per the DHDR sample survey results depicted in figure 9.2 the primary modes of transportation in the district were public transportation services such as Government's Nagaland State Transport (NST) and private buses which were adequately and

easily available, supplemented by taxis. In urban areas, private bus services were well organized, constituting 56 percent of the public transport sector. A high level of satisfaction with respect to adequacy of local transportation services was indicated by respondents as per the survey results.

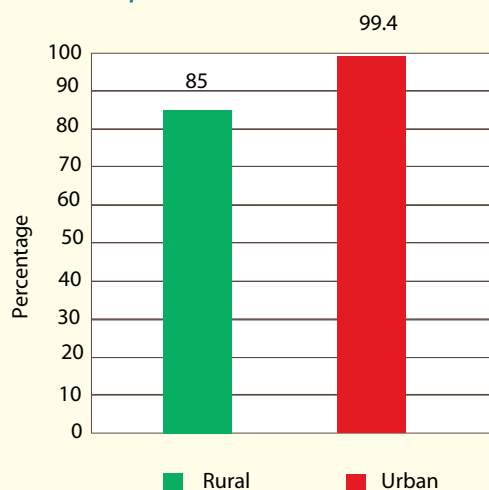
*Figure 9.3 Adequacy of Transportation Facilities*



Source: DHDR Sample Survey 2009

According to the Census of India 2001, about 54 percent of the total villages in the rural areas of the district have bus service amenities. The DHDR sample survey conducted in the selected villages indicates that NST and private bus services constitute 51.7 percent of the mass transportation services. The majority of respondents were also satisfied with the availability of public transportation services. Expenditure on commuting is higher in rural areas since taxis constitute 38.3 percent of public transportation services. In urban areas, almost 100 percent of the respondent households spend more than Rs. 20 daily for commuting.

*Figure 9.4 Expenditure on Transportation*



Source: DHDR Sample Survey 2009



## 9.2.2 POWER

Power is a key input for economic development in the State. However, the district lacks the capability for power generation and most of its requirements are met from power transmission from other parts of the State and the adjoining states<sup>32</sup>. It faces serious power failures since there is only one 132 KV Dimapur-Kohima line constructed in the late 1970s, which is now very old and which also passes through landslide prone areas<sup>33</sup>.

According to Census of India 1991<sup>34</sup>, 100 percent village electrification has been achieved in the State. However, as per Census of India 2001 out of 180 villages in the district, power supply facility is available only in 148 villages i.e., 82.2 percent of the total number of villages in the district. This indicates that almost 18 percent of the villages are yet to be electrified. According to the published reports in 1999-2000, there were a total 20,241 consumers of electric power in the district, consuming 21.97 Metering Unit (MU). Out of this, about 86 percent i.e. 17,447 consumers are domestic users and the electricity consumed is in order of 14.02 MU. There are 2,547 consumers in the commercial sector with a total consumption of 1.66 MU. In the industrial sector there are 179 consumers and 43 consumers in the public lighting sector<sup>35</sup>.

Revenue collection from electrical sector in the rural areas of the district as in other parts of the State has long been hampered by poor billing and non payment. With the objective of improving the delivery of services through decentralization and delegation of control over assets and services, the power sector was communitised in 2002. Village and Urban Electricity Management Boards (VEMBs) with users as members were constituted to monitor supply of electricity in the respective localities and also to monitor billing and collection of payments. Electric supply to the village or ward was metered at source through a Single Point Metering (SPM). There was definite improvement in the continuity of power supply resulting in willingness of the consumers to pay. Revenue collections improved dramatically in all divisions wherever communitisation was introduced.

Out of total number of 552 SPM villages in the State, there are 75 SPM villages in Kohima district. An analysis of data given in Table No.9.4, indicates that revenue collection improved significantly in the Single Point Metering villages as against the negligible amount prior to installation of the Single Point Metering system.

<sup>32</sup> Annual Administrative Report, 2007-2008, Department of Urban Development Annual Administrative

<sup>33</sup> Report 2007-2008, Department of Power

<sup>34</sup> Ibid

**Box No. 9.1****Features of Communitisation of Power Sector:**

- Village Electricity Management Boards (VEMB) are constituted in each participating village for taking up the billing and collection tasks.
- A single source meter is provided for each village and a single electricity bill is served to the village concerned.
- The VEMBs deduct 20 percent from the total collection and deposit the balance to the Power Department as Government revenue.
- The VEMBs can utilize the 20 percent incentive for various community development programmes and employment generation programmes.

*‘Communitisation’ Programme is now emerging as a key mechanism for arresting the burgeoning losses of revenue in the power sector. The main factor for its success in rural areas is better receptivity due to the cohesive, binding and homogenous social composition of the Naga tribal villages. It has effectively controlled losses caused by theft and pilferage, collectively with people’s active participation in the management of revenue. Since inception of the programme, a total of 552 villages (out of 1278 census villages) and 18 urban areas in the State have already been communitised, resulting in marked improvement in revenue collection (by 70 percent) as compared to negligible collection before ‘communitisation’ and reduction of losses.*

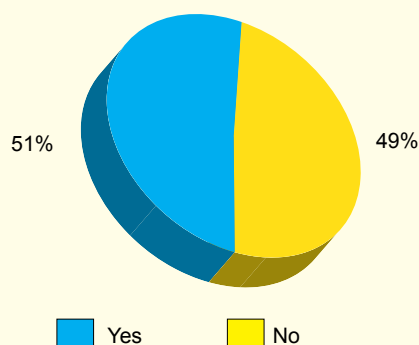
*Wider coverage of SPM in urban areas is constrained at present due to the requirement for huge investments and re-orientation of distribution networks.*

*Source: Department of Power*

The results of the DHDR sample survey given in figure 9.5 show that 51 percent of respondents are satisfied with the management and regularity of power supply after introduction of the communitisation process. This may indicate satisfaction due to better management of billing or may be due to availability and continuity in power supply in the district. Analysis of billing and revenue rates before and post-communitisation is given in Table No.9.5. It reveals a favourable trend for both the Government as well as for the VEMBs. The percentage increase in monthly billing post-communitisation is maximum in Kohima district at 122 percent. Increase in the billing reflects recovery from losses caused by theft and pilferage earlier.

*Figure 9.5 Management and Regularity of Power Supply Post Communitisation*

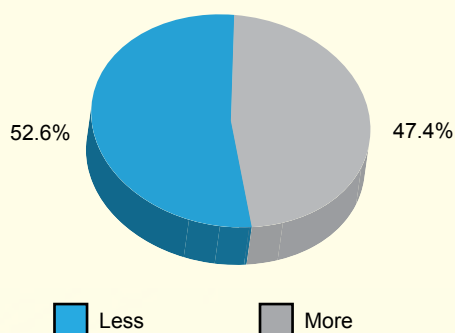
Whether satisfied with management/ regularity of power



Source: DHDR Sample Survey 2009

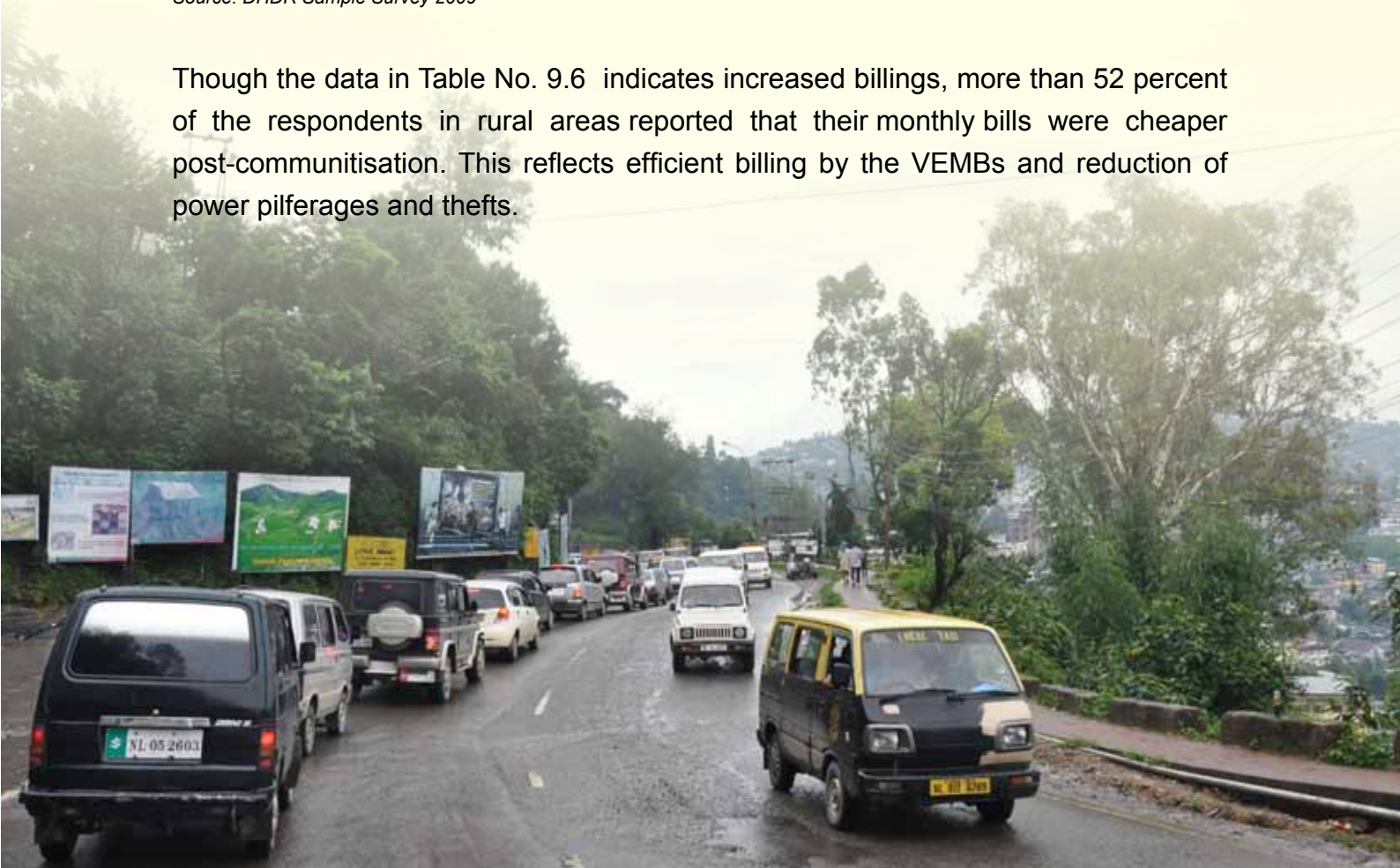
*Figure 9.6. Expenditure on Power Post Communitisation*

Expenditure on power after communitisation



Source: DHDR Sample Survey 2009

Though the data in Table No. 9.6 indicates increased billings, more than 52 percent of the respondents in rural areas reported that their monthly bills were cheaper post-communitisation. This reflects efficient billing by the VEMBs and reduction of power pilferages and thefts.



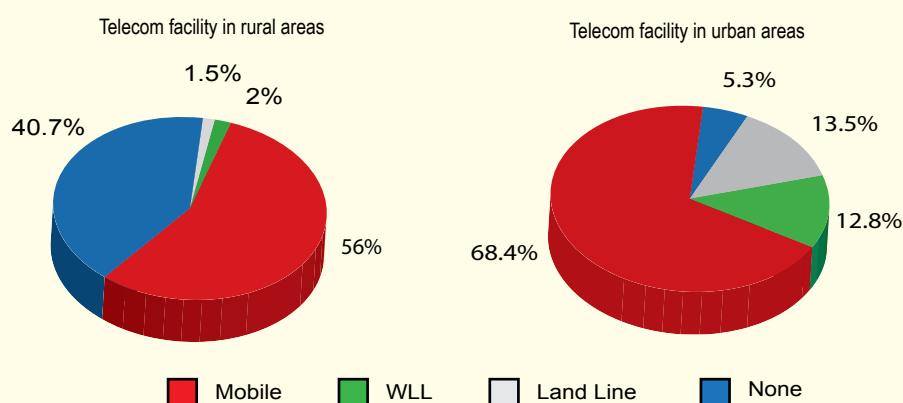


## 9.2.4 TELECOM AND CONNECTIVITY

In the age of globalization, development cannot be realized without quality information technology infrastructure. Today all economic and administrative activities depend on desktop computing, the computer network infrastructure and strategic administrative systems.

The total number of telephone connections in the district during 1988-1989 was only 2414. Since then, there has been a steep increase with the district having 29 percent of the total telephone connections in the State. However, the major chunk of the connections are in the urban areas. In rural areas, telephone facility was available in only 36 villages, 20 percent of the total number of village in the district as per 2001 Census. (Table No. 9.7)

*Figure 9.7. Availability of Telecommunication Facilities*

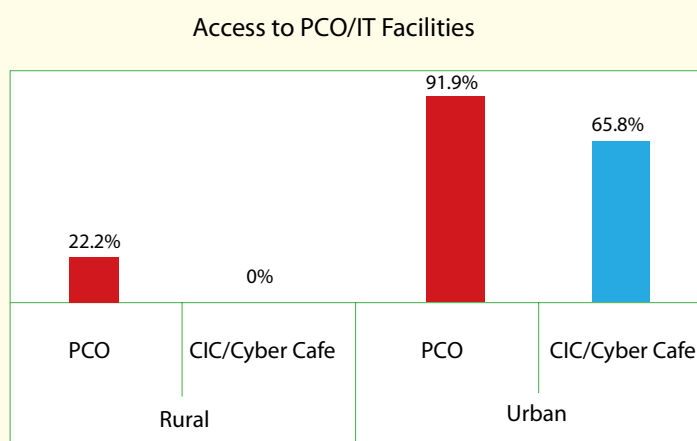


Source: DHDR Sample Survey 2009

The results of the DHDR sample survey in figure 9.7 reveals that landline and Wireless in Local Loop (WLL) telephone facilities constitute only about one fourth of the telecommunication facilities in the district. Majority of the people use mobile phone services which are well established with good network services. In rural areas, usage of landline and WLL telephones is negligible probably due to poor service. Majority of the households use mobile phones.

Figure 9.8 indicate the availability of telephone and internet facilities. There is a stark contrast between the availability of services in the urban areas as compared to the shortage in rural areas. Ninety five percent of the respondents in urban areas have access to various amenities such as mobile, landline and WLL phones. Public amenities such as PCOs and CIC or Cyber cafes are also adequately available.

Figure 9.8. Access to PCO/IT Facilities



Source: DHDR Sample Survey 2009

In rural areas, 40 percent of households do not have any telecommunication facilities. Even public amenities like PCOs are not adequately available with only 22.2 percent of the households in rural areas having access to PCOs within walking distance. CICs or cyber cafes are practically non-existent in rural areas.

## 9.3 CONCLUSION

There is a need for strengthening infrastructure, improvement of road networks and power infrastructure to maximize self-governance and to induce the growth of all-round development. Experts believe that all-round economic development will assuage the feelings of neglect and alienation in the districts and also curb insurgency in the region.

The State Government must realize that development of adequate infrastructure and connectivity would possibly be the two most important challenges to achieve an accelerated growth as envisaged in the State Human Development Report 2004. The State should therefore put considerable stress on improving the current stock of infrastructure and connectivity. Development of infrastructure and connectivity would significantly contribute to creation of core industries and creation of employment avenues.

The State needs to identify and commercialize infrastructure projects through private public partnership (PPP). A comprehensive study aimed at building an infrastructure development action plan covering power, transportation and information technology is required.

The total requirement of funds to meet the infrastructure development targets for the next 10 years needs to be worked out. The State must also realize that it would not be possible to fund such massive requirements on its own. It must therefore look at alternative source of funding and prioritize investments. This prioritization should be need driven, should be based on the potentials and impact of the project on the economy and its financial viability. All projects that are commercially viable should be developed through private sector investment.

Given the vast disparities within the region, a development strategy needs to be evolved taking into account the resources available, needs and priorities. Further, the development strategy should be inclusive and participatory customized to local requirements.

## 9.4 WAY FORWARD

In order to meet the targets set and to address the various issues of the infrastructure sector the State has to set targets.

- i. Build upon the strengths in the power sector to make it more advantageous while simultaneously exploring possibilities for production of non conventional forms of energy.
- ii. Encourage setting up of power plants by private sector firms by leasing out coal mines. Other than income generated on account of wheeling charges, the State would benefit from increased employment.
- iii. Encourage private power sector firms to set up power projects in the State to meet the requirements of power, which will increase by at least two to three fold within the next five years.
- iv. Reduce transmission and distribution losses.



- v. All projects that are commercially viable should be developed through private sector involvement. Marginally viable and unviable projects should be undertaken in the joint sector.
- vi. Considerable stress should be laid on improving the road network in the State especially with respect to the State highways and connectivity of the underdeveloped districts with industrial centres and the State capital Kohima.
- vii. Ensure all National and State highways are 4 and 2 laned respectively.
- viii. Ensure connectivity of all villages in the State by all weather roads.
- ix. Develop specialized infrastructure such as warehousing and cold storage facilities, export processing zones.
- x. Work closely with the Central Government to ensure strengthening of the rail, telecom and airport infrastructure in the State.
- xi. Develop Chiethu airport at Kohima as an international airport.
- xii. Link all the Blocks in the State through a high speed data network.
- xiii. Ensure all Blocks are made accessible with 24 X 7 IT facilities.





*Indira Gandhi Stadium 2005*



*Indira Gandhi Stadium 2010*







# SECTION 5

*Chapter 10* FORESTS AND NATURAL RESOURCES





# ENVIRONMENTAL CONCERN

*In recent years, issues like global warming and climate change have added a new dimension to human development. Are the economic gains to society accruing at the cost of non-renewable natural resources? Are we developing at the cost of our future generations? In this section we look at the issues of forests and natural resources of Kohima.*









## SECTION 5

### CHAPTER - 10

# FORESTS AND NATURAL RESOURCES

FOREST MAP OF KOHIMA DISTRICT





## 10.1 INTRODUCTION

Nagaland is a land of lush green forests, rolling mountains, enchanting valleys, swift flowing streams and beautiful landscapes. The altitude of the State varies from 200 meters in the plains to 3800 meters in the hills.

It is one of the 25 hotspots of the world known for its biological diversity. People of the State practice shifting cultivation and are intricately associated with the forests for their livelihood and survival.

Forests in Nagaland are endowed with rich fauna and flora. The National Forest Policy 1988 emphasizes environmental stability and maintenance of ecological balance. Many forest types are found in the State:

**Northern Tropical Wet Evergreen Forests** which once covered the **Namsa-Tizit** area but now only a small vestige is found in **Zankam** area in Mon district.

**Northern Tropical Semi Evergreen Forests** are found in the foothills of Assam-Nagaland border in Mokokchung, Wokha and Kohima districts.

**Northern Sub-Tropical Broad Leafed Wet Hill Forests** are found in the hill areas below 1800m and above 500m in all the districts of Nagaland.

**Northern Sub-Tropical Pine Forests** are found in the hills with elevation of 1000m to 1500m in parts of Phek and Tuensang districts.

**Northern Montane Wet Temperate Forests** are found in the higher reaches of the tallest mountains (above 2500m) Saramati and Dzūkou area.

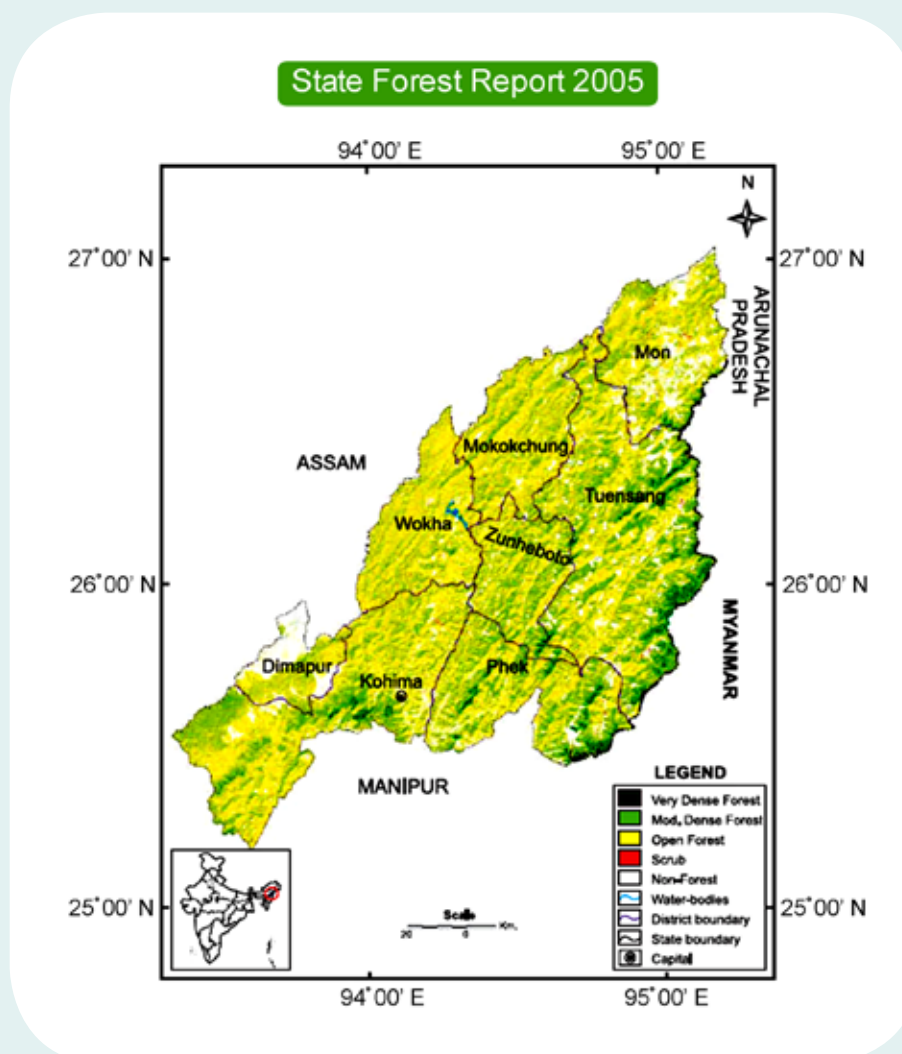
**Alpine Forests** are found at the high altitude in the ridges of the Saramati range which remains covered with snow for the major part of the year from October to April.

In Nagaland 83.3 percent of the forests are owned by villagers with the Government having no control over the felling of trees in these areas, although it is aware of the consequences of uncontrolled tree felling and shifting cultivation which lead to serious ecological problems.

## 10.2 FORESTS OF KOHIMA DISTRICT

In Kohima, out of the total geographical area of 3283 sq. km, only 29 sq.km is covered under very dense forests, 1051 sq. km under moderate dense forests and 1765 sq. km under open forests. The total area under forests is 2845 km, which is 86.66 percent of the total geographical area. (FSI Report 2005).

Figure 10.1



Source:- Department of Forests, Government of Nagaland



## Herbal Garden

*Situated at Aradhura, Kohima, the State Silviculture Division is transforming the Botanical Garden to a more complex Herbal Garden in order to facilitate ex-situ and in-situ conservation for propagating rare endemic threatened plants of the region and to act as a Center of Excellence for research, training and to cater to conservation needs of endangered species.*

*It aims to create public awareness on the conservation priority through education on the plants diversity especially the medicinal herbs. The Herbal Garden has plant species varying from trees, shrubs, herbs, grass and orchids etc.*

*- Department of Forest, Ecology, Environment & Wildlife Annual Administrative Report 2009-2010*







## 10.3 IMPORTANT BIRD AREAS

There are two important bird areas in Kohima namely; IN-NL-04 of Khonoma Nature Conservation and Tragopan Sanctuary and IN-NL-08 Puliebadze Wildlife Sanctuary (M.Zafar Islam and Asad R. Rahmani, 2004). Some of the vulnerable threatened and endangered bird species found in these sites are Blythe's Tragopan, Dark-rumped swift. Some vulnerable and endemic bird species that were found in these sites are:

### IN-NL-03 OF KHONOMA NATURE CONSERVATION AND TRAGOPAN SANCTUARY

#### *Vulnerable*

- i. Blythe's Tragopan
- ii. Dark-rumped Swift

#### *Endemic Bird Area*

- i. Blythe's Tragopan
- ii. Dark-rumped Swift
- iii. Grey Sibia
- iv. White-naped Yuhina

### IN-NL-08 PULIEBADZE WILDLIFE SANCTUARY

#### *Vulnerable*

- i. Blythe's Tragopan
- ii. *Mrs. Hume's Pheasant*

#### *Endemic Bird Area*

- i. Blythe's Tragopan
- ii. Grey Sibia
- iii. Beautiful Sibia
- iv. White-naped Yuhina

### 10.3.1 WILDLIFE

Other wildlife including tigers is still known to be roaming in these forests as reported by the villagers. Since no study has been undertaken, one has to take the word of the villagers to be true. According to them, there are several leopards and tigers roaming in these forest. Some of the prominent mammals among others are, monkey, deer, stag, bear, wild buffalo, wild mithun, jungle cat and porcupines.

### 10.3.2 SURVEY OF WILDLIFE KILLED IN 2008

In order to estimate the number of wild animals killed during 2008, a simple survey was carried out in 66 villages across Nagaland by NEPED. The intention was to use the findings for creating awareness amongst the village community on biodiversity conservation.

### 10.3.3 METHODOLOGY

A simple questionnaire was developed. The information sought was:

- i. How many habitual hunters are there in the village?
- ii. How many wild animals were killed by each habitual hunter from January to December, month wise?
- iii. Categorization of wildlife killed into number of jungle cat, large animals, small animals, large birds and small birds.

The questionnaires were given to NEPED field staff and also reliable persons residing in the village to solicit information from the habitual hunters. It was anticipated that real figures of the games would be withheld by the hunters if strangers were to interview them.

*Blythe's Tragopan*





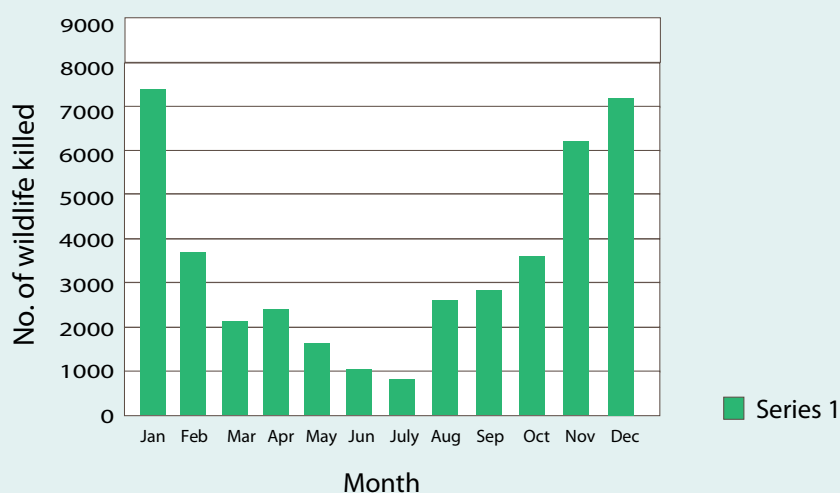
### 10.3.4 RESULTS AND DISCUSSION

The interviewers reported that it took a lot of persuasion to solicit information from the hunters. Information was divulged with assurance of confidentiality. This need for confidentiality is a departure from the tradition of displaying the cranium of wildlife killed as trophy. Perhaps the awareness on conservation and biodiversity carried out by various forums is bearing fruits.

Traditionally it was presumed that the meat of wild animals was a protein supplement and was required for a wholesome diet of the family. While this may be true elsewhere, in Kohima district only 77 i.e. 4 percent of the 1918 sample households are involved in hunting. Perhaps the reason for hunting was not solely for meat purpose but also for other reasons as well. It may be assumed that 4 percent of the households are responsible for the rapid decline of wildlife population. The survey revealed that the 77 hunters killed 41083 wild animals, which would mean that each hunter on an average killed 530 animals and birds in a year. The fact that a hunter could kill this much showed that the forests are still alive with wildlife.

**Figure 10.2**

Wildlife Killed during 2008 in 4 Sample Villages of Kohima District



Source: NEPED

Figure 10.2 indicates that highest killing of wildlife took place in the months of January and December followed by November. The least number of killings took place in June and July. The reason could be that during these months even the habitual hunters are engaged in their terrace rice cultivation. It may be highlighted that if killing of wildlife is to be reduced, the attention of habitual hunters should be drawn to other activities in the months of January, December and November. This would reduce their hunting time and would ultimately result in conservation of wildlife. (Table No. 10.3)

### 10.3.5 TRADITIONAL ECOLOGICAL KNOWLEDGE

The livelihood of the people living in the villages is dependent on natural resources and traditional knowledge. They depend on the rich biodiversity for survival, for food supplement, for medicine, for dye, for house construction, for fodder including pig feed, for aesthetic purposes and also for other ecosystem services. In the past, they maintained and ensured retention of their traditional knowledge by passing it from one generation to another, but with easy accessibility to modern amenities dependence on the traditional knowledge (TK) has decreased.

In order to preserve and induce trans-generational transfer of TK, it is important to document the knowledge of the elderly persons of the village who are also the holders of traditional ecological knowledge (TEK). Towards this objective, attempt was made to document the knowledge of utility of plants in 5 villages of Kohima district by NEPED project. (Table No. 10.4)

### 10.3.6 METHODOLOGY

It was assumed that standard terminologies that would be preferred for systematic documentation would confound the respondents. Therefore, simple terms like large trees, small trees, herbs, wild fruit, vegetable and so on were used. Interviewers, who were NEPED staff were trained in a workshop conducted for the purpose. First, a free listing of names of plants that the respondents were able to recollect from memory was made. After the free listing was done, the interviewer sat with the key informants and noted the information that was required for documentation. Then a trek/hike with the knowledgeable persons of the forests and jhum fallows was undertaken.

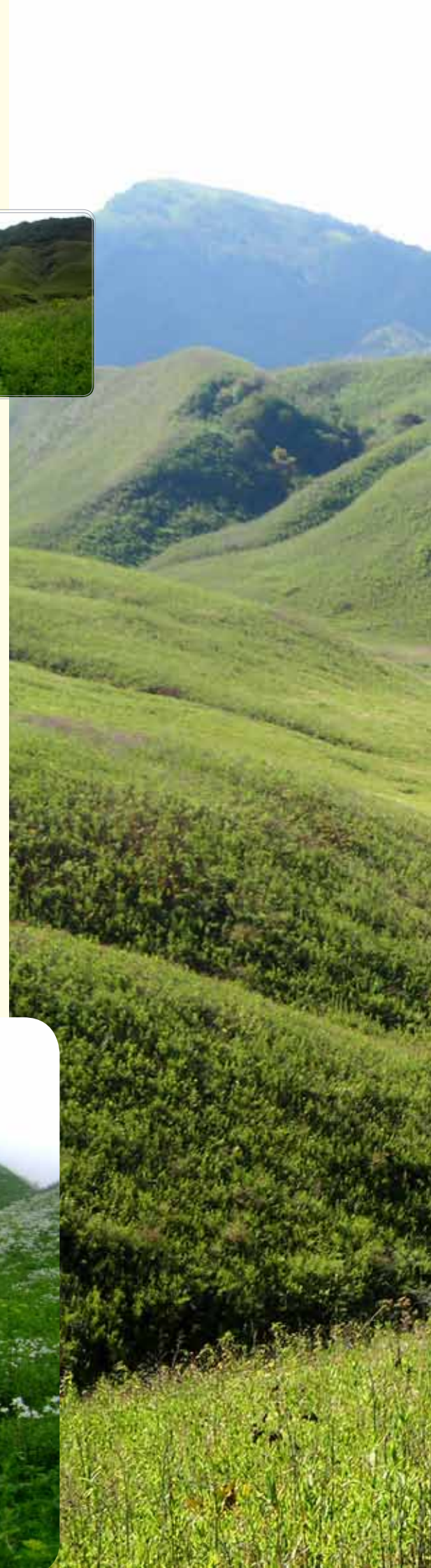
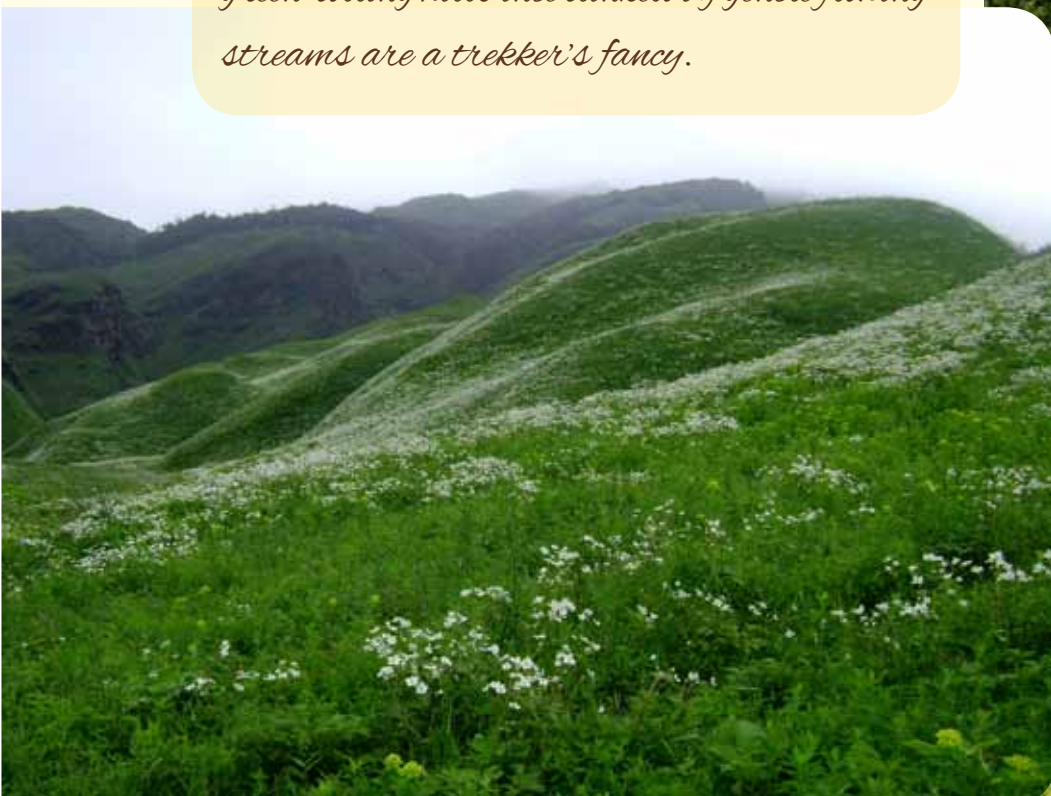
### 10.3.7 RESULT AND DISCUSSION

A huge repository of knowledge of plants existed in the villages which was dying due to lack of attention from the younger generation because of their dependence on modern amenities. Involvement of the youth in the documentation processes evoked their curiosity about the knowledge that existed in their village. Almost all the names of plants had a meaning attached by which one could guess the use of the plant or its historical origin.



## *Dzüikou Valley*

*Dzüikou Valley is tucked away behind Tapfü Range, 30 kms away from Kohima. It is 2438 metres above sea level, splendiferous in its beauty. This valley otherwise called the valley of celestial charm has a tempting appeal to all who have set eyes on it. It is rich in flora and fauna. Lilies in white and pink, euphorbias, aconitums, rhododendrons and hundreds of other botanical species in varied colours adorn the valley in monsoon. The valley is surrounded by hills, natural caves and rocks and is ideal for camping. Its emerald green rolling hills interlinked by gentle flowing streams are a trekker's fancy.*









### 10.3.8 BIODIVERSITY CONSERVATION EFFORTS OF THE COMMUNITY

The process of community conservation action by and large has been initiated by the Village Councils (VCs) by adoption of resolutions with great conservation value. Under the village regulations violators are penalized financially. The approach to the conservation of resources vary between villages. The community conserved areas range from completely inviolate zones to multiple use zones. Resolutions of the VCs include

- i. Ban on hunting during the breeding season.
- ii. Ban on fishing with explosives.
- iii. Ban on indiscriminate burning of forests.
- iv. Ban or restrictions in the collection of timber and Non Timber Forest Products.
- v. Formation of sanctuaries like the Khonoma Nature Conservation and Tragopan Sanctuary about 70 sq. km in extent 120 sq. km along with the buffer around it where some level of use is allowed.
- vi. Setting aside a catchment area for conservation of a flagship species as was done in Sendenyu Wildlife Community Reserve.
- vii. Common community reserve as in the case of PKR range community reserve where several cluster villages come together.

The efficacy of realizing the objectives of self imposed restrictions also vary between villages. The land ownership under self created wildlife and forest reserves include;

- i. Individually owned jhum land bought from the individuals by the VC.
- ii. Community owned jhum land, where individual members of the community donate one jhum cycle for wildlife preservation.
- iii. Conversion of clan owned forests as buffer and village owned forests as core wildlife preserve, and
- iv. Declaration of forests with disputed claims between more than one village as no-use zones.

The productivity of forests has to be increased to meet essential needs like fuel wood, fodder, minor forest produces and small timber for rural and tribal populations. Scientific management of the forests by preparing and implementing quality work plans is required to improve modern management practices for prevention of incidence of forest fires. This implies the need for cooperation of the local communities living within or on the periphery of these forests to deal with any such exigency and for protecting the overall ecological balance of the rich forest and environmental resources.

## 10.4 CONCLUSION AND RECOMMENDATIONS

### (I) SYSTEMATIC DESCRIPTION OF FORESTS OF NAGALAND

A systematic description of the forests of Nagaland has been done. Systematic description of the forests would reveal more about the biodiversity wealth that these forests contain.

### (II) DEVELOPING MECHANISM FOR REGULATION OF HUNTING

Case studies on the animals killed have revealed the abundance of wildlife in these forests. The local communities are committed in its preservation of wildlife by setting aside community reserves, adopting resolutions to regulate hunting and exploitation of bio-resources and enforcing them through various local organisations. The limited village resources were supplemented by providing resources from external sources.

### (III) CREATION OF CONSERVATION CORRIDORS

Anthropogenic interference has fragmented the dense forest starting from Intangki Reserve extending to Poana Range. This may be preventing free movement of wildlife and thus its multiplication. There are also possibilities for creation of conservation corridors to connect Intangki Reserve to Rangapahar and then on to Poana range which merges naturally to Thekrejuma forests that can be continued into Puliebadze-Japfú mountain ranges. This corridor creation is possible by providing alternative livelihoods to the communities whose livelihoods may be affected.

### (IV) VALUATION OF ECOSYSTEM SERVICES AND DEVELOPMENT OF REWARDING MECHANISM FOR CONSERVATION

The invaluable ecosystem services the forests render to the population living downstream cannot be overstated. The tangible and intangible services need to be valued in real terms. This valuation could lead to a method of rewarding those communities that are managing and conserving for the forest. As a result of these rewards, there would be creation, strengthening and enhancement of forests.

### (V) RECOGNITION OF COMMUNITY EFFORTS FOR CONSERVATION

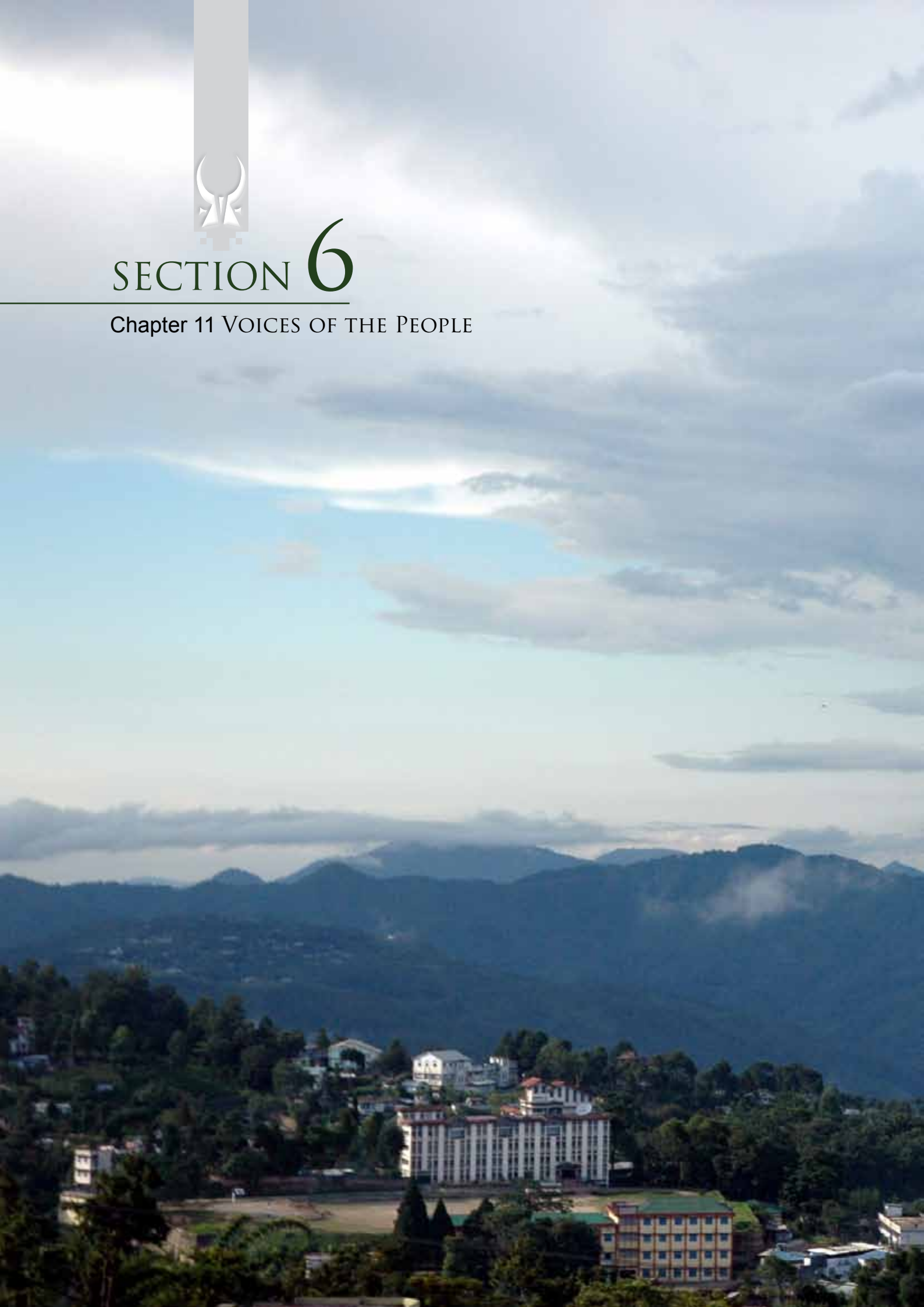
There has been a widespread movement of the communities in promoting conservation by adopting resolutions and enforcing them. Most of them were carried out silently within the village level and their efforts have not been given due recognition. A survey of such efforts needs to be done and given due recognition and support.





# SECTION 6

Chapter 11 VOICES OF THE PEOPLE



## VOICES OF THE PEOPLE

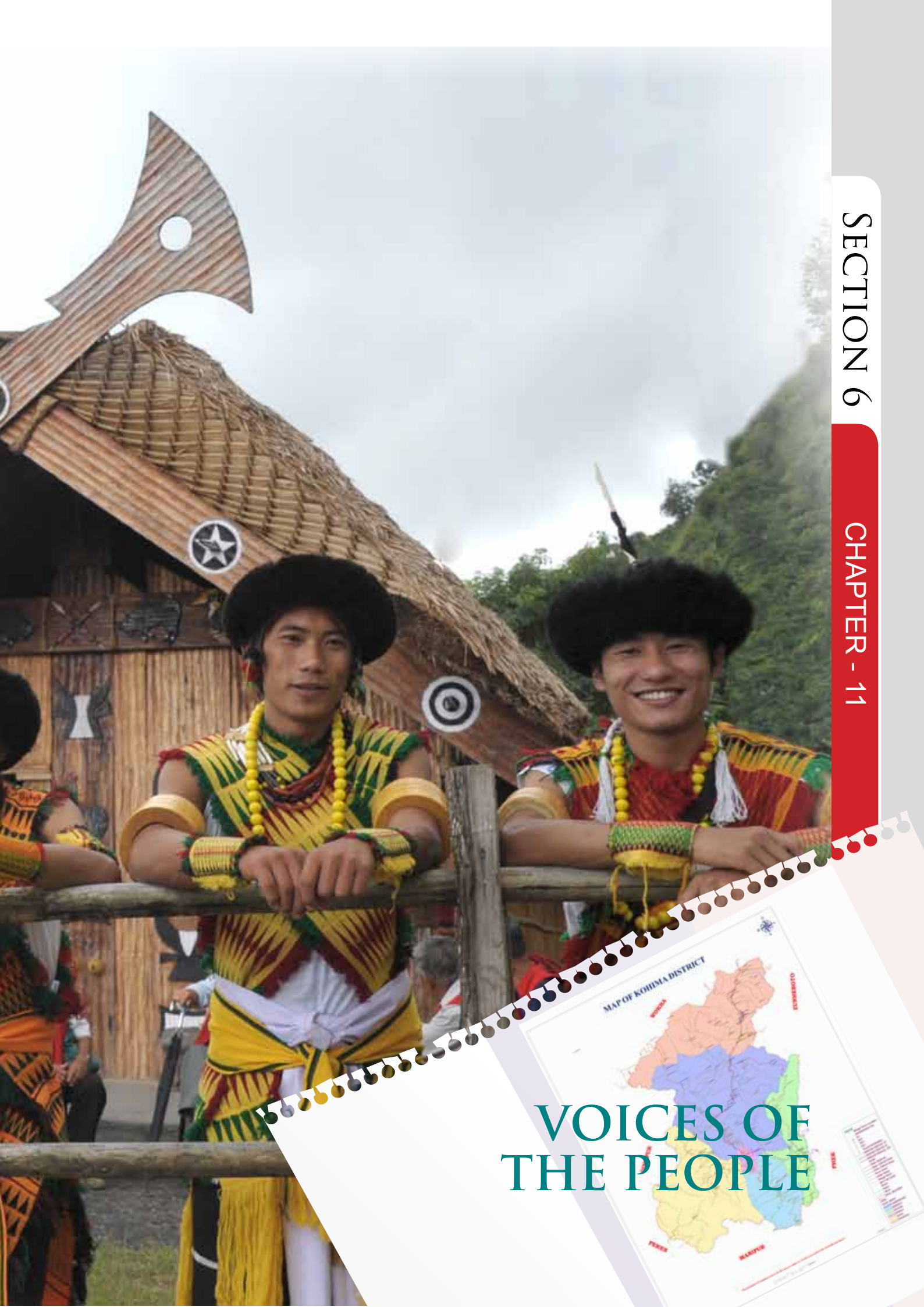
*While writing on human development it is important to partner with the people whose human development is being measured. The research which went into the previous chapters of this report is vetted in this section on the basis of stakeholder consultations held in Kohima.*

*It thus represents diverse views on what different sections of the population think constitutes human development. In the workshop, presentations of the chapters were followed by discussions in breakup groups on Gender issues, Infrastructure and Connectivity, Agriculture, Health and Basic Services. This chapter gives the response of the various stakeholders.*









# VOICES OF THE PEOPLE

MAP OF KHAMTI DISTRICT



A one day workshop with all the stakeholders of Kohima district was held on 8th October, 2009 in the Deputy Commissioner's Conference Hall, Kohima. During the sectoral and group discussions the participants voiced out their concerns, views and suggestions. These have been recorded.

## 11.1 EDUCATION SECTOR

**Miss Kevilenuo Suokhrie** expressed the need for the Department of Education to bring out a syllabus which includes 'Sex Education.'

**Mr. Kekuolhouthie Dzüvichü**, Member, Kohima Village said that teachers are always at the 'receiving end' when the results of the students are not good. Whereas it is observed that student spends '5 hours' in school with the teachers and the remaining hours are spent at home with their parents. He said, community and parents participation is very limited. Parents interaction with the school teachers is also limited. The Village Education Committee (VEC) members should optimally exercise their powers in ensuring delivery of services in the education sector.

He also stated that 'monitoring & supervisory' visits by officials from Education Department or SSA are mostly regarding civil works or infrastructure rather than on the academics or the quality of education imparted. He added that SSA schemes like midday meal are not very relevant in the Naga society. He further added that the District School Inspector (DIS), who is responsible for passing on all the required information to the schools does not do so properly or on time. This creates confusion and leads to haphazard implementation of programmes.

**Mr. Petekhrizeo Dzüvichü**, President, Kohima Village Youth Organisation (KVYO) opined that the schemes formulated by NCERT are beneficial for the student community. However, schemes like midday meal are not relevant in Nagaland since as per the food habits, students come to school after having lunch. Other schemes under SSA like distribution of free text books and school bags are not done on time.

He added that the 'Grading System' which has started in the primary and middle schools in Nagaland might be of help to the student community. However, many of the teachers are not well trained and parents are not sensitized on the concept and benefits of the 'Grading System'

**Mrs. Ruokuohe-ü Miachieo**, Assistant General Secretary, Angami Public Organisation said Nagaland needs various technical colleges and institutions in different fields eg, engineering colleges, medical colleges and other technical or vocational training institutes to address the issue of inadequate seats in technical institutions outside the State.

## 11.2 HEALTH SECTOR

**Miss Kevilenuo Suokhrie** stressed the need for awareness and education of the public on the importance and availability of health care services to enable them to avail the services.

**Mr. Kekuolhouthie Dzüvichü**, Member, Kohima Village Council opined that annual health check up should be conducted in the schools. More dispensaries should be set up and health centres should be located near the village to enable people to access the services easily.

**Mr. Kethosituo Mepfuo**, President, Dolphin Club, Kohima Village stated that most of the health officials or health workers were not aware of the endemic sicknesses or diseases common in the locality. He expressed the need for the health workers to be updated and to be aware of the common and endemic diseases for taking necessary preventive measures.

**Mr. Petekhriezo Dzüvichü**, President, Kohima Village Youth Organisation (KVYO) said that the public is indifferent to the services provided by Government even though the health care services in the Government run health centres are very good.

He said that the Department of Health and Family Welfare needs to carry out awareness campaigns on the programmes and health care services available for the people.

**Mrs. Ruokuohe-ü Miachieo**, Assistant General Secretary, Angami Public Organisation said State Government should create more posts for absorbing the large number of young educated people.

She also suggested setting up of a hospital equipped with all necessary medical facilities for the treatment of patients. In the absence of such facilities patients go out of the State for treatment. Having properly equipped hospitals will not only benefit patients but will also check the drain of resources.



## 11.3 BASIC SERVICES

**Miss Kevilenuo Suokhrie** stated that although water is a basic amenity and although water taps have been installed the village does not have proper water supply. The concerned Department needs to tackle this problem. She added that communitisation of water supply would not solve the problem and suggested that the responsibility of water supply should be with the Government Department. A Government employee should be entrusted to check whether water is being supplied or not in each locality. She further added that the PHE Department should sensitize the public on the benefits of 'water harvesting'.

**Mr. Kekuolhouthie Dzüvichü**, Member, Kohima Village stated that the village has been provided with tapped water services but the taps are dry. The villagers buy water from private commercial tankers or get water from ponds or other sources. He stated that the indifferent attitude of the people and ignorance on rights to basic amenities was perhaps the cause for irregularity of water supply and callousness of the service providers.

**Mr. Kethosituo Mepfuo**, President, Dolphin Club, Kohima Village said that water supplied by the PHE Department is very deficient. The Department needs to improve its services.

**Mr. Petekhriezo Dzüvichü**, President, Kohima Village Youth Organisation (KVYO) said the whole of Kohima Village has water tap connections but water is not supplied. The community either buys water from private suppliers or fetch water from utility ponds, ring wells or streams.



## 11.4 INFRASTRUCTURE & CONNECTIVITY

**Miss Kevilenuo Suokhrrie** stated that the condition of roads in Nagaland is pathetic. Well planned drainage system needs to be constructed to improve the road conditions in Nagaland.

**Mr. Kekuoilhouthie Dzüvichü**, Member, Kohima Village opined that for the roads of Nagaland to improve, the Urban Development or the Road and Bridges Department need to first draw a systematic drainage system. Only then would the roads of the State improve.

**Mr. Kethosituo Mepfuo**, President, Dolphin Club, Kohima Village said that the BSNL-telecommunication Department should give the work or contract for distribution and collection of bills to the residents of the locality or village rather than giving it to people who reside outside the village or locality.

**Mr. Petekhriezo Dzüvichü**, President, Kohima Village Youth Organisation (KVYO) stated that bad road condition in Kohima was because of the drainage system. For development of roads, the concerned Departments should take steps to improve the drainage system. He suggested that road development and maintenance should also be communitised.



## 11.5 GENDER ISSUES

When men and women are relatively equal, economies grow faster with less corruption. When women are healthy and educated, their families, communities and nations benefit. Women, as compared to men have less opportunities and privileges due to the patriarchal system of male dominance in cultural or social practices, customary practices or in the gender division of labour. The discussion on gender issues was categorized into political and legal, wealth distribution, social, on education, health care, wage payment and domestic violence.



### 11.5.1 POLITICAL VIEWS

**Mr. Lhouvizolie, Dobashi**, Deputy Commissioner's Office, Kohima opined that the status of both men and women is changing. Though men are head of the households, many decisions at home are taken by women. Thirty three percent reservation for women in politics is crucial to enable women to take decision at a higher level. Men respect good women leaders who can contribute to village unity, peace and development.

**Mrs. Neilhousienuo**, Chedema, representative, Angami Women Organization (AWO) expressed the view that 33 percent reservation for women in politics is important for building women leadership. Naga women have never in politics since the attainment of statehood in 1963. The 33 percent reservation for women in politics would push women into the political arena.



**Mrs. Rokokhono**, Phesama, representative from Angami Women Organization (AWO) opined that 33 percent reservation for women in politics is necessary to push women to take up leadership. There are knowledgeable women leaders who surpass men.

**Mr. Zarenthung Ezung**, Under Secretary, Planning Department, too expressed the view that 33 percent reservation for women in politics was necessary since women are yet to politically mature as compared to men. Educated women should sensitize the womenfolk at grassroot level.

All the participants agreed that 33 percent reservation for women was necessary if women were to be at par with men in the decision making and in the political arena.

### 11.5.2 LEGAL RIGHTS (CUSTOMARY LAWS)

Customary laws are used to settle conflicts and disputes, and in the allocation and control of resources or social issues like theft, rape cases and adultery. While some customary laws are gender neutral and are cost effective for solving problems such as land boundary dispute and robbery, there are other customary laws that are discriminatory to women as in case of rape and adultery.

**Mr. Notho Dobashi** in Deputy Commissioner's Office, Kohima says that customary laws favour men and discriminate against women in case of adultery. If a man commits adultery he is considered a 'bahadur'. While an adulterous wife would be divorced, could be disfigured, all her belongings and property confiscated and sent away to her parental house in her undergarments.

**Mr. Lhouvizolie**, Dobashi in Deputy Commissioner's Office, Kohima too says that there are no customary laws to control or check adultery committed by a man. However, he opines that an adulterous man should be punished. Sharing of assets between a married couple is also unequal in the event of adultery committed by a man resulting in a divorce. For instance, if the husband commits adultery while the wife is still alive, he gets 2/3<sup>rd</sup> of the property as against 1/3<sup>rd</sup> for the wife. But if the wife commits adultery, she is divorced with severe punishment to the extent of violating her human rights.

### 11.5.3 ECONOMIC INEQUALITY

On provision of 25 percent of funds for women in the Village Development Board (VDB), Mr. Lhouvizolie, Dobashi in Deputy Commissioner's Office, Kohima said that it was not necessary to specifically earmarked VDB fund for women. The amount of funds to be earmarked could be decided on the basis of the economic activity of the women.

According to both **Mrs. Rokokhono** and **Mrs. Neilhousienuo**, representatives from Angami Women Organization (AWO) women were getting 25 percent of the funds under the Village Development Board in their respective villages. However, better participatory planning with bottom-up approach is required to address womens' needs and interests.

### 11.5.4 NATURAL RESOURCES

The participants in the technical session agreed that both men and women use land and land resources in different ways for meeting immediate livelihood needs as well as for generating income. However, unequal distribution of land resources exist between men and women.

On sharing of acquired landed property between men and women, **Mrs. Rokokhono** said that property acquired after marriage should be equally shared between husband and wife, sons and daughters. This view was supported by Mrs. Neilhousienuo, saying that men and women are both equal human beings. Women do a lot of more work without rest or leisure and hence, men should not hesitate to share acquired property with women.

On this subject, **Mr. Notho**, Dobashi expressed the view that it was impractical for property to be shared between men and women. Supporting his argument he cited instance of women marrying men from other villages. And since outsiders can not own property within a village jurisdiction, equality in sharing of landed property was infeasible.

**Mr. Lhouvizolie**, Dobashi expressed the view that there could be disharmony if there was equality between men and women in the distribution/sharing of property. But there should be no discrimination between men and women in terms of access to education.

### 11.5.5 SOCIAL INEQUALITY

#### A) UNPAID WORK:

The unpaid work that women do is invisible, unaccounted and repetitive in nature. This has adversely affected women. During the discussion on unpaid household work, participants agreed that productive works should be shared equally between men and women allowing more time to both men and women to invest in their own human capital.

**Mrs. Neilhousienuo**, was of the view that both sons and daughters should be trained to shoulder household works. Mr. Lhouvizolie too opined that fathers should set examples for their children by shouldering household works and keeping servants should be discouraged.

#### B) WAGE DISPARITY:

Both Mr. Notho and Mr. Lhouvizolie, Dobashis in Deputy Commissioner's Office agreed that wage disparity existed between men and women in case of physical work but pointed out that wages were equal in the organized sector. According to Mrs. Neilhousienuo wage should not be determined by gender but by the work done.





## 11.6 EDUCATION

**Mr. Lhouvizolie**, opined that many teachers in Government schools were very casual and were not concerned about children's education but still got their salary whether they worked or not. Students from Government schools cannot speak English although English is the medium of instruction.

Sharing his experience, he narrated his visit to Phekerkriema Government primary school in Kohima district along with the Sub-Divisional Officer (SDO) Civil, Chiephobozou in 2001, which had only one Nepali student in the class. In Seiyhama Government primary school, five teachers' posts were sanctioned for the school but four teachers were transferred along with posts. Only one female teacher was left to run the school. Mr. Lhouvizolie, who has nine children resides in Kohima where Government schools are better. For better foundation he enrolled his children in a private school. Later he shifted his children to Government schools, from class IX onwards.

**Mr. Notho** also shared that he wanted to send his children to Government schools but considering the quality of education in Government schools, he did otherwise. He did not want to compromise his children's education.

**Mrs. Neilhousienuo**, said that students in private schools get penalized for not doing their homework but the same is not enforced in Government schools. If the performance of students from Government schools is bad, parents are also responsible for it.



## 11.7 HEALTH CARE

Both Mr. Lhouvizolie and Mr. Notho, Dobashis stated that health care facilities in the district were insufficient and highly commercialized. Patients get only prescription from Government hospitals. Even basic medicines and bandages are not available. Medical re-imbursement for patient's treatment is also a tedious process. More than the expenses incurred for medical treatment is spent in pursuing re-imbursement of medical bills. User friendly procedures for reimbursement of medical bills should be introduced.

**Mrs. Rokokhono**, stated that under communitised health services, Government provides certain quantity of medicines to the communitised villages.

On HIV and AIDs, Mr. Lhouvizolie, stated that it is the men who are more likely to come in contact with HIV and AIDS as compared to woman since men are more mobile due to political, social or economic reasons. If the men contact HIV and AIDS the whole family can be destroyed.

## 11.8 DOMESTIC VIOLENCE

On domestic violence and rape cases, according to Mrs. Rokokhono, the village customary laws decide the punishment for rapist. However, if the crime is committed in the towns and urban areas the responsibility of penalizing the accused is on the authorities of the respective areas. She cited that the measures recommended by the Angami Women Organization was ex-communication and expulsion of the rapist from the colony by putting up posters of the rapist in the towns and urban areas.







# SECTION 7

*Chapter 12* HUMAN DEVELOPMENT INDICES  
*Chapter 13* WAY FORWARD



## IN CONCLUSION

*In the concluding section two things have been done.*

*One, based on our own estimates; published and generated data, we estimate and carry forward from Nagaland's Human Development Report, 2004 to see how the various indices have changed for Kohima. Second, we bring together the findings and outcome of the research and consultations to outline a possible forward looking vision for the district of Kohima. This might serve as a useful policy document for administrators in future district planning.*





  
**SENSITIZATION PROGRAMME FOR VILLAGE LEVEL FUNCTIONARIES ON HUMAN DEVELOPMENT**  
under UNDP-GOI Project  
BLOCKS LEVEL, DISTRICT NAGALAND  
TRAINING MATERIAL

**Sensitization on human development underway**  
DIMA PUR: Planning and development Commissioner Alemt said that the sensitization programme is a bid to make village level functionaries aware of the concept of human development. He said that the programme would be a success if it could help the village level functionaries to understand the concept of human development and its various dimensions. He said that the programme would be a success if it could help the village level functionaries to understand the concept of human development and its various dimensions.

**DEVELOPMENT**  
Capital Market

**Human development report very crucial: Alemt**  
DIMA PUR: Additional Chief Secretary and development Commissioner Alemt said that the human development report is very crucial for the state government. He said that the report will enable the state government to implement various policies and programmes which will affect people of the district. He was addressing a workshop on Human Development Report 2009 at the District Human Development Office, Dimapur. He was accompanied by Prof Manoj Kumar Singh, Director of the School of International Studies, Jangthang College, Dimapur. The workshop was held on August 10 at the District Human Development Office.

**Planning of State Plans for Human Development**  
**HUMAN DEVELOPMENT ADVOCACY under GOI-UNDP Project**



## HUMAN DEVELOPMENT

**milestones**  
of development

## HUMAN DEVELOPMENT INDICES





## 12.1 INTRODUCTION

The Human Development Report for Nagaland for 2004 (HDR 2004) indicated that the best performing district in 2001 was Kohima. Hence, in this report we have tried to observe how the district of Kohima has progressed in terms of the quantitative changes in the various development indices over time. In interpreting our results we offer some important caveats. First, data at the district level is extremely limited and often not reliable. This is particularly true for data on health variables like the infant mortality rate and life expectancy. We have therefore used some indirect methods of estimating such numbers. Second, in the HDR 2004 we had conducted our own surveys for estimating district level incomes. In addition, given non-availability of recent Census data for variables like mortality rates, status of residential units we had extrapolated from the 1991 Census data. However, we have re-estimated the indices for 2002 based on recently published Census data for 2001. Hence, comparability with the figures in the HDR 2004 is not very rigorous. Finally, given the weakness of data, only major changes in indices must be interpreted. Small changes (up or down) are difficult to interpret and may only suggest no change.

## 12.2 HUMAN DEVELOPMENT INDICES

The concept of human development emphasizes the role of enlarging people's choices and raising their standard of living. The realization of personal choices is arbitrated through personal means and access to public provisions and transfers. This implies that social and political processes are essential to translate available means into desired outcomes. The conventional measure of Gross Domestic Product or Per Capita National Income is insufficient to capture the wider milieu of welfare and the consequential development process.

The various Human Development Indices provide a comprehensive measure to capture the various dimensions of human development. These indices evaluate the development process in terms of its outcome rather than available means and inputs. The Human Development Index (HDI) along with the Human Poverty Index (HPI) and the Gender-related Development Index (GDI) capture the broad status of development of a state.

**Human Development Index (HDI)** has three vital dimensions - longevity, measured by the life expectancy at birth; educational attainment, measured by the adult literacy rate and the gross enrollment ratio; and standard of living measured by the per capita GDP.

**Human Poverty Index (HPI)** measures the levels of deprivation in the three essential dimensions of human life that are reflected in the HDI. It reflects the distribution of progress and measures the backlog of deprivations that continue to exist.

**Gender related Development Index (GDI)** is a comprehensive measure reflecting the gender inequalities in human development. It is simply the HDI adjusted downwards to measure gender inequality.

## 12.3 DATA SOURCES AND METHODOLOGY

Our principal data sources are the Census of India 2001, Nagaland's Hand Book of Statistics (various issues) and data on district wise agricultural incomes, poverty levels etc. commissioned from the Indicus Analytics Private Limited, New Delhi. The health statistics were estimated for this study as given below. The data for the gender specific population and the enrollment rates have different data sources: the Census of 2001 and Department of Education/Directorate of Economics and Statistics (DES) were used. For the data on enrollment for 2001 and 2009 data supplied by the DES was used. For the population in age group 16-18 years the Census figures for 2001 was used to get the gross enrollment ratios for 2001. The break up of population in age group 6-18 years for males and females has been assumed to be the same as 2001 in working out the numbers for 2009. The total population in the age group 6-18 years for 2009 is obtained from the projections supplied by Indicus Analytics.

The methodology used for the estimation of the three indices is the same as detailed in the Human Development Report 2004.

### 12.3.1 HUMAN DEVELOPMENT INDEX

The income part of HDI was estimated using the NSDP per capita of 2005-2006 (indiastat.com Hand Book of Statistics, Government of Nagaland) for Nagaland by taking State Cumulative Growth of Agricultural Product (CGAP) from data provided by Indicus Analytics. Assuming that agriculture accounts for 30 percent of district income, the District Domestic Product (DDP) has been estimated. Population figures were then used to obtain per capita DDP.

For the Educational Index used in the HDI, the literacy rates were obtained from 'India Development Landscape' (Indicus Analytics) and the enrolment ratios were taken from the Directorate of School Education (Enrolment of student in schools during 2000-2001 and 2007-2008).

The Infant Mortality Rates were also obtained from 'India Development Landscape' (Indicus Analytics). The Life Expectancy Rates were calculated from Sample Registration System (SRS) Life Tables for 2002-2006; India, Registrar General 2007 (see 'Supplementary Notes'). The Sample Registration System (SRS) provides estimates of age specific death rates on an annual basis only for large states (as for small states the sample sizes are too small). On the basis of these, life tables are constructed by the SRS for India and large states for five-year periods (to minimize sampling fluctuations). Therefore, estimates for life expectancies for districts are found indirectly. The 2001 Census had asked questions on the number of children ever born and the number of children surviving to ever married women in reproductive ages. The tabulations are available at the district level. From these, early childhood mortality can be estimated indirectly (via the Brass method or its variants). With the help of Model Life Tables on an appropriate pattern, the level of mortality, or the life expectancy, corresponding to the estimated early childhood mortality, can be estimated. The underlying assumption in this procedure is that the age pattern of mortality is close to the Model used; that is, the adult mortality for a population would be close to the adult mortality in the Model life that corresponds to the given child mortality.

In the estimation for Nagaland, first the under five mortality rate,  $q(5)$ , was estimated from the 2001 Census data on children ever born and children surviving for each district using the MORTPAK<sup>35</sup> package (this has a version of the Brass method allowing for a choice of Model life tables). The estimate based on the South Asian pattern was accepted and from this, life expectancy was obtained by interpolation. This refers to a period prior to the 2001 Census, roughly 1995-97. The difference between the life expectancy for each district and India (also obtained in the same manner) was computed. On the assumption that change (generally rise) in life expectancy in the districts would not be much different from the national change, the difference was applied to the SRS based all India life expectancy for the period 2002-2006 (the latest five year period for which the SRS life tables are available).

### 12.3.2 GENDER-RELATED DEVELOPMENT INDEX

This index was derived by simply converting the HDI into an index which has been adjusted for differences in males and females in the various indicators. The male and female populations and the worker participation rates (both male and female) were sourced from India Development Landscape (Indicus Analytics). Since only Female Work Participation Rates were given by Indicus, Male Work Participation Rates for 2008-09 were calculated by subtracting Female Work Participation Rates from 1 (one).

<sup>35</sup> The United Nation Software Package for Mortality Measurement



The numbers for male and female workers have been taken from the Census of India 2001. The entire data was available either in absolute numbers or in the percentage points (from Census of India 1991 and 2001). In case of absolute numbers, compound annual growth was used to make estimations for the years 2001 and 2009. However, when the data was in percentage points, the modified compound annual growth formula was used. In addition to this, growth trend in a state, a region or the whole country was used wherever the data was found to be missing for a year.

### 12.3.3 HUMAN POVERTY INDEX

For the indicator for economic deprivation, number of Persons Below Poverty Line (BPL) was sourced from the Directorate of Economics and Statistics, Government of Nagaland (2001). The proportion of BPL population data was supplied by the State Urban Development Agency and the Rural Development Department for the urban and rural areas respectively. Census 2001 data was used for proportion of population living in temporary settlements, proportion of population without own toilets.

For the indicator of educational deprivation, as mentioned previously, the male and female literacy rates were taken from India Development Landscape (Indicus Analytics). The male and female enrollment rates for 2007-2008 were sourced from the Directorate of School Education (Enrolment of student in school during 2000-2001 and 2007-2008).

The number of children fully immunized between the age group of 12-23 months, used in the health deprivation index was also taken from India Development Landscape (Indicus Analytics).

### 12.3.4 CHANGES IN THE DEVELOPMENT INDICES

As we have already noted earlier, the figures for the indices in the HDR 2004 for Kohima district have been revised due to the up dating of the Census 2001 figures. The published 2004 estimates for the indices were derived by extrapolating Census 1991 data for workers participation, population, types of houses, etc. because the Census 2001 figures were not reported at the time. Therefore, in order to make sensible comparisons, the earlier indices have been reworked to incorporate the updated Census of India 2001 data. Additionally, the methodology for recalculating the indices remains the same as that mentioned in the HDR 2004.

**Box No.12.1. Development Indices for Kohima**

	HDI	Rank	GDI	Rank	HPI	Rank
Published Indices in HDR 2004*	0.68	4	0.58	1	33.08	5
Revised indices	0.66	4	0.54	1	35.7	5

\*Source: Nagaland Human Development Report 2004.

Some explanation is necessary to explain the change in the recalculated indices for 2001. The fall in the indices is explained by the replacement of data used in the earlier calculations by updated data from Census and revised DES data. However, the ranking of Kohima remains unchanged from the 2004 calculation and the numbers also have changed only marginally. We have seen some bias in the data for enrollment in particular for Kohima. Since our purpose is to compare the change in the indices between 2001 and 2008 we have chosen to use the new data for 2001 so that the bias may be similar in both the years at least for Kohima.

**12.3.5 INTERTEMPORAL COMPARISONS**

A first look at the numbers of the various indices indicate that Kohima's performance seems to have improved on all three counts. In case of HDI, the index value has gone up from 0.66 to 0.82 in 2008. A similar trend is exhibited by the GDI from 0.54 to 0.76. For the HPI the absolute index numbers have fallen from 35.7 to 27.2 indicating a dramatic improvement in the poverty measure. Hence, on all three counts there seems to have been a general improvement in Kohima since 2001.

A closer look at the data indicates that the dramatic improvement in indices for Kohima may not be entirely warranted. The huge jump in the HDI is explained almost entirely by the dramatic improvement in the gross enrollment ratio for Kohima while there seems to have been little change (in fact a fall) in the ratios for the other districts

**Box No.12.2.Intertemporal Comparisons**

Year	District	HDI	Rank	GDI	Rank	HPI	Rank
2001	Kohima*	0.66	4	0.54	1	35.7	5
2008	Kohima	0.82	1	0.76	1	27.2	1

\*Source: Nagaland Human Development Report 2004.

leading to a dramatic increase in the relative position of Kohima. The reason for this is that we used the Census figures of total population and applied a reasonable growth rate of population to estimate the total population for 2007-2008. However, the very high number of actual enrollment for 2007-2008 applied to the new population of 2007-2008 gave rise to enrollment numbers of over 1.5 for Kohima. This overshadowed the contribution of DDP and literacy improvement in calculating the overall HDI. In fact the use of such enrollment numbers will give absurd results for the HPI and therefore the best enrollment ratios for 2008 for Wokha was applied to Kohima to obtain the HPI figures for 2008. This gives a degree of arbitrariness to the results but in the absence of reliable data this was the only option.

## 12.4 CONCLUSION

No DHDR report can be complete without some idea of how the quantitative indices have moved over time. We have already noted that there is considerable danger in drawing strong conclusions especially in the absence of reliable data. Here in our calculations we have had to combine official State data with other commissioned data sources and also recently released Census data. However, combining some published State level data with Census data gives us some extremely unreliable estimates. Hence, the only reasonable conclusion seems to be that Kohima's relative standing in the State has more or less remained unchanged. If anything, the GDI indicates that Kohima remains the best district in this regard. For the other two indices the results seem to be too affected by the State figures on enrollment ratios, population growth rates etc. to allow us to draw any firm conclusions. It may however be a fair conclusion that Kohima remains the best performing district in terms of the GDI and HPI.







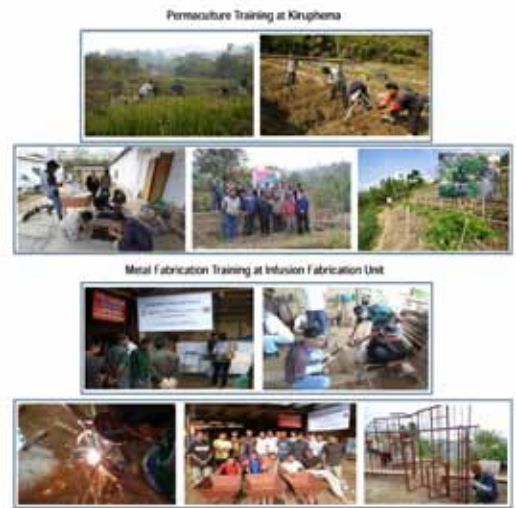
# Zynorique

Zynorique (zai-no-reek) an architectural consultancy firm initiated by Architect Richard Belho and Associate Architect Kezhagwetuo Peseyie deals not only with designs and structures but is also a human resource development and capacity building firm based in Kohima.

Since 2003, Zynorique has been imparting training on building techniques, on bamboo treatment, on bamboo structures, production of bamboo toys and boards, on permaculture and silviculture. The firm also mentors and provides linkages and apprenticeship assistance to the trainees.

As a co-opted member of the Nagaland Bamboo Development Agency, Zynorique is actively involved in design, construction of bamboo structures and in research and development of bamboo products. It also provides employment as a consultancy firm and as a producer.

At present, Zynorique Consultants has 6 Architects and 4 Civil Engineers and with more than 50 local boys and girls engaged in bamboo toy making, wood carving, plaster of Paris mouldings, mechanized woodworks, knock down furniture, bamboo treatment plant, metal fabrication and eateries.



Pottery Unit: Ceramic Artist Rashi Jain demonstrating the art of pottery to the Youths of Zynorique Initiatives.



Concept Toys, Unigraft Training at NERDC, Disapur



Concept Toys in production



Wood Carving



Plaster of Paris Products and Commissioner Secretary (Industries and Commerce), Imkonglamba taking a glance at some of our works.



Some Wood carving works of James Lotha, a member of Zynorique Initiatives.



Mechanized Wood Working Training at Unigraft Mechanized Woodworking Unit, Jotsome Village.



James Lotha a member of Zynorique Initiatives was train in woodcarving in Thailand, sponsored By the Govt. of Nagaland



COMBAT SPORTS NAGALAND is established to create Opportunity for Youths who are interested in Physical Sports.



RCC worker Training in Progress



Bambonyte -View of Bamboo Raw material (Bakool), Bamboo Treatment Plant and some finished Bamboo (Bakool) products



Bamboo Construction at Kisama (Bamboo Pavilion Hall)







# YouthNet

## *Harnessing Potentials of the Youth*

In February 2006 a group of young Naga professionals educated in schools and colleges across India and abroad, came together to start YouthNet, a non-profit organization with Kohima as its headquarters. Their main objective was to create a platform for young people to address youth issues and to be the voice of the young Nagas.

True to its mission, YouthNet has been working on various livelihood and developmental issues in partnership with the government, community, grassroots organizations, educational institutions and corporations with active participation of the youth. YouthNet also conducts surveys and impact studies on programmes of State government on youth employment.

Even before the Bill on the Right to Information Act 2006 was passed by the Parliament, YouthNet was already sensitizing government officials and the public on RTI. The organization has conducted more than 30 awareness programs and has unearthed several discrepancies. YouthNet's work on RTI has featured in the Class X text book of Nagaland Board of School Education.

In April 2007, with the support of the State Government and under the aegis of global YES Campaign, Youthnet organized a state wide youth consultation cum workshop covering all 11 districts on the issue of unemployment and opportunities. This resulted in the report titled 'The Voices –Uncensored' containing views and suggestions made by the youth. The report has been hailed as an innovative document.

YouthNet was awarded the UN Habitat Youth Fund Award 2010-2011 to carry out a project, 'YouthNet for Transparency'.







## SECTION 7

### CHAPTER - 13

# THE WAY FORWARD



## THE WAY FORWARD

In many ways the development story of Nagaland and its districts are unfolding only now and this is best reflected in the way that Kohima has been growing and changing. Barely a century and a half ago, the district comprised of tribal people in their isolated hill top villages, living amidst the dense forest. Within a short span of human history, Kohima transited under British colonial rule that included a World War, followed by the changes under independent India. Kohima town changed from an administrative outpost to a district headquarter and then became the capital of a newly created State of the Union of India. Along with the political and administrative changes, development has also taken place at a very fast pace, and in many ways the present day Kohima is unrecognizable from the Kohima of fifty years ago. The issue now is, how does Kohima district progress from here and in what direction.

In such a perspective, it may be kept in mind that a sudden surge of development has taken place since the late nineties. This has been because of two prime reasons. One aspect is the ceasefire and the peace process that was initiated in 1997. The town, that had a desolate look with no movement of people after sunset has suddenly come to life and today the capital is bustling and even seems to be bursting at the seams with traffic jams and lack of basic amenities such as water, sanitation, housing and the like. The economic surge has however not been the outcome of the peace process alone. The period also coincided with the economic liberalization of the country. The effect been dramatic with influx of funds from the centre and growth of business. Buildings mushroomed, the town expanded and life moved at a very hectic pace. These are all signs of development. However, there is an urgent need to focus on the direction of the growth.

*“Kohima  
being the  
State capital  
should show  
the way  
in every aspect  
to the rest  
of the State”*

**Shri. Neiphiu Rio**  
Chief Minister  
Nagaland

As peace returns to the land and opportunities for creating wealth and for furtherance of development increases, the issues of governance must change. From physical security, one must turn to issues of economic, human and environmental security. In one sense, then, the whole development paradigm must undergo a sea change. It is also necessary to keep in mind that Kohima district comprises of not only Kohima town but also of villages and rural areas where 70 percent of its population live.

It is now well accepted that development must mean human development which has both economic and equity dimensions. The global concerns over climate change have added a third dimension, environmental concerns.

Most observers now agree that development, which takes place at the expense of the environment and endangers the well being of future generations needs to be viewed with some caution. In preparing this report for Kohima, all these considerations have been kept in mind.

Despite the relatively recent growth experience, Kohima has witnessed some dramatic improvements in its development indicators. At the beginning of this decade, as shown in the Nagaland Human Development Report, 2004, Kohima was the leading district in terms of reducing gender disparities. Its gender development index (GDI) was the highest among all the districts of the State. However, it was ranked fourth among the districts in its human development index (HDI) and fifth in its poverty index (HPI). Kohima seems to have taken huge strides since then. Our calculations using district level data show that it is now the leading district in terms of all the three indices.

Further detailed analysis indicates that this improvement in development indices for Kohima has been mainly due to a surge in its gross enrollment ratio. Generally, Kohima leads the other districts in terms of educational facilities accounting for 25 percent of the middle school enrollment of the State. Its dominance in education is also clear from the fact that 25 percent of all the high school teachers in the State are employed in Kohima.

However, Kohima's dominance in the education sector must be tempered by the fact that its performance has been best in the urban areas. High performance was witnessed at all levels whether it be the primary, secondary or higher education because of the concentration of private schools in Kohima town. The fact that Kohima is a district inclusive of both urban and rural areas must not be lost sight of, when we talk of Kohima as a district. It is also pertinent to note that despite all the advantages of being a State capital with intensive private sector investment, the literacy rate of Kohima is below Mokokchung, Wokha and Dimapur. This indicates the need to revamp the education system especially in the rural areas. It is also a challenge for the program of communitisation which is the star program of the State. This challenge is particularly important in the context of the country having committed itself to universalization of education.

*"The State  
excels  
in many of the  
social indicators  
when compared  
to the  
national averages.  
However, there is  
always scope  
for  
improvement".*

His Excellency,  
**Shri. Nikhil Kumar**  
Governor of Nagaland



*“Capacity building is a vast subject encompassing almost every aspect of human development, it is a long-term and continuing process in which all stakeholders participate ”*

**Shri. Alemtemshi Jamir, IAS**

*Additional Chief Secretary &  
Development Commissioner  
Government of Nagaland*

While quality of life will improve with the development of facilities, infrastructure and a reinvigorated labour force, the pressure on basic services like water, housing, sanitation etc. will continue to increase over time. No doubt the private sector hospitals and nursing homes of Kohima have done extremely well. Yet, one problem that still persists in areas like health is not the availability of these services but their effective delivery. The decision to make the Naga Hospital Kohima into an autonomous hospital has been in the right direction, notwithstanding the legal tussle with the contractors that has retarded its expansion and its modernization process. The ICU maintained by it is world class. In fact, the performance of the Naga Hospital and the private nursing homes, especially the nursing care in the back drop of salubrious climate and scenic location could make Kohima an ideal location for medical tourism provided the existing facilities are enhanced with appropriate technology.

Health care in the rural area is however, another matter. Here the role of a decentralized system is crucial for involvement of stakeholders in creating awareness and implementation of schemes. Kohima too will have to rely on the State communitisation program in areas like health, power and education. While the program has been in place for almost a decade, it is now time to seriously assess its effectiveness in terms of success in delivery of services. This will also indicate whether extension of the program to other areas is warranted.

At another level, Kohima town's dominance has its own ups and pitfalls. Being the State capital, it contains the bulk of the State's bureaucracy. The transaction of the Kohima Treasury accounts for almost 80 percent of the transaction of the State government. This enhances business, political and employment opportunities. It also has better connectivity as compared to the other districts infusing economic activities including the service sector industries such as tourism. The Hornbill festival being a prime example. Simultaneously, the development of educational institutions in the district has resulted in an influx of people from all the neighbouring districts and states. Consequently, its urban infrastructure is now creaking beneath the weight of new population. Despite its good performance on many fronts, Kohima is now one of the worst districts in India in

terms of provision of safe drinking water to its residents. Many have commented that it is perhaps one of the dirtiest hill towns. The rapid influx of migrants will lead to a steep decline in the quality of life in Kohima unless measures are taken expeditiously to meet the basic amenity requirement of the burgeoning population. As inward migration continues unabated, urban renewal is a serious challenge for Kohima in the years ahead. An intensive study is necessary to evaluate the carrying capacity of the town and to plan for its future expansion. Unless this is done, the unplanned expansion of the town may add to the confusion and chaos of the State both socially and politically.

It is a sobering thought that more than half of the working population of Kohima district is engaged in cultivation. However, despite the highly developed status of terraced rice cultivation, agriculture is mostly subsistence in nature. Kohima's contribution to the State agricultural GDP is only around 13 percent. While it can be argued that agriculture cannot be the mainstay of the district as urbanisation has proceeded at a rapid pace, yet about 70 percent of its population still lives in the rural areas. Transformation of Kohima's agricultural sector is therefore, probably the most serious challenge facing policy makers. In the years ahead, this challenge of providing livelihood to its rural population will be exacerbated by the fact that Kohima has to accommodate extra population – especially migrant workers from other neighbouring areas of the State. In this regard it would be worthwhile to consider adopting an agricultural strategy for Kohima district, distinct from the policy for the rest of the State. It should be designed to specifically cater to the consumption pattern of the urban conglomerations of Kohima and Dimapur. Since pulses and cereals cannot be an option, the district's agriculture could focus on specialized production of vegetable, horticultural and animal husbandry. This could be the most rational approach both in terms of the rural-urban interest of the district as also keeping in mind the culture and affinity of the people of the district with their villages.

With the emergence of a highly literate population whose access to information is further driven by advancement in information technology, mobile phones, computers and television etc., shifting of the agricultural population to other activities in the future would pose serious challenges to policy makers. Hence, providing jobs for its growing population in the service sector clearly outlines the way forward for Kohima. Currently, there is a small handicraft sector but the main employment is in the service sector, namely, government, retail and construction. What is even more worrying is that the largest service sector employer is the government. It is clear that in the immediate future, the government sector employment is not going to expand. The task, therefore is to find alternative sources of employment.

Kohima has a literacy rate of around 74 percent. Yet, the informal sector where very little specialized skill is required is the dominant employer. The challenge is to build on

the skill intensity of the work force in Kohima. As in the rest of the country, the primary employer in Kohima is the unorganized sector. According to a State government study, in the informal sector the two main employers are grocery shops ( 19 percent of total employment) and construction (21 percent of total employment). Apart from this, the transport sector (including those employed in loading and unloading) accounts for about 23 percent of total employment. Many of these sectors do not require any specialised skills. It is not surprising then, that the problem of unemployment of the educated labour force has increased over time.

Delivering quality jobs then is clearly the way forward. High literacy levels will result in a work force which will remain dissatisfied with existing employment opportunities in the service sector while at the same time employment opportunities in government will disappear. Tackling unemployment of this educated labour force is the main task ahead. With high literacy rate, it is necessary to look at new service sectors with high salary packages. One such sector is the IT sector where some level of educational proficiency is necessary. Here the task ahead is enormous. On the one hand, developing of the information technology sector is still in its infancy, while on the other, the educational sector must reorient itself to provide employable labour. The IT sector must clearly remain a focus area in the years ahead.

One promising sector for employment generation in Kohima is the tourism sector. Traditionally, this has remained a high earning occupation for most hill states in India. Due to its location, Kohima remains the hub for generating tourism activity. The success of the 'Hornbill Festival', which has almost become a global tourism event today, has to be capitalized upon to further develop the scope of tourism as a major economic activity for Kohima. However, infrastructure in terms of availability of hotel rooms is woefully inadequate. Here the task is to incentivise the private sector. Additionally, given the negative experience of many other states of the country in the tourism sector, it is necessary to assess whether Kohima should try to adapt the traditional form of tourist activity or concentrate on high value tourism like eco-tourism and adventure sports. It would be useful to study the experience of other states like Sikkim in this context.

With the abundance of inherent talents amongst the people, Nagaland has viewed music and entertainment as an industry. The ideal location where this can be developed is Kohima. All out efforts should be made to create an enabling environment for the promotion of both music and entertainment as an industry. Along with partnering and nurturing performing theaters, music schools and academies, development of necessary infrastructure and technology such as state of the art recording studios, telecasting facilities and marketing linkages should be a focus.



An aspect of the economy of Kohima that is very often overlooked is the impact of NH 29. The district had early exposure to modern development and commercialization due to the passage of the national highway through its land. The huge number of heavy transport vehicles plying along this road especially the traffic of Manipur has greatly added to the prosperity of not only Kohima but also of the people living along this road. Therein lies the issue of looking at trade and commerce – both domestic and international as an important feature for development of the State. This has to be first understood and optimized in Kohima from where the benefits and advantages will flow to the other districts. Frequent disturbances of the Manipur traffic, uncontrolled anti-social activities in the form of taxation, harassment and other forms of violence as well as the landslides has made the Manipur government explore other possibilities. One such policy is to shift connectivity – both rail and road, to a route via Silchar in Assam to Jiribam and thence to Imphal and further on to Moreh. Once this diversion takes place the economy of Dimapur and Kohima would be substantially affected. It is therefore worthwhile to examine the scope of keeping the trade and commerce avenues open as a vital aspect of economic development of Kohima and Nagaland.

*“The concept of youth empowerment is based on the understanding that the youth can and must contribute to the growth and development of the state and country in different ways”*

**Shri. T.R. Zeliang**  
Minister,  
Planning and Co-ordination  
Nagaland

In general, the task is to expand the role of the private sector in delivery of services and in job creation. This can be done through partnering with private participants from outside the State. However, outsourcing of activities should be undertaken with caution to prevent social friction. All studies indicate that one of the main problems of the State is the lack of entrepreneurial leadership amongst local residents. Development of entrepreneurship will to a large extent depend on orienting and retraining of the labour force while the State must step in to provide venture capital.

As activities expand, the main bottlenecks that will occur will be in the infrastructure sector. Here two sectors are crucial; connectivity and power. Even at its present level of economic activity, Kohima district is highly deficient in power. This is true for the State of Nagaland as a whole. Kohima is dependent on its neighbouring districts and on the central allocation for its power supply. The district is also still yet to upgrade its transmission lines since about 1970s. This aspect needs early attention.

*“ Let us live  
today  
with the  
life values  
of our  
forefathers  
in our  
standards ”*

**Shri. Neiphiu Rio,**  
Chief Minister  
Nagaland

Another infrastructure issue which will need serious attention is the inter district connectivity and in particular linkages of all the districts to Kohima, the State capital. In all hill states, road connectivity is the most crucial and districts like Kohima are no exception. Establishing road linkages of Kohima with remote districts like Tuensang and Mon will be a major infrastructure challenge for the future.

Kohima has progressed significantly to become the leading township of the State . Simultaneous with its advantages, it faces several distinct challenges. In view of its rapid urbanization and the increasing rate of growth of its population, there is an urgent need for urban renewal, a need to regulate expansion of urban areas and to enact the building bye laws. In this context, well planned urban areas with basic infrastructure and amenities, augmentation of the water supply and recharging of the ground water table, proper sanitation facilities are major concerns requiring utmost attention.

In the agriculture sector, clearly the way forward for the district would be transformation of its agriculture to meet the consumption demands of the urban centres through specialization in the production of vegetables and horticulture crops. Connectivity and communication being crucial for development, sustained efforts should be made by the both the government and the community for maintenance of the national highways and arterial roads and for prevention of untoward incidences.

While the district is well placed in the HDI ranking, attention is called for revamping the primary and secondary education in the government sector in rural areas to ensure equitable and inclusive human development. On the issue of employment, the work force needs to be reoriented to the opportunities in the entrepreneurial sector and to the job market requirements in the service sector. As the seat of the Government, the onus for development of the district cannot be left to the Government alone. Public private partnerships and participation of the community would be crucial in shaping and maintaining its development process. Here the rich social capital has to be capitalized. In conclusion, it will depend on the sagacity and the tenacity of the people of the district to realise and appreciate its potentials, recognise the pitfalls, optimize its strengths and opportunities to develop it into a model district.



LIST OF TABLES

## A spiral-bound notebook is shown at an angle. The notebook is open to a page featuring a map of Kohima District. The map is color-coded into several regions: orange in the north, blue in the center, yellow in the south, and green in the east. The title 'MAP OF KOHIMA DISTRICT' is printed at the top of the map. Surrounding the map are labels for neighboring districts: 'WOMBA' to the north, 'ZUNBERGOTO' to the northeast, 'DUMAPER' to the southwest, and 'PASEK' to the southeast. A compass rose is located in the top right corner of the map. In the bottom right corner of the page, there is a small legend or key. Overlaid on the notebook page is the text 'LIST OF TABLES' in a large, teal, serif font. The background of the entire image is a close-up of a rock face with a complex, fractal-like pattern.



# CHAPTER-1

## PROFILE

**Table No.1.1. Basic Profile of Kohima District**

Area	3114 Sq. Km
Total Population (Census of India 2001)	314366
Density of Population	101 Sq. Km
Sex Ratio	944/1000
Total No. of Households	55565
Total No. of Villages	180 (Inhabited) 22(Uninhabited) = 202
Total No. of Towns	1
Live Birth Rate	35.27
Infant Death Rate (Per 1000 Population)(2006)	1.86
Death Rate (Per 1000 Population) (2006)	4.65

Source: Census of India 2001 and Statistical Hand Book of Nagaland 2008, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.1.2. Sex Wise Population in 2001**

District/State	Total Rural Urban	Total Persons	Male	Female	Sex Ratio (Female per 1000 Males)
Kohima	T	314366	161701	152665	944
	R	235782	119668	116114	970
	U	78584	42033	36551	870
Nagaland	T	1988636	1041686	946950	909
	R	1635815	846651	789164	932
	U	352821	195035	157786	809

Source: Statistical Hand Book of Nagaland 2008, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.1.3. Vital Rate**

District/State	2000			2005		
	Live Birth Rate (Per Thousand Population)	Death Rate (Per Thousand Population)	Infant Death Rate (Per Thousand Live Birth)	Live Birth Rate (Per Thousand Population)	Death Rate (Per Thousand Population)	Infant Death Rate (Per Thousand Live Birth)
Kohima	26.05	2.1	4.87	35.31	3.63	1.59
Nagaland	20.34	2.75	6.68	19.47	2.61	2.31

Source: Statistical Hand Book of Nagaland 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.1.4. School Statistics 2005-2006**

District/ State	No. of Schools			HS/HSS/ Intermediate	Enrolment			Teachers	
	Pre- Primary Schools	Primary Schools	Middle Schools		Class I-V	Class VI-VIII	Class IX-XII	PPS/PS	MS
Kohima	0	138	47	87	21740	20828	11297	741	1139
Nagaland	0	1520	481	449	224715	92271	54635	7948	6263

Source: Ministry of Human Resource and Development (MHRD), Government of India  
<http://education.nic.in/stats/StateProfile0506.pdf>.

## CHAPTER-2

### AGRICULTURE

**Table No.2.1. Agricultural Land Use in 2001**

Category	Nagaland (Area in Hectares)	Kohima (Area in Hectares)	Percentage Area of Kohima District to State's Total
Total Jhum Area	917087	126036	13.74
Current Jhum Area	131349	11529	8.78
Terrace/Wet Rice	75988	13004	17.11
Horticulture Crops	15450	1542	9.98
Total Area	1139874	26075	11.70

Source: Department of Agriculture, Government of Nagaland.

**Table No.2.2. Cropped Area**

**(In Percentage)**

Crops	Nagaland		Kohima	
	2000-2001	2006-2007	2000-2001	2006-2007
Cereals				
Paddy	63.05	44.50	59.16	51.09
Other Cereals	21.91	24.91	17.08	23.60
Pulses	1.06	10.13	11.73	8.91
Oil Seeds	9.82	18.97	9.15	11.63
Commercial Crops	4.17	1.49	2.88	4.76
Percentage of Cropped Area to State's Total Cropped Area			21.08	18.95

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.3. Irrigated Area in Kohima District****(In Hectares)**

District/ State	Total Irrigated Area		Gross Irrigated Area		Irrigated Area Under Double Cropping	
	1991-1992	2000-2001	1991-1992	2000-2001	1991-1992	2000-2001
Kohima	14820	16850	15236	19900	416	3050
Nagaland	54400	63850	60224	72650	5824	8800

Source: Statistical Hand Book of Nagaland 1996 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.4. Agricultural Work Force in Kohima District**

Sl. No.	Categories	1991			2001		
		Total	Male	Female	Total	Male	Female
1	Total Workers	147636	97659	49977	134689	76138	58371
2	Cultivators	81511	41807	39704	73157	33379	39778
3	Percentage of Cultivators to Total Workers	55.21	42.81	79.44	54.32	43.74	68.15
4	Agricultural Labour	5268	3668	1600	6287	3682	2605
5	Total Agricultural Labour (2+4)	86779	45475	41304	79444	37061	42383
6	Percentage of Agricultural Workers to Total Workers	58.78	46.57	82.64	58.98	49.56	72.61

Source: Statistical Hand Book of Nagaland 1996 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.5. Agricultural Work Force in Nagaland**

Sl. No.	Categories	1991			2001		
		Total	Male	Female	Total	Male	Female
1	Total Workers	511497	299437	212060	849982	487767	362215
2	Cultivators	371597	178974	192623	544433	271608	272825
3	Percentage of Cultivators to Total Workers	72.64	59.77	90.83	64.05	55.68	75.32
4	Agricultural Labour	7233	5109	2124	33852	18141	15711
5	Total Agricultural Labour (2+4)	378830	184083	194747	578285	289749	288536
6	Percentage of Agricultural Workers to Total Workers	74.06	61.47	91.83	68.03	59.40	79.65

Source: Statistical Hand Book of Nagaland 1996 and 2007, Directorate of Economics and Statistics, Government of Nagaland.



**Table No.2.6. Agricultural Inputs**

District/ State	Mandis (In Number)	Agriculture Tractors (Wheeled) (In Number)	Fertilizer Consumption (In Tonnes)	Fertilizer Consumption (In Tonnes)
	2004	2003	2001-2002	2005-2006
Kohima	4	36	420.73	72
Nagaland	22	262	739.4	629

Source: Estimates by Indicus Analytics Pvt. Ltd. Directory of Wholesale Agricultural Produce Assembling Markets in India, Ministry of Agriculture 2004.

**Note: 1. Total Consumption of Fertilizer (N, P2O5, K2O)**

**Table No.2.7. Area, Production and Yield**  
(Area in Hectares; Production & Yield in Metric Tonnes)

Crops		Nagaland		Kohima	
		2000-2001	2006-2007	2000-2001	2006-2007
Cereals					
a. Paddy	A	150400	164700	29750	23100
	P	230560	263520	47860	39860
	Y	1.53	1.6	1.61	1.73
b. Other Cereals	A	52274	92180	8590	10670
	P	72050	127580	12120	13960
	Y	1.37	1.38	1.41	1.31
Pulses	A	25500	37500	5900	4030
	P	20960	45000	4940	4960
	Y	0.82	1.2	0.84	1.23
Oil Seeds	A	23430	70210	4600	5260
	P	27100	63030	5130	4640
	Y	1.15	0.90	1.12	0.88
Commercial Crops	A	9940	5510	1450	2150
	P	50880	303680	12670	31370
	Y	5.11	55.11	8.74	14.59
Total	A	238534	370100	50290	45210
	P	367480	802810	82720	94790
	Y	1.54	2.17	1.64	2.10

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.8. Percentage Change in Area, Production and Yield during 2001 to 2007**

Crops / Cereals		Nagaland	Kohima
Paddy	A	9.51	-22.35
	P	14.30	-16.76
	Y	4.56	7.26
Other Cereals	A	76.34	24.21
	P	77.07	15.18
	Y	1.02	-7.27
Pulses	A	1370.59	-31.69
	P	114.69	0.40
	Y	46.34	46.99
Oil Seeds	A	199.65	14.35
	P	132.58	-9.55
	Y	- 21.93	-20.90
Commercial Crops	A	- 44.57	48.28
	P	496.86	147.59
	Y	978.56	66.98
Total	A	55.16	-10.10
	P	118.46	14.59
	Y	40.86	27.47

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.9 (a). Percentage Share of Area and Production of Crops to Total Cropped Area and Production**

Crops / Cereals		Nagaland		Kohima	
		2000-2001	2006-2007	2000-2001	2006-2007
Paddy	A	63.05	44.50	59.16	51.09
	P	62.74	32.82	57.86	42.05
Other Cereals	A	21.91	24.91	17.08	23.60
	P	19.61	15.89	14.65	14.73
Pulses	A	1.07	10.13	11.73	8.91
	P	5.70	5.61	5.97	5.23
Oil Seeds	A	9.82	18.97	9.15	11.63
	P	7.37	7.85	6.20	4.90
Commercial Crops	A	4.17	1.49	2.88	4.76
	P	13.85	37.83	15.32	33.09

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

*Table No.2.9 (b). Rank of Agricultural Crops in Terms of Area in Kohima District during 2006-2007 (In Hectare)*

Rank	Crops	Rank	Crops
	Cereals		Pulses
1	Paddy	1	Pea
2	Maize	2	Tur or Arhar
3	Small Millet	3	Naga Dal and Other Rabi Pulses
4	Wheat	4	Lentil
5	Jowar	5	Other Kharif
1	Oil Seeds	6	Beans
	Soybean	7	Urad or Moong
2	Rape or Mustard	8	Kolar (Rajma) and Gram
3	Linseed	9	Black Gram
4	Sesame	1	Commercial Crops
5	Ground Nut		Potato
6	Niger	2	Jute
		3	Sugarcane and Ginger
		4	Cardamom
		5	Tea

Source: Statistical Hand Book of Nagaland 2007, Directorate of Economics and Statistics, Government of Nagaland.



**Table No.2.10. Area and Production of Fruits in Kohima District**  
(Area in Hectare; Production & Yield in Metric Tonnes)

	2001			2007		
	Area	Production	Yield	Area	Production	Yield
Apple	20	70	3.5	10	50	5
Pear	180	720	4	25	50	2
Plum	0	0	0	35	45	1.29
Peach	310	1240	4	30	25	0.83
Orange	400	4000	10	400	200	0.5
Lemon	100	900	9	50	10	0.2
Pomelo	30	210	7	10	40	4
Pomegranate	30	180	6	20	10	0.5
Papaya	100	1800	18	105	100	0.95
Banana	402	7236	18	127	1000	7.87
Guava	100	1000	10	40	280	7
Mango	100	500	5	45	80	1.78
Litchi	100	500	5	0	0	0
Jack Fruit	100	600	6	10	10	1
Pineapple	440	12320	28	350	700	2
Passion fruit	450	3600	8	150	40	0.27
Grapes	20	100	5	20	10	0.5
Medicine & Aromatic	0	0	0	50	25	0.5
Mosambi	0	0	0	10	30	3
Others	430	3870	9	70	700	10
Total	3312	38846	11.72	1557	3405	2.19

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

*Table No.2.11. Percentage Share of Area and Production of Fruits to Total Area and Total Production in Kohima District*

Fruit	Area	Production
Orange	25.69	5.87
Pineapple	22.48	20.56
Passion Fruit	9.63	1.17
Banana	8.16	29.37
Papaya	6.74	2.94
Medicine & Aromatic	3.21	0.73
Lemon	3.21	0.29
Mango	2.89	2.35
Guava	2.57	8.22
Plum	2.25	1.32
Peach	1.93	0.73
Pear	1.61	1.47
Pomegranate	1.28	0.29
Grapes	1.28	0.29
Apple	0.64	1.47
Pomelo	0.64	1.17
Jack Fruit	0.64	0.29
Mosembi	0.64	0.88
Others	4.50	20.56

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.12. Area and Production of Major Vegetables in Kohima District**  
(Area in Hectare; Production & Yield in Metric Tonnes)

		2001		2007			2007	
	Area	Production	Yield	Area	Production	Yield	Percentage Share of Area to Total Area	Percentage Share of Production to Total Production
Sweet Potato	50	750	15	15	40	2.66	0.81	0.48
Cabbage	195	2730	14	20	26	1.3	1.08	0.31
Cauliflower	50	400	8	5	6	1.2	0.27	0.07
Brinjal	85	850	10	25	30	1.2	1.35	0.36
Chillies	105	1050	10	130	145	1.11	7.04	1.75
Peas	50	440	8.8	20	140	7	1.08	1.69
Beans	340	1700	5	100	100	1	5.42	1.20
Ladies Finger	90	810	9	10	13	1.3	0.54	0.16
Tomato	90	1260	14	180	185	1.02	9.75	2.23
Ginger	130	1690	13	361	800	2.21	19.56	9.65
Garlic	250	1500	6	10	38	3.8	0.54	0.46
Radish	190	2660	14	15	13	0.86	0.81	0.16
Colocassia	375	3750	10	220	2000	9.09	11.92	24.13
Tapioca	170	2040	12	100	1200	12	5.42	14.48
Chowchow	300	4500	15	200	2000	10	10.83	24.13
Blackpepper	0	0	0	5	1	0.2	0.27	0.01
Turmeric	0	0	0	10	30	3	0.54	0.36
Tree Tomato	100	900	9	20	120	6	1.08	1.45
Leafy Veg.	287	3445	12	300	400	1.33	16.25	4.83
Others	470	4700	10	100	1000	10	5.42	12.07
Onion	250	3250	13	0	0	0		
Total	3577	38425	10.74	1846	8287	4.48		

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.



**Table No.2.13. Major Plantation Crops in Kohima District**  
(Area in Hectare; Production & Yield in Metric Tonnes)

2001				2007		
Crop	Area	Production	Yield	Area	Production	Yield
Coffee	400	20	0.05	0	0	0
Cardamom	600	450	0.75	100	10	0.1
Cashew Nut	50	5	0.1	100	0	0
Areca Nut	25	0	0	0	0	0
Coconut	120	660	5.5	100	10	0.1
Total	1195	1135	0.95	300	20	0.07

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.14. Horticultural Crops**  
(Area in Hectare; Production & Yield in Metric Tonnes)

2001				2007		
Crop	Area	Production	Yield	Area	Production	Yield
Fruits	3312	38846	11.72	1557	3405	2.18
Vegetables	3577	38425	10.74	1846	8287	4.48
Plantation Crops	1195	1135	0.94	300	20	0.07
Total	8084	78406	9.69	3703	11712	3.16

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.15. Percentage Change in Area, Production and Yield of Horticulture Crops in Kohima District from 2001 to 2007**

	Area	Production	Yield
Fruits	-52.98	-91	-81
Vegetables	-48.39	-78	-58.28
Plantation Crops	-74.89	-98.23	-93.61

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.16. Ranking of Top Ten Fruits and Vegetables in Kohima District during 2007**

Fruits		Vegetables	
Production	Area	Production	Area
Banana	Orange	Colocassia	Ginger
Pineapple	Pineapple	Chowchow	Leafy Vegetable
Guava	Passion Fruit	Tapioca	Colocassia
Orange	Banana	Ginger	Chowchow
Papaya	Papaya	Leafy Vegetable	Tomato
Mango	Medicine & Aromatic	Tomato	Chillies
Apple	Lemon	Chillies	Beans
Pears	Mango	Peas	Tapioca
Plum	Guava	Tree Tomato	Brinjal
Passion Fruit	Plum	Beans	Peas

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.17. Livestock Production in Kohima District**

Livestock	1997		2003		Percentage Change during 1997 to 2003	
	Number	Per Capita	Number	Per Capita	Number	Per Capita
Cattle	68558	0.33	34940	0.11	-49.04	-66.02
Buffaloes	640	0.01	1492	0.01	133.13	55.46
Mithun	7303	0.03	5669	0.02	-22.37	-48.24
Pig	35960	0.17	33844	0.11	-5.88	-37.24
Sheep	150	0.01	558	0.01	272	148.06
Goat	15021	0.07	6766	0.02	-54.96	-69.96
Rabbit	3668	0.01	3747	0.01	2.15	-31.88
Horse	70	0.01	0	0	-100	-100
Dogs	8003	0.04	14711	0.05	83.82	22.58
Fowls	226336	1.08	224123	0.71	-0.98	-33.97
Ducks	4349	0.02	11475	0.04	163.85	75.95
Total	370058	1.77	337325	1.07	-8.85	-39.22

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.18. Production of Milk, Egg and Meat in Nagaland**

	2001		2006		Percentage Change during 2001 to 2006	
	Total Quantity	Per Capita	Total Quantity	Per Capita	Total Quantity	Per Capita
Milk ('000 M.T)	50.93	0.02	74.18	0.04	45.65	86.51
Egg (Numbers in Lakh)	540	27.15	868	43.65	60.74	60.77
Meat ('000 M.T)	25.5	0.01	63.25	0.03	148.04	218.06

Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.19. District Domestic Product for Agriculture in Kohima District** (₹ in Lakhs)

District/ State	District Domestic Product Agriculture (At Current Prices)	District Domestic Product Agriculture Per Capita (At Current Prices)	District Domestic Product Agriculture Per Person in Rural Areas (At Current Prices)	District Domestic Product Agriculture Per Agricultural Laborer & Cultivator (At Current Price)	Annual Short Term Growth Rate of District Domestic Product Agriculture (In Real % Terms)
	2005-2006				(2000-2001 to 2005-2006)
Kohima	29548.14	8147.8	10858.92	31495.13	12.74
Nagaland	235413.6	84338.99	12496.57	38277.73	14.21

Source: Estimates by Indicus Analytics Pvt.Ltd.

- Notes :**
1. Gross domestic product at current prices originating from agriculture sector at district level.
  2. Per capita figure is the total agriculture gross domestic product divided by number of population in corresponding district.
  3. Per capita figure is the total agriculture gross domestic product divided by number of rural population in corresponding district.
  4. Per capita figure is the total agriculture gross domestic product divided by number of agricultural labourers and cultivators in corresponding district.



**Table No.2.20. Sector Wise Contribution to NSDP at Constant Prices for Nagaland (2000-2001 to 2006-2007)** (₹ in Lakhs)

Industry	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Agriculture	88912	101550	115952	122627	133916	136078	136798
Forestry	9440	9702	9759	10615	11150	13828	16380
Fishery	2078	2136	2188	1465	1872	2034	2231
Agri. & Allied	100430	113388	127899	134707	146938	151940	155409
Primary	100523	113572	128154	134997	147250	152255	155735
Secondary	38408	45252	52734	55035	55966	62136	72159
Tertiary	166255	181405	193242	201201	206745	209966	221391
NSDP	305186	340229	374130	391233	409961	424357	449285

Source: Directorate of Economics and Statistics, Government of Nagaland.

**Table No.2.21. Agricultural Finance in Kohima District** (₹ in Lakhs)

District/ State	Agricultural Credit of All Scheduled Commercial Banks	Agricultural Credit of All Scheduled Commercial Banks Direct Finance	Agricultural Credit of All Scheduled Commercial Banks Indirect Finance	Agricultural Credit of All Scheduled Commercial Banks	Agricultural Credit of All Scheduled Commercial Banks Direct Finance	Agricultural Credit of All Scheduled Commercial Banks Indirect Finance
	March 2001			March 2005		
Kohima	22097	15694	6403	64563	53087	11476
Nagaland	200088	186954	13134	298748	227616	28100
Percentage to Total	11.04	8.39	48.75	21.61	23.32	40.84

Source: Estimates by Indicus Analytics Pvt.Ltd.

- Notes:**
1. Column 2 & 5: Total bank credit to agricultural sector by Scheduled Commercial Banks
  2. Column 3 & 6: Direct agricultural advances up to Rs. 5 lakh by banks directly to farmers for agricultural purposes for a period not exceeding 12 months
  3. Column 4 & 7: Finance provided by banks to farmers indirectly, i.e., through other agencies

## CHAPTER-3

### INFORMAL SECTOR

**Table No.3.1. Organized Sector Establishments in Nagaland in 2004**

Total	Public Sector	Private Sector	
		Large	Medium/Small
1014	851	32	131

Source: Nagaland Human Development Report 2004.

**Table No.3.2. Districts with Highest Number of Organized Sector Establishments in 2004 (District Wise)**

Dimapur/ Kohima	313
Mokokchung	196
Zunheboto	120

Source: Nagaland Human Development Report 2004.

**Table No.3.3. Gross State Domestic Product at Constant Prices 2006-2007 (₹ in Lakhs)**

Primary Sector	Secondary Sector	Tertiary Sector
159565	79007	246420

Source: Directorate of Economics and Statistics, Government of Nagaland.

## CHAPTER-4

### ECONOMIC LIVELIHOOD (NON-RURAL)

**Table No.4.1. Occupational Pattern in Kohima District in 2009**

Occupation	Kohima		Total	
	Rural	Urban	Rural	Urban
Farmer/Cultivator	1229	21	4320	135
Daily Wage Earner	N.A.	10	24	39
Government Servant	286	929	71	1187
Business/ Entrepreneurs	46	310	139	378
Others	63	317	137	417

Source: DHDR Sample Survey 2009.

**Table No.4.2. Types of Workers in Kohima District in 2001**

Workers	Kohima
Total Workers	134,689
Main Workers	114,669
Marginal Workers	20,020
Non-Workers	179,677

Source: Census of India 2001.

**Table No.4.3. Urban Dwellings**

District/ State	Status of Dwelling Units			No. of Rooms in the Dwelling Unit			Use of Latrine		
	Own House	Rented	Government Quarters	Two Rooms	Three Rooms	Four and Above	Exclusive	Shared with Other Households	Public/ Community
Kohima	611	963	13	395	504	688	1027	536	24
Nagaland	959	1148	49	517	756	883	1412	624	120

Source: DHDR Sample Survey 2009.

## CHAPTER-5

### HEALTH

**Table No. 5.1. Health Indices**

Health Index	Nagaland	National	National Target for 2012
Infant Mortality Rate (IMR)	38 (NFHS-3)	57 (NFHS-3)	30 per 1000 live births
Maternal Mortality Rate (MMR)	N.A.	407 (NFHS-3)	100 per lakh
Total Fertility Rate (TFR)	3.7 NFHS-3)	3.0 (NFHS-3)	2.1

Source: National Family Health Survey-3, 2005-2006.



**Table No.5.2. Health Centres in Nagaland**

Sl.No	Health Centre	Total
1	Districts Hospitals	11
2	Community Health Centres (CHC)	21
3	Primary Health Centres (PHC)	86
4	Subsidiary Health Centres	27
5	Big Dispensaries	15
6	Sub Centres (SC)	397
7	TB Hospital	2
8	Mental Hospital	1
9	Nursing School	3
10	Para Medical Training Institute (P.M.T.I.)	1

Source: Statistical Hand Book of Nagaland 2008, Directorate of Economics and Statistics, Government of Nagaland

## CHAPTER-6

### BASIC SERVICES

**Table No.6.1. Actual Expenditure and Budget Allocation under ARWSP/PMGY/BMS for Kohima District**  
(₹ in Lakhs)

Actual Expenditure (2001-2002)		Budget Provision (2002-2003)		Actual Expenditure (2002-2003)				Budget Provision (2003-2004)			
ARWSP	PMGY	ARWSP	PMGY	ARWSP	PMGY	BMS	Total	ARWSP	PMGY	BMS	Total
103.15	273.8	72.83	73.17	55.18	149.7	228.8	433.7	185.9	128.3	71.68	385.89

Source: Annual Administrative Report 2003-2004, Department of Public Health Engineering, Government of Nagaland.

Note: 1. ARWSP: Accelerated Rural Water Supply Programme  
2. PMGY : Pradhan Mantri Gramodaya Yojana  
3. BMS : Basic Minimum Services

**Table No.6.2. Rural Water Supply in Kohima District as on 1/4/2003**

NC	Pop NC	PC	Pop PC	FC	Pop FC	Total NC/ PC/ FC	Total Pop	<10 lpcd	11-20 lpcd	21-30 lpcd	31-40 lpcd	>41 lpcd	Total
6	16353	159	263285	35	19866	200	299504	43	48	40	30	33	194

Source: Annual Administrative Report 2003-2004, Department of Public Health Engineering, Government of Nagaland.

Note: 1. NC: Not Covered  
2. PC: Partially Covered  
3. FC: Fully Covered

**Table No.6.3. Status of Rural Water Supply in Kohima District**

Year	NC	PC	SB	FC	Total
April 2008	7	11	19	69	106
January 2009	7	9	17	73	106

Source: Annual Administrative Report 2008-2009, Department of Public Health Engineering, Government of Nagaland.

Note: 1. NC: Not Covered  
 2. PC: Partially Covered  
 3. FC: Fully Covered  
 4. SB: Slip Back

**Table No.6.4. Physical Progress Report of Total Sanitation Campaign 2004 in Kohima District**

Project Objectives						Project Performance				
Report upto	Households	Sanitary Complex	School Toilets	Toilets for Balwadis	RSM/ PCs	Households	Sanitary Complex	School Toilets	Toilets for Balwadis	RSM/ PCs
January 2004	25610	0	135	0	3	9344	50	84	0	0

Source: Annual Administrative Report 2003-2004, Department of Public Health Engineering, Government of Nagaland.

Note: 1. RSM: Rural Sanitary Mats  
 2. PCs: Production Centres

**Table No.6.5. Financial Progress Report of Total Sanitation Campaign 2004 in Kohima District (₹ in Lakhs)**

	Approved Share			Funds Released		Expenditure Reported			
Project Cost	Centre	State	Beneficiary	Centre	State	Centre	State	Beneficiary	Total
262.94	175.64	52.63	34.67	52.69	17	52.62	7	0	59.62

Source: Annual Administrative Report 2003-2004, Department of Public Health Engineering, Government of Nagaland.

**Table No.6.6. Total Sanitation Campaign Physical Progress Report in Kohima District as on 19/02/2009**

Individual BPL Household		Individual APL Household		Sanitary Complex for Women		School Toilets		Balwadi Toilets		Rural Sanitary Mats	
O	A	O	A	O	A	O	A	O	A	O	A
25610	14651	13063	0	189	163	365	159	184	70	3	2
	57%		0%		86%		44%		38%		67%

Source: Annual Administrative Report 2008-2009, Department of Public Health Engineering, Government of Nagaland.

Note: 1. O: Objectives  
 2. A: Achievement

## CHAPTER-7

### EDUCATION

**Table No.7.1. Status of Enrolment, Dropout and Completion Rate (In Percentage)**

Year	6 - 11 Age Group			11- 14 Age Group			Completion Rate
	GER	NER	Cohort Drop Out	GER	NER	Cohort Drop Out	
Kohima							
2006 - 2007	97.12	94.81	4.63	94.3	91.24	9.37	92.37
2007 - 2008	105.85	93.57	3.3	110.33	96.1	3.2	92.55
2008 - 2009	101.47	96.82	2.58	105.2	97.07	3.16	75.19
Nagaland							
2006- 2007	94.46	89.90	4.4	91.11	84.54	8.68	79.41
2007- 2008	108.00	89.00	7.4	90.65	82.00	8.2	84.97
2008- 2009	100.23	94.27	2.51	103.47	89.24	3.91	78.64

Source: District Information System on Education 2006-2007, 2007-2008, 2008-2009

Note: 1.GER: Gross Enrolment Ratio  
2. NER: Net Enrolment Ratio

**Table No.7.2. Civil Works Completed Under SSA in Kohima (as on March 2010)**

Name of Work	Number of Units
Construction of EBRCs	4
Construction of 1 Room	168
Construction of 2 Rooms	70
Full GPS	12
Full GMS	11
Boundary Wall	140
Toilet & Urinal	161
Water Facility	108
Electrification	22

Source: Annual Work Plan & Budget April 2009- March 2010 of District Mission Authority (DMA).



## CHAPTER-8

### GENDER ISSUES

**Table No.8.1. Enrolment of Students during 2001-2002 & 2007-2008 (In Numbers)**

Year	Nagaland/ Kohima	Primary School		Middle School		High School		Higher Sec. School		Total
		Male	Female	Male	Female	Male	Female	Male	Female	
2001- 2002	Nagaland	67454	63655	47003	45204	76582	68649	21005	16957	406509
	Kohima	10420	10203	7882	7573	13409	11862	6447	5106	72902
2007- 2008	Nagaland	162798	147991	66877	64348	17474	17387	10464	8785	461204
	Kohima	52707	46298	16596	15848	4123	4195	4397	3855	148019

Source: Directorate of School Education 2001-2002, 2007-2008, Government of Nagaland.

## CHAPTER-9

### INFRASTRUCTURE & CONNECTIVITY

**Table No.9.1. Road Network in Kohima District**

District/ State	2003-2004					
	Surfaced Roads (Length in Kms)	Unsurfaced Roads (Length in Kms)	Total Road (Length in Kms)	Percentage of Surfaced Roads in Kohima to Total Road Length in Kohima	Percentage of Total Roads in Kohima to Total Roads in Nagaland	Total Road Length per 100 sq. kms
Kohima	1543.5	824	2367.5	65.2	17.7	76.1
Nagaland	6225.62	7145.83	13371.45	46.6	N.A.	80.7

Source: Statistical Hand Book of Nagaland 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.9.2. Density of Road Network in Kohima District**

District/ State	2003-2004			
	Surfaced Roads (Length in Kms)	Unsurfaced Roads (Length in Kms)	Surfaced Road Length per 100 sq. kms	Unsurfaced Road Length per 100 sq. kms
Kohima	1543.5	824	49.6	26.5
Nagaland	6225.62	7145.83	37.6	43.1

Source: Statistical Hand Book of Nagaland 2007, Directorate of Economics and Statistics, Government of Nagaland.

**Table No.9.3. Registration of Vehicles in Kohima District during 2005-2007**

Type of Vehicle	RTO Kohima	Total Registration Nagaland	Percentage of Registration in RTO Kohima to State's Total
Transport Vehicles			
Trucks & Lorries, Light Motor Vehicles (Goods)	1730	4158	41.6
Buses	24	197	12.2
Taxis	98	283	34.6
Light Motor Vehicles (Passengers)	0	0	0
Total Transport	1852	5086	36.4
Non-Transport Vehicles			
Two Wheelers	123	2862	4.3
Cars	684	2647	25.8
Jeeps	120	482	24.9
Omni Buses	0	134	0
Tractors	0	32	0
Trailers	4	36	11.1
Other Vehicles Not Covered	0	0	0
Total Non-Transport	927	6231	14.8
Government Vehicles	435	435	100
Grand Total	3214	11752	27.3

Source: Annual Administrative Report 2006-2007, Department of Motor Vehicles, Government of Nagaland.

**Table No.9.4. Performance of Village Electricity Management Boards in Kohima District**

District/State	No. of Single Point Metering Villages	Total Bill upto March 2008 (₹ in Lakhs)	Total Collection upto March 2008 (₹ in Lakhs)	Percentage of Collection	Arrear (₹ in Lakhs)	Percentage of Arrear
Kohima	75	134.1	89.53	66.77	44.56	33.22
Nagaland	552	816.06	543.83	66.64	272.23	33.36

Source: Annual Administrative Report 2008, Department of Power, Government of Nagaland.

**Table No.9.5. Summary of Billing, Pre and Post Single Point Metering for October 2003**

District/State	Monthly Billing Pre-SPM (in ₹)	Monthly Billing Post-SPM (in ₹)	Percentage Increase	20 Percent Rebate for VEMBs (in ₹)
Kohima	27,038	60,062	122	15,016
Nagaland	2,41,302	4,48,534	86	1,11,656

Source: Communitisation of Electricity Management in Villages, January 2004, Department of Power, Government of Nagaland.

**Table No.9.6. Number of Telephone Connections**

District/State	2000-2001	2001-2002	2002-2003	2003-2004
Kohima	10289	12322	12949	14035
Nagaland	33052	38597	44647	47035

Source: Statistical Hand Book of Nagaland 2007, Directorate of Economics and Statistics, Government of Nagaland.



## CHAPTER-10

### FORESTS AND NATURAL RESOURCES

**Table No. 10.1. Forest Area of Nagaland.**

(Sq. Km)

Description	Nagaland	Kohima
Geographical Area	16579	3283
Very dense forest	238	29
Moderate dense forest	5602	1051
Open Forest	7881	1765
Total	13719	2845
Forest Area as % of Geographical Area	82.75	86.66
Changes (2005-2007)	-201	-50

Source: Forest Survey of India (FSI), State Forest Report 2009, Government of Nagaland

**Table No.10.2 Area Under Forest**

(Area in Hectares)

Year	District	Total Forest	Reserved Forest	Proposed Reserved Forest	Protected Forest Accessible	Village Forest Degraded Forest Wildlife	Sanctuary
2008	Kohima	81029.01	N.A.	3926.01	N.A.	76180	923
	Nagaland	862929.53	8583	19246.63	23791.70	284280	22237

Source: Statistical Hand Book of Nagaland 2008, Directorate of Economics and Statistics, Government of Nagaland

**Table No. 10.3 Summary of Wildlife Killed during 2008 in Four Sample Villages in Kohima District**

Number of Sampling Villages	4
Total Number of Households in Four Villages	1918
Number of Habitual Hunters	77
Percentage of Habitual Hunters' Household	4
Jungle Cat	1513
Large Animal	581
Small Animal	5398
Large Birds	2649
Small Birds	30942
Total Number of Wildlife Killed	41083

Source: NEPED

Table No.10.4. Traditionally Known Types of Plant Species

Plants	Name of Five Sample Villages of Kohima District				
	Kohima	Thekrejuma	Mezoma	Jotsoma	Dzüleke
Tree	182	247	154	222	108
Herb	50	246	21	204	N.A.
Vegetable	49	123	40	92	34
Paddy	71	40	20	48	N.A.
Bamboo	27	14	8	18	N.A.
Mushroom	18	16	N.A.	7	N.A.
Flower or Orchid	30	N.A.	22	35	N.A.
Creeper	34	N.A.	34	11	N.A.
Fern or Leafy	44	N.A.	18	N.A.	N.A.
Wild Food	N.A.	N.A.	N.A.	56	56
Fodder	18	N.A.	N.A.	N.A.	37
Fruits	N.A.	N.A.	N.A.	59	N.A.
Cane or Rope	N.A.	N.A.	N.A.	26	N.A.
Colocassia	17	N.A.	N.A.	N.A.	N.A.
Algae	N.A.	N.A.	17	N.A.	N.A.
Cereal	N.A.	N.A.	4	N.A.	N.A.
Parasitic	N.A.	N.A.	4	N.A.	N.A.
Millet	25	N.A.	N.A.	N.A.	N.A.
Shrub or Hedge	51	N.A.	N.A.	N.A.	N.A.
Total	616	686	342	778	235

Source: NEPED

Table No.10.5. Ownership of Forest Area in Nagaland in 2008. (Area in Hectare)

Particulars	Forest Area	Percentage to Total Forest Area
Ownership		
State	100823	11.68
Co-operative Bodies	N.A.	N.A.
Private	762107	88.32
Total	862930	100.00

Source: Statistical Hand Book of Nagaland 2008, Directorate of Economics and Statistics, Government of Nagaland.

## CHAPTER-12

### HUMAN DEVELOPMENT INDICES

*Table No.12.1. Development Indices for Kohima*

Published Indices in HDR 2004*	HDI	Rank	GDI	Rank	HPI	Rank
	0.68	4	0.58	1	33.08	5
Revised indices	0.66	4	0.54	1	35.7	5

\*Source: Nagaland Human Development Report 2004.

*Table No.12.2. Intertemporal Comparisons*

Year	District	HDI	Rank	GDI	Rank	HPI	Rank
2001*	Kohima	0.66	4	0.54	1	35.7	5
2008	Kohima	0.82	1	0.76	1	27.2	1

\*Source: Nagaland Human Development Report 2004.





# APPENDICES



## 1. SELECTION PROCEDURE OF SAMPLE VILLAGES

Preparation of the District Human Development Report for Kohima, Phek and Mon was taken up under the GOI-UNDP project 'Strengthening of State Plans for Human Development'. Selection was made as per the level of development and their ranking of Human Development Index. Kohima and Mon represent the extremes of developed and least developed districts while, Phek represents moderate development.

Sampling is the process of selection units (e.g., people, organizations) from a population of interest to study the sample and to generalize for the population from which they were selected. Having known the number of villages, random sampling was used to select the villages to be surveyed. Fifteen percent of the villages in the three districts spread over different Rural Development Blocks within each district were selected. Systematic random sampling of quasi-random sampling was adopted in the actual selection of the village. This method of selecting the sample was also helpful while selecting the household to be surveyed in the selected village.

The following illustrates the selection of  $n$  out of  $N$  element. Suppose the population size  $N$  is an integral multiple of the desired sample size  $n$ , the desired sampling interval  $k = N/n$  is also an integer. The interval  $k$  divides the population into  $n$  zone of  $k$  units. One unit gets selected from each zone and has the same location in each zone. Since the first number is drawn at random from 1 to  $k$ , each unit gets the same probability  $1/k$  of selection

$$k = N/n$$

(whereby  $k$  denotes the sampling interval of selection interval,  $N$  = Total number of villages and  $n$  = number of sample selection)

Fifteen percent of selected villages in the three districts consist of 49 villages. Under Kohima district 13 villages were covered, under Mon district 15 villages and under Phek district 13 villages were covered. The selected villages in the districts spread over the different Rural Development Blocks and 15 percent from each block were selected for equal representation. Using the above method the urban blocks were also selected using the NSSO, Urban frame Survey (UFS). A total of 29 blocks were surveyed, consisting of 20 blocks in Kohima, 4 blocks in Mon and 3 blocks in Phek.

Kohima			Mon			Phek		
1	Total No. of Sample Blocks/Villages	33	1	Total No. of Sample Blocks/Villages	19	1	Total No. of Sample Blocks/Villages	16
2	Total No. of Sample Household	3609	2	Total No. of Sample Households	2356	2	Total No. of Sample Households	1511



# GOVERNMENT OF NAGALAND SURVEY SCHEDULE FOR COLLECTION OF DATA FOR DHDR, NAGALAND UNDER GOI-UNDP PROJECT (2009)

DISTRICT	
NAME OF THE VILLAGE/BLOCK NO.	

1	Name and Address of Household	Size of Household	Major Occupation (Description)	Annual Income Level of Household (Indicate the given Code)
				$\leq 75,000$ , (Code-1) $\geq 75,000 \leq 1,50,000$ , (Code-2) $\geq 1,50,000 \leq 3,00,000$ , (Code-3) $\geq 3,00,000$ , (Code-4)

## A: EDUCATION SECTION

Sl.No.	Item (Indicate Code: Yes - 1, No - 2)		Code
1	Do you have any children attending school?		
2	Have you been attending Parent Teacher Meeting?		
3	Do your children get the following?	1. Free Textbook & Exercises	
		2. Free Raincoat	
		3. Free Schoolbag (for Girls)	
		4. Any Others	
4	Does Mid-Day Meal help your children?		
5	Are you satisfied with the education imparted to your children in the school?		
6	Does anyone help him/her in studies at home?		
7	Do your children find it difficult to learn the following subjects?	1. Math	
		2. Science	
		3. Social Science	
		4. English	
		5. Hindi	
8	Do you face any problem as a parent in educating your children?	1. Financial	
		2. Poor Teacher	
		3. Distance	

## B: BASICS AMENITIES SECTION

Sl.No.	Item (Indicate the Given Code: Yes - 1, No - 2 or as Specified Against the Item)	Code
1	Does your house have water pipe connection?	
2	Does your village/ward have a	1. Community Well
		2. Water Reservoir
		3. Rain Water Harvesting
3	What type of toilet and septic tank do you have? (Code: Temporary - 1, Concrete - 2)	
4	Does your village/ward have a drainage system?	
5	Where do you dispose your garbage? (Code: Common Open Space - 1, Private Composite Pit - 2, No Specific Arrangement - 3)	
6	Are your villagers/community concerned over the issues of clean drinking water and sanitation?	
7	Besides the Government are there any NGOs involved in providing these services?	
8	Has the communitisation of PHE Department improved the drinking water facilities of your village? (Code: Yes - 1, No - 2, Not Communitised Yet - 3)	

## C: GENDER ISSUES SECTION

	Tick the Sex of the Respondent (only for Part C, D & E)	Male	Female
Sl.No	Item ( Give the Code as Specified Against Each Item)	Code	
1	Do you support 33% reservation for women in Municipal/Town Committees? (Code: Yes - 1, No - 2, Can't Say - 3)		
2	Do you know the women member(s) in your VDB/Municipal/Town Council? (Code: 1 but below 3 -1, 4 and Above -2, None - 3)		
3	Do you agree that customary laws favour men and discriminates women? (Code: Yes - 1, No - 2, Can't Say - 3)		
4	Do you support that women should have equal land and property rights (acquired by couple after marriage)? (Code: Yes - 1, No - 2, Can't Say - 3)		
5	Do you support that both men and women should share household reproductive work equally? (Code: Yes - 1, No - 2, Can't Say - 3)		
6	Do you agree that both girls and boys are getting quality education from Government schools? (Code: Yes-1, No-2, Can't Say-3)		
7	Do you agree with the existing daily wage disparity between men and women? (Code: Yes - 1, No - 2, Can't Say - 3)		
8	Are you satisfied with the basic health services available in your areas? (Code: Yes - 1, No - 2, Can't Say - 3)		
9	Are both men and women folks aware about the mode of HIV/AIDS & STDs transmission? (Code: Yes - 1, No - 2, Can't Say - 3)		
10	Would you agree that if women are in decision making, gender friendly policies such as drinking water, economy (child and old aged), maternal & child health, education and health services would be better? (Code: Yes - 1, No - 2, Can't Say - 3)		

## D: GENDER AND NATURAL RESOURCE MANAGEMENT SECTION

Sl. No.	Item (Give the Code as Specified Against Each Item)	Code
1	Who is responsible for the control, the management of agriculture and forest land? (Code: Women - 1, Men - 2, Community -3)	
2	Who is responsible for seed selection, weeding and marketing activities? (Code: Women - 1, Men - 2, Both - 3)	
3	Who is responsible for management of water, fire-wood and NTFPs (Non-Timber Forest Produce) for household use? (Code: Women - 1, Men - 2, Both - 3)	
4	Who has control rights over money income from cash crops or agricultural produce? (Code: Women - 1, Men - 2, Both - 3)	
5	Who gets extension services in crop and tree management (technical training, inputs, exposure visits) ? (Code: Women - 1, Men - 2, Both - 3, None - 4)	
6	In what way, can you feel the difference of Natural Resources degradation now and 20 years ago? (Code: Water Scarcity - 1, Depletion of Soil Fertility - 2, Climatic Change - 3)	
7	In your opinion, who should be more responsible to care for our Natural Resources? (Code: Government - 1, Individuals - 2, NGOs - 3)	
8	Will you agree with this statement, "All humans do not understand natural resources, most humans do not value natural resources! Yet we live only because we have the natural resources". (Code: Strongly Agrees - 1, Agree - 2, Do Not Agree - 3)	

## E: HEALTH ISSUE SECTION

Sl.No.	(Indicate the Given Code: Yes - 1, No - 2)	Code
1	Can you access health services easily within 5 kms?	
2	Are these health services available?	i) Immunization (mother and child)
		ii) Ante-natal check-up
		iii) Delivery Facilities
		iv) JSY Benefits
		v) Malaria Treatment
		vi) Tuberculosis Treatment (DoTs)
		vii) HIV/AIDS services
		viii) Diarrhoeal Diseases Treatment
		ix) First Aid services
		x) Medicines
		xi) Ambulance services
		xii) Family Planning services (Condoms, IUCD, Pills etc.)
		xiii) Any specialized health camps conducted?(last one year)
3	Do you have a Health Committee?	
4	Has communitisation contributed towards the improvement of health services in your area?	
5	Is there any women representation in the Health Committee?	



## F: INFRASTRUCTURE & CONNECTIVITY SECTION

Sl No.	(Indicate the Given Code: Yes - 1, No - 2 or as Specified Against the Item)	Code
1	Is there electrical connection in your village?	
2	Is your electricity bill cheaper after communitisation?	
3	Are you satisfied with the management & regularity of power supply after communitisation?	
4	Is there PCO at a walkable distance from your home?	
5	Do you avail the service of CIC/Cyber café in your locality?	
6	Do you spend more than Rs. 20 per day for transportation?	
7	Which of the following mode of public transportation do you use more? (Code: NST Bus - 1, Local Pvt. Bus - 2, Local Taxi - 3, Own - 4)	
8	Do you think there is a need for more road linkages between villages & towns?	
9	Which of the following gadget(s) do you have at present? (Code: Landline Telephone - 1, WLL - 2, Mobile - 3)	
10	Is public transportation adequately available in your village/town?	

## G: MIGRATION SECTION

Sl.No.	(Indicate the Given Code: Yes - 1, No - 2 or as Specified Against Each Item)	Code
1	Given a choice where would you prefer to settle down? (Code: Rural - 1, Urban - 2)	
2	In your opinion do the urban areas offer better quality of Life?	
3	In a Scale of 1 to 5, rank the following as primary factor of Rural Migration to Urban Area.	a). Better Employment & Income Generation
		b). Better Education Facilities.
		c). Better Health Facilities.
		d). Better Entertainment Amenities
		e). Better Transport & Communication facilities

## H: URBAN ECONOMIC-LIVELIHOOD SECTION (ONLY FOR URBAN BLOCKS)

Sl.No.	Item (Give the Code as Specified Against Each Item)	Code
1	Status of the Dwelling Unit (House). (Code: Own House - 1, Rented - 2)	
2	Number of Rooms in the Dwelling Unit (House) (Code: Two Rooms - 1, Three Rooms - 2, Four & Above - 3)	
3	Use of Latrine. (Code: Exclusive Use of Household - 1, Shared with Other Household(s) - 2, Public/Community Latrine - 3)	

## 2. PARTICIPANTS IN THE WORKSHOP ON KOHIMA DISTRICT HUMAN DEVELOPMENT REPORT 2009 HELD IN THE CONFERENCE HALL OF DEPUTY COMMISSIONER, KOHIMA ON 8.10.2009.

Sl. No.	Name	Designation/Department	
1	Manoj Pant	Professor	Jawaharlal Nehru University
2	Kevileno Angami	OSD	Planning & Coordination
3	P. Y. Ovung	Jt. Director	Economic & Statistics Dept
4	Kanihar Kant	Research Associate	Jawaharlal Nehru University
5	Smita Sarangi	Asstt. Commissioner	D.C. Office
6	V. Lovitoly Sema	EAC	Kohima
7	Zarenthung Ezung	Under Secretary	Civil Secretariat.
8	Sharon Longchari	EAC	D.C. Office
9	Avelu Ruho	EAC	D.C. Office
10	Asangla Imsong	DPRO (Kohima)	IPR
11	R.N. Chhhipa	R.O & Controlling Officer	Directorate of Census Operation
12	Neizovonuo Visa	Astt. Director	Directorate of Rural Development
13	Nukshila Jamir	Deputy Director	Directorate of Rural Development
14	Kiyasetono Vizo	Deputy Director	Directorate of Social & Welfare
15	E. Meru	Secretary	Forest
16	B. Kilangla Jamir	Asstt Professor	Nagaland University
17	Temjenzulu Jamir	Asstt Professor	Nagaland University
18	Dr. N. L. Chankija	M.S. NHAK	Dept. of Health & Family Welfare
19	Lhouvizolie	Dobashis	D.C. Office
20	M. Toshi Jamir	SSA	NIC
21	Eporaj Leegadi	Asstt Engg.	NIC
22	K.K Saravana Kumar	IFS	Forest
23	Vekhoto	SA	Planning & Coordination
24	T. Anung	ADC (Finance)	Planning & Coordination
25	Kevimhietuoŭ Sorhie	UNVs	UNDP/GOI
26	Bendangtoshi	UNVs	UNDP/GOI
27	Charles Kikon	SO	DES

28	Temjenrenla Kechu	Asst Director	Urvban Development Dept.
29	Vengota Nakro	NDU	NEPED
30	K. Seyie	Secy Finance	Angami Public Organisation
31	Nishu Rita Kroacha	Correspondent	Eastern Mirror
32	Megono L. Zetsuvi	Jt Director	Hihgier Education
33	Neilhousienuo Chakruno	AWO (Treasurer)	Angami Women Organisation
34	Rokhono	Press Secy	Angami Women Organisation
35	Keneingutuo	Dobashis	D.C. Office
36	Neisalhou Yase	Dobashis	D.C. Office
37	Thepfurielie Kire	Dobashis	D.C. Office
38	Menuolie Mere	Dobashis	D.C. Office
39	Sechu Chase	Dobashis	D.C. Office
40	Leneikhonuo V.	EAC	D.C. Office
41	Kevisozo	Dobashis	D.C. Office
42	Menuolhoulie Yhome	Dobashis	D.C. Office
43	Neilasa Yashu	Dobashis	D.C. Office
44	F. P. Solo	Commisioner & Secretary	Higher Educaiton
45	Chozule Kikhi	Deputy Director	Horticulture
46	Khriengu Thevo	Computer	Attached to OSD (Planning)
47	Vikiehenuo	Typist	Attached to OSD (Planning)
48	Shikali	Steno	Attached to OSD (Planning)
49	Keviphotsu	Member	Angami Student Union (Kohima)
50	Chipakhuyi	President Secy	Naga Student Union (Kohima)
51	Voto Neikha	President	Angami Student Union (Kohima)
52	Hekani Jakhalu	Director	YouthNet
53	Esther Lee	Member	YouthNet
54.	Kovi Meyase	Revenue Officer	Office of the Deputy Commissioner, Kohima
55.	Kethosituo Mepfuo	President	Dolphin Club, Kohima Village
56.	Petekhriezo Dzüvichü	President	Kohima Village Youth Organization (KVYO)
57.	Kekuolhouthie Dzüvichü,	Member	Kohima Village
58	Kevilenuo Suokhrie	Member	Kohima Village
59	Ruokuohe-ü Miachieo	Assistant General Secretary	Angami Public Organisation



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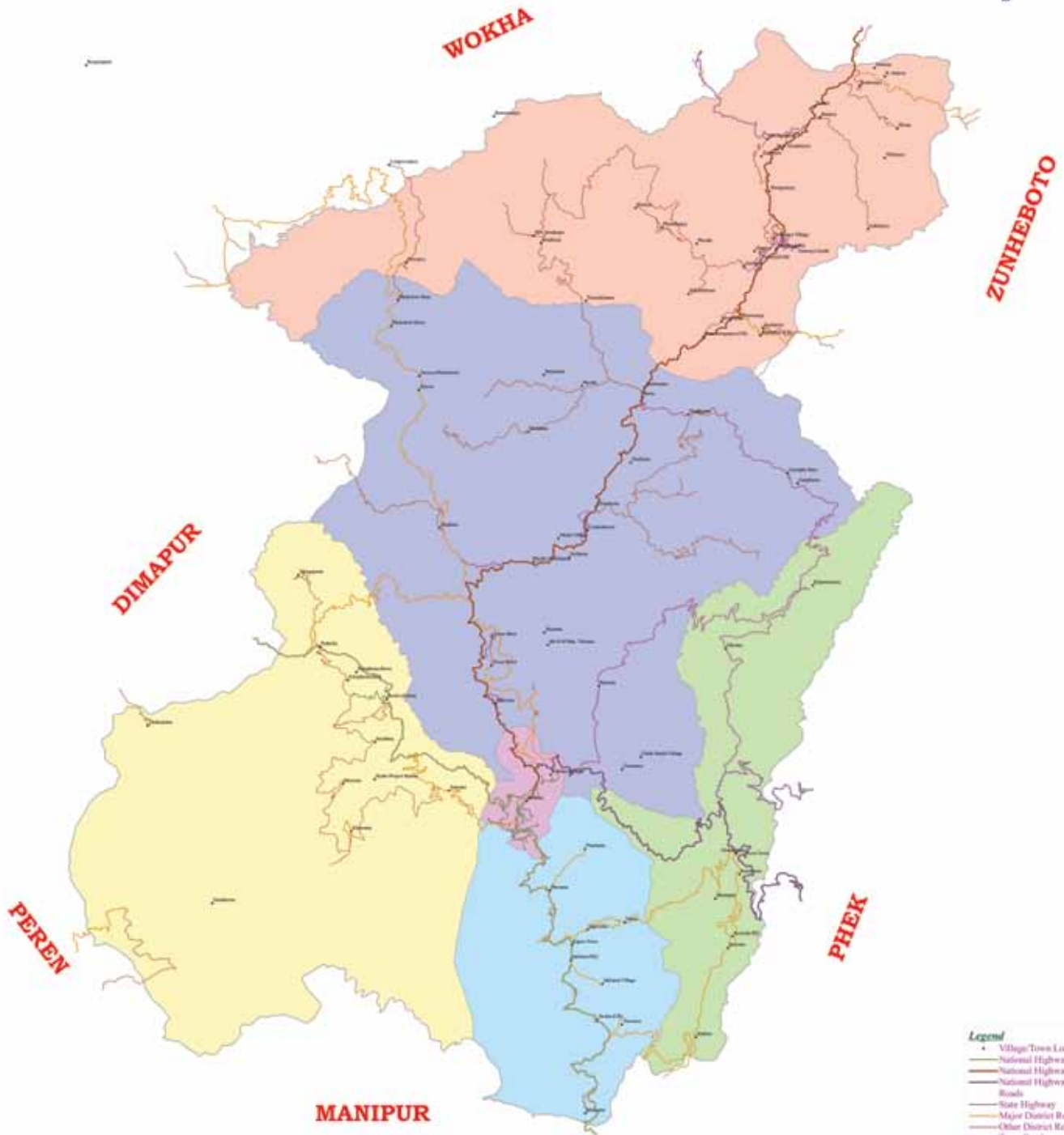


# MAP OF KOHIMA DISTRICT





# ROAD MAP OF KOHIMA DISTRICT



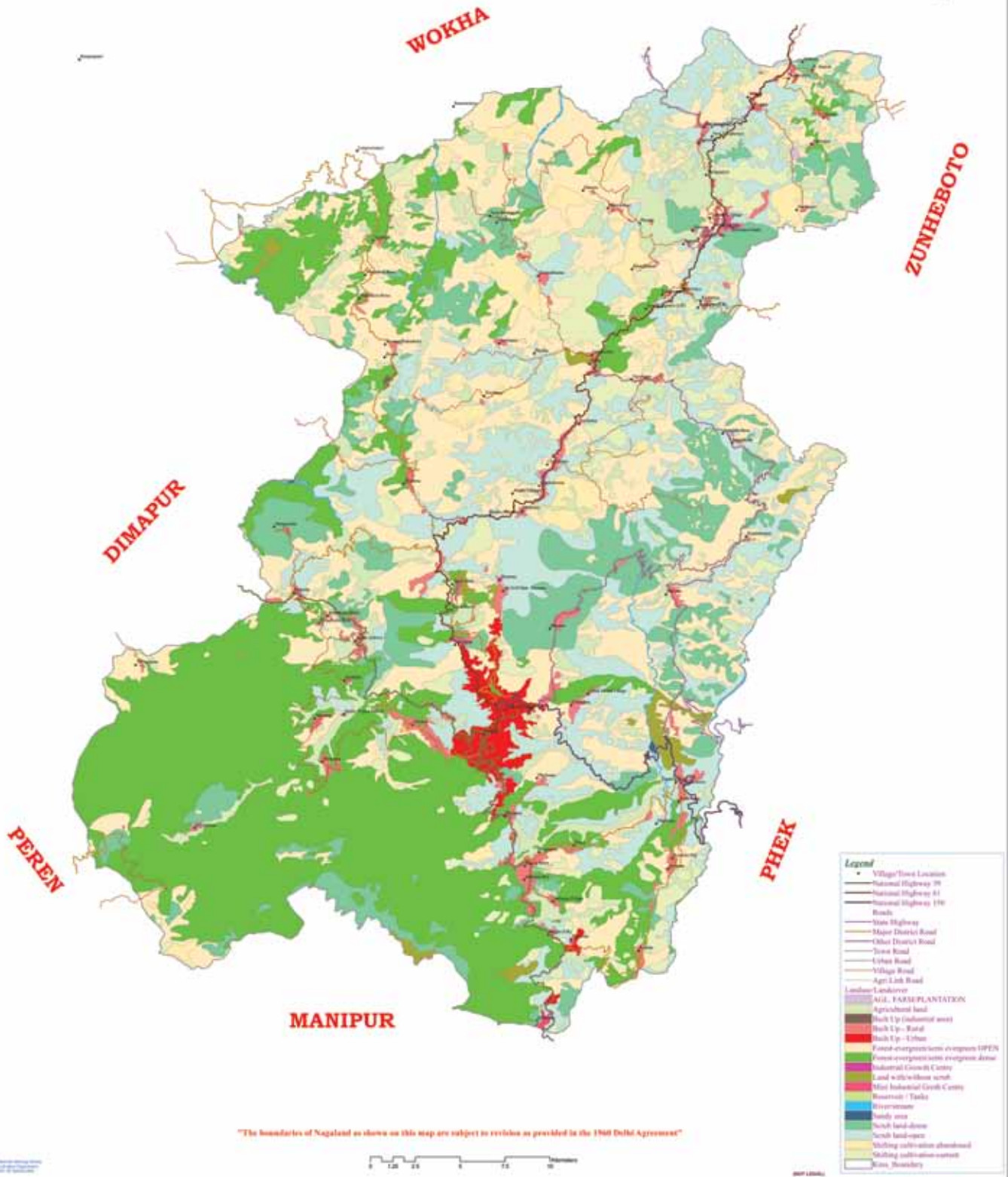
- Legend**
- Village/Town Location
  - National Highway 39
  - National Highway 61
  - National Highway 150
  - Roads
  - State Highway
  - Major District Road
  - Other District Road
  - Town Road
  - Village Road
  - Agri Link Road
  - Circle Name
  - Chieftaincy
  - Jakhama
  - Kachin
  - Kachin
  - Sachin
  - Tamenglong
  - Kona Boundary

"The boundaries of Nagaland as shown on this map are subject to revision as provided in the 1960 Delhi Agreement"

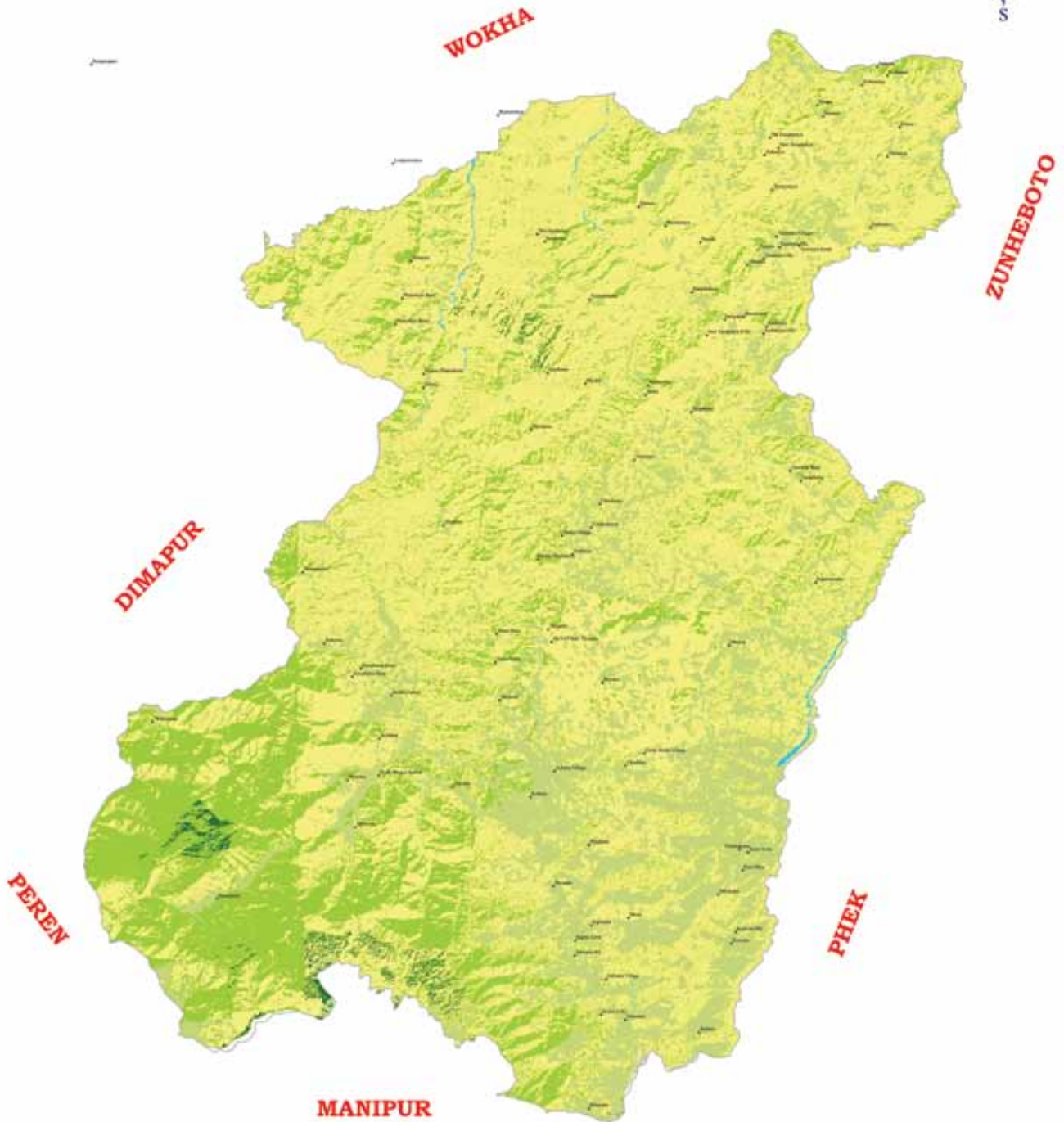
0 1 2 3 4 Kilometers

2011 (2011)

# LAND USE/LAND COVER MAP OF KOHIMA DISTRICT



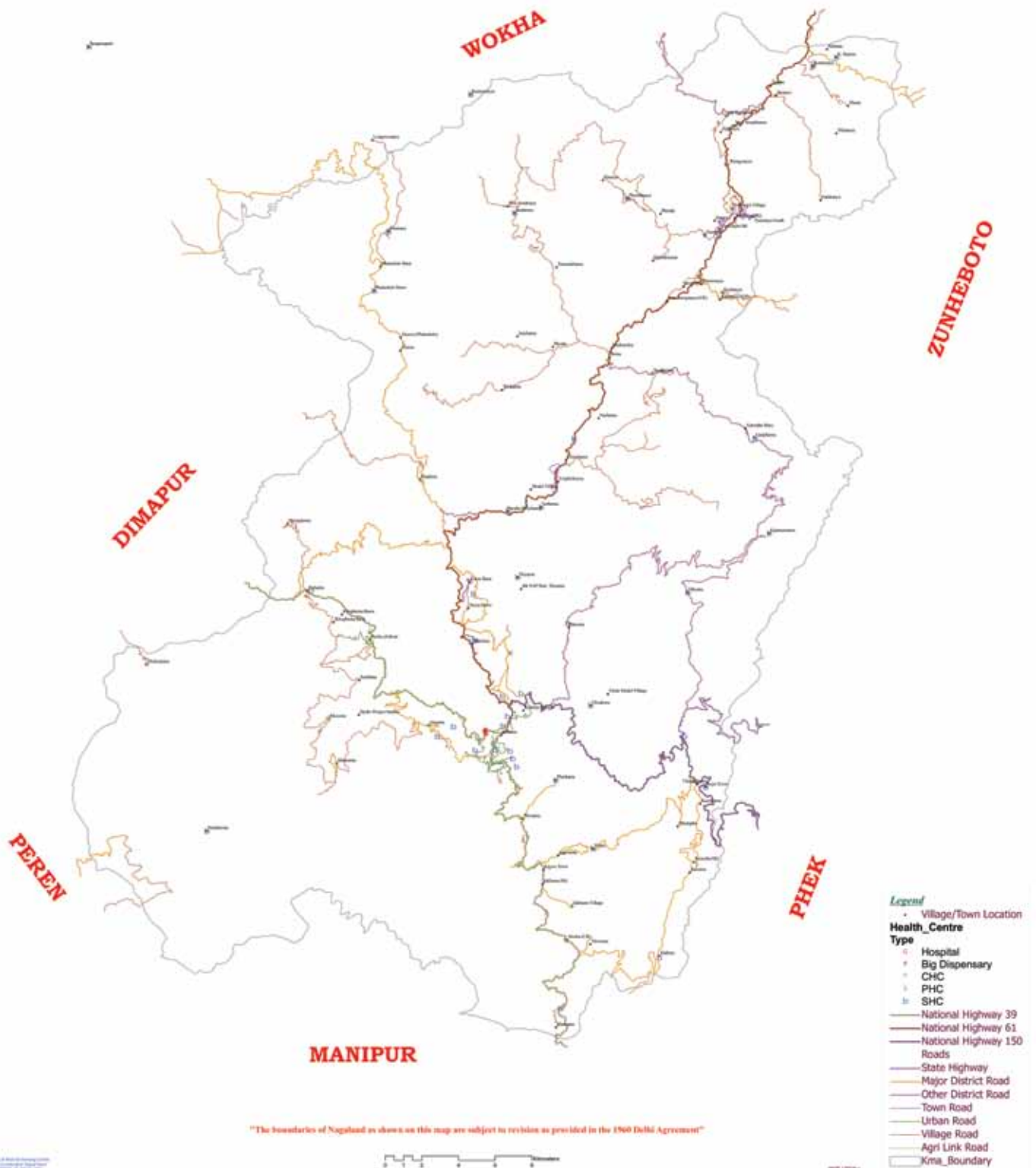
# FOREST MAP OF KOHIMA DISTRICT



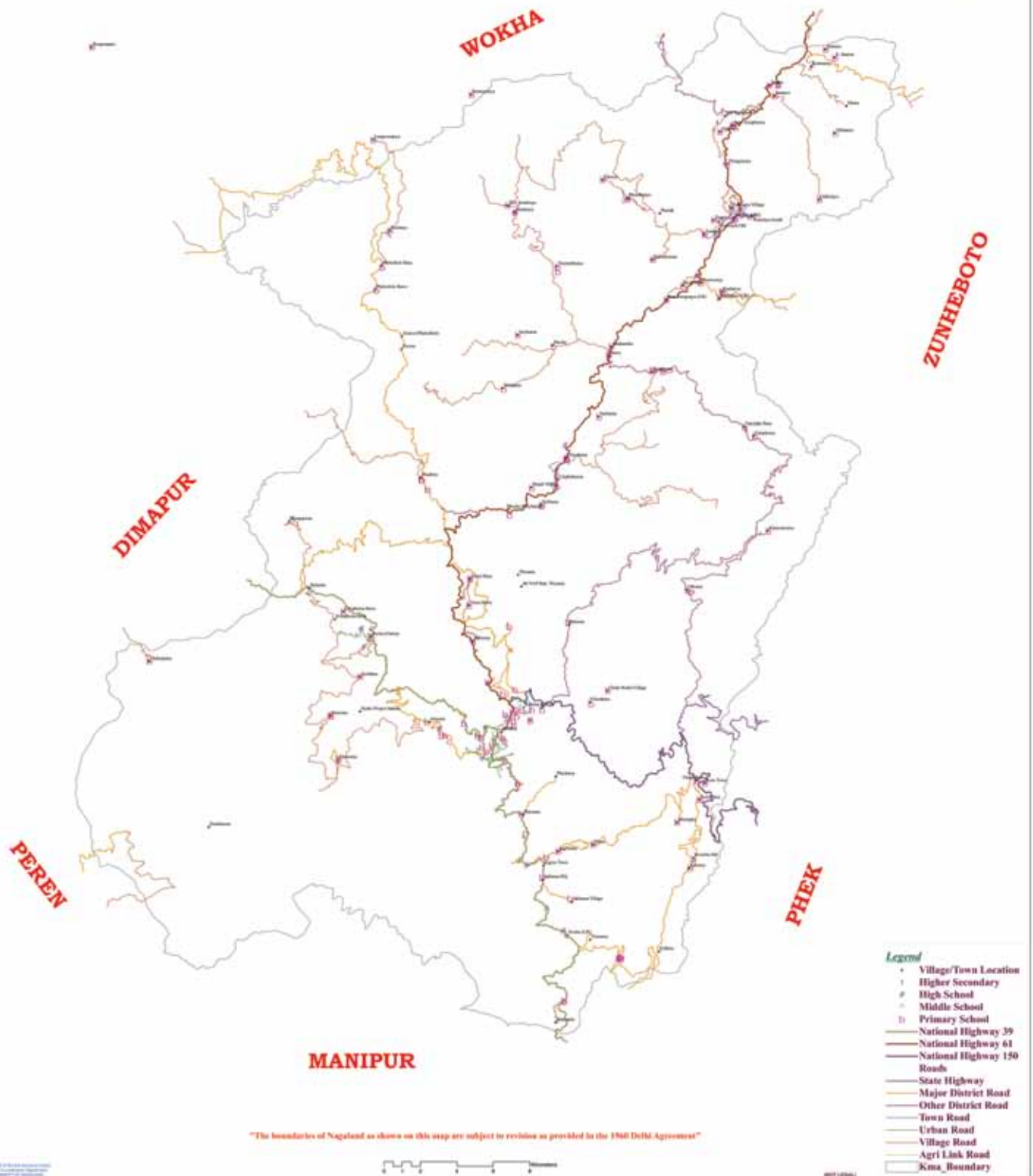
- Legend**
- Village/Town Location
  - Waterbodies
  - Agriculture/Barb
  - Scrub Forest
  - Open forest (10-40%)
  - Dense forest (40-70%)
  - Very Dense forest (70-100%)
  - Kosi Boundary



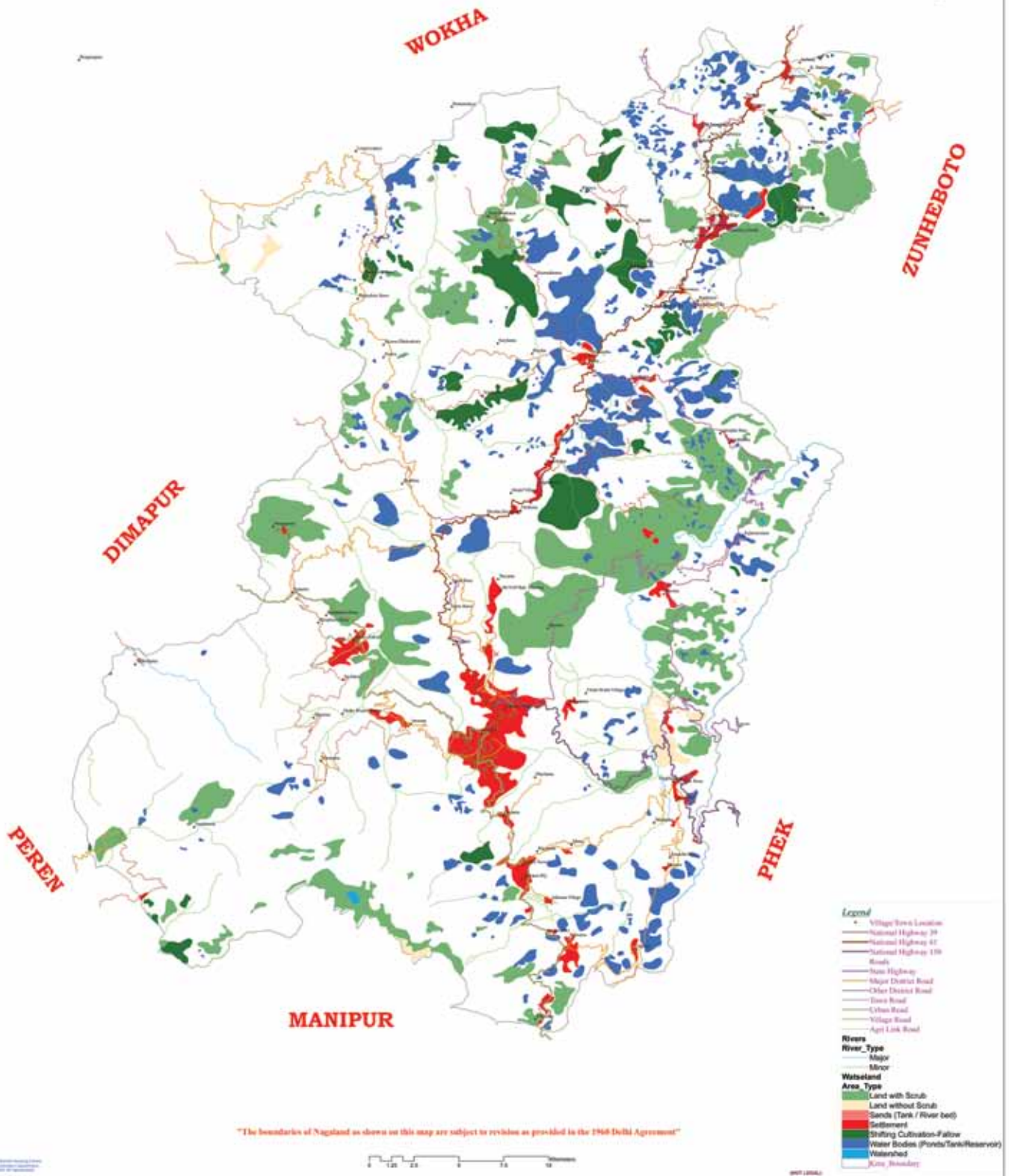
# HEALTH MAP OF KOHIMA DISTRICT



# EDUCATION MAP OF KOHIMA DISTRICT

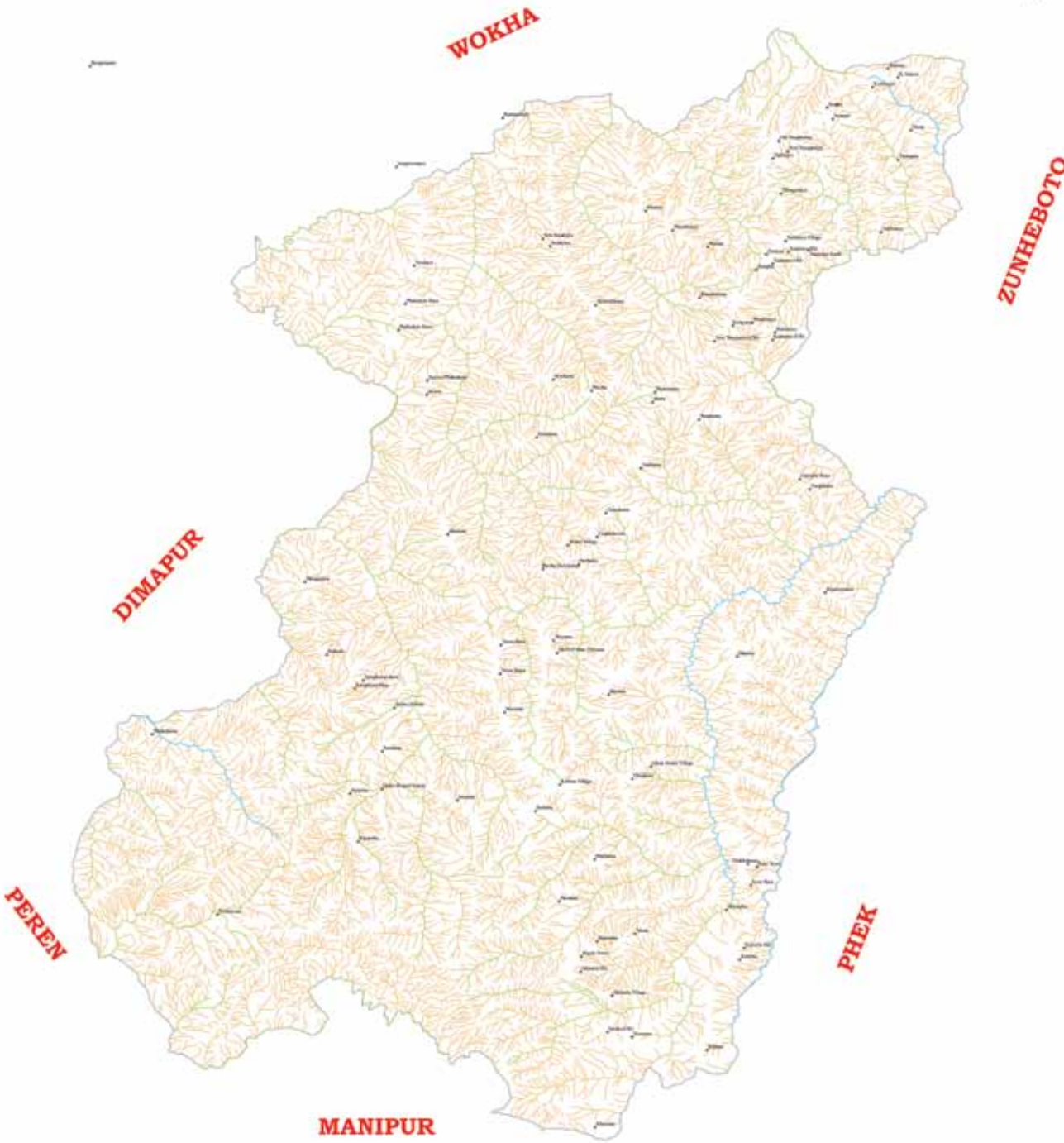


# WASTELAND MAP OF KOHIMA DISTRICT





# DRAINAGE MAP OF KOHIMA DISTRICT



"The boundaries of Nagaland as shown on this map are subject to revision as provided in the 1960 Delhi Agreement"

- Legend**
- Village/Town Location
  - Drainage
  - Rivers
  - Major
  - Minor
  - Kohima\_Boundary