सत्यमेव जयते

UNDP

GOI - UNDP PROJECT

Strengthening of State Plans for Human Development

Government of Nagaland

DEPARTMENT OF PLANNING AND COORDINATION

NAGALAND - KOHIMA 797 001

NAGALAND – PHEK DISTRICT HUMAN DEVELOPMENT REPORT

सत्यमेव जयते

UNDP

NAGALAND

PHEK

DISTRICT HUMAN DEVELOPMENT REPORT

DISTRICT HUMAN DEVELOPMENT REPORT

PHEK

2009

GOI - UNDP PROJECT

Strengthening of State Plans for Human Development

Government of Nagaland
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NAGALAND, KOHIMA

सत्यमेव जयते

NIKHIL KUMAR

MESSAGE

Over the past few years, the Government of Nagaland has put in enormous efforts in the field of education, health and employment generation besides Infrastructure Development. As real growth of a state is reflected through the well-being of its people, it is time to assess whether our investments have led to sustainable development and will promote societal growth providing equal opportunities to all citizens.

The emphasis of the District Human Development Report, Phek is on development in the spheres of education, health, employment generation, gender equality and access to basic needs which are discussed in detail in this report. It analyzes the status of development of the district and enables the Government departments to evolve specific schemes to cater to the needy people.

I thank the United Nations Development Programme and the Planning Commission for their support and guidance and congratulate the authors, the contributors, stakeholders of Phek, officers and staff of the Planning and Coordination and other Departments for their sincere and dedicated efforts in bringing out this report.

November 15, 2010

(NIKHIL KUMAR)

CHIEF MINISTER
NAGALAND, KOHIMA

NEIPHIU RIO

MESSAGE

Phek district of Nagaland joins the select group of 56 districts of the country who have published District Human Development Reports. Despite the challenges, Phek district has made significant strides and its people have been the most progressive amongst the communities in the State. However we cannot be complacent. Further developments and improvements in the quality of life of the people are required. The District Human Development Report of Phek, which is an outcome of participatory process and whose independence of the views has not been interfered with, will be very useful in this regard. It provides insight into the strengths and weaknesses of the district with agenda for meeting the challenges.

I sincerely thank the United Nations Development Programme and the Planning Commission, Government of India for their support and assistance in enabling the State to bring out the District Human Development Report. The chapter contributors, officers of the State Government of Nagaland, academicians and experts from outside the Government establishment deserve special mention for their collective effort in bringing out this Report.

I hope the Report which assesses and quantifies human development imbalances at the district level will be a useful tool for analyzing intra-district development imbalances both for the Government of Nagaland and non- Government agencies. I am certain that the District Human Development Report, Phek will further participatory planning at the grass root level.

October 27, 2010

(NEIPHIU RIO)

MINISTER
PLANNING & CO-ORDINATION
NAGALAND, KOHIMA

T. R. ZELIANG

MESSAGE

Since the formation of the State, Nagaland has achieved remarkable progress in many social indicators. However, the disparity between districts and intra district is wide. There are several formidable challenges ahead. The task of furthering human development and inclusive growth in a scenario of shrinking resources, ensuring sustainable livelihoods in an eco-friendly manner and above all ensuring people's participation, especially women are areas of concern.

In this context, the District Human Development Report, Phek, not only makes a realistic assessment of the state of human development in the district but also identifies the strengths, weaknessess, potentials and suggest ways for empowering the people to attain a higher quality of life. The Report provides a platform for debate and to evolve a blue print for the district. I would like to thank the United Nations Development Programme (UNDP) and the Planning Commission, Government of India for their support and assistance and look forward to further partnerships to follow up on the District Human Development Reports.

I congratulate the academia, subject experts within and outside the Government, civil societies and officers in Phek district and officials of the State Government who contributed in the preparation of this report. I am certain that the report will provide enough food for thought to people who are interested in the development of Phek and will help to develop a growth model which will take into account the aspirations of the people of the district.

October 29, 2010

(T. R. ZELIANG)

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. The District Human Development Reports are the outcome of this process. I thank the Government of India and the United Nations Development Programme 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 &
Development Commissioner
Government of Nagaland

TEAM FOR PREPARATION OF THE DISTRICT HUMAN DEVELOPMENT REPORT, PHEK

Principal Co-ordinator
Alemtemshi Jamir, IAS
Additional Chief Secretary & Development Commissioner

Lead Co-ordinator
Professor Manoi Pant,
Jawaharlal Nehru University, New Delhi

PRINCIPAL CONTRIBUTORS

Chapter 1: Phek - A Profile
Dr. Buno Liegise

Chapter 2: Agriculture
Dr. Kilangla Jamir

Chapter 3: Informal Sector
Dr. Kanihar Kant

Chapter 4: Economic Livelihood (Non Rural)
Shri. Mhonlumo Kikon

Chapter 5: Health
Dr. Nandira Changkija, Late Dr. Kumuni Kathipri and Ms. Ella Mary

Chapter 6: Basic Services
Dr. Temjenzulu

Chapter 7: Education
Shri. F. P. Solo, Shri. Pheluopfelie Kesiezie, Shri. C. J. Lohe,
Shri. Rokus Chase and Dr. Buno Liegise

Chapter 8: Gender Issues
Smti. Chozüle Kikhi, Dr. Kedilezo Kikhi and Padmashree Sentila T. Yanger

Chapter 9: Infrastructure and Connectivity
Shri. Athili Kathipri and Smti. Temjenrenla Kechu

Chapter 10: Forests and Natural Resources
Shri. Vengota Nakro and Shri. Elusing Meru

Chapter 11: Voices of the People
Stakeholders of the District

Chapter 12: Human Development Indices
Professor Manoj Pant

Chapter 13: Way Forward
Shri. Alemtemshi Jamir

PAPER CONTRIBUTORS

1. About the District :
Shri Wetshokhrolo Lasuh

2. Geology and Mining:
Shri Koratemjen

Statistical Support
Shri. I. Chuba Jamir, Shri. H. Haikum, Shri Charles N. Kikon and
Officials of the Directorate of Economics and Statistics and Indicus Analytic Pvt Ltd New Delhi.

Editorial Support
Shri. Visielie Kezo, Ms. Kevilezo-ü Savino, Smti. Kevileno Angami , Shri. Tiatemsu Gyi and Ms. Rita Krocha

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The District Human Development Report, Phek 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. In the district, the active and enthusiastic participation of Shri Mikha Lomi, Deputy Commissioner, Phek and his team of officials, civil societies, stakeholders, lead co-ordinator and authors made the district consultation workshop 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-ű 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-ű 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-ű 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 one of the three reports and pertains to the district of Phek.

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. 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 Economic 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, Journalist. 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, Additional 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. Chozűle Kikhi, Deputy Director, Department of Horticulture and 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 Smt. Theyieneinuo Belho and Ms. Vikeyielienuo 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 officers of 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-ű 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-ű 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, 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, 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-ű 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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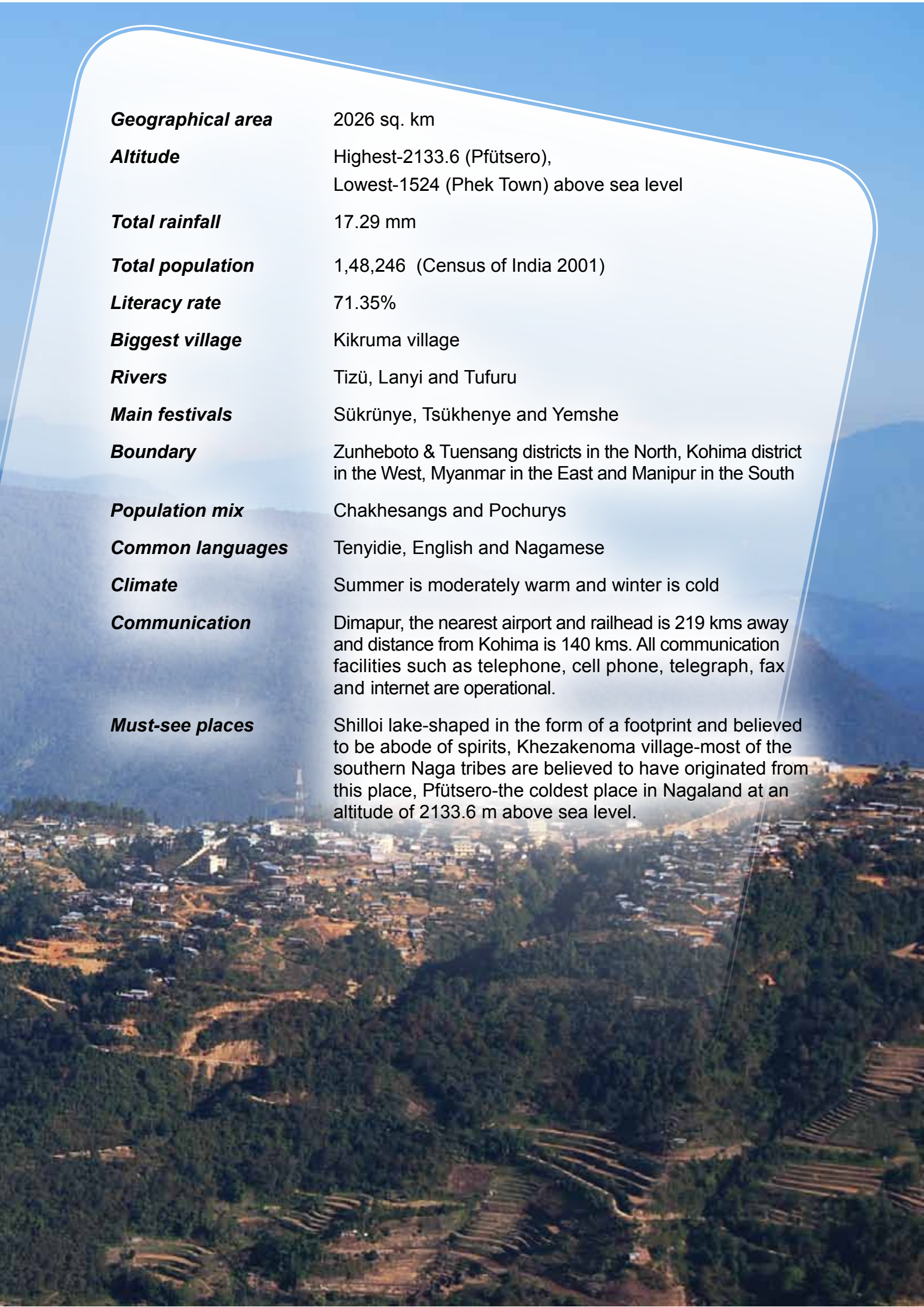
NAGALAND - PHEK

Phek

A Preview



Geographical area	2026 sq. km
Altitude	Highest-2133.6 (Pfütsero), Lowest-1524 (Phek Town) above sea level
Total rainfall	17.29 mm
Total population	1,48,246 (Census of India 2001)
Literacy rate	71.35%
Biggest village	Kikruma village
Rivers	Tizü, Lanyi and Tufuru
Main festivals	Sükrünye, Tsükhenye and Yemshe
Boundary	Zunheboto & Tuensang districts in the North, Kohima district in the West, Myanmar in the East and Manipur in the South
Population mix	Chakhesangs and Pochurys
Common languages	Tenyidie, English and Nagamese
Climate	Summer is moderately warm and winter is cold
Communication	Dimapur, the nearest airport and railhead is 219 kms away and distance from Kohima is 140 kms. All communication facilities such as telephone, cell phone, telegraph, fax and internet are operational.
Must-see places	Shilloi lake-shaped in the form of a footprint and believed to be abode of spirits, Khezakenoma village-most of the southern Naga tribes are believed to have originated from this place, Pfütsero-the coldest place in Nagaland at an altitude of 2133.6 m above sea level.

SECTION 1

Chapter 1 PHEK - A PROFILE

SECTION 1

CHAPTER - 1

PHEK - A PROFILE

1.1 PHEK - A PROFILE

Located in one of the eastern most parts of India, Phek is a district of Nagaland. The people speak five different dialects namely, Chokri, Khezha, Pochury, Poumai and Sümi (in alphabetical order). The Chokris, Khezhas, Poumais, Sümis and the Zhavame as the people speaking the dialects are called, form the Chakhesang tribe; while the Pochuries (Pochury-speaking people) constitute the Pochury tribe. Interestingly the larger section of Poumai-speaking people live in the present Manipur state owing to political and administrative reasons, while most Sümi-speaking people have a district of their own with the administrative headquarters at Zunheboto.

Carved out from Kohima district, Phek became a separate district in 21st December 1973. Chakhesang and Pochury are the two major tribes of the district. The people of Phek district are hard working usually tall in stature, well built and sturdy. Their main occupation is agriculture.

Phek district takes pride in its rich and diverse mineral deposits, including precious and semi-precious stones, but yet to be explored. It also boasts of the only Mini Cement Plant in the State located at Wazeho. Tizü, one of the largest and longest river of the State flows through the district providing ample opportunities for fresh water fishing.

Before the advent of Christianity, social recognition earned by a deed or by hosting of a feast for the community by an individual was considered the highest lifetime achievement in the district. Physical strength and wealth were considered most important in the society.

Traditional music of the Chakhesang's has close affinity with that of the Angami's (Kohima district). However, there are distinct features of their own music. People of Phek have inborn talent for carrying a tune. In recent years, fusion of traditional music with contemporary western music is being experimented. The traditional houses of Phek decorated with motifs and designs signify the traditional social stature of the families that live there. People are artistic and are gifted in handicrafts.

Some of the significant festivals of the district include Ebuchüketonye, Enonye, Erünye, Kaputenye, Nazhu, Satakhu, Sükrünye, Tsükhenye, Yemshe and Yikhenye. It is interesting to note that the Government has in the past decade done much to uphold, preserve and promote these traditional festivals with the dual purpose of preserving the rich culture and to promote eco-tourism.

One of the distinctive features of Phek district is that the two successful community-based programmes in the State were initiated here. The Village Development Board (VDB) was initiated at Kütsapo village in 1976 and was implemented throughout Nagaland in 1980 under Rural Development Department. Communitisation of Public Institutions and Services was also launched from Phek. Both the programmes have earned many accolades for the State and have been models of good practices. Nagaland was the receipient of the United Nations Public Service Excellence award in 2008 for its communitisation programme.

People have large families. On an average a family has four to five children. Being an agro based society, Phek district grows its own crops, fruits and vegetables. Of late the district has become a major supplier of winter vegetables for the State.

Communication, electrification, health care delivery and educational institutions have reached almost all the remote areas despite the difficult topography and steep terrain.

1.2 AGRICULTURE

The mainstay of the people is agriculture. Agriculture is the main source of livelihood of the rural population which constitutes more than 91 percent of the district's total population. Its performance has both direct and indirect impact on human development. It contributes significantly to the Net State Domestic Product (NSDP).

The main farming system is jhum cultivation also known as slash and burn or shifting cultivation. Mixed cropping pattern is followed during kharif season where rice is the dominant crop, followed by maize, yam, pulses and varieties of vegetable crops.

The next prevailing agricultural system is terrace rice cultivation, practiced since time immemorial on the hill slopes with terrace benches using irrigated water from streams and rivers. The major crop is paddy, cultivated mainly during kharif season.

Irrigation, being one of the key inputs for enhancing agricultural production and an important factor to steer away jhum cultivators towards settled cultivation, its development has been the main concern of the Government. In 2001, the total irrigated area was 15,450 hectares, out of which 13 percent was put under double cropping. The intensity of cropping was therefore 113 percent.

Rice is the staple food of the people. Although its share in the district's total agricultural production and area have shown downward trends during the current decade, it is still the most dominant crop accounting for 46 percent and 48 percent in 2006 and 2007 respectively. Commercial crops such as potato, sugarcane, tea, ginger, cardamom are commonly cultivated in the district.

The State's Department of Agriculture has crop zoned the district on the basis of its potentiality; Pfütsero for vegetables, passion fruits and cardamom; Chozuba for passion fruit, tea, kholar, and cardamom; Phek for soybean, tea, kholar and cardamom and Meluri for ginger and maize.

In recent years, floriculture and mushroom cultivation have gained ground especially among the urban population, encouraged by good climatic conditions, market demand and with Government's support services. The importance of growing medicinal and aromatic plants has also been realized.

Lack of marketing infrastructure and linkages have been the major impediments in producing surplus in the agricultural sector. There is no facility for cold storage,

proper warehousing and grading. Transportation problem is also a bottleneck. The district's traditional method of cultivation yields organic produce. These products can fetch premium in the global market. Therefore, provision of linkages and support is necessary to capitalize this opportunity.

In Phek district, both individual and communal ownership patterns exist. Generally, individual land ownership is practiced in case of settled cultivated lands where a farmer has the sole right to use, own, transfer and even sell if he wishes to. Communal lands consist of clan land, village land and kinship land which are usually used as forest, jhum and farming land. Every member of the community has the user right but has no individual right to own or sell it. The district has witnessed considerable degree of settled farming and individual ownership.

Phek - PHEKREKEDZE

The name Phek is derived from the word 'Phekrekedze' meaning watch tower. It is inhabited by the Chakhesangs and Pochuries. The word "Chakhesang" is an amalgamation of the names of three sub-tribes "Cha" from "Chokri", "Khe" from "Khezha (Kuzha)" and "Sang" from "Sangtam (Pochury)". There are three main linguistic groups in the district namely, Chokri, Khezha and Pochury. The medium of communication in the district is mainly Tenyidie and Nagamese. Tizü, Lanye, and Sedzü are the major rivers and Shilloi, Chida and Dzüdü are the three well known lakes of the district.

1.3 GENERAL ECONOMY

People of Phek district are employed both in the public sector and in the private sector. Several people have established themselves as entrepreneurs. Although the economy of the district has improved due to the improvement and diversification in the means of livelihood, economically the people still lag behind people of other districts and continue to be categorized as backward.

1.4 HEALTH CARE

Health care has received better attention in the past few years. The district has a civil hospital, 15 primary health centres and 3 community health centres. Private pharmacies, clinics and church run dispensaries have also been established in the last few years.

In general, health care delivery system has reached almost all the remote areas of the State although its topography and terrain is steep, arduous and villages far in between. While the number of health centres in the State are in excess of the State's entitlement as per IPHS norms, yet many of the centers are not positioned strategically to be able to deliver health care services as desired. Most of the centres are also in need of renovation and revamping. In the case of Phek the poor infrastructure of the health units has resulted in the absence of manpower and medical personnel at the assigned place of postings.

The biggest set back of many health units has been unsuitability of the locations, many of these health units have been established without consultation with the medical officers concerned and without taking into account communication transportation and facilities. These factors adversely impact delivery of health services and result in under utilization of the assets created.

Phek district still lacks medical specialists in different disciplines. In order to achieve optimum health service delivery, there is need to continuously enhance the capacities of all levels of health workers in terms of technical skills, management practices, documentation, communication skills, accounting, stock and book keeping. Creation of partnership between the public and the private sectors in the delivery of health care services needs to be explored.

Although the existing district hospital is a 100 bedded hospital. Phek being a large district, majority of the patients have to travel to Kohima and even outside the State for medical treatment. There is an urgent need to upgrade the hospital into 150 bedded hospital and to enhance and update the skills of doctors, nursing personnel, paramedics and auxiliary staff.

1.5 BASIC SERVICES

The main source of water in the district is the numerous perennial springs and rivers. However, the flow of water varies from one season to another, leading to inadequacy in the supply during dry season. The overall status of water supply in Phek district is comparatively better than Mon and Kohima district, the other two districts for which the DHDR is being prepared. Of the 119 villages, 46 rural habitations i.e. 39 percent are fully covered by water supply. The amount of water received is also higher in this district. As of January 2003, 45 i.e. 40 percent rural inhabitants received more than 40 litre per capita daily (lpcd). This is more than that of Kohima district with 17 percent and Mon district with 8 percent. At the National level, the minimum amount of water supply stipulated to cover requirement of consumption and hygiene is set at 40 lpcd while the World Health Organization has set it at 50 lpcd.

All the villages under Phek district are being covered by water supply. As on January 2009, 95 percent of the rural habitation was fully covered, 1 percent slipped back and 4 were partially covered. Considering the economy where 91 percent of the household is in rural habitations, the district has a better percentage of rural water supply coverage in Nagaland.

According to Directorate of Economics and Statistics, Nagaland, in Phek district, in April 2009, 44 percent of the households have water connections which is 9 percent more than Kohima district. In the rural areas in Phek, 27 percent of the households have water connections and the rest 73 percent either share or depend on public stand post. In urban areas, 61 percent of the households have water connections in their houses. There are more community wells in rural areas than in urban areas. Apart from Government water supply, a few NGOs are involved in providing water to rural and urban areas. In rural areas, 73 percent feel that drinking water supply facilities have improved after communitisation and in urban areas 83 percent feel the drinking water facilities have not improved even after communitisation.

Total Sanitation Campaign (TSC) projects are under implementation in Phek district. These are being implemented in coordination with the District Rural Development Agencies. These projects are monitored by the District Water and Sanitation Management (DWSM) under the chairmanship of the Deputy Commissioner.

Water supply and sanitation systems in all the villages of the district are to be communitised under the Twelfth Finance Commission (TFC) funding in phased manner in a span of five 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. The main principle of communitisation is to develop the capacity of the beneficiary villages for

management of the existing water supply and sanitation assets already provided to them; with the ultimate goal of producing a sustainable water supply and sanitation system in each village.

The district has witnessed an improvement in water supply with increasing coverage of areas and availability of financial resources. A series of schemes have been formulated with the aim of improving the supply of drinking water and for ensuring monitoring and quality. The past few years have seen greater emphasis on water quality monitoring and surveillance with allocation of funds 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 a need to promote sanitary inspections along with water quality monitoring and surveillance at the grassroot level .

1.6 EDUCATION

There are two recognized tribes in the district, namely Chakhesang and Pochury. Educationally, both tribes of the district come under 'backward tribe' category. This is because the people of these tribes had late access to modern education and the number of educated people is relatively low. The slow growth of education among the people could be attributed to non acceptance of western way of life and the Indo-Naga conflict in which people of the district were intensely involved, giving less priority to modern education.

In recent years there has been remarkable progress amongst the people of this district in the field of education. In fact, people of other tribes argue that the people of Phek district no longer needs to be categorized as 'backward'. This feeling is expressed even by a section of the people belonging to Phek district. This opinion indicates that the people of the district have advanced in the field of education. It must be mentioned here that educational institutions established by the Government did not fare very well until recently. However, private schools have played a significant role in improving the educational plight of the people. Schools in the Government sector especially in the elementary sector are well spread out, while in the private sector, schools are concentrated in a few towns and semi urban areas in the district.

At the elementary stage, according to the records of Department of School Education, in 2000-2001 there were a total of 12,304 boys and 12,056 girls enrolled. This number increased to 18,481 boys and 17,287 girls, adding an additional total of 11,208 more

children enrolled over a period of seven years. This perhaps can be taken as an indication of understanding the importance of modern education amongst parents.

In the High School Leaving Certificate (HSLC) examination 2009, Phek district performed better compared with other districts in the State. The district's pass percentage of 46.83 percent has been the highest amongst the 11 districts and is much above the State's average of 29.71 percent.

According to DISE report for 2006-2007, 50 percent of Government teachers in elementary schools were under matriculates and matriculates. Only 38 percent of the total teachers of 955 were trained. Of greater concern is the fact that only 23 percent of the under matriculate teachers and 45 percent of the matriculate teachers were trained. This situation is certainly far from the ideal. The Pupil Teacher Ratio (PTR) for children in 6-14 years age group works out to be 58:1, which is high by any standard. Phek district has been one of the epicenters of the Indo Naga conflict. As a result of which many villages were burnt down and villagers suffered untold miseries from the 1950s to early 1960s. Thus, most of the children of that period grew up with fear. Perhaps this is one reason why during the 1980s and early 1990s, many graduates entered into the political fray instead of opting for Government employment. Perhaps a study on children of conflict may throw light on the development approaches required to be adapted for such victims.

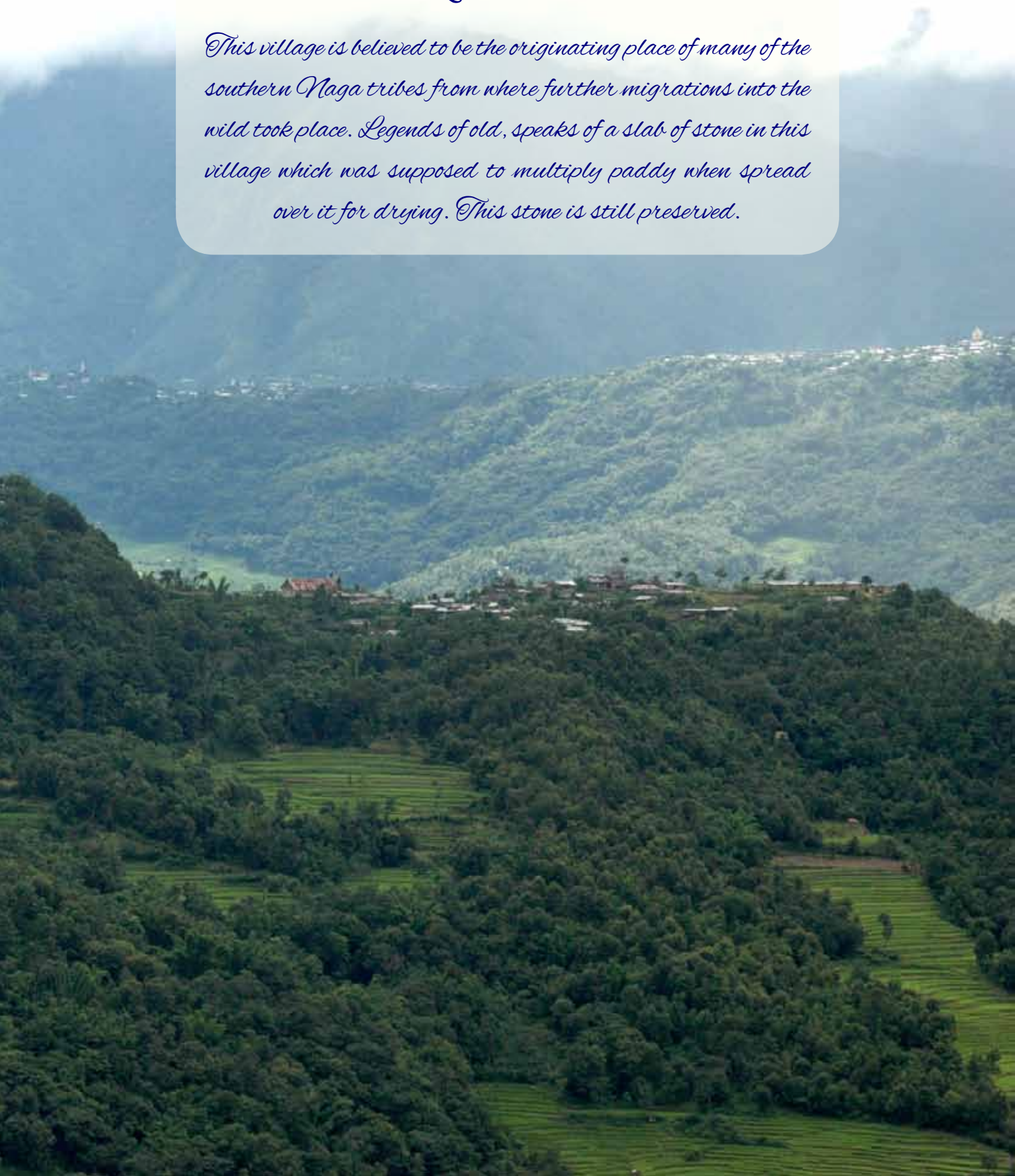
Majority of the people still correlate educational degrees with employment in the Government. The higher the degree the higher the expectation. Thus, frustration sets in when Government job aspirants do not get employed. It is thus necessary as anticipated to adopt a policy for human resource development by taking into account various district specific characteristics and needs.

1.7 GENDER

Customary laws on sharing immoveable property and land are baised. While men inherit land and property, the same right is not applicable for women. However, in recent years there have been instances where acquired land and property have been bequeathed to daughters in Phek district. Such acquisitions and inheritance are beyond the ambit of the customary laws. On the other hand, both men and women in Phek district feel that customary laws are gender neutral and do not discriminate women. However, urban male in Phek are more aware of the existing inequalities of the customary laws.

Khezhakeno

This village is believed to be the originating place of many of the southern Naga tribes from where further migrations into the wild took place. Legends of old, speaks of a slab of stone in this village which was supposed to multiply paddy when spread over it for drying. This stone is still preserved.



The social construction of gender division of labour (GDL) and assigning women for household works has extensively taxed women's time. These works are invisible, non accountable and non remunerative. Women's unpaid household work has acted as a subsidy to capital accumulation. In economic crisis women have to intensify their domestic labour. This has adversely affected women in the paid sector with wage differential, casual and informal job, and in low paid desk jobs with less decision-making powers. Women as compared to men have less free and leisure time.

While health services are gender neutral, the gender issue in health care is that the socio-cultural norms encourage women to marry at a relatively young age as compared to men. This is primarily due to the prevailing mindset, lack of proper education and poor economy. Early child bearing has a toll on women's health.

1.8 INFRASTRUCTURE AND CONNECTIVITY

Roads and transportation connecting towns of the district are fairly good compared to some other districts of the State, although there are many neglected villages and segments. In Tizü area under the district some villages are not accessible by roads. The available means of public transportation include private taxis, Government and community buses. It may be mentioned even without all weather roads, villages in Pfütsero, Khezhakeno and Meluri circles have bus transport facility.

The National Highways 155 and 150 pass through the district and the total length of road in the district is 1638.6 km. However, the condition of the roads in the district is very poor with only 35 percent as surfaced roads.

Phek is the least populated district in the State and length of road per lakh population is high. Since the density of population is only 73 per sq. kilometer, as per the Statistical Hand Book of Nagaland, 2008, urban areas of Phek district are remarkably well covered with telecom facilities with all households surveyed having landline or WLL or mobile services. However, access to Community Information Centres (CICs) or cyber cafes in urban areas is very poor at 19 percent. In terms of access to telecom facilities, availability of PCOs within walking distance and CIC or cyber-cafes, rural areas of the district are far behind.

As per the record of Statistical Hand Book of Nagaland 2008, the total consumption of electricity in Phek district was 5.56 Metering Unit (MU) and the number of consumers was 12103. The number of villages electrified as on 2006-2007 was 78 and the tariffs

for the same was 2.91. However it may be noted that even after communitisation of power, the majority of the people (76.5 percent) were not satisfied with the management and regularity of power.

1.9 FORESTS AND NATURAL RESOURCES

The important hills of Phek district are Kapamodzü and Zanibou while the important rivers include Tizü, Lhanyi, Dzüü, Sedzü, Tüsürü and Rüleri. There are also two mountain lakes namely Dzüdü and Chida.

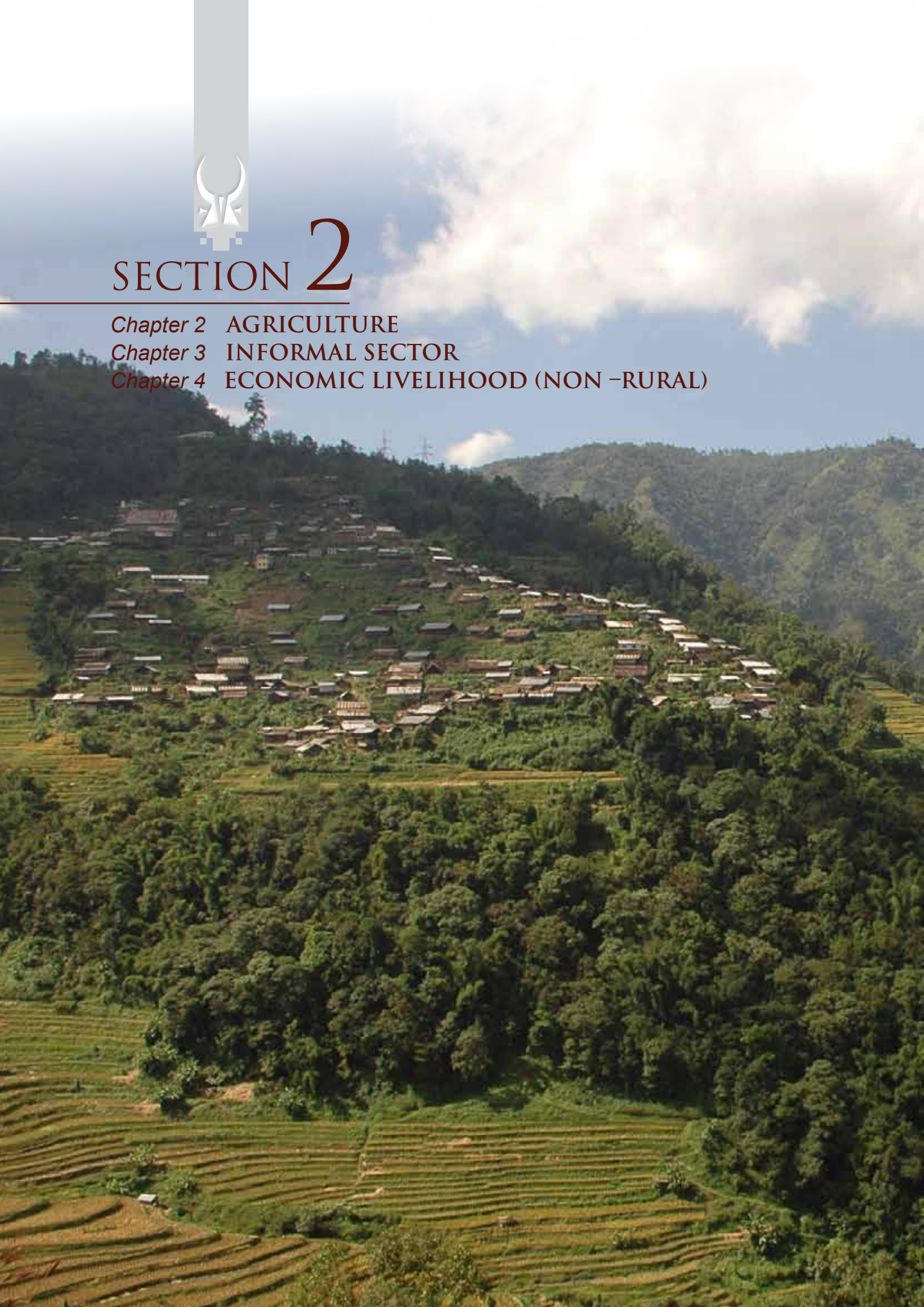
The biodiversity of the district is quite rich though not as before. Mithun, fish, a variety of wild cat species, a host of cicada varieties in each season, and various species of birds and bees are found in the district. A vast range of wild vegetables and fruits, bamboo, pine, oak, alder, cane, wild mangoes and banana, ginseng, edible and decorative ferns and a wide variety of mushrooms, are found in the district.

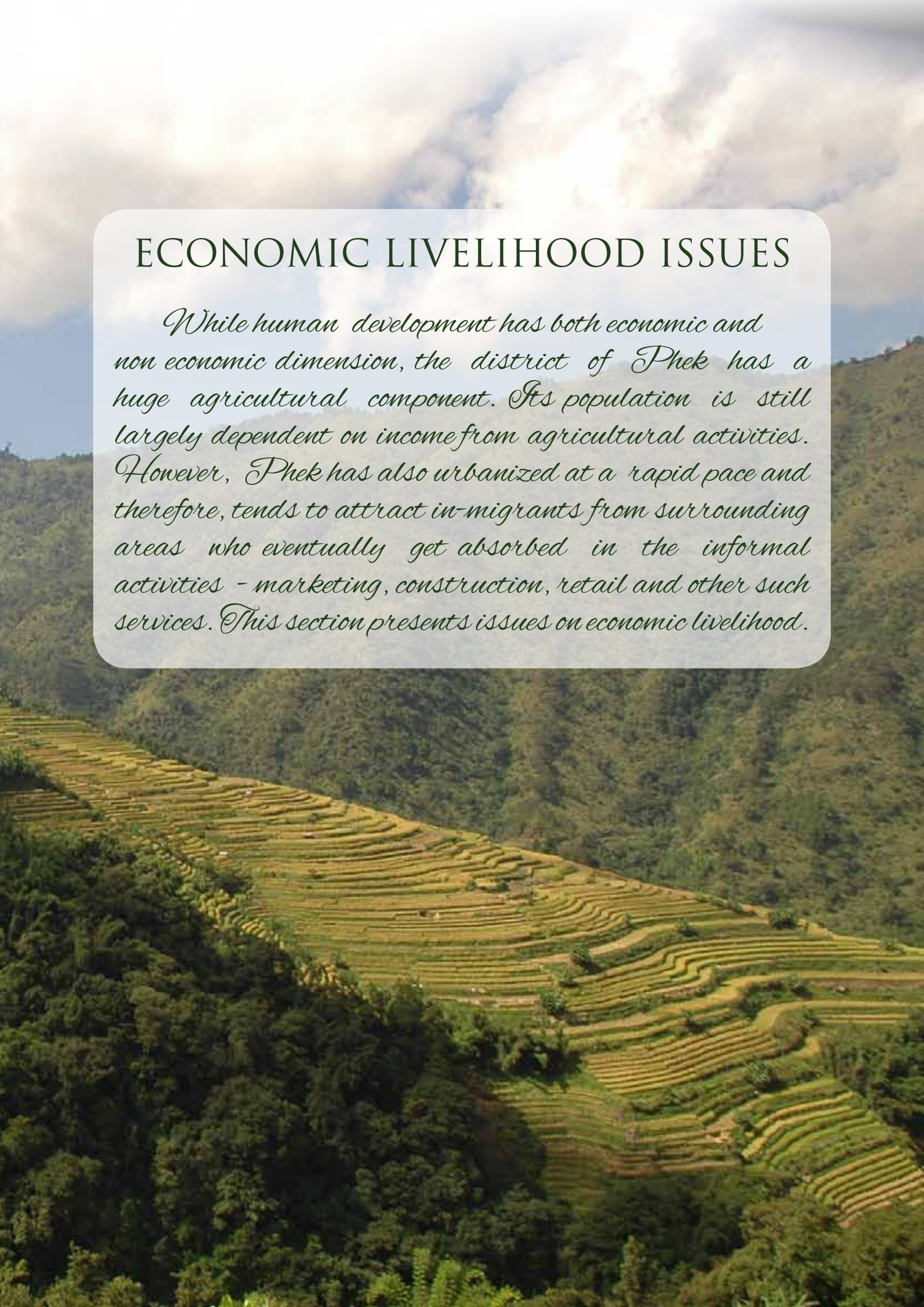
Ironically, owing to extreme lumbering business in the 1980s, vast areas of virgin forests were denuded. Besides, reckless burning of jungles by an irrational few during the dry seasons and by cultivators for jhum cultivation have taken much toll on the richness of the biodiversity. Ruthless hunting and fishing with modern gadgets and minerals have also adversely affected the biodiversity of the district.

1.10 CONCLUSION

The district has made rapid strides towards development. However, it cannot remain complacent and should endeavour to improve upon the achievement made.

SECTION 2



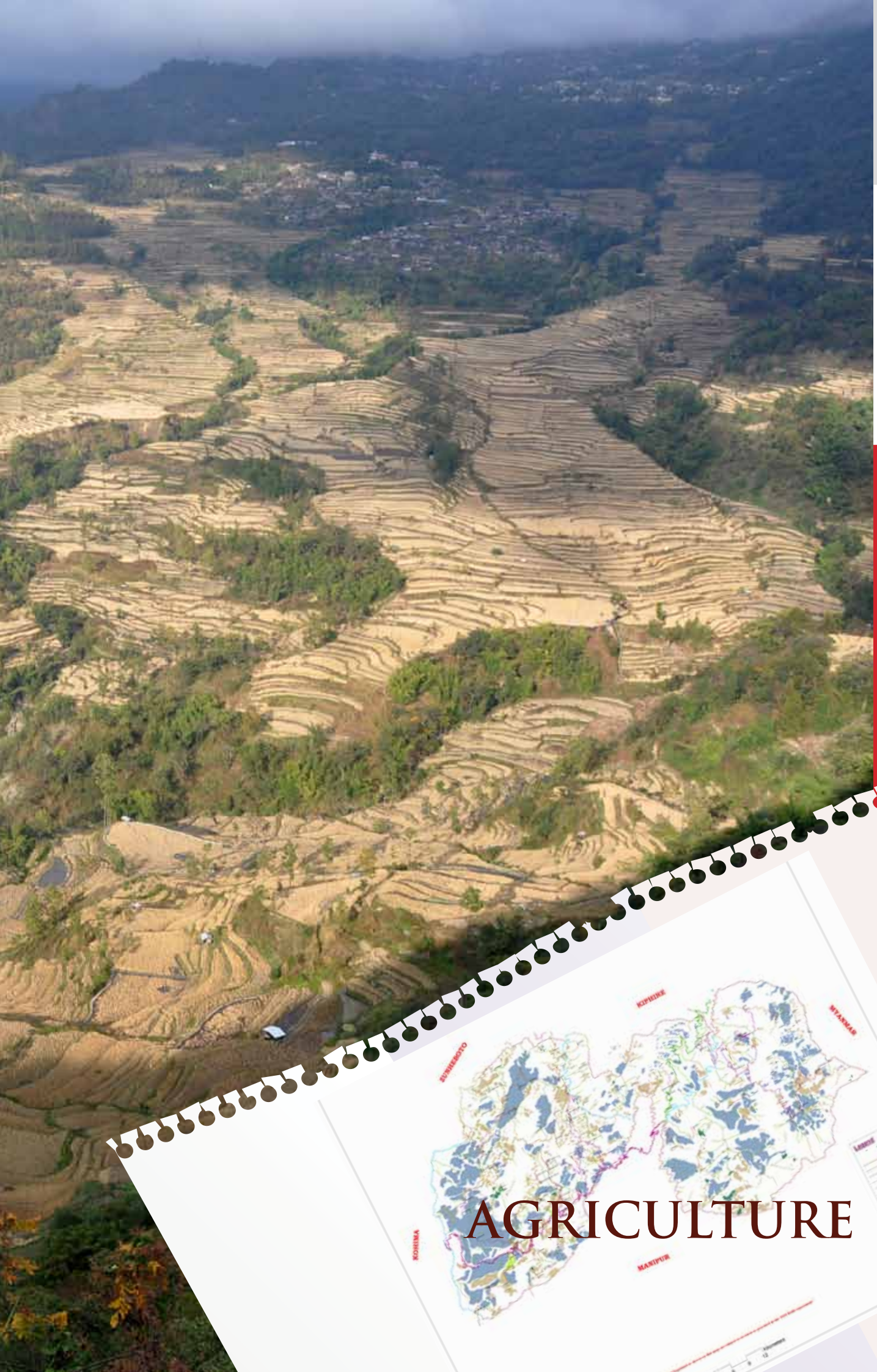


ECONOMIC LIVELIHOOD ISSUES

While human development has both economic and non economic dimension, the district of Phek has a huge agricultural component. Its population is still largely dependent on income from agricultural activities. However, Phek has also urbanized at a rapid pace and therefore, tends to attract in-migrants from surrounding areas who eventually get absorbed in the informal activities - marketing, construction, retail and other such services. This section presents issues on economic livelihood.

SECTION 2

CHAPTER - 2



AGRICULTURE

2.1 INTRODUCTION

Agriculture is an integral part of economy. To a great extent the overall development of an economy depends on the condition of agriculture. There is a two way relationship between agricultural performance and human development. Due to its strong linkages, the agriculture sector contributes not only to income and food security but also to other aspects of human development that are spelled out in the Millennium Development Goals. A strong foundation of agriculture is recognized to be a prerequisite for sustained economic and social progress as its poor performance would lead to low human development outcome. 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 in Phek district engages the highest proportion of total working population and is the largest user of land resources. Agriculture is the main source of livelihood of the rural population which constitutes more than 91 percent of the district's total population. Its performance can have both direct and indirect impact on human welfare. It contributes significantly to Net State Domestic Product (NSDP).

2.2 AGRICULTURAL SYSTEMS

The main farming system in the district is 'jhum cultivation', commonly known as shifting cultivation, practiced along with terrace cultivation on the hilly areas where mixed cropping pattern is followed during kharif season. In 2001, about 21 thousand hectares was put under jhum cultivation, increasing the total area under jhum cultivation to more than 52 thousand hectares in Phek district alone. Rice is the dominant crop, followed by maize, yam, pulses and varieties of vegetable crops. Under the system, fields or plots are rotated instead of crops. A plot is cultivated for 2 years, thereafter, it is abandoned and left as fallow for about 10 years so that its fertility is regenerated through natural processes. The years of jhum cycle has been reduced considerably in recent years due to population pressure, resulting in lower productivity[1]. Being labour intensive and subsistence in nature, the opportunity to earn additional income and employment is limited. The farmers undertake soil conservation measures; both mechanical and vegetative barrier and jhum plantation activities (jhum with alder tree) to prevent soil erosion and to ensure faster re-growth of vegetative cover and fixation of atmospheric nitrogen in the soil to enhance land productivity. However, the indigenous techniques of soil conservation and management are not as effective as desired. Thus, this method of cultivation is associated with adverse ecological impact

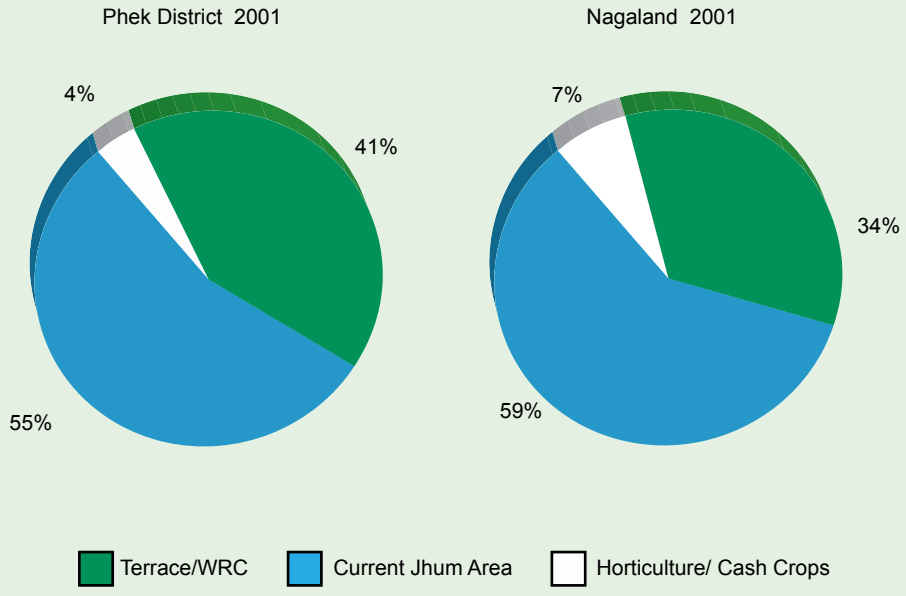
[1] *Nagaland State Human Development Report 2004*

like deforestation and degradation of forest and land resources due to clearing and burning of vast forested area, loss of top soil, destruction of flora and wildlife habitats.

The next prevailing 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 settled cultivation which is more sustainable, productive and ecologically less deleterious than jhum cultivation. 'Zabou' is another indigenous method of settled cultivation based on integrated watershed system generally practiced in Kohima and Phek districts. Under this system, wherever water from streams are not available, run-off water from the upper catchments are harvested in ponds and used for growing paddy along with fishes and snails during kharif season and vegetables during rabi season. In 2001, about 15 thousand hectares was put under these systems that accounted for 41 percent of the total agricultural area. (Figure 2.1 and Table No.2.1)

In recent years, cultivation of horticultural crops; vegetables, fruits and flowers and cash crops have gained ground, although their share in the total agricultural production is still miniscule. The total area under horticulture was 1,533 hectares in 2001[2].

Figure 2.1. Land Use Under Different Agricultural Systems



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

[2] *Nagaland State Human Development Report 2004*

2.3 AGRICULTURE RESOURCE BASE

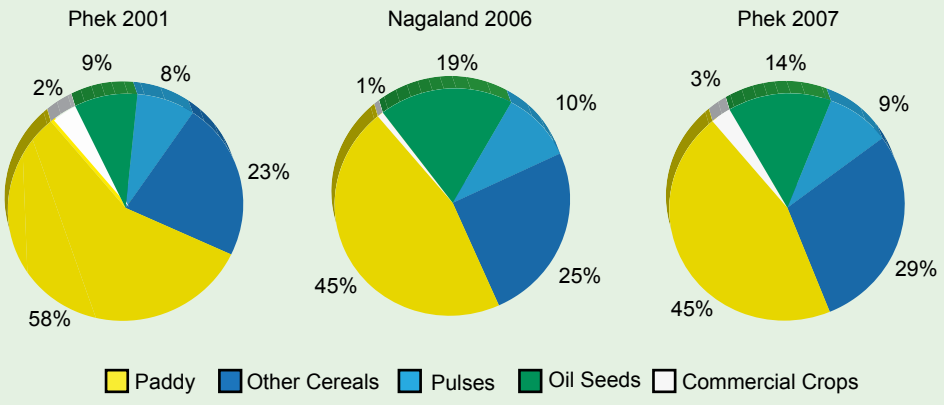
Land and human resources are key factors of production in Phek district. The distribution and the utilization of these resources is thus a matter which should assume policy and strategic importance. The utilization patterns of these resources are highlighted as follows.

2.3.1 LAND

Phek district is well endowed with fertile land and good climatic conditions suitable for crop and livestock production. The present agricultural land use pattern reveals that more than half of its total cultivated area is under jhum followed by terrace or wet rice cultivation (T/WRC), horticulture and cash crop production.

In 2007, about 45,000 hectares of land was under crop production in the district, constituting 19 percent of the State's total cropped area. The total area under cereal crop cultivation was 74 percent of the total cropped area. Area under oilseeds, pulses and other commercial crops together constituted 26 percent of the gross cropped area in the district. The percentage share of cropped area under paddy had declined while the area under other cereal crops, pulses, oil seeds and commercial crops have increased during the current decade. This perhaps imply shift in area between crops. Cereals being the staple food of the people in the district, it has the largest share of cropped area. However, the significant increase in area under oil seeds and commercial crops in recent years indicate movement, commercialization and production of high nutritional crops. (Table No.2.2)

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 with irrigation in terrace fields has been in practice among the Angami and the Chakhesang tribes in Nagaland. This practice has spread to other parts of the State under the initiative of the State Government and its agencies. Since irrigation is one of the key inputs for enhancing agricultural production and also an important factor to wean away jhum cultivators towards settled cultivation, the government has been promoting and encouraging adaption of irrigational practices amongst the farmers since statehood. In 2001, irrigated area was 15,450 hectares, out of which 13 percent was used in double cropping areas. (Table 2.3)

2.3.3 WORK FORCE

In Phek district, the literacy rate was 71 percent and life expectancy was 74 years. The indices of education, human poverty, health and human development were better than the State's averages in 2001[3]. These facts reveal the superior quality of human resources available in the district, which determines their economic performance.

Table No.2.4 and 2.5, indicate that agriculture is still the primary economic activity of the people in the district. This sector alone engaged about 75 percent of the total working population in 2001 as against the State's average of 68 percent. Out of the total agricultural workers, 97 percent were cultivators and only 3 percent were agricultural labourers.

The distribution of workers by gender indicates that 55 percent of the agricultural workers were female. As high as 87 percent of total working women population in the district were engaged in activities in the agricultural sector as against the male average of 64 percent. The land-man ratio (cropped land area) was 0.80 hectare per worker in 2001.

2.3.4 OTHER INPUTS

Agricultural production in Phek district is heavily based on land and labour resources. Crops are grown under rain fed conditions with organic manure, hence use of chemical fertilizers, pesticides and other modern tools is very limited. The extent of mechanization is insignificant. In 2004, only 8 tractors were in use and consumption of fertilizer in the district was only 15 tonnes in 2005-2006. (Table No.2. 6)

[3] *Nagaland State Human Development Report 2004.*

2.4 PRODUCTION AND PRODUCTIVITY OF CROPS

Productivity is the immediate and primary goal of any agricultural enterprise, as food crop production is the key to improving food security and nutritional status of the rural population. A wide variety of food crops are cultivated in Phek district, reflecting the diverse agro ecological endowment. During 2000-2001 to 2006-2007, although the yield declined from 1.65 to 1.57 tonnes per hectare, crop production increased on account of the increase in cropped area. The labour productivity was 1.33 tonnes and per capita availability of food was 0.48 tonnes in 2001.(Table No.2.7, 2.8 & 2.9)

More than 30 crops are grown in the district. The major crops are paddy, maize, jowar, millet, arhar, Naga dal, beans, pea, soybean, mustard, 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. Variations among the individual crop groups exist in terms of production and productivity. These are highlighted.

i. *Paddy:* The share of paddy in the total agricultural production and area in the district have shown downward trend during the current decade due to decline in its production and area under cultivation. However, it is still the most dominant crop accounting for 46 percent of the agricultural production and 48 percent of the area in 2006-2007. On the other hand, its yield of 1.41 tonnes per hectare increased by 0.88 percent during the current decade.

ii. *Other Cereal:* Other cereal crops like maize, jowar and millets have substantially gained both in acreage and production. Its percentage share in total area, production and yield has increased during the current decade. In 2007, the share of other cereal crops was 28 percent of the total cropped area and was about 26 percent of the total production. Total cereal crops which comprises of paddy and other cereals constitutes 74 percent of the total crop production.

iii. *Pulses:* This category includes crops like arhar, moong, dal, beans, peas, lentil and gram. In 2006-2007, pulses occupied only 9 percent of the gross cropped area and contributed 7 percent to the total crop production of the district. The yield per hectare was 1.21 tonnes, which was almost the same as the State's average. Area, production and yield increased by 15 percent, 68 percent and 46 percent respectively during the current decade.

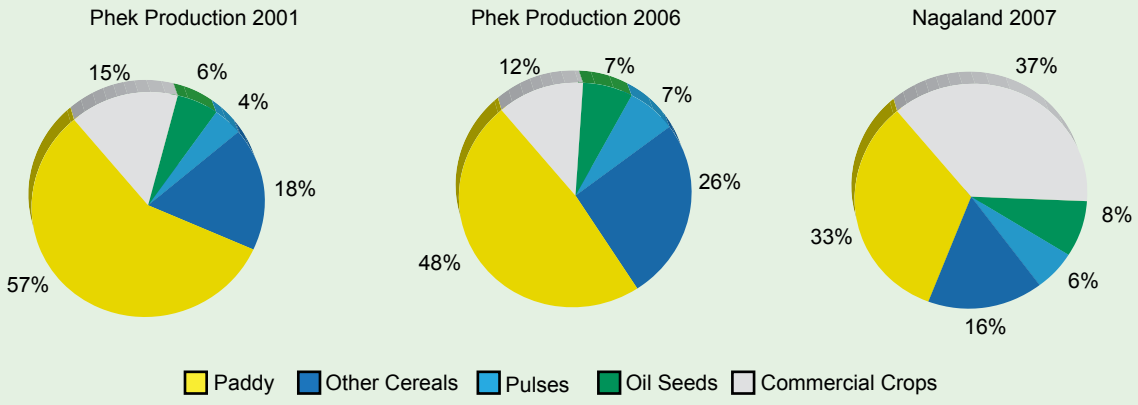
iv. *Oil Seeds:* Crops like groundnut, soybean, sesame, mustard and linseed fall under this category. It is the second most popular crop group in terms of area during the current decade. Its percentage share in total cropped area was 13 percent and in terms of production it was about 7 percent of the total crop production in 2007. Although its yield declined by 20 percent during the period 2001 to 2007, production increased by 29 percent due to increase in cropped area.

v. *Commercial Crops:* Commercial crops such as potato, tea, ginger, cardamom are cultivated in the district. This is the second most important crop in terms of production, only next to cereal. It contributed about 12 percent to the total crop production although area under its cultivation was only about 3 percent of total cropped area in 2007. During the current decade its area increased by 13 percent while its yield declined by 32 percent. Decrease in the yield led to decline in production by 23 percent.

In general, the total food production pattern in the district indicates marked imbalance in the supply of foods. Starchy cereal foods dominated the district food balance sheet, while the share of pulses and oil seeds are remarkably low. This has implications on nutritional balance and food security of the population, as the production of crops with higher nutritional value is low. Policy makers need to realize the imbalances in the food supply chain and its effects on nutritional intake and its impact on human development.

The State's Department of Agriculture has crop zoned the district on the basis of the potentiality of the area. Pfütsero; vegetables, passion fruits and cardamom; Chozuba; passion fruit, tea, kholar and cardamom, Phek; soybean, tea, kholar, cardamom and ginger and Meluri; ginger, maize.

Figure 2.3 Share of Crops in Production



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

2.5 COMMERCIALIZATION

The process of diversification and commercialization is generally induced by rapid technological changes in agricultural production and the changing food habits resulting from higher personal disposable income of the people. The growth in production of fruits and other non cereal crops in the district might be taken as an indicator of diversification and commercialization.

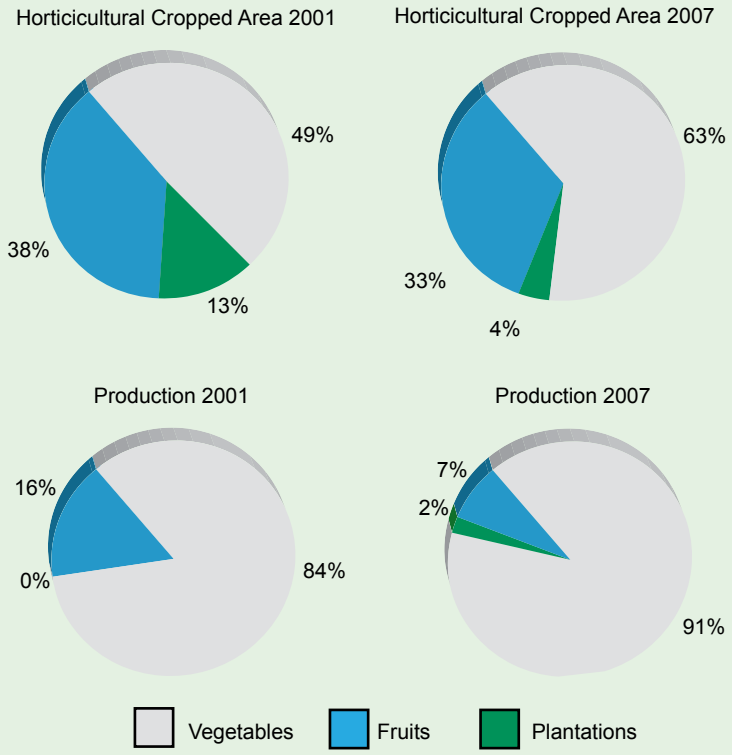
2.5.1 HORTICULTURAL CROPS

Horticultural crops are divided into the following sub-categories viz; fruits, vegetables and plantation crops. In 2007, among the top five fruits grown in the district were orange, pineapple, banana, papaya, passion fruit. Cultivation of medicinal and aromatic plants also gained prominence. Quantitatively production of banana was the highest followed by pineapple, guava, orange and papaya. Moreover, the highest yield per hectare was guava with 7 tonnes, followed by banana with 4 tonnes, pineapple with 2.3 tonnes, pear with 1.8 tonnes and plum with 1.5 tonnes.

In 2006-2007 among the top five vegetable crops, acreage wise the largest was potato, followed by leafy vegetables and colocassia, chowchow, tapioca and others. In terms of production, potato was the highest followed by chilli, leafy vegetables, chowchow and tapioca. The highest yield per hectare was chowchow, followed by potato, colocassia, tree tomato and peas. Cultivation of plantation crops such as cardamom were evident in the district.

During the current decade overall area, production and yield of horticultural crops declined. However, among the sub-categories, vegetable crops have gained in area, although its share in production declined. This indicates preference of farmers towards vegetable production, as this crop group gives immediate returns and at the same time requires less financial investment as compared to fruits and plantation crops. Floriculture and mushroom cultivation gained ground, especially among the urban population due to favourable climatic conditions, market demand and due to the Government support services. In recent years, the farmers have realized importance of cultivation of medicinal and aromatic plants. Among them, ginseng is the most valuable plant with tremendous commercial potential. Citronella is another plant having good market demand especially for making products such as perfumes, mosquito repellents, ointments and sprays. There is also a wide scope for tea plantation and bee keeping. (Table No.2.10 to 2.14)

Figure 2.4. Horticultural Cropped Area and Production in Phek District



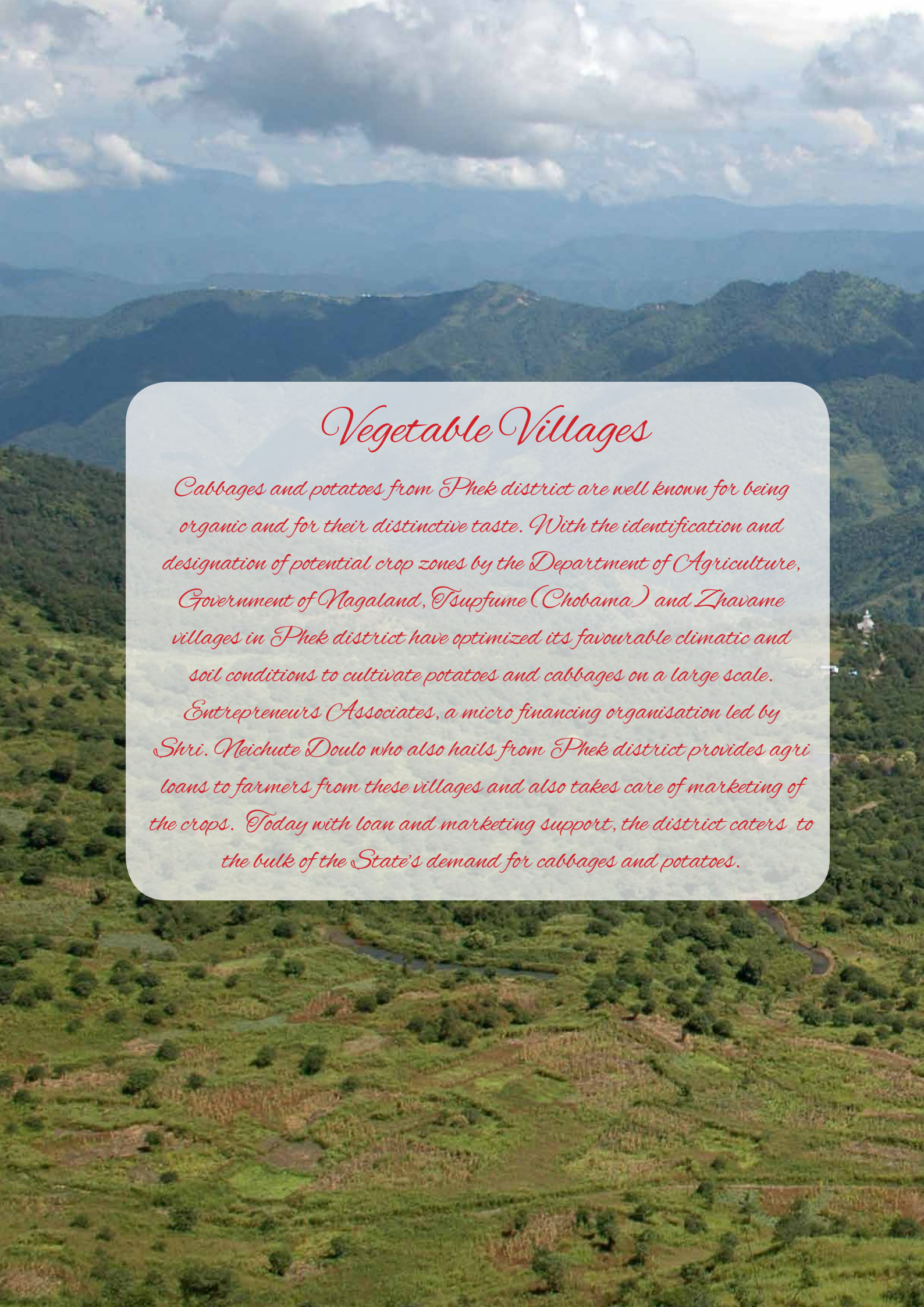
Source: Statistical Hand Book of Nagaland 2004 and 2007, Directorate of Economics and Statistics, Government of Nagaland

2.5.2 LIVESTOCK

Livestock provides additional income to the farmers, besides meeting their daily protein requirements. The popular livestock are pig, cattle, poultry and dog. The total production increased by 32 percent but the per capita (per population) livestock declined by 9 percent during the last decade as the growth of population was faster than the growth of livestock production. Among the individual livestock, buffalo, used for ploughing terrace farms witnessed the highest percentage increase followed by pig, duck, dog and mithun. On the other hand, production of cattle and rabbit declined. There is scope for production of livestock such as poultry, pig, cattle, duck and rabbit on a commercial scale as meat constitutes a major diet component and for which the demand is high. The production of milk, eggs and meat has increased considerably during the current decade in Nagaland[4]. (Table No.2. 15 and 2.16)

The current production of these livestock is not sufficient to meet the demand of the district. However restrictions have been imposed on import of livestock items from outside the district to encourage farmers to enhance livestock production. This also acts as a quarantine and prevents spread of livestock diseases. The growth rate of livestock and their per capita availability show negative trends, which is a matter of concern.

[4] *The analysis on the district level could not be made due to paucity of data for the same*



Vegetable Villages

Cabbages and potatoes from Phek district are well known for being organic and for their distinctive taste. With the identification and designation of potential crop zones by the Department of Agriculture, Government of Nagaland, Tsupfume (Chobama) and Zhavame villages in Phek district have optimized its favourable climatic and soil conditions to cultivate potatoes and cabbages on a large scale. Entrepreneurs Associates, a micro financing organisation led by Shri. Neichute Doulo who also hails from Phek district provides agri loans to farmers from these villages and also takes care of marketing of the crops. Today with loan and marketing support, the district caters to the bulk of the State's demand for cabbages and potatoes.

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

Phek district alone contributed about 12 percent to the State's agricultural sector in NSDP during 2005-2006. Net District Domestic Product (NDDP) of agriculture per capita was about ₹ 16914 per person while in rural areas it was about ₹ 18561. The district witnessed a 12 percent annual growth of the District Domestic Product in Agriculture which was lower than the State's average growth rate of 14 percent during 2000-2001 to 2005-2006. (Table No. 2.17)

In Nagaland, the share of agriculture in NSDP increased from 29 percent to 32 percent while the percentage share of tertiary sector declined from 55 percent to 51 percent and secondary sector increased from 13 percent to 14 percent during 2000-2001 to 2004-2005. The structural change in the district could not be ascertained due to lack of relevant data. (Table No.2.18)

However, the scenario in the district is different. There is high concentration of labour force in agriculture indicating underdevelopment of industrial and service sectors in the district. The slow growth of the secondary and tertiary sector has incapacitated these sectors to absorb the growing work force in the district. The high concentration of labour force in agricultural occupation underlines the importance of this sector as an area to be focussed for economic and human development.

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

i. Low productivity of agriculture.

ii. High concentration of labour force in the agricultural sector, and

iii. The transformation of subsistence agriculture into commercial agriculture. These challenges can be addressed only when there is substantial human development in the rural sector.

2.6 OTHER FACTORS INFLUENCING AGRICULTURAL PERFORMANCE

2.6.1 MARKET

An efficient marketing system with proper infrastructure is key to development of the agricultural market economy. However, a market will not be able to function efficiently without the support of institutional and legal framework. Therefore, provision of adequate physical infrastructure, price support, subsidy, credit support and market reforms are necessary to boost the sector.

Lack of marketing infrastructure and linkages has been a major deterrent for surplus agricultural production in the State. In Phek district there were only 2 (two) mandis in 2004. There is no facility for cold storage, proper ware housing or grading. And there is no regulated market in the entire State. Lack of transport infrastructure is also another bottleneck.

In the context, the Government has taken initiative to develop and strengthen the marketing system by exploring market linkages, identification of viable commercial crops, construction of agri-link roads and construction of marketing yards. Agricultural Produce Marketing Committees (APMCs) at the district level and village marketing committees at the grassroot level have also been constituted.

2.6.2 CREDIT SUPPORT

Investments in new technology, land development, crop production, purchase of inputs and marketing strageties require credit support. For access to credit, the agricultural banks and farmer cooperatives can play complementary roles through various lending programmes. The commercial banks in the country have been directed to provide agricultural loans at subsidized interest rates. Hence farmers should be sensitized and be facilitated to avail such schemes.

In Phek district, the total agricultural credit of All Scheduled Commercial Banks as on March 2001 was ₹ 20283, which amounted to 10 percent of the State's total. Agricultural direct finance constituted 11 percent and indirect finance accounted for 1 percent of the State's total agriculture credit. In 2005, the proportion of total credit declined to 6 percent, comprising of direct finance only. The paucity of institutional credit may be one of the factors responsible for low level of commercialization. Besides commercial banks, other credit institutions and private lending agencies advanced loan to farmers. However, secondary data on private source of credit is not available for quantification although their contribution has been significant.(Table No.2.19)

2.6.3 KNOWLEDGE AND INNOVATION

Development of human resources in agriculture sector entails enhancement of the capabilities, skills and knowledge of farmers. The enhancement of skills and improvement of farming techniques has a multiplier effect. With expansion of horizon, adaption of new methods of farming, modernization and mechanization, agricultural performance improves. Other linkages required for transformation of this sector are research, extension, trade, agro-processing, transport, finance, marketing and education among others[5]. The three key factors that contribute to building of human capacity in the agricultural sector are:

i. Research and technological adoption

ii. Extension and technical services

iii. Agricultural education

Accordingly, the Government of Nagaland has focused on promoting technically sound, economically viable, environmentally non-degrading and socially acceptable use of natural resources, so as to promote sustainable development of agriculture.

Introduction of new inputs and technologies can result in increase in yield levels. From the 11th Five Year Plan onwards, there has been a major shift in the State Government's policy and activities, For transformation of subsistence agriculture into commercialized agriculture and for food security, the plan strategies are;

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, bio-fertilizer laboratories. It has been working closely with the other organization like Krishi Vigyan Kendra (KVK), International Potato Centre, Environment Protection in Agro-Forestry Development (NEPED), International Development Research Centre (IDRC), Spice Board of India and Agricultural Technology Management Agency (ATMA) for agricultural research and technology dissemination.

ii. As part of capacity building exercise, trainings have been imparted to farmers for development of skills and on techniques to improve productivity of crops like rice, maize, pulses, oil seeds, cardamom, medicinal and aromatic plants. Techniques of tea production, use of organic manure, techniques for post harvest management and pest management, food preservation, awareness for

[5] *UNDP, "Uganda Human Development Report 2007: Rediscovering Agriculture for Human Development Uganda", UNDP, Uganda. www.undp.or.ug/news/104*

intensification of jhum cultivation and management of fallow land, watershed development for rain fed areas, specially for conservation have been some of the areas covered under the capacity building programmes. Emphasis has been on learning by doing. Support is also provided to students undergoing studies in agricultural services and to extension field workers.

iii. Agricultural Information and Extension programmes *viz* agricultural expos, fairs and exhibitions at the local, state and national level have been organised and farmers have been facilitated to participate. These activities are undertaken to lend exposure to farmers, to disseminate information on technology and to facilitate linkages for the farmers.

iv. To enhance production and productivity, farmers have been encouraged to grow high yielding varieties of paddy with shorter maturing duration in the kharif season and mustard, linseed, wheat, pulses and vegetables in rabi season. The objective is to increase the cropping intensity by bringing mono cropping areas under double or multiple cropping. In order to promote modernization through mechanization, farm equipments were made available at subsidized rates. Improved seeds, bio fertilizers and extension support were also provided. Farmers have been encouraged to continue organic farming and the process for organic certification for a number of crops in the State have been initiated. It is neither possible nor feasible to do away with the practice of jhum cultivation in the State due to physical and social factors. Therefore, the Government has initiated programmes for jhum stabilization. Some of the activities are intensification of fallow management systems through plantation of fast growing trees on fallow land, construction of terrace benches and multi cropping.

v. To improve the status of women in agriculture, women were assisted to form self help groups (SHGs), crop and livestock production was encouraged through provision of financial assistance, training and exposure tours.

v. To promote agricultural marketing, Agricultural Produce Marketing Committees (APMCs) and Village Marketing Committees have been constituted at the district and village level respectively. Transport and financial assistance has been provided to farmers through these committees. Marketing yards and storage facilities were constructed near strategic production areas and agri-link roads were constructed to strengthen rural infrastructure and to enhance marketable surplus[6].

[6] *Annual Administrative Report 2004-2005 to 2008-2009 Department of Agriculture, Government of Nagaland*

2.6.4 ACCESS TO LAND AND LAND TENURE SYSTEM

Concerns over land vary widely between regions, districts and communities in Nagaland. Even when farmers have access to land, insecurity of tenure or structure of tenurial rights may inhibit investments for commercialization of agriculture. It could be an impediment to plans for construction of permanent structures, land development and plantation of cash crops like coffee, tea and fruits.

In Phek district, like other districts, both individual and communal ownership pattern exist. Generally, individual land ownership is practiced for the settled cultivated lands, under which the farmer has the sole right to use, own, transfer and even sell the land if he wishes to. Communal land consists of clan land, village land and kinship land which are normally the forest and jhum lands. Every member of the community has the user right but has no individual right to own or sell it. The district has witnessed considerable degree of settled farming and commercialization. Land has also been innovatively developed with resource management practices in small pockets of the district.

2.6.5 Gender Dynamics in Agriculture

Women constitute more than half of total work force in agriculture. Rural women work for longer hours a day as compared to men since they have to take care of the household chores in addition to the farming activities. This prevents their access to training, agricultural support services and inputs, market information, education and credit. It in turn has a direct bearing on productivity.

Fuel wood is the major source of energy and Non Timber Forest Product (NTFP) are sources of food supplement and additional income for the rural populace. Collection of fuel wood and NTFP which are labourious and are time consuming tasks is mainly performed by women. Forest degradation makes these tasks more difficult for women as they have to walk longer distances and spend more time for the purpose. This conflicts with her time for working in the farm and for doing household chores. Traditional land tenure system denies women's access to property, land and income from agriculture and livestock. These inhibits them to access institutional credit. The consequence of all these practices put women and their families at a disadvantageous position.

2.7 CONCLUSION

Although the process of transition towards commercialization has been initiated through the support of the State Government, agriculture in Phek district is still subsistence in nature and production of cereal crops dominates the production pattern. Farmers are relatively progressive, and quick to adopt innovative practices of land and water resource management. As for food and nutrition security, the rapid rate of population growth in the district undermines agricultural growth due to the pressure on land and forest resources. This requires agricultural sector to grow at a faster rate to be able to meet the food requirement of the growing population. Diversification of the sector, increase in labour and agricultural productivity and development of industrial and service sector to absorb the growing work force in the district are areas the Government needs to focus on. In addition, potential areas must be brought under crop production and land use must be intensified by encouraging multiple cropping practices.

Further, technologies suited for upland agriculture need to be developed and introduced. Rural infrastructure like roads and transportation, storage facilities, electrification, irrigation and water harvesting facilities needs to be provided, timely supply of quality inputs, credit and training supports need to be intensified to increase productivity and for surplus production.

The practice of cooperative production and marketing system increases the bargaining power of small farmers against middlemen and traders. Therefore such marketing systems should be encouraged. Setting up of agro-processing and semi-processing units at strategic points would act as ready market for produce of the farmers. To foster the process of transition from traditional and subsistence agriculture to modern and commercial farming require polices which will give an impetus to mechanization of farming and adaption of new techniques of farming while preventing degradation of the biodiversity.

SECTION 2

CHAPTER - 3

INFORMAL SECTOR

3.1 INTRODUCTION

In Nagaland, during the 1970s a lot of emphasis was on development of forests and agro based industries such as paper, plywood and sugar. However many factors hampered the development strategy. The then prevailing insurgency situation not only led to the deterioration of law and order but also affected the normal lives of the common people and was detrimental to industrial growth. In terms of talent and human resources, there were limitations in managerial skills, overstaffing and lack of proper direction. On account of these factors, the State was not able to optimally tap its potential for industrial growth. Consequently, employment generation and income growth suffered.

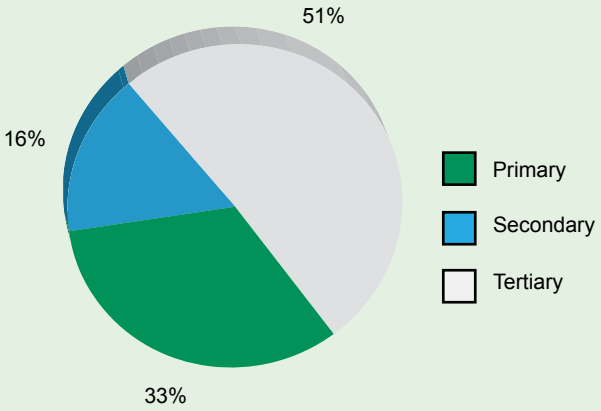
The traditional activities of an average household is no longer sufficient and sustainable due to low returns. In such a situation, the rural households are in pursuit of better cash generating activities. Despite rise in overall income and reduction of 'absolute' hunger, the poor household has become more vulnerable to the competition posed by the changing patterns of production and employment.

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 and Dimapur districts with 313 units. Mokokchung and Zunheboto were the other districts having high number of establishments with 196 and 120 units respectively. (Tabel 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[7]. 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 (In Percentage)



Source: Directorate of Economics and Statistics, Government of Nagaland

3.2 UNORGANIZED SECTOR

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 CHARACTERISTICS OF UNORGANIZED SECTOR IN PHEK

The unorganized sector comprises of various occupations ranging from profession dealing with forest products, traditional vocation of tribals and fishermen, programming and assembling of computers and manufacturing at home. Many of these occupations are invisible.

The first difficulty that is associated with this sector is in identifying or defining the unorganized sector. Defining the unorganized sector, as the area that falls outside the purview of the organized sector, is not sufficient. Unorganized sector can not be defined on the basis of the nature of work because of its variance ranging from forest based tribal occupation to high tech-programming. It cannot be based on the number of employees because of its coverage of agricultural workers, craftsmen, home-based workers, self-employed workers, weavers' cooperatives etc., wherein the total workforce can not be counted.

[7] *Directorate of Economics and Statistics, Government of Nagaland*

From road construction to domestic help, the workers in the unorganized sector work long hours sometimes for less than the minimum wage without compensation for work related injuries and without social security.

In Phek district, food, vegetable and fruit processing, timber business, traditional art and crafts in the unorganized sector have immense potential for development and for generating employment. These employment oriented industries need to be identified and linked up with funding sources, trained labour force and markets. These small and medium enterprises can be effectively utilised for production of intermediary goods for feeding large scale industries in other parts of the country.

"Most new jobs won't come from our biggest employers. They will come from our smallest. We've got to do everything we can to make entrepreneurial dreams a reality". - *Ross Perot*

There has been no survey done in Phek district about the nature and composition of the unorganized sector. An assessment and study of the unorganized sector would enable identification of the sectors with employment potential, the potential growth areas and would enable assessment of human resource requirement . It would assist in mapping the skill requirements in the unorganized sector and would provide a road map of the district for further development of the sector.

3.2.2 SMALL SCALE INDUSTRIES (SSI) -PHEK

As per the Statistical Hand Book of Nagaland, 2007, the total number of registered SSI units in Phek in 2006-2007 was 13 employing a total of 170 persons. Out of the 16 registered SSI units, the break-up trade wise was as follows: manufacturing of textile – 1, manufacturing of fabricated metal products – 1, manufacturing of weaving apparel – 1, manufacturing of other non metallic mineral products – 1, manufacturing of furniture – 7 and 5 for other business activities.

Out of the total power consumption of 8.92 Megawatt (MW) in Phek in 2006-2007, 7.27 MW was consumed by domestic or household consumers. Of the total consumption, the share of domestic consumers was 82 percent and that of commercial and industrial was 13 percent.

Wazeho Cement Plant

The Wazeho Mini Cement Plant with a capacity of 50 TDP is located at a distance of 236 km from Kohima, the State capital and 127 km from its district head quarter Phek . The plant is the only cement plant in the State located on 211 acres of land bordering Myanmar. With substantial and high quality of lime stone deposits in the area, the plant adopts a semi-dry process based on vertical shaft kiln technology. The quality of cement is second to none.

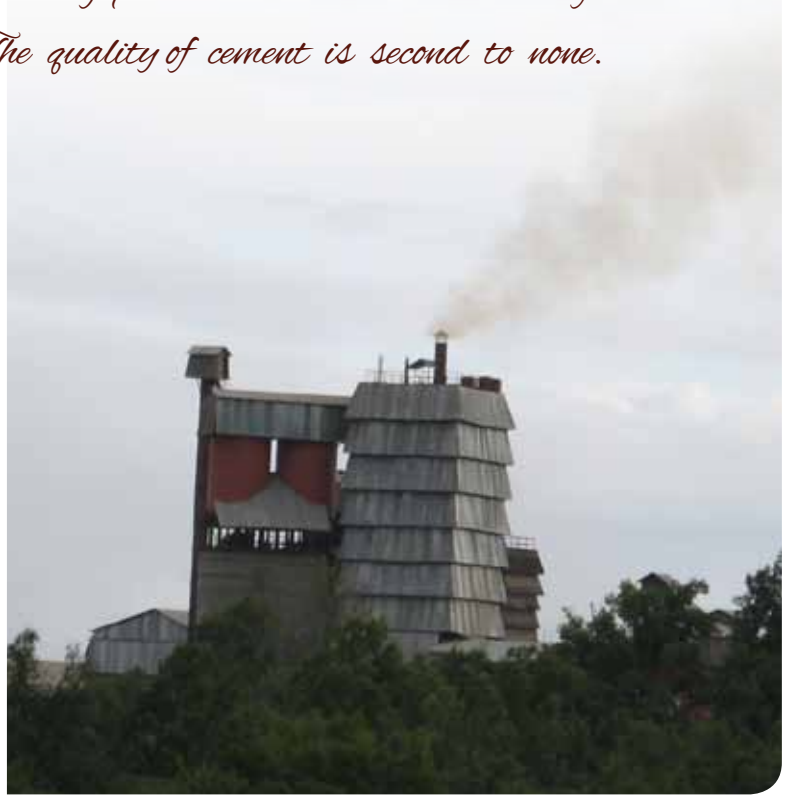
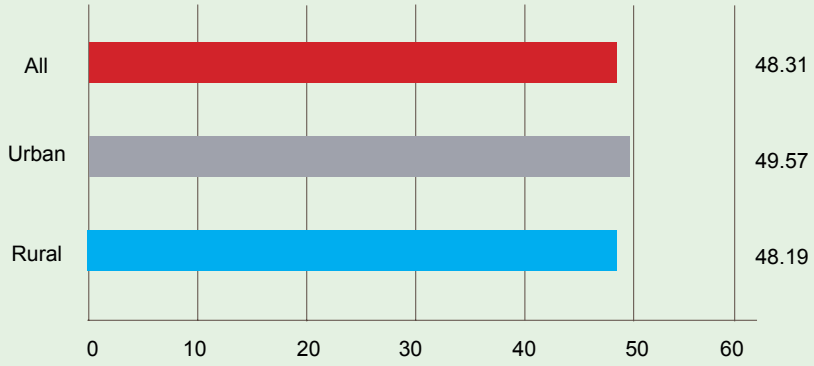


Figure .3.2. Distribution of Workers in Phek 2004

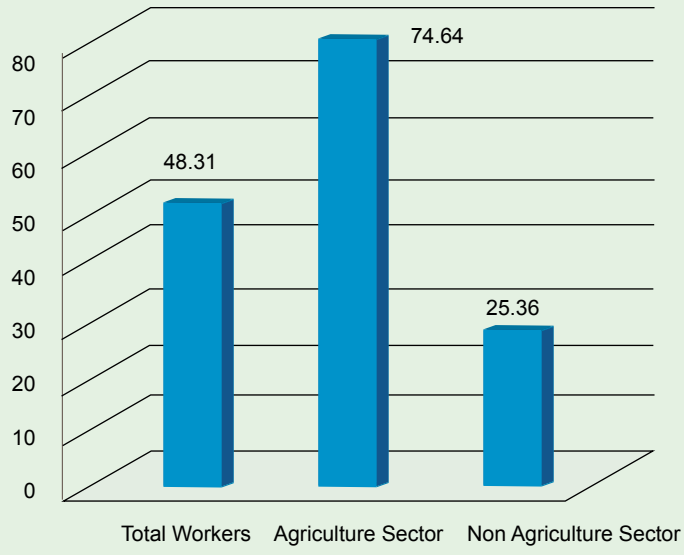


Source:Directorate of Economics and Statistics, Government of Nagaland.

The above figure shows the total workers as percentage of the total workforce in the district. Phek economy is largely agriculture based. The total employment for agriculture sector is 74.64 percent and employment in the non-agricultural sector 25.35 percent.

From the figure it is evident that overall employment percentage in Phek is better than Kohima. The percentage of persons employed in the urban sector of the economy out of the total workforce in Phek is also much higher than Kohima with 49.57 percent as against 32.75 percent. But the size of the overall non agricultural sector is higher in Kohima at 58.99 percent compared to Phek at 25.35 percent. The unorganized sector in Phek is much smaller than Kohima both in terms of its composition and size.

Figure 3.3. Participation of Workforce in Phek during 2004



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

3.3 THE CONSTRAINTS AND WAY FORWARD

Phek is one of the agriculturally prosperous districts of Nagaland with scope for setting up of agro based and food processing industries. Phek produces vegetables and fruits in large quantities, but poor quality of roads and connectivity problems hinder marketing of the produce. Thus, setting up of processing units of fruits and vegetables would lead to value addition and would lead to diversification of produce increasing the demand base. It would result in employment as well as create a ready market for the agricultural produce. The district has a variety of medicinal and aromatic plants with scope for production of herbal medicines and extraction of essential oils for the cosmetic industry. However skilled labour, infrastructure, investment and research is required for realizing the potentials.

3.3.1 ECO-TOURISM POTENTIAL

Phek district has two wildlife reserves at Thevopisu and many tourist spots overlooking Mt. Saramati and Myanmar. The famous Shilloi Lake at Meluri is also located in Phek district. All these natural endowments can be developed as attractive tourist destinations which would generate employment. With value addition, development of infrastructure, proper road connectivity and proper marketing strategies, the inherent resources could be optimized to generate revenue for the district.

Rural Tourism Project - Thetsumi

3.3.2 SUGGESTIONS FOR THE DEVELOPMENT OF NON - AGRICULTURAL SECTOR IN PHEK

Phek being one of the agriculturally prosperous districts of the State, the following suggestions may be considered for development of the non-agricultural sector.

i. Cluster size of around 50 households should be identified and developed as rural hubs specializing in traditional crafts like handloom and handicrafts. The hub and cluster approach can also be promoted for economic activities like animal husbandry, dairy development, fisheries and for horticulture. The State Government and the Central Government could support the project through provision of financial assistance and facilitating access to credit and building of market linkages for the products.

ii. Rural hubs can be managed by village committees and self help groups. This will instil ownership and would generate employment for the rural youths.

iii. Expenditure incurred for development of rural areas is high without visible capital formation. There is a need for capacity building of the local people for preparation of Detailed Project Reports customized to local requirements and convergence of programmes of different Government departments to obtain optimum output and for visible capital formation.

iv. Through built and transfer mode, private entrepreneurs could be incentivized to further invest for infrastructure development. Agricultural prospects of the district being high, cold storages, food processing plants and cold chain units can be developed through private public partnership.

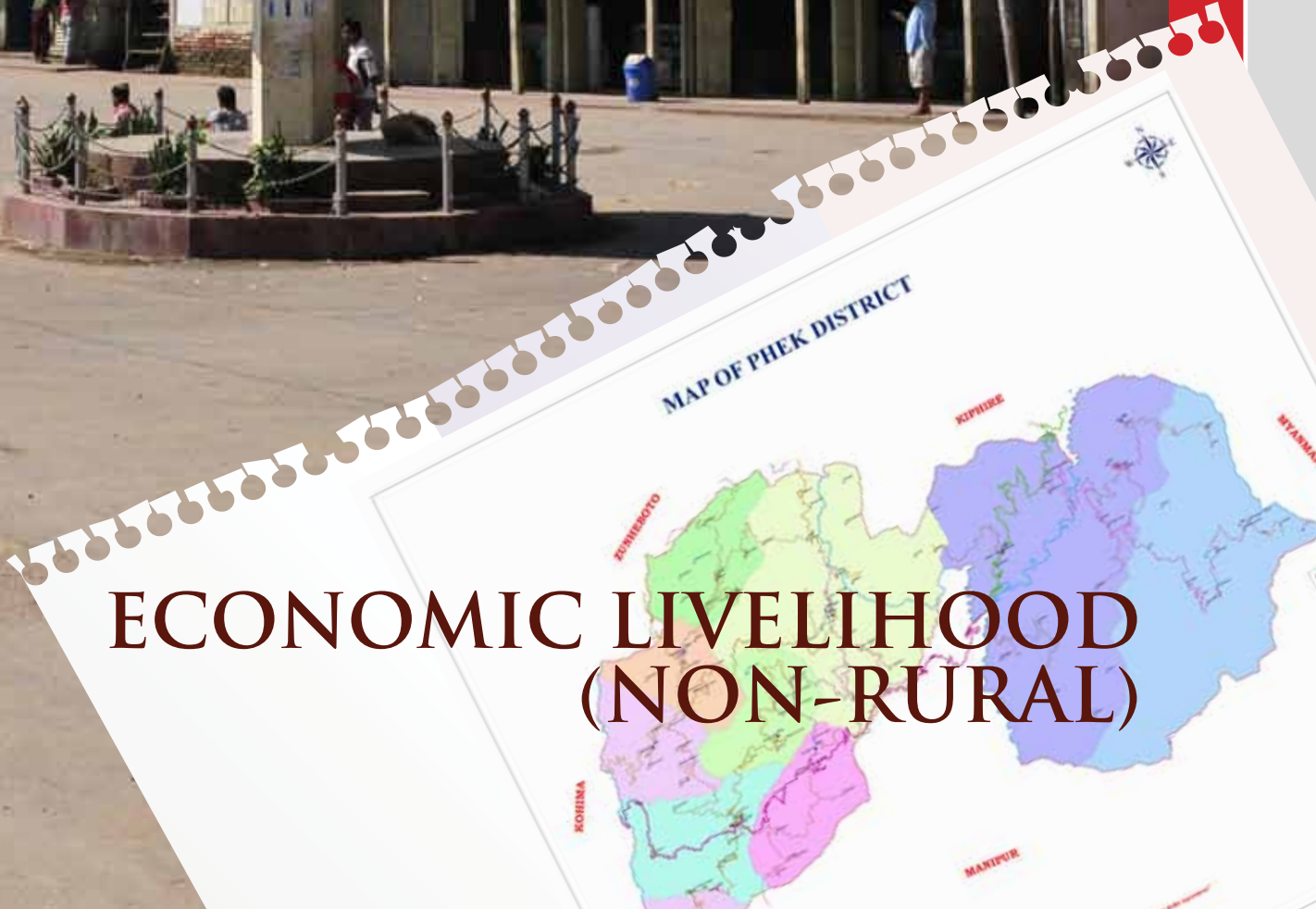
v. Units for processing of fruits like pineapples, oranges, banana and exotic fruits like passion fruit and kiwi can be taken up on a large scale as it has a large market both within the State and outside. Production of charcoal and briquettes from bamboo which has good market potential can also be encouraged through introduction of scientific techniques for such productions.

vi. Most of fruit processing units (FPU) in the State are uneconomic due to ageing and outdated machinery, non availability of adequate supply of fruits round the year, cost of processing due to import of packaging materials such as cans and bottles from outside the State and high cost of sugar. All these factors make the local FPU units economically unviable. Therefore capital and transport subsidy should be provided for procurement of imported raw material and packaging items.

Efforts were made in the past to establish agro based industries like paper mill and sugar mill. Although the experience has not been very encouraging such set backs should not hamper efforts towards industrialization.

SECTION 2

CHAPTER - 4



ECONOMIC LIVELIHOOD (NON-RURAL)

4.1 INTRODUCTION

The District Human Development Report on economic livelihood (non-rural) explores the possibilities of development in Phek district. It also seeks to examine whether development in the State has been state–centric or has largely been influenced by roles played by the non-state actors. The forward and backward linkages between the flow of population between the rural and urban centres have been highlighted.

An analysis of local livelihoods is essential for proper understanding of the impact of hazards such as insecurity through unemployment, conflict or market dislocation. The location of the household, wealth and access of the household to finances are important factors that determine the ability of the household to capitalize the available options within its ambit. Wealth groups are typically defined not only in terms of land holdings but also in terms of livestock holdings, capital, education, skills, power over labour availability and social capital.

Households are the primary units in the dynamics of non rural livelihoods. As such household centred methods of analysis are crucial for developing an understanding of livelihood strategies of the people involved and for contextualizing, planning and evaluating the development programmes and projects. The chapter attempts to situate the household unit and the decision making abilities of its members at the centre of the analysis.

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

i. Employment: Opportunities and limitations

ii. Changing patterns of land-use

The second section is a detailed analysis of the data generated from the survey conducted in the district and the concluding section gives the larger picture and trends emerging from the data.

4.2 EMPLOYMENT : OPPORTUNITIES AND LIMITATIONS

In Nagaland, the structure of employment and nature of unemployment is an outcome of both the natural growth of population and the influx of migrants. As per the data of the Directorate of Employment and Craftsmen Training more than 46263 youths were registered with the employment exchange in 2007 as given in the Statistical Hand Book, Government of Nagaland 2008. This number is continually increasing with more than 3,500 graduating every year[8]. The actual figures of unemployed persons will be much higher if the number of unregistered unemployed youth is taken into account.

The Census of India 2001 shows the population size of the State of Nagaland as being close to 2 million. It grew at a rate of 6.4 percent per annum during 1991-2001. This has led to increase in the density of population from 73 persons per sq. km. in 1991 to 120 persons per sq. km. in 2001. Agriculture continues to be the largest employer in the State. However, off farm activities have increased over the years. There are no big manufacturing units in the State. Manufacturing activities take place only in the small scale and household level. However, Phek district does not make up for even a quarter of the manufacturing units in Nagaland.

"We are wasting an important part of the energy and talent of the most educated youth generation the world has ever had. Enlarging the chances of young people to find and keep decent work is absolutely critical".

Director-General ***Juan Somavia***
International Labour Organization (ILO)

In nearly three decades the structure of urban employment has not changed in Nagaland. In Phek district the highest employer is the State Government. The urban sector of Phek district compromises of a considerably large number of farmers who constitute about a quarter of the number of Government employees. The percentage of people doing business or petty trade, both retail and wholesale, is very less in the district. The survey undertaken by the Directorate of Economics and Statistics in 2009 showed that there were literally few or no daily wage earners in Phek. The services provided by daily wage earners were varied and the demand for this group of people has grown over the years, following the growth in the construction sector. (Table No.4.1)

In Phek district, the work participation rate of males is higher compared to females. Between the two latest census years there has been an increase in the overall work participation rate reflected in the falling dependency ratio expressed as a ratio of non working population to working population. By census definition, marginal workers are those who do not work for the major part of the year, which could either be due to lack of opportunity or other reasons. (Table No.4.2)

[8] *Nagaland Post, 29/04/09.*

"The very hardest part of economic development is getting the first foothold on the ladder".

Jeffry Sachs,
'The End of Poverty'

In terms of inter block variations in work participation, 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 may be either due to expanding employment opportunities that has acted as the 'pull factor' or due to economic hardship that compel 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 the development point of view, the blocks surveyed do not show significant changes.

Employment opportunities in NGOs, the church and its organizations are often not considered seriously. However about 1-2 percent of the population in the district 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 an imprint on the minds of the people.

4.3 LAND USE AND PATTERN OF OWNERSHIP

Land is a major natural resource essential for well being. Population growth in the urban centres has resulted in increased demand for land within and in the periphery of urban areas and higher housing costs. On account of such demand, the pattern of land use is rapidly changing from agricultural land to residential and Government offices sites.

Land still remains the single most important physical possession for the Naga people. On the one hand, the extent of ownership of land resource measure one's social status and temporal power and on the other, land is attached with primordial significance due to cultural, socio political and economic considerations. Changes in agricultural practices have significantly affected 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 own and regulate the land and its resources according to 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 groups. 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. Lately, the State Government has started owning land for

the construction of Government institutions and for developmental and conservation purposes. Traditional system of ownership of land is highly complex and elaborate on the one hand and on the other hand, highly diverse practice exist amongst the different tribes. In the case of some tribes, there are village councils or elected representatives of elders who regulate and control the village and its resources.

In the hills, individual rights granted by the Britishers to tribal chiefs has been handed down from generation to generation as a legacy of British India. Hence the Government of India, under the Directive Principles of State Policy has implicitly granted cognizance of this practice by treating documents issued by the District Magistrate or the Sub-Divisional Officer to the tribal chiefs as equivalent to pattas in the valley. In an attempt to codify and bring uniform laws 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 all villages in the State. This Act allows the Village Council to practice their specified customary laws in administration of the village.

4.3.1 RENT

Poor households spend a larger part of their income on the basic necessities of life. As income increases and biologically pressing but easily satiable wants are met, the socially determined and psychologically spurred wants take over.

According to Census of India 2001, the household profile of Nagaland in the percentage of livable houses are a little higher than the good houses. Between 2001 and 2009, the overall scenario hasn't changed much as indicated by the survey conducted by the Directorate of Economic and Statistics. The urban sectors invest time and energy mainly on education and health. They lagged behind the rural sectors in terms of infrastructure and basic amenities. This clearly indicates the kind of choices people make with the kind of resources available to them.

Rentable houses, for example, is a commodity which has demand. Often this demand is dependent on the house rent, disposable income of the person and the number of members in the family. For Phek, an analysis of the primary data collected from the households inhabiting different parts of the town suggests that the tenants consider floor area, water supply and power supply complementary to each other and as the primary concern. Other characteristics of the house were considered substitute of the floor area. In Phek district, a rented house is probably an inferior or sticky commodity and its income elasticity for the overall sample is negative, although statistically insignificant. (Table No.4.3)

4.4 AN ANALYSIS OF PHEK DISTRICT

In urban Phek, majority of the respondents were employed in the Government sector. This is followed by those employed in other sectors and businesses. There are surprisingly no daily wage earners. Most of the respondents do not have water connections and water is fetched from community wells, reservoirs and harvested rain water sources. Majority of the houses have pucca latrines and there are common open spaces for garbage disposal.

The survey results indicate that a large number of people feel the need for preservation of natural resources. Remarkably all the respondents replied that health facilities mentioned in the questionnaire were available. The respondents said that PCOs were available at a walkable distances from their homes. However, non availability of urban cafes was indicated. The most frequently used mode of transportation was NST buses and local private buses.

In rural Phek, the major occupation is farming followed by employment in Government sector, other occupations, business and daily wage. The main constraint to education is found to be financial. Most houses do not have water pipe connections. The main sources of water were community wells, water reservoirs and rain water harvested. Majority of the latrines were kutcha with inadequate drainage system. There is very little involvement of the NGOs in the delivery of these services. People opined that the communitisation of water supply led to improvement in water supply facilities in the villages.

Control over resources is mostly in the hands of the men and the community. Women however, equally participated in the management of resources. In rural Phek, it is observed that the responsibility is more on women when it comes to seed selection, weeding and marketing activities. According to the women, it is they who undertake all the work.

According to the respondents electricity is available in their villages. They opined that charges for electricity has reduced after communitisation. PCOs and cyber cafes are scarce and a large number of people spent more than ₹ 20 on transportation everyday.

On migration, higher number of people prefer to migrate to the urban areas as compared to respondents in Kohima. Better employment, higher income and educational prospects for children were the reasons cited for preferring migration to urban areas.

4.5 CONCLUSION

The overall data of Phek shows that in the urban areas, the number of people employed in the Government sector and businesses is higher as against other livelihood activities. From the analysis, it can be aduced that the nature, scale and scope of non rural employment opportunities are heavily influenced by the local context. 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 context of the study conducted by the Directorate of Evaluation 'Employment Opportunities Foregone by Nagas' in 2006 the potential of economic livelihood in non rural areas in all the three surveyed districts of Kohima, Mokokchung and Dimapur is severely affected by the extent and nature of employment of non Nagas (non-locals) in different sectors of the State's economy. One therefore has to take into account the phenomena of the locals losing out significant livelihood opportunities. It is a major reason for limited livelihood opportunities for the people in all the districts of the State. This factor also results in a massive outflow of capital from the State; upto 36 percent of the State's annual plan outlay of ₹ 760 crores (2006-2007 Plan outlay)[9].

In terms of employment, 45815 opportunities can be assumed to have been forgone by the Nagas in these three districts surveyed, while the number of unemployed Nagas has risen. The income levels of many unskilled non-Naga employees are higher than that of many Government employees in Nagaland. This can be attributed to:

i. The inability of the locals to look beyond the traditional employment sectors, inability to venture into new areas

ii. Culture of excessive dependence on the Government.

iii. Cheaper rates and higher productivity offered by the non local labour.

The study indicates that the service sector in the unorganized sector which does not require heavy capital investment can be capitalized for employment of a large section of the unemployed youth. The quality and the kind of trades taught in the vocational institutes will also have to keep pace with the changing needs of the economy. Re-orientation and introduction of new trades based on the demands of the labour market is necessary. Apart from vocational training in different trades, orientation on the available opportunities, work and entrepreneurial culture has to be inculcated.

[9] *Evaluation Study On 'Employment Opportunities Forgone By Nagas and Employment of Non- Nagas in the State', Directorate of Evaluation, Government of Nagaland, 2006.*

The best way scale economies can be secured and employment quality improved in labour intensive activity is by creating an enabling environment for employment and enterprises in the unorganized sector to expand. Re-orientation, inculcation of dignity of labour, capacity building, diversification into new areas, skill formation and upgradation of skills and provision of incentives would facilitate in securing the employment opportunities foregone.

Construction sector has the highest non-Naga workforce with total annual earnings of several crores of rupees. The growth of the construction industry has propelled employment in this sector. Loading and unloading of goods in the railway station, bus stations and godowns is also predominated by the non-Nagas. Employment in the above two sectors does not require any specific training or education or skill but requires hands-on training, physical ability and willingness to work. The skilled masons in the construction sector have acquired their skills only through observation and by working as apprentices.

The third largest work force consisting of non-Nagas is in the trading and entrepreneurial sector. Running of pan or gumti shops and its ancillary activities provide employment to a large section of non Nagas. This sector is followed by the number of people engaged in running grocery or ration shops. It is observed that while a sizeable number of pan shops, gumti shops, hotels and restaurants are also run by Nagas, plying of rickshaws and handcarts is predominantly by the non- Nagas.

The study of the Directorate of Evaluation, indicates that except for a few persons employed in the automobile workshops or servicing centres and in the restaurants who are skilled, the non-Naga workforce in the service sector is largely unskilled. Most of the skilled workforce in the service sector have acquired their skills from observation, hands-on training, due to induction into the trade at a young age and taking up employment as per their ability and flair.

Of the high turnover sectors or enterprises in the state, like dealership in cosmetics, textiles, pan shop, grocery or essential items, hardware, electronics, consumer durables and automobile parts, more than 50 percent are run by non-Nagas. A comparison of the earnings in the different sectoral enterprises indicate higher earnings for persons dealing in essential items due to the inelastic demand for such goods, while high returns for the establishments dealing in cosmetics and clothing is due to consumption pattern and spending habits of the Nagas.

From the section on migration, it can be discerned that people preferred to remain in their native places but were aware of the quality of life offered in the urban areas.

The primary factors for rural to urban migration are better employment and income prospects, better education facilities, better health facilities, better entertainment and amenities, and better transportation and communication facilities in the urban areas. In Phek a large proportion of the population preferred to migrate to the urban areas as against people in Kohima. As the Government and migrant settlers invest in building homes, Government offices and other public utility buildings, new opportunities in the construction sector have emerged in some of the rural areas. At the same time, traditional rural non farm activities such as weaving have declined due to competition from cheaper imports, lack of adequate investment in technological innovation, lack of inter-sectoral linkages and inadequate infrastructure which affect most non rural sector. The rural urban migration is transforming the housing pattern and livelihoods in the non rural areas surveyed. Rural to urban migration is a growing trend and large and small non rural centres have become important destinations. Mobility and migration are closely inter-related with livelihood diversification.

In terms of amenities, out of the localities surveyed, there were lesser number of houses with water connections. A greater number of people got their water from the community well or water reservoirs. Most of the houses had pucca septic tank toilets. The involvement of the NGOs was minimal. On gender aspect, it could be inferred that men and the community had greater control over agriculture and forest resources than women. On the issue of seed selection, weeding and marketing activities, management of water, firewood and NTFPs, rights over money income from cash crops and agricultural produce, most of the respondents opined that both men and women were equally involved.

On the issue of depletion of natural resources, people in the district were aware of it becoming scarce, climate change and depletion of soil facility. The depletion in natural resources have important repercussions for small non rural farmers engaged in low income occupation such as seasonal wage labour or petty trade. An important transformation observed is that the family as the traditional unit of production and consumption has been replaced by more individual priorities and behaviours.

Similar to the opinion expressed in the rural areas, people in general opined that every individual should take more responsibility.The urban area has greater amenities in terms of PCO booths and cyber cafes. For transportation, larger number of people used local private buses followed by local taxis, the NST buses and privately owned vehicles. And wherever there was inadequate provision and maintenance of the roads, operating costs for transporters was high resulting in inflated prices and shortage of essential commodities.

In the urban areas a large number of people live in rented houses followed by people who owned houses and people living in Government quarters. Most of the dwelling units were of four rooms and above. Most of the households had exclusive latrines while a lesser number of households had shared latrines. A small section of the households used the community latrines. The livelihoods of the lower income groups in the urban areas are closely linked to the location of the residences.

Broadly, livelihood strategies can be categorized into natural and traditional, human, financial, physical and social aspects. The survey shows that most of the respondents gave priority to natural and financial assets which provide a springboard to access the other three parameters. Access to finance would create access to social assets, physical assets i.e. housing and transport, human assets i.e. good health, skills and education and natural assets i.e. land and water.

The potentials and limitations of regional economic development, especially the role of the local government in providing an enabling environment for a market induced economic growth, needs to be understood in the wider context of changing global economy and production patterns. The non rural livelihood activities are mostly a result of survival strategies and are dependent on availability of the resources and opportunities.

North East Network Resource Centre, Chizami

Set up in 2005 and located at Chizami in Phek district of Nagaland, the North East Network Resource Centre (NEN) is a women's organization working for women's rights and livelihood issues. The Network has created a hub for young people and for women in the district to exchange ideas, to concretise visions, a platform for arts, culture, sports and environmental issues. Skill development and capacity building on economic, socio-cultural, women empowerment and technical themes are some of its activities.

With the belief that conservation alone without sustainable models of livelihood would not be sufficient to preserve natural resources, NEN imparts training for increasing agricultural productivity, to protect the local crop diversity and traditional knowledge, organic farming techniques and use of eco-friendly construction methods and raw materials.

To support the traditional back strap weavers in the district, NEN evolved a livelihood programme in 2008. This programme has mustered a strength of more than 300 weavers today, registered as Chizami Weaves. NEN provided the necessary forward and backwards linkages. And by honing the inborne flair for crafts and weaves, and blending it with the requirement of the market, NEN created demand for the products of these weavers both within and outside the State.

For more information visit www.northeastnetwork.org.

SECTION 3

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 Phek district and the availability of basic services.

SECTION 3

CHAPTER - 5

HEALTH

5.1 INTRODUCTION

'Health' of the people is the most important factor for human development. However, due to improper planning, this sector face several challenges in the delivery of health care services.

While the goal of the Department of Health and Family Welfare is to reach health services to the unreached by providing door step services through different forms of link workers, the State faces several challenges in attaining this goal because of the following factors:

i. Severe mountain terrain
ii. Poor roads and communication
iii. Widely dispersed villages nestled on hill tops
iv. Heavy monsoon
v. Weak infrastructure
vi. Lack of reliable database
vii. Shortage of skilled manpower
viii. Lack of systematic monitoring systems

However, through the introduction of various national and flagship programmes in the State, the Department has over the years improved its planning and management systems for better health service delivery.

5.2 SITUATION ANALYSIS : STATE OF NAGALAND

5.2.1 KEY HEALTH INDICES

While the importance of having reliable data and information is understood, the Department does not have scientific data of its own which has adversely impacted strategic planning. For example, while the data of IMR Nagaland as per NFHS-3 is 38, data from Sample Registration Survey (SRS, October 2007) shows the IMR figure as 20. Hence, it is confusing for the State to set a realistic target for the same.

Another factor affecting the health indicators in the State is due to inflation of population figures, thereby impacting the performance indicators of the health sector. This has resulted in the projection of health workers in some health units as very poor performers when they actually deserve appreciation and recognition. This indeed is a demotivating factor when all planning is performance oriented.

5.2.2 Infrastructure

(a) Health Institution

While health centres are in excess of the State's entitlement as per Indian Public Health System (IPHS) norms, many of them are not positioned strategically, to be able to deliver health services as anticipated. The infrastructure of most health centres are also in dilapidated conditions. Lack of adequate infrastructure and poor condition of the health units have been the cited reasons for absence of medical personnel at their place of posting.

(b) Manpower

There is acute shortage of specialist doctors to man the health units as per IPHS norms. Therefore there is a need for training of existing manpower and to equip them with multi skills to meet the demands in the health care system.

In the nursing sector, in the initial stages, there was shortage of General Nursing and Midwifery (GNM) nurses. To fill in this gap, a number of posts were for Auxiliary Nursing and Mid-wifery (ANM) nurses were sanctioned for the district hospitals, Community Health Centres (CHCs) and Primary Health Centres (PHCs). Today as per IPHS norms, there should be no post of ANMs in the district hospitals. In order to follow IPHS pattern the existing ANMs have to be redeployed at the CHC, PHC and SC.

(c) Capacities

The State lacks medical specialists in different disciplines adversely impacting delivery of quality health services. Simultaneously, while there is sufficient Para Medical Workers and other support staff, they have not been trained in multiple skills, thus constraining them to deliver the desired services at the grassroot level.

In order to achieve optimum health service delivery, upgradation of capacities and skills of all levels of health workers is required. Areas requiring skill building are programme management, documentation, communication skills, accounting, stock keeping and technical skills.

An initiative taken by the Department of Health and Family Welfare towards multi-skilling of doctors to ensure rural postings was the launch of the Diplomate in National Board (DNB) course at Naga Hospital Authority Kohima (NHAK) in the year 2008-2009.

(D) COMMUNITISATION

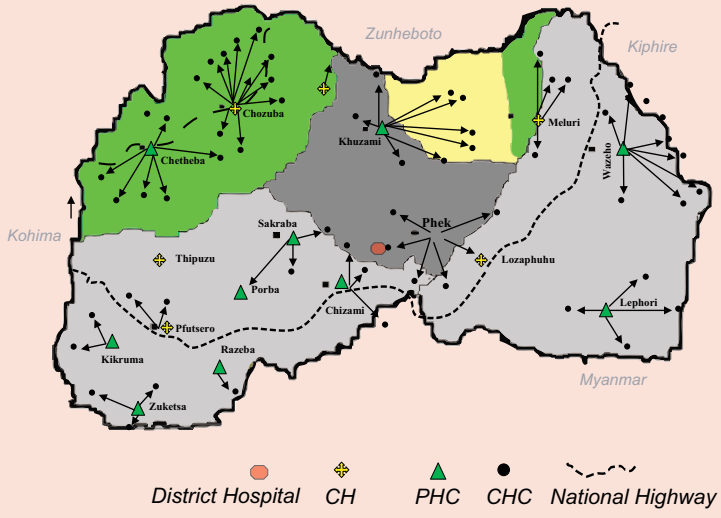
To capitalize the strong traditional social capital, the concept of communitisation of the health sector was introduced in the State in the year 2002 by an act of legislation. The objective was to empower communities to participate in health service delivery through transfer of ownership of infrastructure and assets created and delegation of powers. The concept of communitisation has been appreciated both at the national and international level and has been adopted by the National Rural Health Mission.

The success of communitisation of the health sector depends to a large extent on the hand holding support provided by the Government.

(E) NATIONAL RURAL HEALTH MISSION

The much needed support extended through NRHM towards strengthening the delivery of health service system is highly commendable. However, it is observed that the programmes of NRHM have not been integrated with the existing programmes of the Department of Health and Family Welfare thereby resulting in duplication of programmes, and in wasteful expenditure both in terms of resources and man power. (Table No.5.4)

Figure 5.1. Health Units in 2008 : Phek



Source: Directorate of Health and Family Welfare, Government of Nagaland.

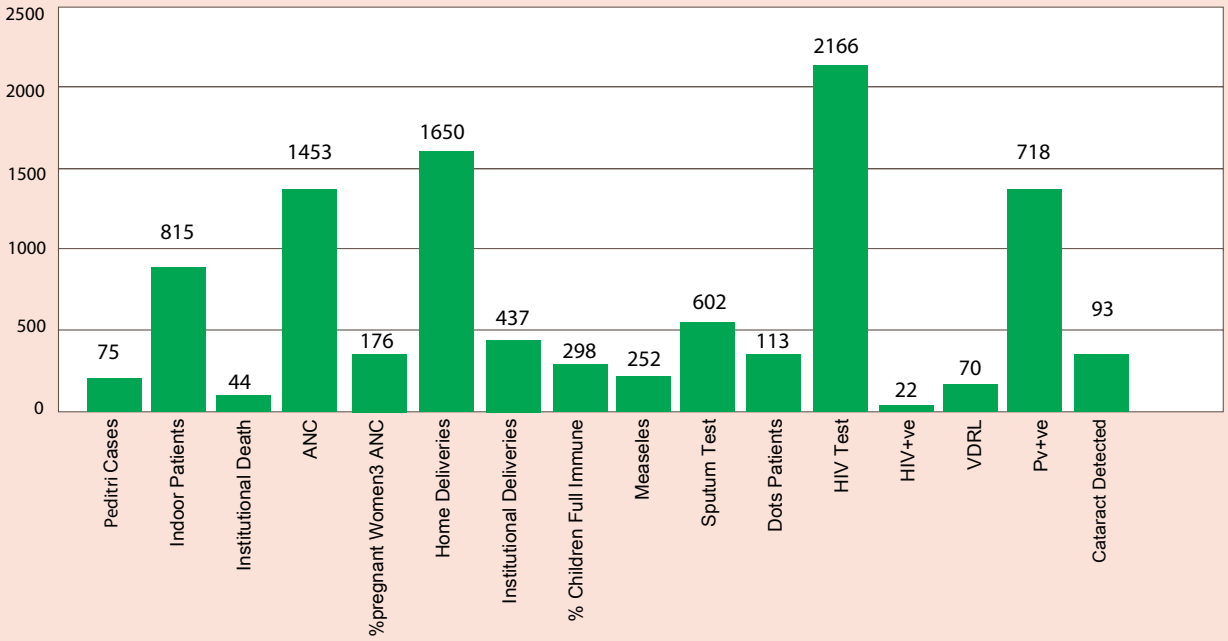
The figure above provides a bird's eye view of the location of various health units in Phek district. Due to various reasons, in some of the health units with small population coverage, the staff strength was more than required, whereas some units with bigger population coverage were understaffed. Coverage of some of the PHCs or SCs were too small or too near to the headquarters to justify posting of Medical Officers (MOs).

Infrastructure of some of the health units were in good condition due to community participation. However, the biggest drawback of many health units arise from the fact that they were not built on suitable locations. Such units were constructed without proper consultations with the Medical Officers incharge and without considering the communication or transportation aspects, thereby adversely impacting the health delivery service system and under utilization of resources, leading to wasteful expenditure.

5.3 DISTRICT HOSPITAL, PHEK

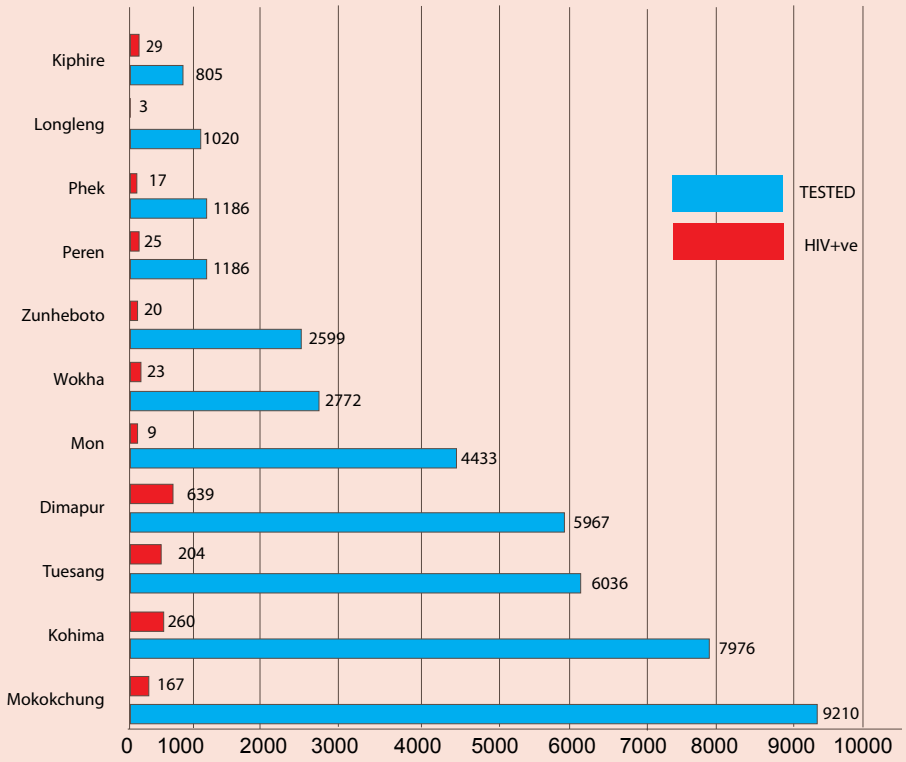
The existing district hospital is a 100 bedded hospital. However, Phek being a large district, majority of the patients are referred to Kohima and sometimes outside the State since medical specialists in many of the major disciplines are not available. Therefore, the hospital should be upgraded to a 150 bedded facility. The technical capacity of the in-service Medical Officers need to be upgraded. Likewise, nursing personnel, paramedics and auxiliary nursing staff need to be trained in palliative care and redeployed. Under the vertical programmes of the Department of Health and Family Welfare and of NRHM, human resource development still needs upgradation. Continuing Medical Education (CME) and contractual or contingency placement of manpower could be strategies to achieve optimum utilization of the facilities. The status of health units, the existing manpower, the data on diseases treated, Revised National Tuberculosis Control Programme (RNTCP) and Integrated Counseling Treatment Centre (ICTC) of Phek district is furnished in Table No.5.5 to 5.8.

Figure 5.2. Record of Diseases Treated in 2008



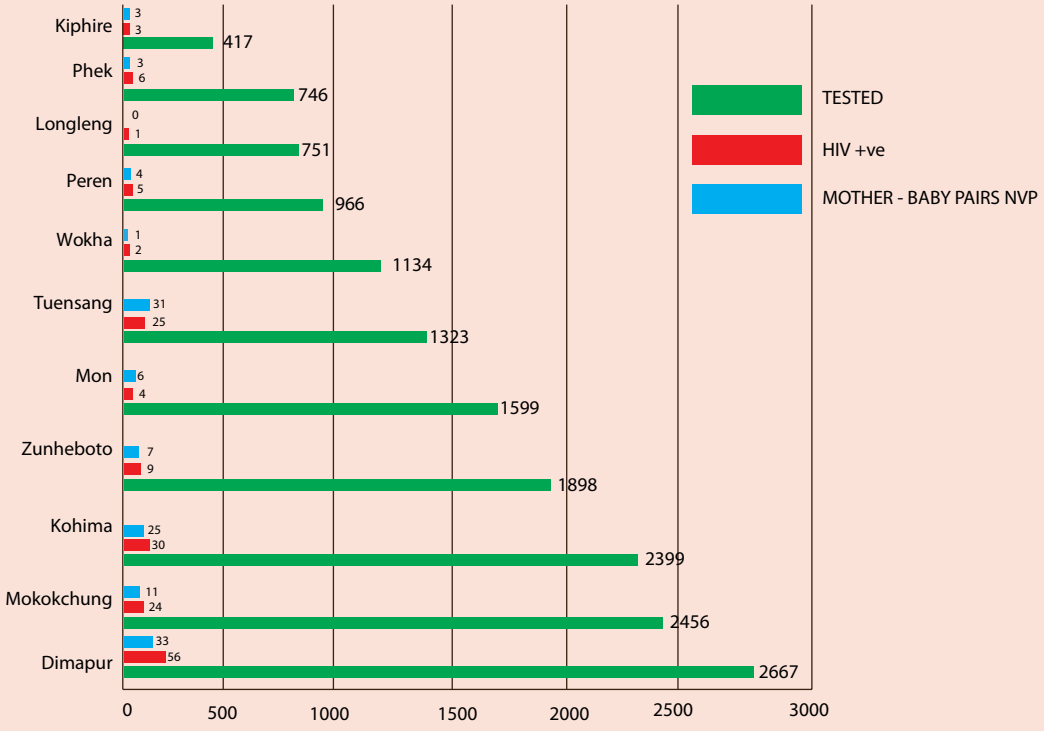
Source: Directorate of Health and Family Welfare, Government of Nagaland

Figure 5.3. District Wise Status of ICTCs in 2009



Source: Directorate of Health and Family Welfare and Nagaland State AIDS Control Society, Government of Nagaland

Figure 5.4. District Wise Status of PPTCT in 2009



Source: Directorate of Health and Family Welfare, Government of Nagaland.

5.4 WAY FORWARD

The main objective on health care delivery revolves around few key issues, namely;

i. Reduction in indices of
   - ⬇ Maternal Mortality Rate
   - ⬇ Infant Fertility Rate
   - ⬇ Total Fertility Rate

ii. Improvement in health care delivery system in terms of facilities such as buildings, infrastructure, equipment, manpower placement and availability of essential medicine.

iii. Continuous training programmes for upgradation of skills and for keeping up with changing trends and technology.

iv. Optimum utilization of existing assets and manpower.

v. Focused planning based on needs and strategic location of health care units in terms of population, distance, disease prevalence and lack of facilities.

vi. All CSS or vertical programmes should be integrated under one umbrella to avoid duplication of programmes to ensure better performance and results. The concept of multi lashing 2/3 allied programmes e.g.- RCH + Human Immuno Virus (HIV) or Acquired Immuno Deficiency Syndrome (AIDS) + Sexually Transmitted Infection (STI) + Immunization should be adapted.

5.4.1 MANPOWER DEVELOPMENT AND TRAINING COMPONENT

Developmental activities cannot progress without placing optimum thrust on human resource development, capacity building and skill development and judicious placement of trained personnel. Increasing and generating more avenues and seats for technical education at various institutions within and outside the State should also be explored to supplement the efforts of the department for development of the health sector. Specialized personnel in all the medical disciplines of the health sector is the need of the hour. Multi lashing and coordination between the various centrally sponsored vertical programmes including NRHM should also be a primary goal of the implementing agencies.

I. HEALTH INFORMATIONS

Having a good data bank is crucial for strategic planning and hence efforts have to be made towards collection and collation of disaggregated data at the grassroot level and at the base level health care units.

II. CREATION OF INFRASTRUCTURE AND RESOURCE MANAGEMENT

i. The need for construction of new health centres and staff quarters has to be addressed urgently to enable medical officers, paramedics and nursing personnel to be stationed in their place of posting.

ii. In order to achieve optimum health service delivery, the capacities of health workers at all levels should be enhanced and upgraded. In addition proper management of the available resources is also pertinent for optimum utilization of resources.

iii. Considering the topography and the difficult terrain of the district for delivery of health services at the grassroot level, sub-centre or a health unit should be located in each village. It should not be restricted to IPHS norms of one sub-centre for a population of 3000. Following of the IPHS norms would entail requirement of approximately 850 more sub-centres which is not practical and feasible at this stage.

iv. Accredited Social Health Activists (ASHAs) appointed, institutionalized and supported under NRHM should be trained in first aid and in handling obstetrical emergencies including delivery. ASHAs should be remunerated. These workers will constitute the main health worker at the grassroots level. Without training, the concept of being just a guide is not cost effective.

III. PUBLIC PRIVATE PARTNERSHIP (PPP)

The scope and dimension of health is very vast. It requires realistic and strategic plan for health service delivery and partnering with the private sector. Activities which can be partnered with the private sector are;

a. Sharing and updation on information and technology
b. Data collection, surveillance and sharing of research information.
c. Private and public partnership towards planning health service delivery.
d. Sharing technical expertise and capacity building.
e. Development of health standards.

IV. COMMUNITISATION

The concept of communitisation is the answer to many of the challenges in health service delivery. Therefore hand holding support and monitoring of the activities of the various health committees should be a concern for the agencies implementing health care programmes in the villages. Also, efforts have to be made to ensure that people are aware about services available. At the same time the participation of women in health service delivery should be ensured. This will result in better outcome since child care, care and concern for the family comes naturally to women.

V. NATIONAL RURAL HEALTH MISSION (NRHM)

NRHM is the main support system for the Department of Health and Family Welfare. Therefore efforts should be made to integrate the programmes of NRHM with that of the Department. Such strategies would lead to better performance of the health care delivery system. In this arrangement, programmes of the two agencies would complement and supplement the efforts of each other and prevent waste of resources.

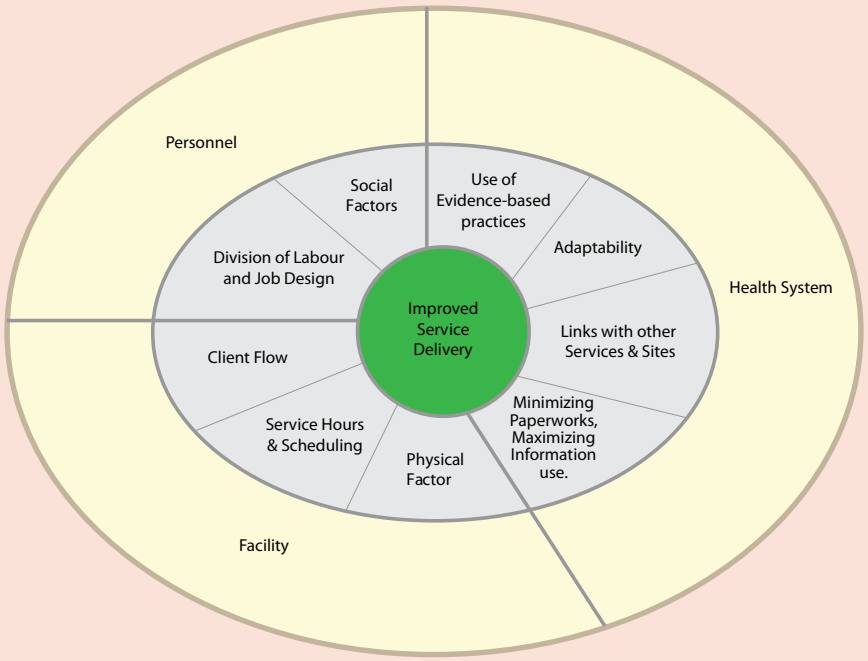
VI.COMMUNICATIONS AND TRANSPORT

Availability of ambulances at various PHCs will facilitate transfer of critically ill patients to the new First Referral Unit (FRU). It would prevent avoidable losses and stress.

VII. FUNDING PATTERN

Most Primary Health Centre or health units are unable to access funds earmarked for them due to non availability of manpower who can properly project their financial requirements. Funds released through various Centrally Sponsored Schemes (CSS) and NRHM should be simultaneous with that of annual plan sanction of the Department of Health and Family Welfare. Release of funds should be based on population covered, functionality of health units and need based.

Figure 5.5 Nine Elements of Organization of Work



Source: Directorate of Health and Family Welfare, Government of Nagaland.

Besides infrastructure development, human resource development of all categories of health workers, redeployment of staff, reorganization of the staffing pattern, maximizing the services of ASHA workers, integration of vertical programmes and introduction of the concept of incentives and recognition to individuals or groups or health units based on performance and achievements would be beneficial. It would lead to setting of standards of accountability and responsibility.

5.5 CONCLUSION

Topographical assessment suggest that a "SATELLITE" mode of functionality will be more cost effective in terms of deployment of trained manpower and resources and better utilisation of facilities. This will reduce wasteful expenditure, prevent redundancy and duplication. Deficiency in planning can be overcome with assessment and evaluation. The universal problem of deployment of manpower to rural areas should be addressed by providing basic facilities like staff quarters, transportation facilities and with incentives for children's education and health care.

The health care delivery system primarily depends on manpower development and deployment, capacity building, skill upgradation backed with requisite infrastructure and equipments. Therefore primacy has to be given to these issues.

SECTION 3

CHAPTER - 6

BASIC SERVICES

6.1 INTRODUCTION

Basic amenities or services refer to the factors which contribute to human capital formation and human development. They include education, health and medical care, housing, sanitation, communication, water supply and electricity. These services are crucial in the development process apart from their intrinsic value to the individual.

This chapter deals with the status of water supply and sanitation in Phek district. Among the basic household amenities or services that affect human development are access to drinking water, sanitation and hygiene. Access to drinking water has implications not only for health status and human development parameters but also for livelihood opportunities depending on the opportunity cost of time.

Sanitation concerns the safe disposal of human excreta. Sanitation is associated not only with personal hygiene but also with human dignity and well being, public health, nutrition and even education. Acknowledging its importance, the United Nations General Assembly declared 2008 as the 'International Year of Sanitation' with the goal to raise awareness and lessen the proportion of people without sustainable access to basic sanitation by 2015.

According to a Planning Commission 2003 report, between 400,000 and 500,000 children under the age of five die due to water borne diseases such as diarrhoea, hepatitis and typhoid in India. And there are views that these numbers are grossly under represented. According to the World Health Organization, 80 percent of diseases in India are water borne diseases, a result of poor sanitation and poor sewage disposal methods. Less than 40 percent of India's population have access to a proper toilet. And the proportion of people without proper toilets, relieve themselves in the open, be it on railway tracks, river banks, agricultural land or public parks posing grave health risks by contamination.

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

6.2 WATER AND SANITATION : DRINKING WATER IN NAGALAND

The importance of provision of clean drinking water has been enshrined 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 Department of Public Health Engineering is the nodal agency for rural water supply and sanitation. The State Government is committed to improve the level of living standards of rural population and to bring it at par with the standard prevalent in urban areas.

Although the State Government is responsible for supply of drinking water in villages, central assistance is being provided under the Accelerated Rural Water Supply Programme (ARWSP) with 100 percent grant-in-aid subject to a matching provision by the State Government under Minimum Needs programme. The National Drinking Water Mission (RGNDWM) is exploring the possibility of providing sustainable safe drinking water to the entire rural population.

The sources of water in Nagaland are the numerous perennial springs and rivers. However, the availability of water varies from season to season and is inadequate in supply during certain seasons. As per the 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, 45.6 percent of 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 indicates that rural areas have a higher household percentage having access to drinking water. In 2001, 47.5 percent of the rural household had access to drinking water compared to 42.3 percent in urban areas.

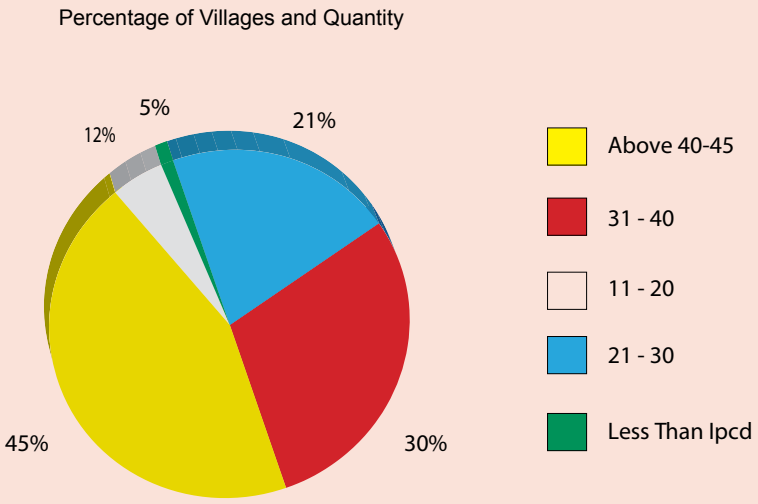
“Reasonable access (to water) is defined as the availability of at least 20 liters per person per day from a source within one kilometer of the dwelling.”

6.3 POPULATION REFERENCE BUREAU (PRB)

The 2009 National Family Health Survey (NFHS-3) for Nagaland (2005-2006), estimated that 63 percent of households use improved source of drinking water of which 69 percent were urban households and 60 percent were rural households. Only 19 percent had water piped into their dwelling, yard or plot. Out of the percentage with piped water, 27 percent were urban and 16 percent were rural households. Another 21 percent of the 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 portable[10].

DRINKING WATER IN PHEK DISTRICT

Figure 6.1. Quantity of Water in Litres Per Capita Per Day (LPCD)



Source: Department of Public Health Engineering 2003-2004, Government of Nagaland

The overall status of water supply in Phek district is comparatively better than Mon and Kohima district. Of the 119 villages as per Department of Public Health Engineering 2003-2004, 46 rural inhabitants i.e 39 percent of the villages were fully covered by water supply. The amount of water received is also higher in this district. With 45 villages more than 40 percent of the rural inhabitants received more than 40 lpcd (litre per capita per day) as on January 2003. (Table No.6.1 & 6. 2)

A number of projects have been taken up under various Government schemes in Phek district. During 2001-2002 the actual expenditure incurred under ARWSP and PMGY was ₹ 281.84 lakh of which ₹ 106.25 lakh was under ARWSP and ₹ 175.59 lakh

[10] *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.*

under PMGY. The expenditure during 2002-2003 comes to around 6 percent of the total expenditure of the State on various water supply schemes. During 2003-2004, 24 projects were taken up, 12 each under the ARWSP and PMGY. (Table No.6.3)

All the villages under Phek district are covered by water supply. As on January 2009, 95 percent of the rural habitation was fully covered, 1 percent slipped back and 4 were partially covered. Considering the economy where 91 percent of the households are in rural habitations, the district has a better percentage of rural water supply coverage in Nagaland.

According to the DHDR Sample Survey 2009, in Phek District, 44 percent of the households had water pipe connection which is 9 percent more than Kohima district. In rural Phek, 27 percent of the rural households had water pipe connections and the rest 73 percent either shared or depended on public stand post. In urban areas 61 percent of the households had water pipe connections. There were more community wells in rural areas than in urban areas. About 88 percent of the villages had community wells and in the urban areas only 28 percent had community or locality wells. Around 31 percent of the households in rural areas and 52 percent in urban areas practiced rain water harvesting. Almost all the households were concerned about clean and safe drinking water. Apart from Government water supply, few NGOs were involved in providing water to rural and urban areas. In rural areas 73 percent of the households felt that drinking water facilities improved post communitisation and in urban areas 83 percent opined that the drinking water facilities did not improve even after communitisation.

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 the Total Sanitation Campaign (TSC) in keeping with the Government of India's target of 'Clean Villages by Year 2012'. Total Sanitation Campaign (TSC) is an initiative of the Government of India earlier in the funding pattern of Centre : State : Beneficiary = 60:20:20 for construction of individual household latrines. PHE Department took over this programme from District Rural Development Agency during 2006-2007. The programme has been introduced with the objective of completely doing away with open defecation in all the villages and also to achieve clean villages by providing proper systems of solid and liquid wastes by 2012. The end objective is sustainable good community health. The main challenge and focus is hygienic education and change of unhygienic cultural habits.

In Nagaland, Total Sanitation Campaign (TSC) is being implemented in 9 districts of Nagaland -Kohima, Dimapur, Zunheboto, Mokokchung, Mon, Peren, Wokha, Phek and Tuensang. TSC focuses on sanitation through provision of subsidized latrines by promoting community action, based on information, education and communication (IEC) with incentives. This provision is only for BPL households. In line with the target set by the Government of India, State Government also aims to achieve complete sanitation coverage by 2012.

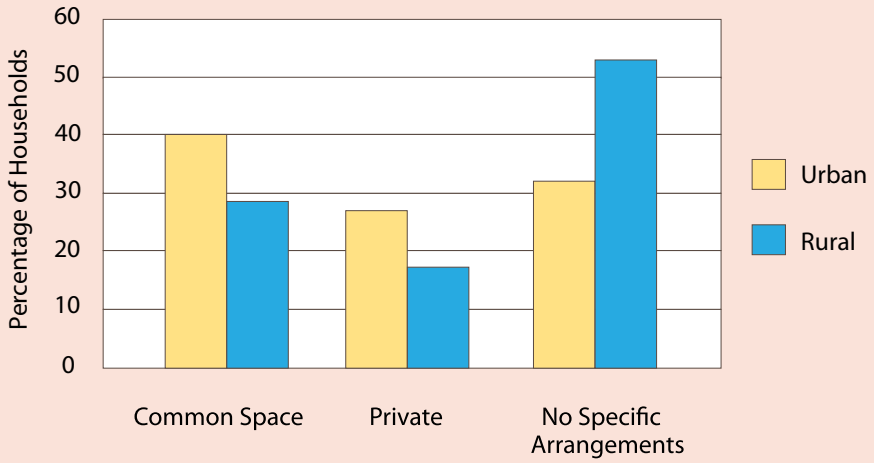
The sanitation condition in the State is poor, in comparison with some other North Eastern states. While manual scavenging is not practiced, open defecation is not uncommon in rural areas. According to the Census of India 2001, about 64 percent of the households have some latrine facility within their premises, of these 47 percent have pit latrines.

6.4 SANITATION IN PHEK DISTRICT

In Phek too, Total Sanitation Campaign projects are in the process of being implemented in coordination with the District Rural Development Agencies. These projects are monitored by the DWSMs under the chairmanship of the Deputy Commissioner. (Table No.6.4)

The overall sanitary condition in the district is not satisfactory. As per the DHDR Survey report, in Phek district 64 percent of the septic tanks are kutcha. In rural areas 87 percent of the households have kutcha septic tanks. In urban areas, 59 percent have pucca septic tanks. In urban areas, 66 percent of the households have latrines exclusively for themseves. Thirty three percent of the households share and 1 percent use the public or community latrines. Drainage system especially in the rural areas is very poor. In rural areas only 26 percent of the households have proper drainage system while in urban areas it is 75 percent.

Figure 6.2. Waste Disposal



In rural areas 29 percent of the households dispose their waste in a common space, 17 percent have their own private compost pits and 54 percent have no specific arrangements. In urban areas 40 percent of the households have common space and 33 percent have no specific arrangements.

6.5 COMMUNITISATION OF RURAL WATER SUPPLY AND SANITATION

The word communitisation was first coined by the Government of Nagaland, meaning community empowerment for their development. Community + Democratization= Communitisation.

Experience shows that mere creation of physical infrastructure alone will not contribute to making the systems sustainable until and unless the real users (villagers) are involved in all stages of the project implementation and also in operating and maintaining them. Hence, to decentralize and transfer ownership of the assets created, communitisation was conceptualized.

The nodal agency for water supply and sanitation in the State is the Public Health Engineering Department (PHED). The PHED therefore monitors and supervises the communitisation of water and sanitation in compliance with the Government of Nagaland's Programme of Communitisation of Public Institutions and Services Ordinance, 2002. This policy is also in consonance with the Sector Reforms Programme of the Department of Drinking Water Supply, Ministry of Rural Development,

Government of India. The communitisation of these basic services is carried out by way of handing over urban water and sanitation schemes to the Municipal or Town Councils and the rural schemes to the Water and Sanitation (WATSAN) Committees in the rural areas. These Councils or Committees are the 'beneficiaries' legal agencies of the Government. The WATSAN Committees are formed with the participation of Village Councils and other recognized NGOs.

Water supply and sanitation systems in all the villages of the district are to be communitised under the Twelfth Finance Commission (TFC) funding in a 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 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 in each village.

6.6 CONCLUSION

The provision of safe drinking water and sanitation facilities is a basic necessity of life and 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 states. However, the Central Government has been supplementing the efforts of the states through financial and technological inputs under Centrally Sponsored Schemes.

There is little doubt that water and a clean environment are basic necessities for the human survival. There is interplay of various factors that govern access and utilization of water resources. In light of the increasing demand for water it therefore becomes important to look at holistic and people centred approaches for 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.

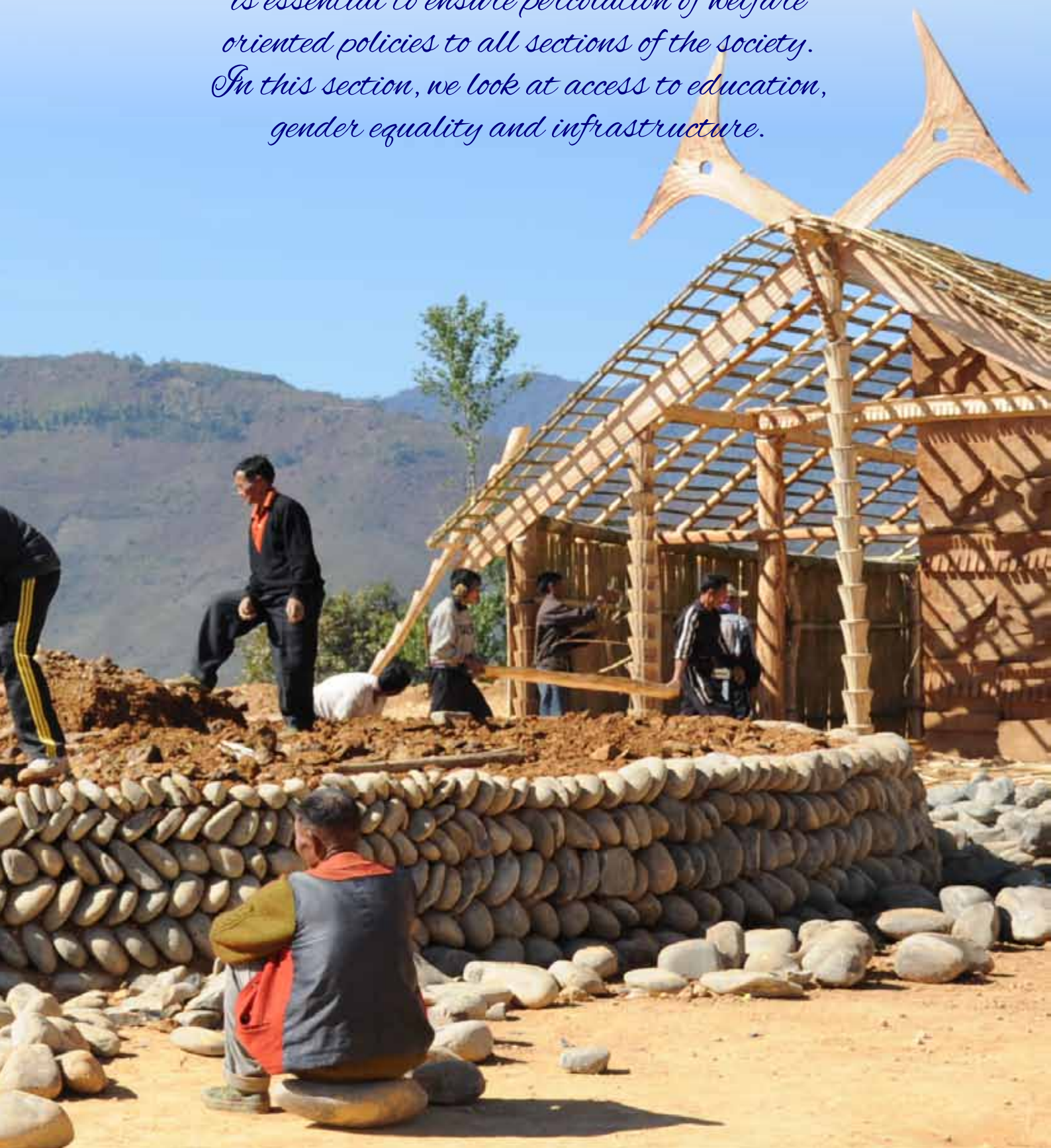
Phek district has witnessed an improvement in water supply with increasing coverage of areas and a large volume of financial resources have been made available. A series of schemes has been introduced to improve the supply of drinking water and for monitoring and ensuring quality of water in the district. 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 a need to promote sanitary inspection, water quality monitoring and surveillance at the grassroot level involving the community. This will be a mechanism to identify problems and to take corrective measures.

SECTION 4

ACCESS TO DEVELOPMENT

Growth and development are important goals for an economy. And access to development is essential to ensure percolation of welfare oriented policies to all sections of the society. In this section, we look at access to education, gender equality and infrastructure.



SECTION 4

CHAPTER - 7

EDUCATION

7.1 INTRODUCTION

Education raises the production capacity of an individual by augmenting his skills and by increasing his knowledge base. This consequently leads to social welfare. In Nagaland, with the advent of christianity, education gained ground as religious texts became socially significant. This led to setting up of private education centres which were later taken over by the government.

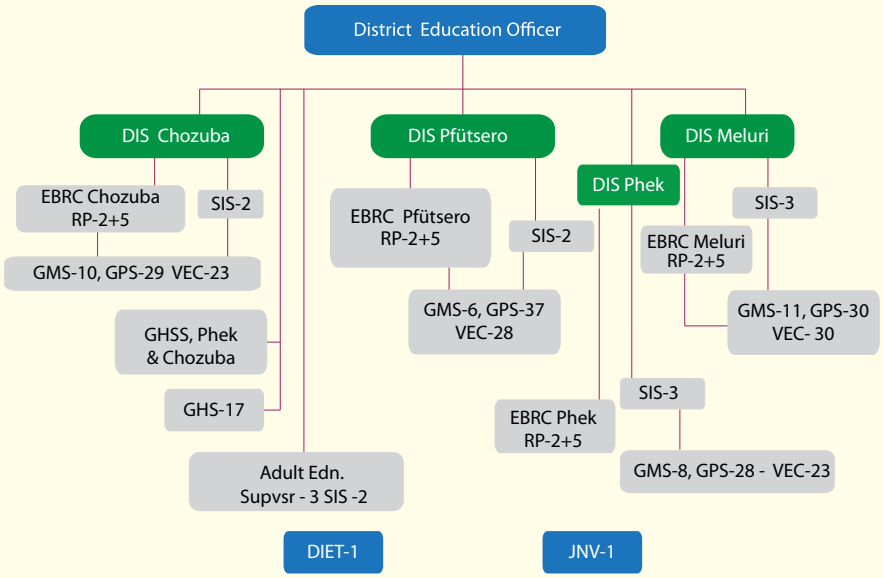
The present chapter looks at the prevailing scenario in the education sector. Section two looks at the education scenario in schools as well as in colleges and higher educational institutions. Section three looks at government initiatives, especially the communitisation and Sarva Shiksha Abhiyan (SSA) schemes and how these programmes impacted education in human resource development in the district. Finally, section four is a summary of the findings along with policy recommendations.

Data for the present study has been obtained from the Department of School Education, the State Mission Authority of Sarva Shiksha Abhiyan, the Nagaland Board of School Education and other secondary sources. In some instances, information has been sourced through district interview and interface with District Education officers.

7.2 EDUCATION SECTOR IN PHEK DISTRICT

The district administrative set-up of school education in Phek district is given in the chart below.

Chart 7.1
Organization Chart of School Administration in Phek District.



In addition to the above institutions, there are 2 Government colleges which report to Directorate of Higher Education, 1 District Institute of Education and Training (DIET) which reports to the State Council of Educational Research and Training (SCERT) and 1 Jawahar Navodaya Vidyalaya(JNV) under Navodaya Vidyalaya under Ministry of Human Resource Development (GOI).

7.3 DEVELOPMENT OF LITERACY

Over the years from 1971 onwards as per Census of India 2007, literacy rates in the district have remarkably risen from a mere 18.95 percent in 1971 to 70.31 percent in 2001. (Table No.7.1)

7.3.1 EDUCATIONAL INSTITUTIONS

Although the schools in the government sector especially in the elementary sector have been well spread out, the private sector schools are concentrated in a few towns and semi urban areas in the district. These schools are concentrated in Pfütsero town, Chozuba town, Phek town and Meluri town. In the Government sector the different schooling stages i.e. primary, middle and secondary are clearly demarcated and have separate establishments for each. Whereas in the private sector, almost all the schools have primary, middle, secondary and even higher secondary classes in an establishment.

7.3.2 ACCESS TO EDUCATION

It may be seen that the district has 138 primary schools which is higher than the recognized villages of 104. In addition to this, the Education Guarantee Scheme (EGS) and Alternative Schooling (AS) under SSA aim at covering all out of school children. EGS is managed by the community in the habitations which are not recognized as a village or habitations which are far away from the main village. Alternative Schooling involves running 'bridge courses' in residential and non residential centres and are run and managed by NGOs. (Table No.7.2)

7.3.3 ENROLMENT

In the enrolment of students in schools, there is only a slight difference between government and private schools. There is higher intake of students in Government primary and middle schools and more students get enrolled in private schools at the

secondary level. More students were also enrolled in Government schools in classes 11 and 12 in higher secondary schools and in the 2 colleges than in private schools. The reason could be because there are less private higher secondary schools and no private colleges except the Baptist Theological College in Pfütsero.

An interesting feature is that more boys are enrolled in private schools while more girls are enrolled in government schools. This pattern is the same up to secondary level of schooling. At the higher secondary level more boys than girls are enrolled, whether in government or private schools. Out of 818 students enrolled in classes 11 and 12 during 2008-2009, there were 454 boys as against 364 girls. This could very well be an indication of the gender biasness of parents towards boys.

At the elementary stage of schooling, according to the records of Department of School Education 2000-2001 the total enrollment was 24,360 of which 12,304 were boys and 12,056 were girls. This number increased to 35,568, with of 18,481 boys and 17,287 girls. It shows an additional enrollment of 11,208 more children over a period of 7 years. This perhaps indicates realization of the importance of education amongst parents.

In classes 9-12 there were 521 children, of which 278 were boys and 243 were girls in both the government and private schools in the district in 2000-2001 as per the record of Department of School Education. Of this, a total of 333 were children enrolled in Government schools, while 188 were enrolled in private schools.

7.3.4 OUT OF SCHOOL CHILDREN

In the elementary sector[11], against the projected population of 36,196 children in the age group of 6-14 years during 2008-2009, there were 35,283 children in the schools from classes 1-8. This leaves only 913 children as out of school children (OSC). However, in reality many children below 6 years of age enroll in class-I, especially children of educated parents. Hence, generally children of 14+ years enrolled in class-8 are children of first generation learners. In the district, there are 1534 children in the AS (Alternative Schooling) run by NGOs in the district namely by the Chakhesang Women Welfare Society covering Chozuba, Pfütsero and Phek educational circles and Council of Pochury Baptist Churches for Meluri circle.

[11] *District Information System on Education 2008-2009*

7.3.5 DROP-OUT AND COMPLETION RATES

At the elementary level, performance of schools require improvement in some of the educational blocks. With the intervention programmes of SSA and the communitisation of the education sector children are hardly out of school.

In the past three years during 2005-2006, 2007-2008 and 2008-2009, the Gross Enrollment Ration (GER) crossed 100 percent only in 2007-2008 and that too only in the lower age group of 6-11 years but dropped to 95 percent in 2008-2009, while in the higher age group of 11-14 years it reached 100 percent in 2008-2009. This being the case, the Net Enrollment Ratio (NER) remained much below the expected levels in both the age groups during the 3 years period.

School drop outs for the age group of 11-14 years decreased progressively over the 3 years period, but in the age group of 6-11 years the drop out rate suddenly shot up to 14.60 percent during 2007-2008 and then came down to the earlier year's figure of 2.43 percent. Compared to Nagaland figures, which hovered around an average of 100 percent for GER and 90 percent for NER over the 3 years period, those of the district were lower at an average of 98 percent for GER and 92 percent for NER respectively. Meanwhile the district completion rate figures during 2007-2008 and 2008-2009 showed upward progression, while in the case of the State there was a drop in 2008-2009. (Table No.7.3)

7.3.6 STUDENTS' PERFORMANCE IN THE DISTRICT

The performance of children in actual classroom situation as per the Annual Statistics on Education (ASER) shows that in all areas the parameters used for measurement such as reading, maths and calculation, the percentage of the district was much above that of all India average, although it was below that of the State's figures. This is an indication of the capacity of children to learn fast. (Table No.7.4)

In the HSLC exam 2009, Phek district performed better, compared to the other districts in the State. The district's pass percentage of 46.83 percent is the highest amongst all the districts and is much above the State's average of 29.71 percent.

7.4 TEACHERS AND THEIR TRAINING STATUS

According to DISE report for 2006-2007 there were 955 working teachers in Government primary and upper primary schools in Phek district. With 12073 this constitutes 8 percent of the elementary school teachers of the State. Out of this there were 176 under matriculates, 305 matriculates, 260 undergraduates and 214 graduates.

In terms of teachers' training only 38 percent of the teachers were trained. Of more concern is the fact that only 23 percent of the under matriculate teachers were trained, as also only 45 percent of the matriculates were trained. This situation is certainly far from ideal.

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In 2008 in the elementary section, the district had altogether 611 working teachers as against an overall total of 8966 in the State. This works out to just 7 percent of working teachers in elementary schools. According to DISE, during 2008-2009, there were 4 single teacher schools in the district. While the number of schools would increase due to increase in demand, if the number of teachers decrease, the number of single teacher schools could go up in future.

The total number of children in the 6-14 years age group enrolled in 2008-2009 was 35,283. With a total number of 611 working teachers available at this stage of schooling, the Pupil-Teacher Ratio (PTR) works out to be 58:1, which is higher than the set norms of 40:1.

7.4.1 DISTRICT INSTITUTE OF EDUCATION & TRAINING (DIET), PFÜTSERO

The District Institute of Education and Training (DIET) for Phek district, located at Pfütsero was established in 2006. It has 2 hostels with a capacity to house 30 male trainees and 12 female trainees respectively. It has 13 teaching staff headed by a principal, a vice principal and 12 non-teaching staff members.

The institute offers Pre-Service Teacher Professional Course (PSTE) and 6 months Certificate Course in Primary Teacher Education (CPTE) for in-service teachers. Till date, 80 candidates have been trained in PSTE and 52 candidates were enrolled for the course in 2009. In CPTE, 66 teachers qualified out of 70 comprising the 1st & 2nd batches.

The institute also trains resource persons posted with Educational Block Resource Centres (EBRCs) and does Community Awareness Programme on Education (CAPE).

It undertakes Content Enrichment Programme (CEP) in 4 subjects; English, Math, Science and Environmental studies for the teachers. During 2008-2009, the institute completed two such programmes for villages and schools under Phokhungri circle. Four training programmes for head teachers of schools were conducted in which 156 participated. DIET is also taking special care of 3 schools within its laboratory work. Research on different subject matter and problems faced by the different schools, teachers and students are undertaken in the institute.

Additional teaching faculty, additional staff quarters, extension of women's hostel and a computer lab with internet connectivity are some of the urgent requirements of the institute.

DIET, Pfütsero

7.5 HIGHER EDUCATION

In 2009, the district had one Government college namely Phek college and two private colleges at Pfütsero. All these colleges were established with the initiatives taken by private individuals and NGOs.

7.5.1 PHEK COLLEGE, PHEK.

Phek college has both arts and science stream. The total enrolment for class 11 to BA 3rd year during 2008-2009 was 350. It has 30 teaching staff and 17 non teaching staff. As per records of Department of Higher Education, 245 were enrolled in 2006-2007, 282 in 2007-2008 and 350 in 2008-2009. This showed a slow but steady increase in the number of enrollment, indicating the increasing demand for higher education in the district.

Although it is the first and oldest college in the district, Phek College is dogged with several infrastructural inadequacies. Among others, is the non black topping of the 5 km stretch of road from the town to the college site and which consequently becomes impassable during the rainy season. The other problems are related with inadequacy of staff quarters and transport facilities.

7.5.2 PFÜTSERO COLLEGE, PFÜTSERO

The college has 23 teaching staff and 14 non teaching staff and classes from 11 to BA 3rd year. Being a private institution that is solely dependent on contributions and tuition fees for its finances and catering to the economically weaker rural populace, the college had to struggle to sustain and to remain functional. In spite of this, the enrolment of students in the college over the past 4 years has been encouraging. According to records of Department of Higher Education, there were 210 students enrolled in 2005-2006, 226 in 2006-2007, 268 in 2007-2008 and 268 in 2008-2009. For the 2009-2010 academic session, the total enrolment went up to 365, of which 284 were in classes 11 and 12. This is a clear indication of the increasing demand for higher education amongst students in the district and in particular in Pfűtsero area.

7.5.3 BAPTIST THEOLOGICAL COLLEGE, PFÜTSERO (BTC)

One of the first institutes in the district, the BTC caters beyond the theological aspects. It offers Bachelor of Theology (B. TH) and Bachelor of Divinity (BD) degrees which are recognized at par with 10+2 and bachelors degree respectively. It currently has an enrolment of 103 students. The institute was shifted to its present site at T. Chekri, Pfütsero and upgraded to a college in the year 1989. It is affiliated to Serampore University, West Bengal and sponsored by the Chakhesang Baptist Churches Council.

POTENTIALS IN SPORTS

Archery

The physical endowment and features of the people of Phek has enabled Phek district to produce sportspersons of national standing. Ms. Chekrovolu Swuro who hails from Phek district is the second person from Nagaland to participate in the Olympics after Lt. Dr. T. Ao, in the Athens Olympics in 2004, after a gap of 56 years. Ms. Chekrovolu Swuro booked a berth in the national archery squad for the Athens Olympics following her sterling performances in the regional and national levels.

Arm Wrestling

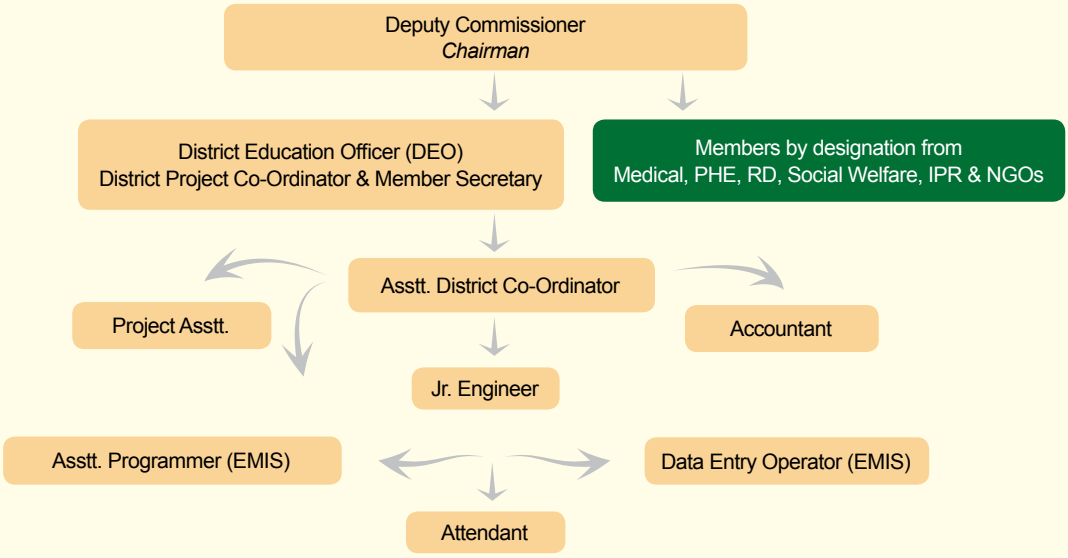
Shri. Vemungo Hoshi, son of Shri. Veniepa Hoshi from Phek village is a rising star in a lesser known sports- arm wrestling. He was the Gold medalist of the 2009 World Arm Wrestling Championship held in Italy. Shri. Hoshi grabbed the silver medal both during the Asian Arm Wrestling Championship held in Guwahati and also in the 34 th National Senior Arm Wrestling Championship 2010 held in Imphal, Manipur. He also participated in the World Arm Wrestling Championship held in Las Vegas in December 2010.

7.6 GOVERNMENT INITIATIVES

7.6.1 COMMUNITISATION AND SARVA SHIKSHA ABHIYAN (SSA)

The state communitisation programme was officially launched at Phek in 2002. This programme has provided a vehicle for the SSA programmes. All achievements under elementary education are attributed to a combination of these two programmes. The district administrative set up of SSA is given below

Chart 7.2
District Mission Authority (SSA)



As per Government Notification

At the grassroot level, the programme is managed by a village or ward or town education committee constituted in accordance with Nagaland Communitisation of Public Institutions and Services Act, 2002.

7.6.2 QUALITATIVE IMPROVEMENT

In Phek district the number of children in elementary education sector with pass percentage of 60 and above have increased over the years. This improvement has been because of the active support of the community and parents. The year wise improvement post communitisation is reflected in the data in Table No.7.5.

7.6.3 INFRASTRUCTURE

Post-communitisation, the most visible improvement is community contribution and participation in the construction of primary and middle schools mobilized by the Education Committees. These committees are constituted in the villages by the

village councils and in the towns and urban areas by the town committees and ward committees under the State Communitisation Act. Representatives of the church, VDB and women are included in these committees.

GPS Akhewgo under DIS Meluri Before and After SSA

The other visible improvement is the repair and renovation of the old school buildings, boundary walls, extension of class rooms, toilets and provision of electricity, provision of drinking water etc. under civil works component of SSA. All the schools now have concrete floors ushering a clean environment and enabling better classroom communication. (Table No.7.6)

7.6.4 CHILDREN WITH SPECIAL NEEDS (CWSN)

To make education facility available to all children irrespective of race, sex, class etc. through SSA programmes, inroads could be made in provision of aids & appliances and Home Based Education (HBE) to children with special needs. Under SSA, at least 2 resource persons were trained and posted in each of the EBRC and one professionally trained person placed in each block. Appliances and aids provided to CWSN included 56 hearing aids, 2 wheel chairs, 7 crutches and 1 blind stick.

7.6.5 TEACHING AND LEARNING EQUIPMENTS (TLM) AND COMPUTER EDUCATION

Teaching and Learning Equipments are adequately available in almost all schools after communitisation and SSA. Since funds are annually placed in the accounts of the respective VECs, VECs ensure procurement of TLM according to specific needs of the school. In addition, SSA has also introduced IT technology through the Build, Own, Operate and Transfer (BOOT) model for the Computer Aided Learning (CAL) in the Government middle schools (GMS). It was started in 2005-2006. All GMS in the district would be covered. Information and Communication Technology has also been introduced in all the Government high schools and the district higher secondary schools, Phek is being brought under tele-education under *wimax* technology.

7.7 CONCLUSION AND POLICY RECOMMENDATIONS

Communitisation and Sarva Shiksha Abhiyan programmes have tremendously improved the physical infrastructure of elementary schools. Capacity building on accountability and transparency in management of funds has to be continuous and sustained .

In spite of rapid increase in the number of educational institutions in the district and an increase in the number of children enrolled, there is still a veiled biasness towards boys. This needs to be looked into, especially in the context of democratic principle of equality.

The trend of reducing the number of teachers when there has been an increase in student enrollment, particularly in the government sector needs special attention. The factor(s) responsible for this negative trend must be addressed early. Only 23 percent of the under matric teachers and 45 percent of matriculate teachers have been trained so far. The training schemes under DIET and SSA must be fully optimised to correct this situation. There is a need to have professional capacity building institutions and entrepreneurial development centres. This would generate additional resources for the government and create linkage for individuals to invest.

View of Pfütsero Town

SECTION 4

CHAPTER - 8

GENDER ISSUES

8.1 INTRODUCTION

Gender equality is one of the primary concerns in all spheres of development to improve quality of life. The 3rd of the Millennium Development Goals (MDGs) announced in the 2000 declaration aims “to promote gender equality and empower women”.

Gender conflicts are visible in the non participation of women in decision making in Village Development Boards, the all powerful church, legislature, municipal bodies, inheritance, control over resources, disparity in wages and in education where the girl child is discriminated against.

The biggest challenge in this chapter has been the non existence of gender disaggregated data and facts to support the argument. What follows is based mostly on the DHDR Sample Survey conducted in 2009 which too has its own limitations.

This chapter is therefore intended to look at gender inequality between men and women in Phek district and to create awareness for effective gender mainstreaming at various levels, i.e. policy, planning and implementation stages in the overall context. In the next section we look at the areas where gender discrimination generally exists. In this section we will also look specifically at evidences available for the district of Phek. And the last section will dwell on the summary and policy recommendations.

8.2 GENDER DISCRIMINATION

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

8.2.1 POLITICAL AND LEGAL RIGHTS

In the society, women in general are poorly represented at all levels and forums of formal decision making particularly at the village, regional and national levels. One of the main reasons for this in Nagaland is patriarchy, which is a system of social structure and practice in which men dominate and oppress or even exploit women. To facilitate womens’ participation in the political process and involve them in decision making, the Nagaland Municipal Act 2001, Amendment 2006 and the 108 Amendment Act, 2008 Women Reservation Bill passed by the Nagaland Legislative Assembly has

granted 33 percent ‘Political Rights’ for women. However, the Women Reservation Bill could not be implemented in the Mokokchung Municipal Election 2008 as seen from case study 8.1.

Case Study 8.1.
33% Reservation for Women in Mokokchung Municipal Council Election, October 2008

The 33 percent reservation for women has gone through the real acid litmus test when the State Government tried to implement the Act during the Mokokchung Municipal Council elections in October 2008. Filing of nomination papers by women candidates were stopped by volunteers from 16 wards of Mokokchung town and landowners of four villages; Khensa, Ungma, Mokokchung and Chuchuyimlang. They cited customary laws saying that 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’s reservatio’. *

* *Nagaland Post 16.9.2008*

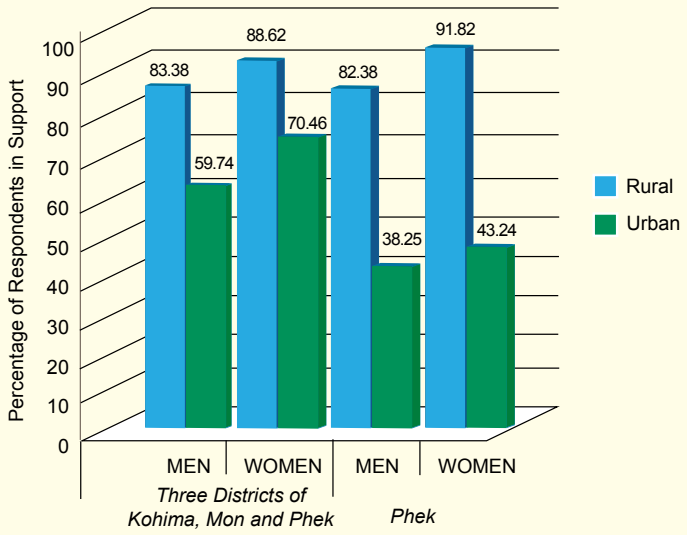
In the Nagaland context, for arbitration purpose in the society ‘customary laws’ that derive their legitimacy from customs and tradition exists. These customary laws are usually flexible and contain many rules that are not referred to by any legal system. The Naga customary laws discriminate against women on inheritance and social issues such as sexual abuse and rape by prescribing only minor punishment to the male offender and rapist.

8.3 GENDER ISSUES IN PHEK DISTRICT

(A) POLITICAL

To facilitate womens' participation in decision making the Government of Nagaland passed 33 percent Reservation Bill for women in the Municipal Council/Town Committee and the Nagaland Legislative Assembly. An interview schedule on the 33 percent reservation for women was distributed during the DHDR Sample Survey conducted in 2009. The result is presented in the figure 8.1.

Figure 8.1. Percentage of People in Favour of Women's Reservation Bill

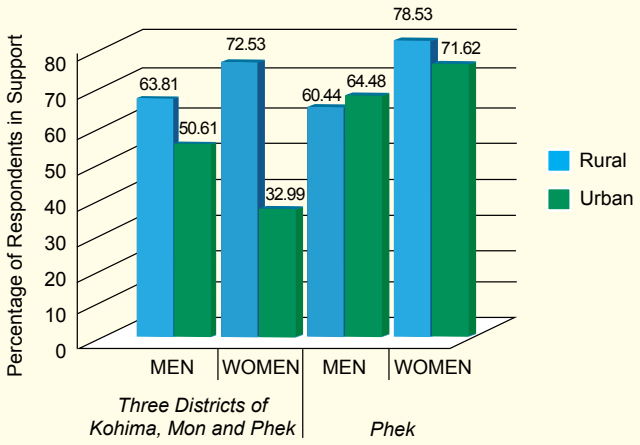


Source: DHDR Sample Survey 2009

In the sample, 83.38 percent of the male respondents from rural areas and 59.74 percent of the male respondents from the urban areas as well as 88.62 percent and 70.46 percent of the female respondents from rural and urban areas respectively of the three districts of Kohima, Phek and Mon supported the 33 percent reservation for women in decision making forums. These are averages for the three districts that were surveyed. Also, male respondents from rural Phek with 82.38 percent and female respondents in rural Phek with 91.82 percent supported 33 percent reservation for women as against male respondents with 38.25 percent and female respondents with 43.24 percent in urban areas of Phek. In general, rural respondents both male and female were in favour of the 33 percent reservation for women in Municipal and Town Councils and Legislative Assembly as against the respondents in urban areas. The elite respondents in urban Phek, especially the women who were better educated with better incomes were less in favour of the legislation.

During the survey one of the questions was if women were in decision making whether drinking water, care economy, maternal and child health care, education and health services would be better or not. The result is illustrated in figure 8. 2.

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



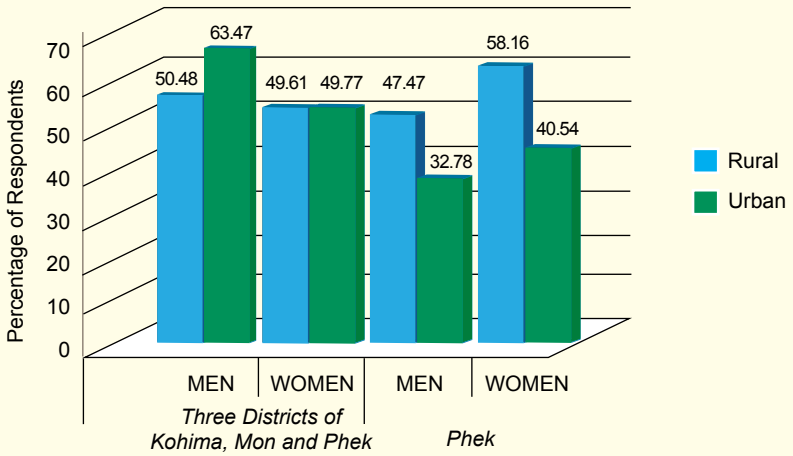
Source :DHDR Sample Survey 2009

During the survey 63.81 percent and 50.61 percent of the male respondents from rural and urban areas respectively as well as 72.53 percent and 32.99 percent female respondents from rural and urban areas respectively in the three districts responded that implementation of gender friendly policies would be better if women were in decision making. Likewise, male respondents both from rural with 60.44 percent and urban areas with 64.48 percent in Phek responded that implementation of gender friendly policies would be better if women were in decision making. But the percentage of male respondents is lower as compared to female respondents from rural areas with 78.53 percent and urban areas with 71.62 percent. Only 32.99 percent of the female respondents and 50.61 percent of the male respondents from urban areas of the three districts opined that formulation and implementation of gender friendly policies would be better with women in decision making. These survey findings indicate the urban educated and elite women with better incomes are not supportive of women in decision making.

(B) CUSTOMARY LAWS

Customary laws on sharing of immoveable property and land is not the same for men and women. While men can inherit land and property, women cannot do so. The customary laws relating to domestic violence or adultery are gender biased. Respondents from the sampled villages were asked whether customary laws favoured men and discriminated women. The findings are given in figure 8.3.

Figure 8.3. Opinion on Customary Laws



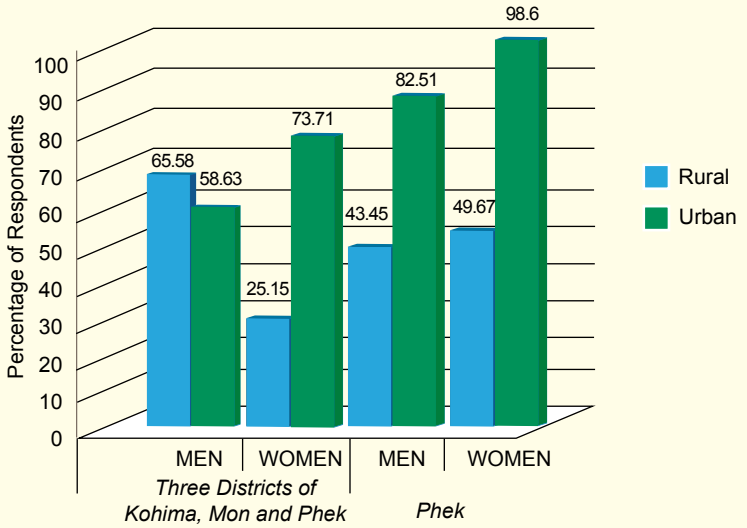
Source: DHDR Sample Survey 2009

About 47 percent of the male respondents and 58.16 percent of the female respondents in rural areas in Phek district were of the opinion that customary laws were not discriminative against women. In the urban areas, 32.78 percent of the male respondents and 40.54 percent of the female respondents opined that customary laws were not discriminative. In both the rural and urban areas the percentage of women with the views that the customary laws do not discriminate is higher than that of men. This is in contradiction to the general perception that women would be more vocal about the biasedness of the customary laws. Perhaps the traditional and cultural moulding, the social set up, ignorance and lack of awareness on the inequality of the customary laws could be factors for such outcomes.

(C) ECONOMIC DEVELOPMENT

Village Development Boards exist across Nagaland in all the recognized villages. The rules of these village institution prescribes allocation of 25 percent of the development funds for women programmes and appointment of women representatives to enable women to actively participate in formulation of plans and its implementations. The level of awareness of men and women on the prescribed representation of women in the VDB and other bodies is given in figure 8.4.

Figure 8.4. Women's Representation in Village Development Board



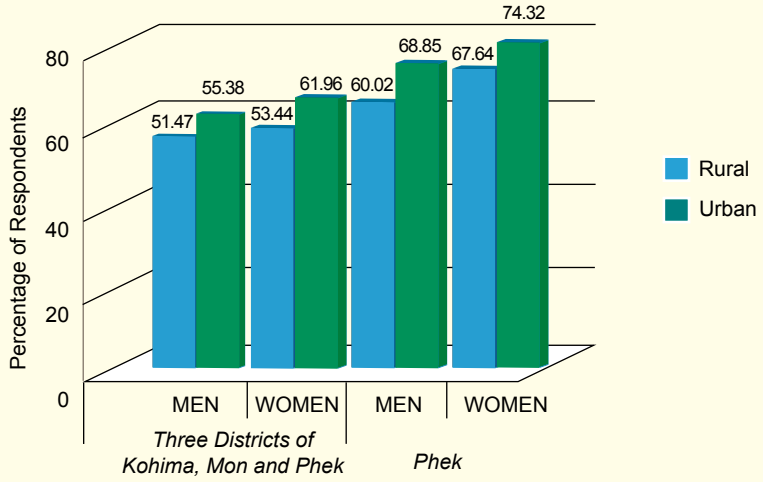
Source: DHDR Sample Survey 2009

The overall results of the three districts surveyed - Kohima, Mon and Phek shows that 65.38 percent and 58.63 percent of the male respondents in the rural and urban areas respectively were aware of the guidelines which stipulates womens' representation in local bodies as against their women counterparts with 25.15 percent and 73.71 percent. In Phek district the rural respondents both men and women were more aware of this guideline with 82.51 percent and 98.6 percent respectively as against their counterparts in the urban areas with 43.45 percent and 49.67 percent respectively.

(D) NATURAL RESOURCES

On access to and control over natural resources, especially land, as per the customary laws men can inherit land and property while women are granted only user rights. Respondents from the sampled villages were asked whether they support equal land or property rights for women or not. The survey result is shown in figure 8.5.

Figure 8.5. Property Rights for Women



Source: DHDR Sample Survey 2009

From the figure, it is seen that female respondents in Phek district in both urban and rural areas support equal land or property rights for women. The percentage of women respondents in favour of equality of property rights is higher than their male counterparts both in rural and urban areas.

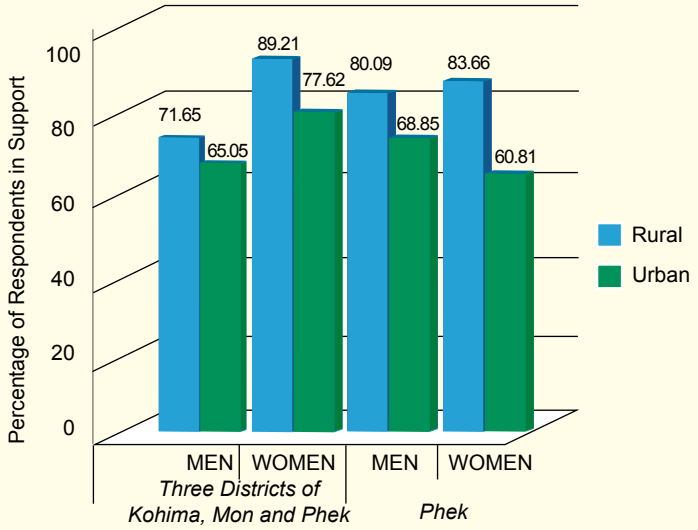
(E) SOCIAL INEQUALITY

Under this section social inequality under the broad sub heads such as unpaid work and formal employment, education, health and HIV and AIDS are discussed.

(A) UNPAID WORK AND FORMAL EMPLOYMENT

Respondents from the sampled villages were queried on equality of sharing of household reproductive works between men and women. The survey result is presented in figure 8.6.

Figure 8.6. Sharing of Household Reproductive Works

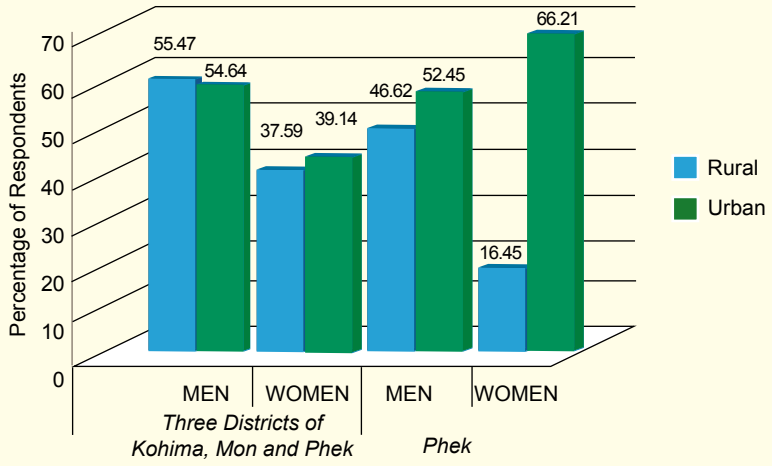


Source: DHDR Sample Survey 2009

Male respondents from the rural areas of the three districts with 71.65 percent and from the urban areas with 65.05 percent and the female respondents in rural areas with 89.21 percent and from the urban areas with 77.62 percent supported equal sharing of household reproductive works between men and women. In Phek district, male respondents from rural areas with 80.90 percent and from urban areas with 68.85 percent as well as female respondents in rural areas with 83.66 percent and from urban areas with 60.81 percent supported sharing of reproductive works equally between men and women. The result indicates that the percentage of rural respondents in support of equality in sharing of household work is higher as compared to urban respondents.

Respondents from the sampled villages were also asked if they agree with the existing wage disparity between men and women. The findings of the survey on existing wage disparity is given in figure 8.7.

Figure 8.7. Wage Disparity



Source: DHDR Sample Survey 2009

Male respondents from the three districts, both in rural areas with 55.47 percent and in urban areas with 54.64 percent and the male respondents from Phek district both in rural areas with 46.62 percent and in urban areas with 52.45 percent agreed that wage gap between men and women existed. Female respondents from the three districts, both in rural areas with 37.59 percent and in urban areas with 39.14 percent also agreed that existing wage gap between men and women existed. In Phek district 16.45 percent of the female respondents in rural areas and 66.21 percent in urban areas agreed that such wage disparity existed. The survey result indicates that the women in urban areas in Phek district who were economically better off and with higher educational qualification were more aware of the existing disparities between men and women.

(B) EDUCATION

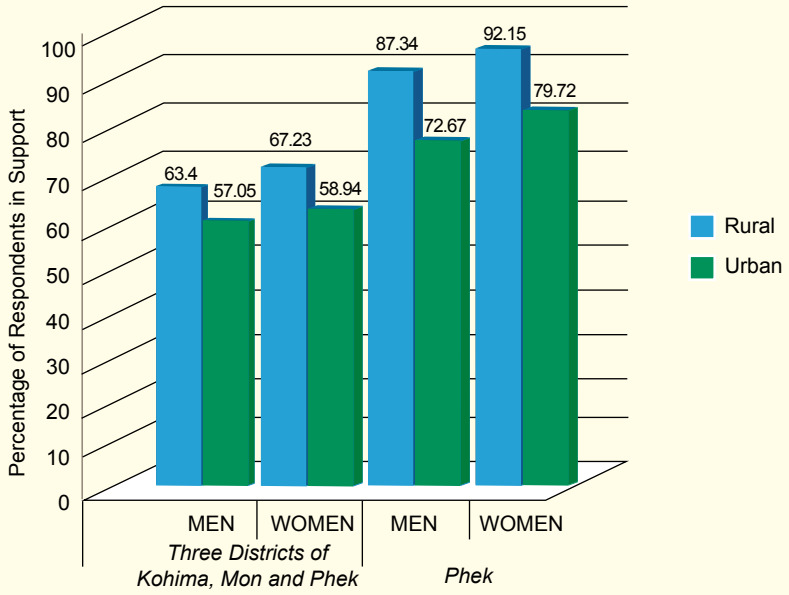
Education empowers both men and women to earn better income, participate in decision making and contribute to the quality and standard of living.

Enrolment of students in Nagaland during 2000-2001 was 406509 as compared to 461204 in 2007-2008. In Phek district, there was a drastic increase in enrolment of students at primary school level during 2007-2008 and a drastic decrease in enrolment at high school and higher secondary levels as compared to 2000-2001. The rise in

enrolment of students at primary level simultaneous with a drastic fall at the high school and higher secondary levels is a concern. This may be due to poor quality of education imparted in schools incapacitating students to compete at higher levels or social issues like poverty. (Table No.8.1)

Respondents from the sampled villages were asked about the quality of education in Government schools. The survey result is shown in figure 8.8.

Figure 8.8. Quality of Education in Government Schools



Source: DHDR Sample Survey 2009

The figure indicates that in Phek district the male respondents from rural areas with 87.34 percent and from urban areas with 72.67 percent and female respondents from rural areas with 92.15 percent and from urban areas with 79.72 percent expressed that quality education was imparted to children in Government schools. In spite of the drastic decrease in school enrolment at high school and higher secondary levels as presented in Table No. 8.1, respondents opined that children were getting quality education from the Government schools in Phek. However, this survey report may be contested if enrolment of students and results at the board examinations are taken as indicators to determine the quality of education imparted to students. An illustration is given in the case study 8. 2.

Case Study 8.2. Education in Government Primary School in Phek District

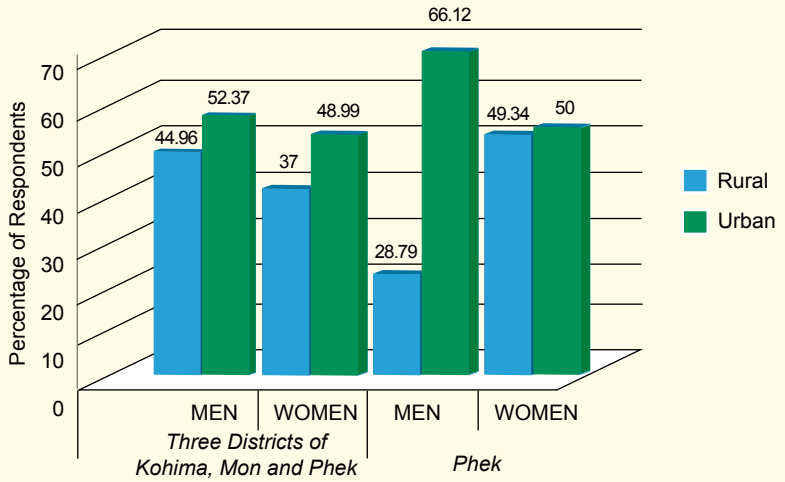
The quality of education imparted in most Government schools can be guaged from published results of students and students' enrolment in schools. In one instance during 2000 in Phek, the author came across a school with eight primary school teachers without a single student. This incident speak volumes about the quality of education imparted to the economically disadvantaged students in rural areas.

Source: NEPED Field Trips Report 2000 (C. Kikhi)

(C) HEALTH

During the survey respondents were asked whether they were satisfied with the basic health services available in their areas. The survey finding is given in figure 8.9.

Figure 8.9. Basic Health Services

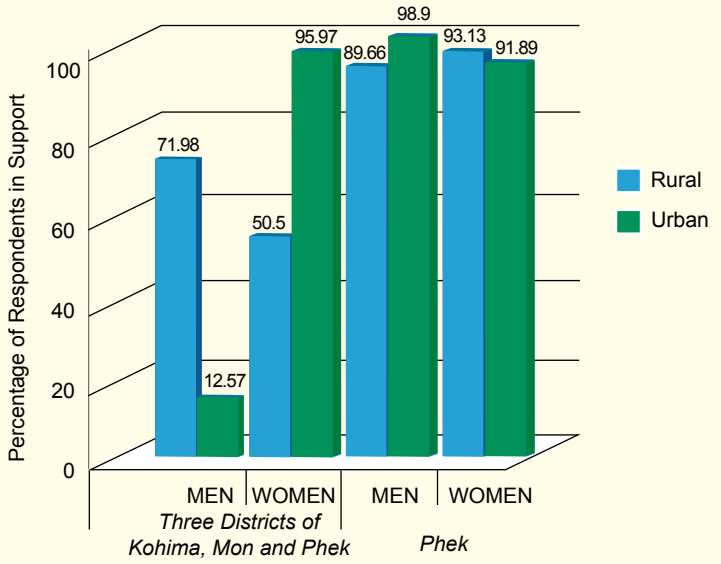


Source: DHDR Sample Survey 2009

The male respondents of the three districts - Kohima, Mon and Phek with 44.96 percent and female respondents with 37 percent in rural areas expressed their satisfaction with the available health care services in their areas. In Phek district rural male respondents with 28.79 percent and urban male respondents with 66.12 percent expressed satisfaction. Female respondents from the three districts in rural areas with 37 percent and in urban areas with 48.99 percent too were satisfied with the basic health services available in their areas as against rural female respondents with 49.34 percent and urban female respondents with 50 percent in Phek district. This data in general gives us the indication that the health care facilities are better in urban areas. Consequently, the satisfaction level of urban respondents from the three districts as well as in Phek district with the health services is higher as compared to their rural counterparts.

A sample survey was also conducted on the awareness level among men and women about the mode of HIV and AIDS and STD transmission. The result is given in figure 8.10.

Figure 8.10. Awareness on HIV and AIDS and STD Transmission



Source: DHDR Sample Survey 2009

In the sample, 71.98 percent of the male respondents and 50.50 percent of the female respondents in the rural areas of the three sampled districts of Kohima, Mon and Phek were aware about the mode of HIV and AIDS and STD transmission as against male respondents with 12.57 percent and female respondents with 95.97 percent in urban areas. For Phek, the awareness level on the mode of HIV and AIDS transmission is high in the case of both male and female respondents in both rural and urban areas. 89.66 percent and 98.90 percent of the male respondents in rural and urban areas respectively were aware of the mode of transmission. Of the female respondents 93.13 percent in rural areas and 91.89 percent in urban areas were aware. The results on the awareness level about the mode of HIV and AIDS transmission for the three districts in the case of urban female with a high of 95.97 percent and a low of 12.57 percent among urban male can be contested since urban areas have higher literacy rate with better access to information.

8.4 CONCLUSION

The biggest challenge in bringing out this chapter has been the non existence of gender disaggregated data. The DHDR Sample Survey in 2009 with its own limitations was the main source of data. Questionnaires were closed ended and did not provide scope for further probing on other issues.

8.5 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 Municipal and State Legislative Assembly is necessary. The 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 grassroot level women in planning and implementation of programmes for realistic development. 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 also 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.

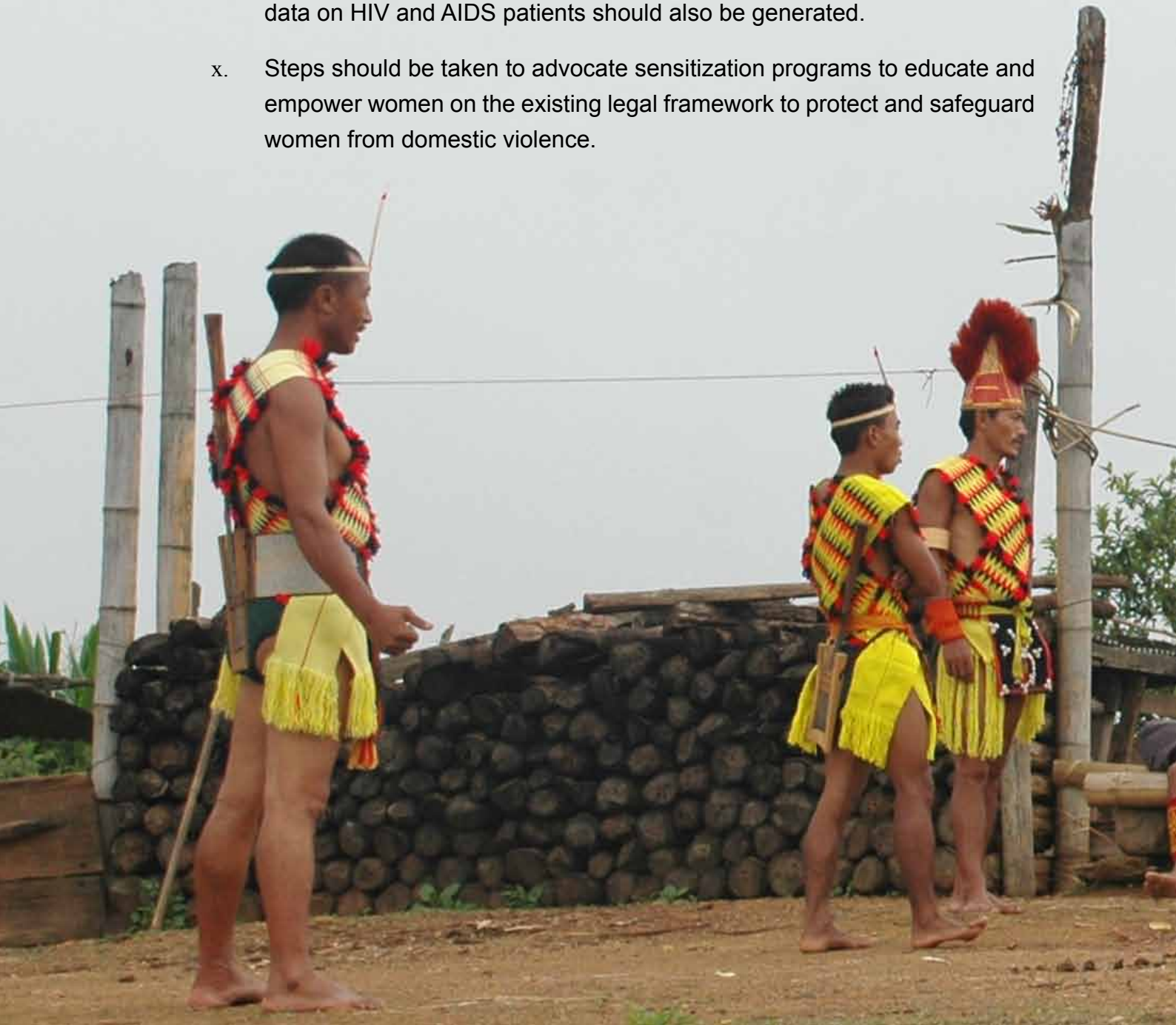
vi. 'Minimum Wages Act' and 'equal pay for equal work' should be effectively implemented to bridge wage disparity.

vii. Steps should be taken to improve the quality of education imparted in the Government schools and to reduce the financial burden on parents on account of schooling of children. This will check the school drop-out rates of girls. Merit scholarship for girl students should be instituted to enable merit students to pursue their 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 the programmes for women and children at the village level.

ix. HIV and AIDS sensitization programmes should be designed for all sections of the society in both 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.



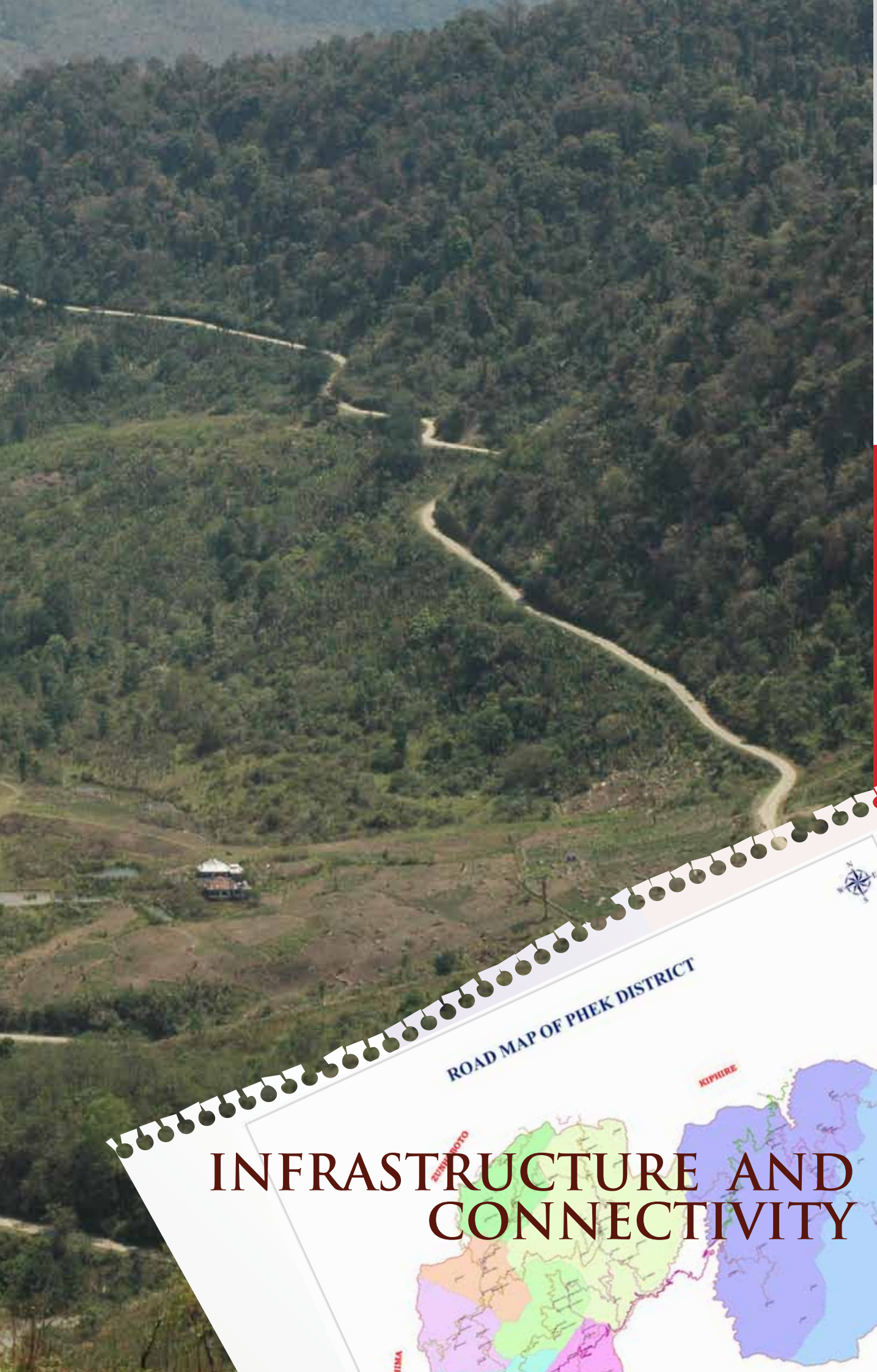
Shilloi Lake

Also known as the Lachem lake, the Shilloi lake lies on the lower slopes of the hill ranges running along the Myanmar (Burma) border in Phek district of Nagaland. The Shilloi is about 300 kms from Kohima and is spread over 0.25 to 0.30 sq km. The lake has the shape of a footprint and is believed to be the abode of spirits by the local people.

Therefore, the water of the lake is not used for drinking or irrigation.

SECTION 4

CHAPTER - 9



INFRASTRUCTURE AND CONNECTIVITY

9.1 INTRODUCTION

Infrastructure is a major prerequisite for development. Connectivity, adequate power supply as well as IT facilities encourage industrial investment and boost economic as well as social growth.

Infrastructure investment assumes an even greater importance in the context of Nagaland on two accounts. Firstly, the predominantly rural characteristics of the State calls for better connectivity to facilitate easy access with the urban centre. This can be through provision of better roads and other means of transportation, better telecommunication facilities etc. Additionally, due to relatively low level of economic activity in industrial and services sector, the potential for expansion in this context is vast. This can be exploited only by developing the requisite infrastructure in the power sector.

Along with provision of funds essential for infrastructural development, equitable distribution of funds and judicious utilization of resources would ensure tangible results in infrastructure development.

9.2 INFRASTRUCTURE PROFILE OF PHEK

Phek district is the least populated district in the State having the lowest density of population with 73 persons per sq. km. The district is predominantly a rural area with 104 villages, having the lowest urban population of only 3.54 percent of the total urban population of the State. The district is yet to be developed industrially. Though the district has a high literacy rate, yet the economy is predominantly agricultural. Poor communication and transport facilities as well as lack of financial and technical resources are the main factors hampering industrialization in the district.

9.2.1 TRANSPORT AND CONNECTIVITY

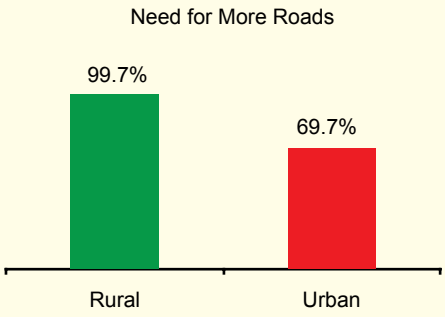
Transport and communications is one of the primary services required for propelling economic activity in any state. Transportation sector is the link for production centres, processing centres and markets. Considering the absence of rail and air services, good road connectivity is of paramount importance for development of any sector of the district.

The total length of roads in Phek district is 1638.6 kms constituting 12.22 percent of the total road length of the State. Table No. 9.1 shows that the road network per hundred square kilometers is 80.9 kms which is slightly more than the all Nagaland average of 80.7 kms per hundred square kilometers. This implies that the total road length in Phek district is better than some other districts of the State.

However, a different picture emerges when we study the condition of the existing road network. As per Census of India 1991 only 19 percent of the villages were approachable by pucca roads[12]. Most of the roads were kutcha and were not all weather roads and therefore not motorable during rainy season. Good road connectivity particularly of rural areas with sub-divisional towns and district headquarters, is often a means for supplementing efforts directed at providing basic health and educational services, as well as infrastructural support for production, trade and commerce at the local village level[13].

Only 35 percent of the total road network in the district is surfaced and 65 percent of the roads were unsurfaced during the year 2003-2004 as per Statistical Hand Book of Nagaland 2007. This compares poorly with the State's average of 46.6 percent of surfaced roads. Moreover, the density of surfaced roads in the district is 28.4 kms per hundred square kilometers which is much lower than the State's average of 37.6 kms. These statistics show that Phek district grossly lacks in communication facilities staggering the pace of economic development in the district[14].(Table No.9.1 and 9.2)

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



Source: DHDR Sample Survey 2009

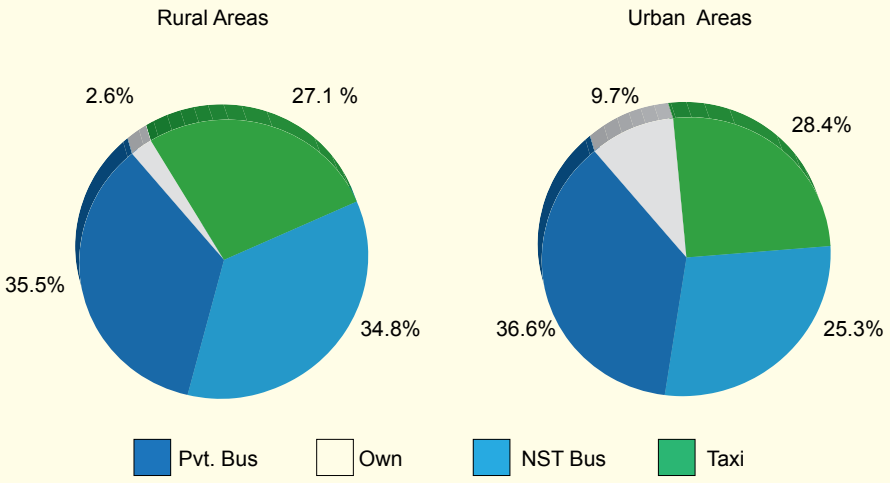
The results of the survey at figure 9.1. clearly indicate the concern of the people for more road linkages in the district, particularly in the rural areas. In the connectivity and infrastructure sector in Phek district the need is therefore to upgrade all *kutcha* approach roads in the district to *pucca* roads and to make all important routes into all weather roads. Despite the lack of good road network, public transportation services

[12] *Census of India, 1991*
[13] *Ibid*
[14] *Ibid*

are fairly well organized and adequately available. As per Census of India 1991 only 30.22 percent of the rural areas were approachable by pucca road, yet even villages without pucca road had bus transport facility e.g. such as Pfütsero, Khezhakeno and Meluri circles[15].

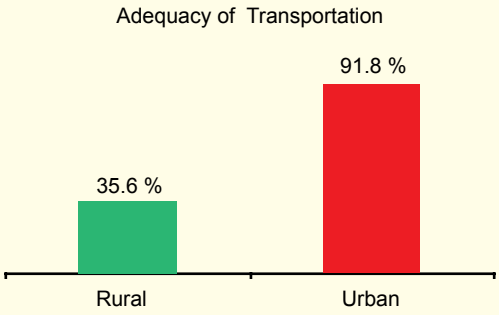
Results of the DHDR Sample Survey 2009 at figure 9.2. reveal that Government NST bus service and private buses are the primary modes of public transportation in the district constituting more than 65 percent of public transport service. While vehicle registration in the district was only 2 percent of total registration in the State during 2005 to 2007. (Table No.9.3)

Figure 9.2. Primary Modes of Transportation



Source: DHDR Sample Survey 2009

Figure 9.3 Adequacy of Transportation Facilities

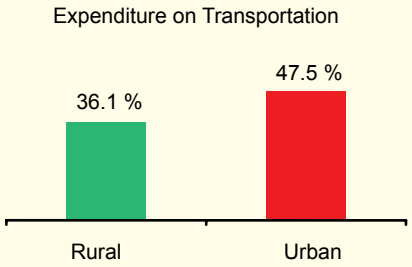


Source: DHDR Sample Survey 2009

[15] *Ibid*

The results of DHDR Sample Survey 2009 at figure 9.3 indicate that more than 90 percent of the respondents in urban areas expressed the view that public transportation service is adequate. However, in rural areas about 65 percent of the respondents desire better public transportation facilities.

Figure 9.4. Expenditure on Transportation



Source: DHDR Sample Survey 2009

Expenditure on commuting is much lower in Phek than in other districts due to the organized bus transportation services. Majority of respondents spend less than ₹ 20 per day on transportation. (Figure 9. 4)

9.2.2 POWER

As per the Statistical Hand Book of Nagaland 2008, the total consumption of electricity in Phek district was 5.56 Metering Unit (MU) and the number of consumers was 12103. The number of villages electrified in 2006-2007 was 78. However it may be noted that even after communitisation of power, the majority of the people (76.5 percent) were not satisfied with the management and regularity of power supply.

In the rural areas of the district as in other parts of the State revenue collection has long been hampered by poor billing and non-payment. The total revenue received in the State from the sale of power during 1988-1989 was ₹ 567.13 lakhs whereas the expenditure on electricity and power was ₹ 3907.60 lakhs during that year[16]. With the objective of improving management and supply of power as also revenue collection, the State Government introduced 'communitisation' of electricity management through the 'Single Point Metering' (SPM) scheme during 2002-2003. Under the system revenue collection is entrusted wholly to the villagers. This empowered the villagers and made them more accountable at the same time it improved the revenue collection for the Department.

[16] *Census of India, 1991*

***Box 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 Department as government revenue.*
- *The VEMBs can utilize the 20 percent deducted as incentive for various community development programmes and employment generation programmes.*

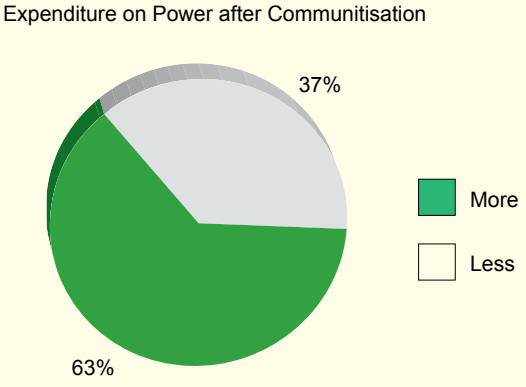
'Communitisation' programme has now emerged as a key mechanism for arresting the burgeoning loss of revenue in the power sector. The main factor for its success in rural areas is better receptivity due to the cohesive, binding and homogenous social composition of the Naga tribal villages. It has effectively controlled losses caused by theft and pilferage, collectively with people's 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 were communitised in 2008, resulting in marked improvement in revenue collection (by 70 percent) as compared to the negligible collection before 'communitisation' and reduction of losses.

Wider coverage of Single Point Metering (SPM) in urban areas is constrained due to the requirement for huge investments and re-orientation of distribution networks.

Source: Department of Power

As per the record given by Department of Power, in 2008 out of the total number of 552 SPM villages in the State, there were 50 SPM villages in Phek district which is 9 percent of all SPM villages in the State. An analysis of their performance, indicates that revenue collection improved significantly in the district with almost 70 percent revenue collection in the SPM villages as against negligible revenue earlier. (Table No. 9.4)

Figure 9.5. Expenditure on Power : Post-Communitisation

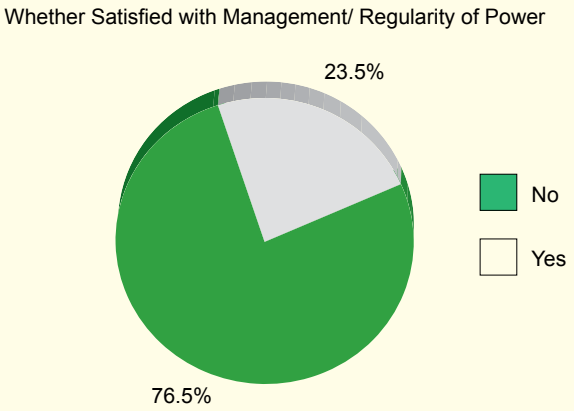


Source: DHDR Sample Survey 2009

The results of the DHDR Sample Survey 2009 show that 63 percent of the respondents reported increased expenditure on electricity after communitisation. Analysis of billing and revenue rates before and after SPM reveal that the percentage increase in monthly billing after SPM is 24 percent in Phek district. The increased billing may be due to more effective recovery of losses caused by theft and pilferage earlier. (Table No.9.5)

Figure 9.6 show that a very high percentage of respondents of about 76.5 percent were not satisfied with the management and regularity of power supply, post-communitisation. However, this does not reflect negatively on the scheme since the main cause of dissatisfaction is irregularity in supply of power in the district.

Figure 9.6. Management and Regularity of Power Supply Post - Communitisation

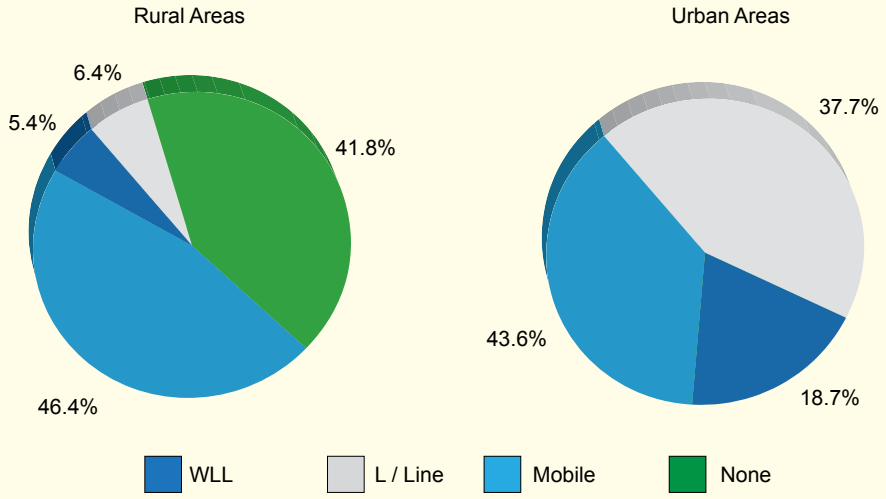


Source: DHDR Sample Survey 2009

9.2.3 TELECOM AND IT CONNECTIVITY

After Kohima, Dimapur and Mokokchung districts which have the highest concentration of telephone connections, the number of telephone connections in Phek is the fourth highest with 3.4 percent of the total connections in the State. Considering that the district has the lowest density of population in the State, telecom connectivity in the district is marginally better than in some other districts. However, the major chunk of the connections are in the urban areas as indicated by the results of the DHDR Sample Survey 2009 at figure 9.7. (Table No.9. 6)

Figure 9.7. Availability of Telecommunication Facilities



Source: DHDR Sample Survey 2009

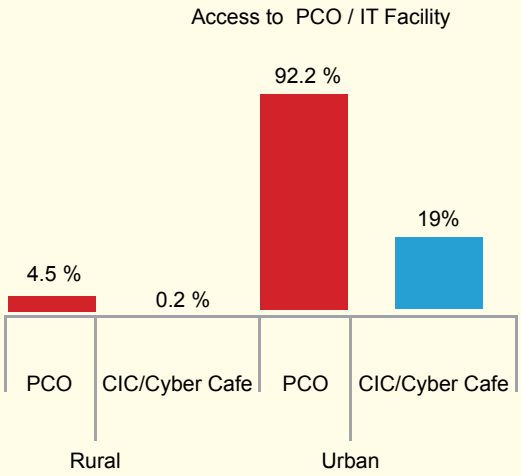
As per the findings of the survey, urban areas of the district are well covered with telecom facilities with all the respondents having either landline or WLL or mobile facilities. PCO facilities are also easily and adequately available within walking distance for most urban dwellers.

However, in rural areas telecom facilities are still out of reach for more than 40 percent of the respondents. These section of people do not have access to any telecommunication facilities. In rural areas of Phek mobile phones are the only major means of telecommunication.

The lack of mode of public telecommunication facilities and IT connectivity in the district is reflected in figure 9.8. Even in urban areas internet services and amenities like CIC or cyber cafes are limited while in rural areas these facilities are practically non existent.

Lack of telecommunication facilities in rural areas is of grave concern since this is a virtual stumbling block for any development activity. The disparity in provision of telecom and IT connectivity also heightens the sense of neglect and isolation amongst the rural populace.

Figure 9.8. Access to PCO/IT Facilities



Source: DHDR Sample Survey 2009

The district is predominantly rural and under developed due to poor road conditions and communication facilities. Development of IT connectivity would enable the rural populace to be abreast with information on progress of monsoon, likelihood of rain and humidity, prices, market trends, profitable outlets and new agricultural technology. Such information would enable the rural farmers to take up demand based agriculture. It is therefore necessary to develop telecom and IT connectivity to bring the district at par with other districts.

9.3 CONCLUSION

There is a need for strengthening of infrastructure, improvement of road networks, power supply and IT connectivity to induce all round development in all the districts. It is believed that all round economic development will assuage the feelings of neglect and alienation in the districts and also curb insurgency in the region.

In order to improve the quality of life of its citizens, stress should be placed on improving the current rate of economic growth in the State. Achieving and sustaining the increased rate of growth would to a large extent depend upon the ability of the State to attract large investments to the State. However, attracting investment is dependent upon the availability of adequate physical infrastructure.

The State Government must realize that development of adequate infrastructure and connectivity would possibly be the two most important determinants to achieve an accelerated growth rate as envisaged in its Human Development Report 2004. The State should therefore put considerable stress and effort in improving its infrastructure and connectivity. Besides, contributing to the growth of other sectors of the economy, development of infrastructure and connectivity would themselves contribute significantly to the economic growth of the State, by generating employment and creating markets.

Information and Communication Technology (ICT) is an increasingly powerful tool for participating in global markets; ... without innovative ICT policies, many people in developing countries – especially the poor-will be left behind.

Thomas Friedman
The World Is Flat

The declaration of the North-East Industrial and Investment Promotion Policy (NEIIPP) 2007 is expected to encourage further investment and concomitantly, the demand for industrial infrastructure in the NE Region.

The State needs to identify and commercialize development of infrastructure projects through private public partnerships (PPP). It also needs to undertake a comprehensive study to develop an Infrastructure Development Action Plan covering power, transportation and information technology.

Given the vast disparities within the region, a development strategy will have to be evolved taking into account the availability of resources, social conditions, people's needs and priorities. Such development strategy will have to be participatory in approach and should be calibrated with the rural settings.

Kütsapo Village

The Birth Place Of Village Development Board

Kütsapo village in Phek district is the first village in the State to formalize decentralized grass root planning. The genesis of the Village Development Boards goes back to a meeting of the villagers of Kütsapo village of Phek district with the then Deputy Commissioner Padmashree A. M. Gokhale in 1976 regarding construction of the village approach road. The meeting culminated with constitution of a committee comprising of the villagers headed by the Deputy Commissioner. This committee spurred the implementation of developmental works in the village. On seeing the success of the Kütsapo experiment a mass campaign was launched to expand the coverage of this unique institution through out the State. The Village Development Board, a statutory developmental body functioning under the primary village authority was thus instituted in 1980.

View of Kütsapo village

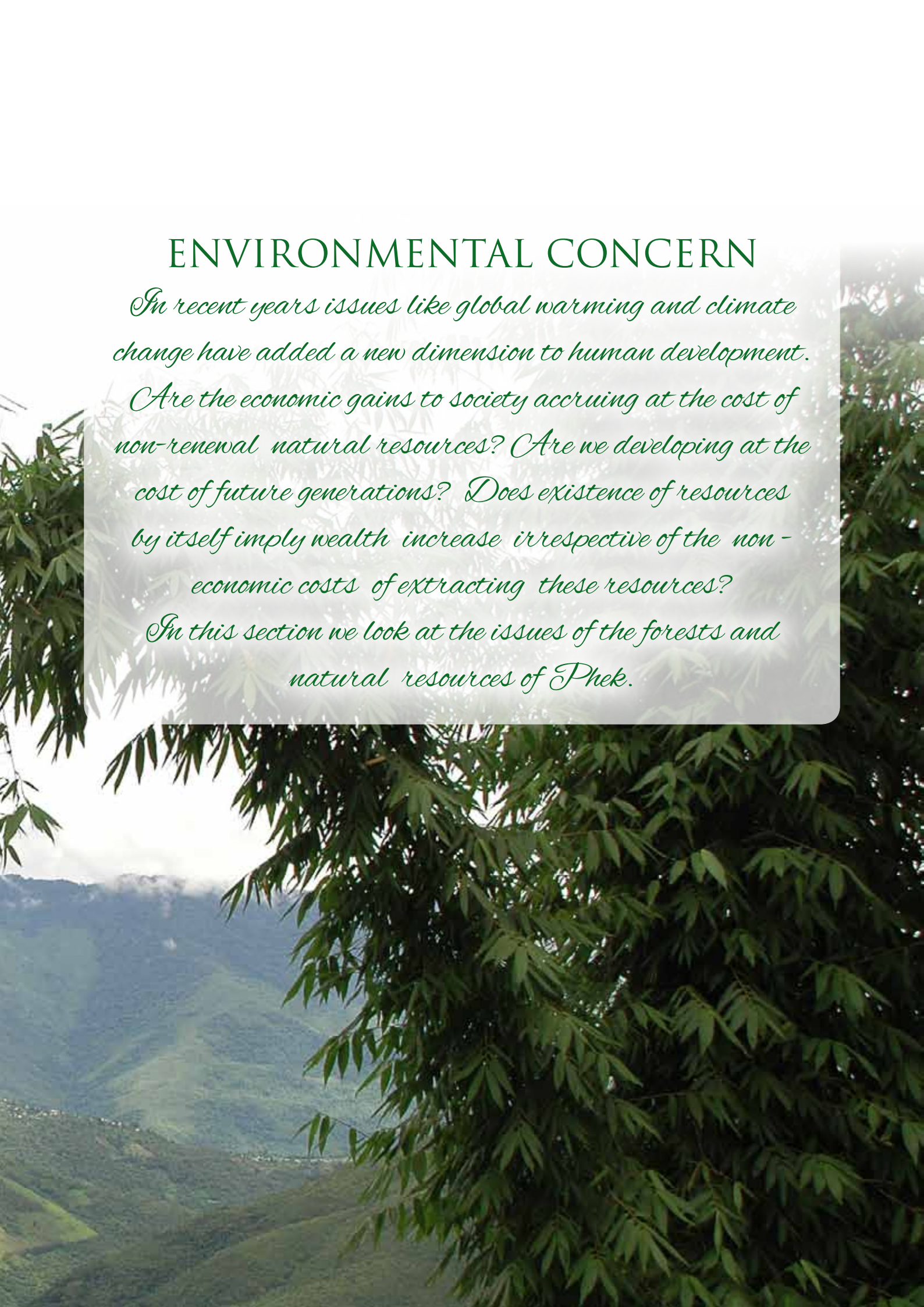
SECTION 5

Chapter 10 FOREST 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-renewal natural resources? Are we developing at the cost of future generations? Does existence of resources by itself imply wealth increase irrespective of the non-economic costs of extracting these resources?

In this section we look at the issues of the forests and natural resources of Phek.



SECTION 5

CHAPTER - 10

FORESTS AND NATURAL RESOURCES

10.1 INTRODUCTION

The recorded forest area in the State is 55.62 percent of the total geographical area of the State. According to legal classification reserved, protected and unclassified forests constitutes 0.93 percent, 5.55 percent and 93.56 percent respectively. Most of the forest under the unclassified category is privately owned in the State.

The major forest types occurring in the State are Assam Valley Tropical Evergreen forests, Tropical Moist Deciduous forests, East Himalayan Wet Temperate forests and Assam Sub Tropical Pine forests.

There is one National Park and three Wildlife Sanctuaries in the State. The total area under the protected area network is 22,236 hectares constituting 1.34 percent of the total area.

Joint Forest Management (JFM) was initiated in the State in 1997. There were 335 JFM committees managing about 20,000 hectare of forest area as on March 2005. About 85,000 families are involved in this programme.

Though the size of the State is small, Nagaland has a rich variety of forest and natural resource cover due to its unique geographical location and climate types. The State is endowed with rich forest resources including various types of flora and fauna. About 20 percent of the total geographical area is under the cover of tropical and sub-tropical evergreen forests, including palms, bamboo and rattan as well as timber and mahogany forests. The forests of Nagaland also give shelter to a number of species of animals including elephants, leopards, bears, many species of monkeys, sambar, deers, oxen and buffaloes. The Great Indian Hornbill is one of the most famous birds found in the State. There are many forest types found in the State, chief among them are:

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

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

Northern Sub-Tropical Broad Leaved Wet Hill Forest is found in the hill areas below 1800m and above 500m in all the districts of Nagaland.

Northern Sub-tropical Pine Forest is found in the hills with elevation of 1000m to 1500m in parts of Phek and Tuensang districts of Nagaland

Northern Montane Wet-Temperate Forest is found in the higher reaches of the tallest mountains (above 2500m) like Saramati and Dzükou area.

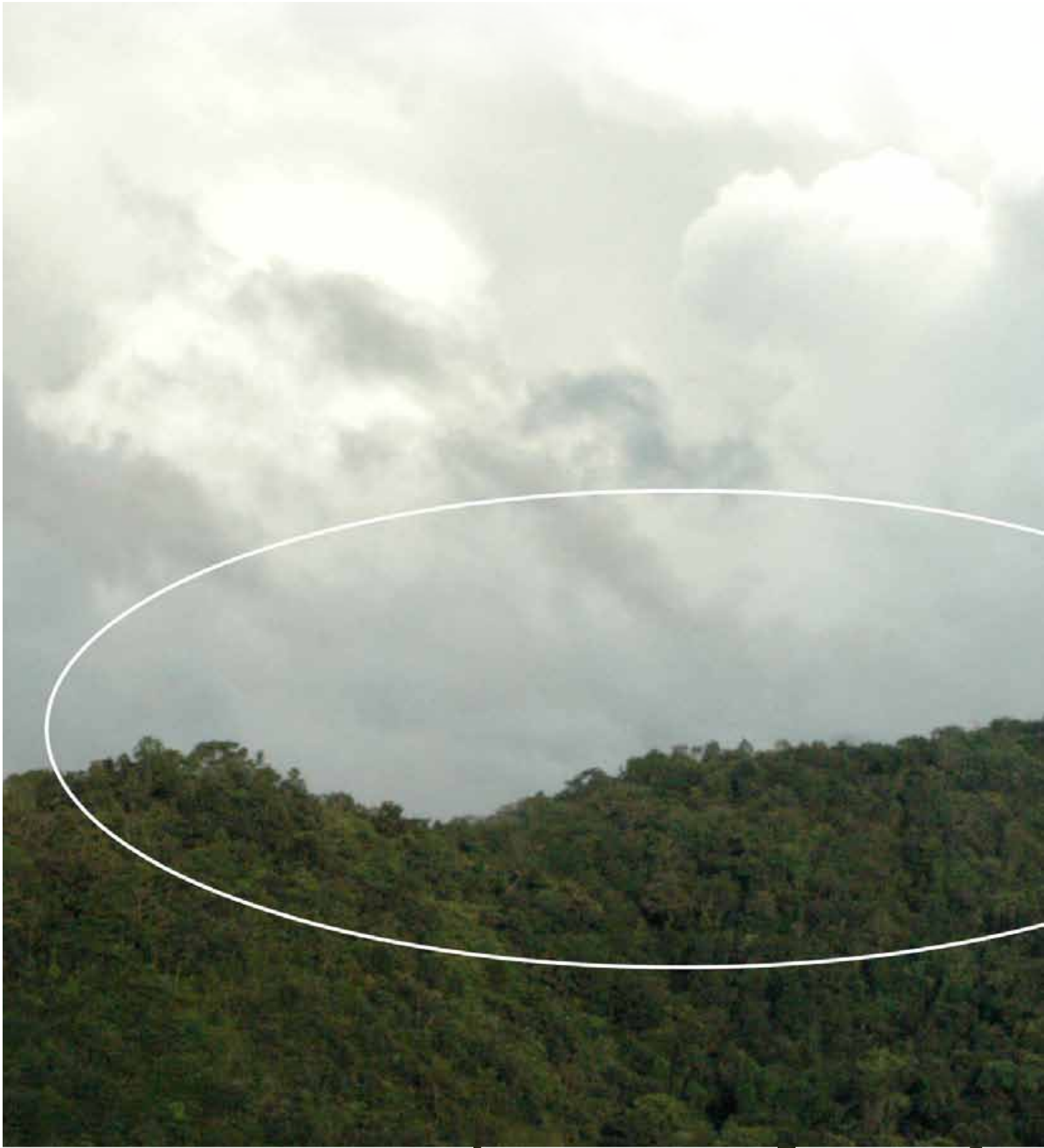
Alpine Forest is found at high altitude in ridges of the Saramati range which remains covered with snow for the major part of the year from October to April. After melting of snow during the brief summer few annuals, herbs and shrubs along with mosses can be seen growing there.

The forest cover of the State is 16579 km^2 which is 82.75 percent of the total geographic area of the State. Area under very dense forest covers 238 km^2, moderately dense forest is 5,602 km^2 and open forest is 7,881 km^2.(Table No.10.1)

10.2 GEOGRAPHICAL DESCRIPTION

Phek gets its name from the word 'Phekrekedze' meaning watchtower. The geographical area of Phek district covers 2026 sq. kms that is 12.22 percent of total geographical area of the State. The altitude ranges from 400 meters at Tizü river bed (below Avangkhu village near the border of Myanmar) to 3040 meters above sea level at Mollen peak. It is situated in the southeastern hill region of the State. It borders with Myanmar in the East, Manipur State in the South, Kohima district in the West and Zunheboto and Kiphire districts in the North.

The topography of Phek district is undulating with gentle slope to high slope. With varied geo-climatic conditions, Phek district is ideally suited for horticulture, floriculture and other plantation crops. A variety of fruits like pineapples, banana, orange, lemon, mango, papaya grow abundantly in the region. The region is famous for the different types of fruits and vegetables grown. Phek is also richly endowed with varieties of medicinal plants having high value in the international market. But, due to the lack of proper infrastructure, transport and communication system and geo-political condition of the region these resources largely remained untapped.(Table No.10. 2 to 10.4).



View of Chesezu Village from the Netaji's Peak

A Bunker

Netaji's Restng Shed - Replica

Neta

Netaji's Peak

Netaji's Peak at Chesezu village in Phek district is a rare name for a peak in Nagaland. It ia located 55 kms east of Kohima. Netaji Subhas Chandra Bose, the Prime Minister of Azad Hind Fauj and the Supreme Commander of Indian National Army (INA) on his 'Delhi Chalo' mission to liberate India from British rule came from Myanmar to Nagaland in April 1944 and monitored the famous 'Kohima Battle' from Chesezu village. During his stay he befriended village folks, some of whom are still alive to bear witness to the legend.

Source: 'Discovery of Netaji Subhas Chandra Bose Delhi Chalo : Last Camp in Nagaland'

ji's Drinking Water Well

Netaji's Items

Stone Seat where Netaji's sat

Last Bridge Crossed by Netaji

10.3 PURCHASED FOREST

Since the forest area under Government control is very limited and quite inadequate for a mountainous State like Nagaland, the Forest Department has purchased some forest land from private owners to take up plantation.

The total land purchased by the Department is 19222.44 hectares. District-wise area of forest land purchased by the Department up to 2005-2006 is indicated below:

i.	Kohima and Dimapur District	5,008.93 hectares
ii.	Phek District	757.27 hectares
iii.	Mon District	7,292.26 hectares

10.4 FOREST OR VEGETATION COVER

The forest type of the district varies from Northern Montane Wet Temperate forests to Northern Sub Tropical Pine forests. The area is also abundant with bamboos and canes as well as broom grasses. These types of forests are found on the higher reaches of the tallest mountains in Nagaland above 2000 meters in Japfü, Saramati, Satoi and Chentang ranges. The species are typically evergreen with Quercus, Michelia, Magnolia, Prunus, Schima, Alnus and Betula. The wet temperate forests found in Phek consists of lauraceous forests, lower and upper elevation oak forests of the eastern Himalaya types. Some scientists believe that climate change and human disturbance has caused the lower elevation oak forests to be gradually degraded and invaded by the drought resistant Chir pine, the dominant species in these subtropical pine forests. The dominant species in this belt of subtropical pine forest is Chir pine. Because of frequent fires, pine forests do not have well developed growth.

10. 4.1 STATUS OF WILDLIFE

A good number of wild animals and birds are found in abundance in the district due to restriction on hunting imposed by the village councils. There are wild animals and birds like Himalayan black bear, sambar, barking deer, wild boar, monkey, civet cat, jungle cat, pangolin, porcupine, mole, slow loris, fruit bat and birds like; red jungle fowl, kalij pheasant, hill myna, green pigeon, emerald dove, spotted dove, bulbul, koel, owl, spotted owlet, royal pigeon, hoopoe, black drongo and tailor bird.

10. 4. 2 STATUS OF BIO-DIVERSITY

The natural forest in Phek is a storehouse of beautiful orchids, medicinal plants, and different hill bamboo species which are of traditional importance to the local people. The past few years have witnessed natural regeneration of species at all levels with the conservation initiatives of the local people. This has led to increase in the overall vegetation cover of the area.

But there is also an increasing trend towards deforestation, particularly in areas near human settlement. Jhuming and hunting culture of the locals is fast depriving the wild animals of their original habitat and their peaceful co-existence in nature. The local people are intricately associated with the forests for their sustenance whether for agriculture, for timber, for non timber forest products, or for medicinal plants. These forest products are also their main source of income. Due to the primitive method or practice of slash and burning cultivation the rich biodiversity of the State has dwindled year by year. Most of species, both flora and fauna appear to be endangered due to heavy biotic pressure or interference and reckless deforestation.

10. 4. 3 COMMUNITY EFFORT IN CONSERVATION

Almost all the villages have Village Forest Committee (VFC) which directly control all the activities of the forest, whether for plantation or preservation of their respective areas, in consultation with the village councils. Phek district comprises of two main tribes; Chakhesang and Pochury.

Occupation and habitation of the district is on tribal lines. The entire Pochury area forms the present Meluri sub-division of Phek district. Rainfall in the area varies between 200 cm and 250 cm, the bulk of which is received during the period from May to October. There are numerous hill streams in the Pochury area. The important rivers are Tizü, Chidwin, Arachu and Loyaokdi. Lutsam (Shilloi) is an important lake of the area. The Pochury tribesmen are skillful craftsmen. Spinning, weaving, basketry, wood works and pot making are actively pursued by the villagers.

A decade ago, the main threat to the forest of the district was rampant felling of timber for commercial purposes and shifting cultivation. Of late many households have switched over to use of LPG and terrace cultivation. Felling of timber is now regulated wherein timber and other forest produce can be extracted only through working schemes and as per the Tree Farm Rules, 2002. The initiatives of the village councils have also borne fruit as ban on forest burning, ban on rampant felling of timber etc have helped in forest conservation.

The State Government in exercise of the powers conferred under Section 36-C of the Wildlife (Protection) Act, 1972 has notified Khrokropfü area as a Community Reserve Forest with the objective of protecting the flora and fauna of the area. The said area comprises of 615 hectares and is notified as community reserve as per the initiative of the village council of Lephori under Meluri sub-division.

10. 4.4 LOCAL TRADITIONS AND HEALTH REMEDIES

In the quest for better health care products, modern medicines and other healing systems have exploited the traditional knowledge of plants. Phek region is a storehouse of medical plants and vital raw materials. Some of the plant species found in Phek district are unique, rare and endemic like ginseng. Medicinal plants such as ginseng and taxuz bacata are available in abundance and have enormous commercial potential. Commercial scale farming and processing or distillation of medicinal and aromatic plants such as citronella, lemon grass, geranium, patchouli and aloe vera can produce rich dividends and can reduce the burden on forest resources by supplementing income of farmers. When farmers earn more money by utilizing less land, dependence on jhum farming is controlled to a considerable extent.

10. 4.5 NON TIMBER FOREST PRODUCTS (NTFP)

Apart from abundance of wild animals and plants in the area, various other forms of Non Timber Forest Products are found. These NTFP are of high value to the local people. The people inhabiting the area, with their ingenious skill and close association with plants have over time accumulated an envious treasure of information relating to the utilization of the plants. By and large such knowledge is confined to themselves as secrets and are handed down from generation to generation.

The common NTFPs that are extracted from the forest are:

i. Medicinal material from leaves, barks, fruits and roots of herbs and trees.

ii. Fruits and vegetables.

iii. Flowers and orchids.

vi. Bamboo and cane materials that are used in basketry and handicraft industry.

v. Wax and wood oils. Pinewood is traditionally used for lighting purposes.

vi. Bamboo shoot which is a delicacy in local homes.

vii. Broom grass.

10. 4. 6 STATUS OF TIMBER EXTRACTION

The extraction of timber and non-timber forest products in being done through working schemes approved by the Ministry of Environment and Forests in the villages of Akhen, Chizami, Lephori, Lazami, Losami, Chozuba, Ketsapo, Old Thewati and Zhavame in Phek district. The working schemes are generally approved for a period of five years. Deforestation in these areas is largely due to external pressure of timber extraction for industrial use which is superimposed over and above the demand of local communities for food, fodder and fuel wood.

Understanding the local linkages between ecological and social processes is important to design strategies for the sustainable management of jhum cultivation and secondary forests in regions where traditions and customs are ardently practiced by the local populace.

Nagaland is rich in mineral resources. The presence of the following mineral reserves have been established.

i. Petroleum and natural gas,
ii. Nickel cobalt-chromium bearing magnetite,
iii. Marble, dimensional or decorative stones and
iv. Coal.

The huge reserves of more than 1000 million tonnes of high chemical grade limestone in the eastern Nagaland is a major prospect for setting up of industries for production of the following products;

i. Cement
ii. Calcium carbide
iii. Bleaching powder
iv. Hydrated lime

Other industries which could be set up are;

i. White & green marble mining and polishing.
ii. Ceramic glazed tiles
iii. Ceramic crockery
iv. Ceramic insulators
v. Slate for building materials

This high grade limestone which is found in abundance can be exported for foundry, blast furnace and other metallurgical and chemical industries.

10.5 CONCLUSION AND RECOMMENDATIONS

Forests continue to acquire increasing importance for their role in meeting the human material needs and also for their ecological and environmental services. Therefore, sustainable use of forest resources with strong conservation approach is the key element for conservation of the biodiversity.

The forestry sector in the State has been one of the main source of livelihood and revenue. However, of late, there has been rapid decline in the forest cover due to rapid increase in population, insufficient infrastructure, diversion of forest area for developmental activities, inadequate public awareness about the utility of forest and its administrations.

The operation of local agro-forestry system in the State is at subsistence or below subsistence level. It is now being re-developed with focus on biodiversity by strengthening the tree component that has been weakened due to extreme deforestation in the State. This re-development is based on the rich traditional ecological knowledge of the hill societies. The projects are being implemented through the communities and the Village Development Boards focused on augmenting traditional agriculture, rather than attempting to radically change it. The practice of planting Nepalese alder trees and maintaining the trees for hundreds of years by local tribes like the Angamis formed the impetus for this initiative. This planting is done both during the cropping and fallow phases of jhum cultivation.

Understanding the linkage between the ecological and social processes is indeed the basis for sustainable forestry management in a State like Nagaland. In such an integrated approach to management, the socio-economic and socio-cultural issues and the traditional knowledge of the local communities would be reconciled.

A relevant example is the impact of bamboo harvesting for paper pulp. Bamboos are culturally valued species of secondary forests and are used for house construction, water transportation, as household utensils and for artistic expression. Ecologically speaking, bamboos are valuable as conservators of essential N, P and K nutrients essential for the jhum system of the State as well as of north-east India. The harvesting of these species for pulp deprives communities of a valuable secondary forest resource.

The major task in the State is to rehabilitate the degraded forests and enhance the area under effective tree coverage to 66 percent of the total geographical area as envisaged in the National Forest Policy, 1988. Though continuous efforts are being

made in this direction, the ever increasing demand for forest products and limited availability of funds has hampered the achievement of the desired results. It has been recognized that a rational and balanced combination of different approaches such as production, protection, conservation and provision of environmental amenities are essential for sustainability of the forests. Nagaland with a tropical and sub tropical climate receives an average rainfall of about 1870 mm annually. This condition is conducive for luxuriant growth of vegetation of different species. Full advantage need to be taken to develop the resources for economic development of the State.

The Department of Forest and Environment along with the active participation and co-operation of the people has envisioned protection and development of the rich biodiversity of the State. The primary objectives of the programme are

i. To maintain environmental stability, ecological balance, conserve biodiversity and genetic resources of the State.

ii. To increase the forest cover in the State by encouraging involvement and participation of people in protection, development of forests through various programmes.

iii. To increase the productivity of the forest by application of appropriate practices and technologies evolved after adequate silvicultural research i.e. Planting Stock Improvement Programme under which quality seedlings obtained from seeds/ clones of superior trees would be used for plantation.

iv. To protect, develop and manage the forest resources on sustainable basis and to utilize the same to meet the local domestic demand for forests products and to achieve economic growth, create employment opportunities and promote industrial development.

v. Need based strengthening of forest organization with facilities, equipments and personnel with emphasis on human resource development.

vi. To protect, conserve and develop the wildlife resources of the State.

vii. Generate awareness among the public about the hazards and consequences of environmental pollution.

viii. Tree plantation through jhum cultivation.

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 and authenticated in this section on the basis of stakeholder consultations held in Phek. Thus the section represents diverse views of different sections of the population on the aspects of human development. The consultation workshop, consisted of presentation of the chapters followed by sectoral discussions on Gender issues, Infrastructure and Connectivity, Agriculture, Health and Basic Services. This chapter gives the responses of the various stakeholders.

SECTION 6

CHAPTER - 11

VOICES OF THE PEOPLE

A one day consultation workshop with all the stakeholders of Phek district was held on the 9th of October 2009 at Phek. The voices of the stakeholders on various issues as expressed during the sectoral discussions are presented below.

11.1 AGRICULTURE SECTOR

Participants (names in appendices) in the sectoral discussion for agriculture sector suggested the following:

i. Lack of Marketing opportunity, price instability and lack of cold storage facilities discourage farmers to produce surplus.

ii. Farmers' hesitant attitude towards adoption of new technology and changed cropping pattern combined with inadequate irrigation facilities, poor road linkages and credit support stand in the way of surplus production.

iii. Restriction imposed on import of livestock results in shortage in the market. This can be capitalised as an opportunity by livestock farmers.

iv. Explore market avenues outside the district and develop local marketing facilities.

v. Take appropriate measures to stabilize market price and create proper storage facilities.

vi. To intensify cropping, water reservoirs are a primary requirement for a hilly place like Phek district. Through reserviors, the present integrated farming system "Zabou" will be strengthened. Help the farmers to adopt integrated farming system like cultivation of paddy cum animal husbandry and vegetables or paddy cum fish culture and vegetables.

vii. Diversification of agricultural production according to potentialities such as vegetable cultivation, cash crop and animal husbandry.

viii. To commercialize agricultural sector, infrastructure like road connectivity, market information, training, extension services and credit facilities need to be strengthened. Mechanization is also required for commercialization of this sector.

ix. Agricultural education needs to be incorporated in the school curriculum as a main subject with practical sessions at all levels to motivate the educated youth to take up farming as a business or profession in future. This would reduce the problem of educated unemployment to a large extent.

x. Need to intensify the on going capacity building programmes through conducting workshops, training, exposure tours etc. There is a need to stress on self sufficiency.

xi. Government's efforts to change the attitude of farmers towards commercialization has failed. Therefore progressive farmers in the district should be involved in imparting trainings and other extension services. This would be more effective in disseminating new ideas.

xii. Encourage formation of farmers' cooperatives for production, marketing, financing etc. Further, for commercial production, the small size farm plots need to be clubbed together through formation of SHGs or Unions.

11.2 HEALTH SECTOR

Dr. Tia, Medical Specialist, Health and Family Welfare, Phek stated that ASHA workers for a village should be appointed from within that village. Skill upgradation of medical officers promoted to managerial level should be mandatory. People should be sensitized on aspects of communitisation of the health sector. Construction of staff quarters for the health care personnel is necessary to ensure that employees are stationed in their place of posting. The proposed nursing school at Phek should not be attached to the district hospital. Training of nurses within the state should be encouraged.

Dr. K. Hoshi, citizen of Phek said that paramedical and clinical help is a primary requirement for the people of Phek district. He highlighted the shortage of manpower in the medical department and need for an ambulance for transportation of patients from the nearby villages to the district hospital. He stated that for the health care sector politicians and bureaucrats should not be given the task of handling financial resources. Performance of doctors and nurses in Phek are satisfactory despite inadequate facilities. Decision making should be decentralized in the Medical Department.

Dr. N.L. Changkija, Medical Superintendent, Naga Hospital Authority, Kohima (NHAK) expressed the view that possession of technical knowledge should be accorded priority in medical and health care services.

Participants (names in appendices) in the sectoral discussion for health sector suggested the following:

i. Construction of office for Chief Medical Officer at Phek : The Chief Medical Officer and his staff are functioning in an old OPD facility in the district hospital. To implement CSS programmes like IDSP, NRHM, District AIDS Programme Control Unit (DAPCU) a number of employees have been appointed. The office building is inadequate to accommodate the staff. This causes staff absenteeism and hampers implementation of the programmes.

ii. Construction of Medical Rest House : On account of implementation of CSS programmes frequency of official visits by central teams, evaluation teams, audit teams and State Programme Officers have increased necessitating a medical rest house.

iii. Creation of post and posting of dental surgeons at CHCs & PHCs : With the increase in importance of oral hygiene dental surgeons are required in the Health Centres. Therefore posts of dental surgeon should be created and dentists should be posted in all the CHCs and PHCs.

iv. Creation and construction of new Sub-Centres in the following villages were proposed.

a. Kezari Village – An area with difficult terrain, the village is located under Meluri division with a population of 1157. Road connectivity is almost non-existent during rainy season.

b. Kanjang Village - Under Meluri division with a population of 205, it is situated in an isolated area about 13 km away from the nearest health unit.

c. New Phor Village - New Phor village is also under Meluri division with a population of 387.

d. Washelo Village - Washelo village under Meluri division is with a population of 207. The nearest health unit is 8 km from Zipu and New Thewate situated on the State highway to Shilloi Lake.

e. Mollen Village - Mollen village under Meluri division is an isolated village with a population of 32. The nearest health unit is 10 km away.

v. Creation of posts and posting of Medical Officers in the following PHCs were proposed:

a. Khuzami PHC - Notified as a PHC and situated in a strategic location, the PHC covers Khuza village, Metsale village, Chepoketa village, Sothotsu village, K. Khuno village and Tehepu village. This PHC can cover the whole of Tizü area with a population of 3794.

b. Razeba PHC - Notified as a PHC under Pfütsero sub - division, it covers 4 villages; Zelome, Zamai, Chobama and Razeba town with a total population of 4891.

c. Sakraba PHC - Notified as a PHC under Pfütsero sub - division, it covers 5 villages; Porba, Sakraba town, Sakraba village, Pholami old & new and Gidemi with a total population coverage of 5016.

vi. Establish Model Satellite Primary Health Centres in the district with all the requisite infrastructure, facilities and manpower in accordance to the IPHS standard (like gyneacologist and obstetrician, surgeon, medicine, pediatrician and anaesthologist to be posted to give 24x7 services).

vii. Special incentives and facilities should be provided to Medical Officers and nursing personnel posted in rural areas.

viii. Creation of posts and posting of ANM/pharmacists and 2 grade IV posts in those Sub-Centres where these posts do not exist.

ix. Construction of staffs quarters in all the CHC, PHC and SCs.

x. Trauma centre at Pfütsero and Chozuba should be made functional .

For the District Hospital Phek, the following were suggested:

a. Remote Data Capture (RDC) should be completed.

b. Upgrade district hospital from 75 bedded to 100 bedded hospital.

c. Establish nursing school for health workers.

d. Establish rural family & welfare training centre at district hospital for training of DHAI, ASHA etc.

e. Palomar Medical Technology Incorporation (PMTI) should be established to train laboratory technician, Multi Purpose Workers (MPW) and Para Medical Workers (PMW) .

f. Construct quarters for Medical Officers and nurses working in the district hospital.

g. Install ICU and Neonatal Intensive Care Unit (NICU) equipment at the district hospital.

h. Post anesthesiologist and surgeon at the district hospital.

i. Provide ultrasound machine with sonographer.

j. Provide basic investigative instrument, equipment and reagents.

k. Provide recreational and library facilities.

l. Prepare master plan for development of the area of district hospital.

11.3 BASIC SERVICES

Pat Keyhie, Urban Development Officer, Department of Urban Development, Phek, stated that the shortage of drinking water during the dry seasons was due to the size of the main pipe used for supply of water to the district. It was not large enough to supply the quantum of water needed by the people.

All the participants were of the view that manpower in the PHED was not sufficient to manage water distribution and to maintain the water pipe connections. Most of the employees of the Department are work charged or fixed pay employees. Water supply connection in some villages was non-existent.

11.4 EDUCATION SECTOR

Dr. Norbert Noraho, Principal of Phek Government College stated that 'to improve the quality of education in the private or government colleges or schools, social obligations should be curtailed'. He said that to enable the students to compete with their counterparts in other states the marking system should be changed. Seminars and workshops for the teachers and the examiners should be organised by the Department of Education to update their knowledge and skills.

Mr. T. Luchamo Lotha of Employment Office expressed the need for conducting seminars or workshops on career guidance and counseling for the students in the schooling period, to help students to perceive the kind of subjects they should choose for their careers. He also expressed the need for assessment of vocational education in the State.

Mr. Razouvolie Dozo, SDO (C), Phek raised the issue of 'proxy teachers' and said that in the villages 50 percent of the teachers were proxy teachers. This affects the quality of education since proxy teachers are untrained and untrainable.

Mr. John Lohe, Joint Director, Directorate of School Education remarked that the people should be educated on the necessity of getting registered in the Employment Exchange.

Mr. Enchi Longkumer, Vice Principal, ITI (Phek) highlighted the need for more seats for the schedule tribes in vocational/professional institutions.

The participants suggested the following:

i. Community mobilization as well as village level sensitization programmes.

ii. Capacity building programmes of VECs on role of community in development should also include church leaders and church based organizations.

11.5 GENDER ISSUES

The participants of this group discussed different issues dwelling on some existing inequalities between men and women. Political and legal rights, wealth distribution, social inequality in education, health care, wage disparity and domestic violence were some of the broad issues.

11.6 POLITICAL

Mr. W. Krome, Superintendent of Police (SP), Phek said that the 33 percent reservation for women in politics may be necessary at the national level but was not necessary in the Naga context stating that Nagas were traditionally head hunters where the man was the benefactor and protector for all the household members. In the present day context he said girls were doing well in education. Hence with reservation or no reservation for women, if the women were educated they would do well. He stated that Nagaland has a Mahila Battalion, an advancement over many states. He said that if girls were educationally qualified it would be difficult to discriminate them.

Mrs. W. Ritse, District Public Relation Officer (DPRO) said that since women were never in politics, reservation for some years would be required though it may or may not be 33 percent. She stated that earlier men were trained and raised from the morungs for socio-economic development activities and for village defense but roles have changed today and women too contribute to economic development.

Mr. Mikha Lomi, Deputy Commissioner (DC), Phek said that with the State Government's reservation policy in employment, some women have applied for the post of women Dobashi. However, this may affect and clash with the traditional practises unless the pros and cons of such practice is studied carefully. Any efficient lady can be in politics even without reservation. In principle the reservation policy for women may be good but practically it may be difficult to implement it if women are not efficient.

Mr. Khuvetso Rhakho, Dobashi, Deputy Commissioner's Office, Phek said that both educated men and women with concern for the public can take part in politics without any reservation.

On whether policies would be gender friendly if women were in politics, *Mr. Mikha Lomi*, DC, Phek, said that women were better committed and can do things better. *Mrs. W. Ritse*, DPRO, also said that women were better managers and decision makers. Better ideas for harmonious co-existence, come from women. In matters pertaining to village or community development, men are more capable whereas on the home front, contribution of women to health, peace and happiness in the family was higher. If the health of the family is in a poor state, men cannot contribute optimally towards the society.

11.7 LEGAL RIGHTS (CUSTOMARY LAWS)

In Phek district as in other parts of the State, customary laws are applied for settlement of disputes in the allocation and control of resources or social issues like theft, rape cases and adultery. While some customary laws are gender neutral and cost effective there are some that are discriminatory towards women such as in rape and adultery and unequal sharing of landed assets.

Mr. Zachizo Nienu Dobashi in Deputy Commissioner's Office, Phek opined that the customary laws followed by the forefathers is cost effective and good. It did not favour men nor discriminate women.

The Deputy Commissioner Phek, *Mr. Mikha Lomi* said that customary laws favour men and discriminate women in matters of property inheritance. The acquired moveable and immoveable property should be shared equally between children. It is a customary

practice that women are not allowed to attend meetings that discuss political issues. Even in VDB meetings where women are members, most women never speak, they only prepare tea or cook. These norms and practices should be changed.

Mr. W. Krome, SP, Phek expressed the view that the mindset that women should only prepare tea or cook during the meetings should change. The inheritance laws too needs to be changed and men and women should be treated equally. The old traditions that promote inequality should be done away with. Everyone should take initiative to bring changes.

Mr. Khuvetso Rhakho, Dobashi, DC's Office, Phek stated that customary laws are biased against women in adultery and rape cases. According to him, in earlier times parents invoked blessing for their sons to commit adultery saying, 'let my son commit adultery; if people commit such acts below the road, let my son do it above the road'. In case of adultery, there is no punishment for men but women are punished. Seventy five percent of the social practices are based on traditional customs, only about 25 percent have changed.

Mrs. W. Ritse, DPRO, said that the customary practices that allow women no inheritance rights should be discontinued as it is discriminatory towards women.

11.8 ECONOMIC INEQUALITY

The Deputy Commissioner Phek, *Mr. Mikha* Lomi said that women are the backbone of the family. Without policy making powers women would not be able to contribute to the larger economic interest of the community. Their contribution would be more for family sustenance. Hence, there is a need to involve women in policy making for larger economic development. Many men are addicted to alcohol and spend a major portion of their salary on themselves. While women spend their resources entirely for the family. They have more stamina and spend their time in reproductive household works without sufficient rest time.

Mr. W. Krome, SP, Phek agreed that women were the backbone of the economy. Besides going to fields everyday, on return they continue to do household reproductive works. They also sell the surplus farm produce. Thus, the contribution of women towards the family's sustenance and to the economy should be acknowledged.

11.9 NATURAL RESOURCES

All the participants in the sectoral discussions agreed that both men and women use land and landed resources in different ways for meeting the livelihood needs as well as for generating income. However, there is inequality in the distribution of landed resources between men and women.

On the issue of sharing of acquired landed property between men and women, *Mrs. W. Ritse*, DPRO, said that acquired property should be shared equally between sons and daughters which was also supported by Mr. Mikha Lomi, the Deputy Commissioner Phek.

11.10 SOCIAL INEQUALITY AND UNPAID WORK

The household works done by women are invisible, unaccounted and repetitive in nature. In the discussion on unpaid household works, all the participants agreed that reproductive works should be shared equally between men and women since both men and women need quality time for themselves.

On wage disparity between men and women, *Mr. Khuvetso*, Dobashi of Deputy Commissioner's Office, Phek agreed that equal pay for equal work should be enforced without gender bias.

11.11 EDUCATION

On quality of education imparted in government schools, both *Mr. W. Krome*, SP and *Mr. Mikha Lomi*, DC, Phek stated that government schools in urban sectors impart quality education but in rural areas that is not the case. Work culture in government institutions in the rural areas is deplorable. Although teachers are paid salary for thirty days, some teachers work only for a few days. Contrary to this, private school teachers work sincerely without any job security and with less pay. Thus, government should enforce 'no work no pay policy'.

11.12 HEALTH CARE

On health care, *Mr. Mikha Lomi*, DC, Phek opined that the health care facilities in the district were not satisfactory. Facility for child delivery was not up to the mark, most medicines were unavailable and health care providers were not always available.

On HIV and AIDS, *Mr. Khuvetso*, Dobashi of Deputy Commissioner's Office, Phek said that he himself was not aware about the mode of HIV and AIDS transmission.

11.13 DOMESTIC VIOLENCE

On domestic violence and rape cases, *Mr. Mikha Lomi*, DC, Phek said that the severest punishment should be awarded to rapist and perpetrators of violence.

Mr. W. Krome, SP, Phek avered that in other societies, rapists are awarded rigorous imprisonment with a lot physical labour. But in Nagaland, prisoners are provided free food without having to do any manual labour. In a way, the criminal India Penal Code is not suitable in the Naga context. If a rapist commits the crime repeatedly, stringent action should be taken to the extent of even severing certain parts of his body.

11.14 CONNECTIVITY AND INFRASTRUCTURE

Er. Vineizo, Executive Engineer, PHED, Phek stated that internet facilities do not function properly due to constant power failure. He said that most of the work charged employees were availing Voluntary Retirement Schemes and therefore there were only a small number of employees attending to duties.

Mr. Nukhosa, Junior Engineer, Department of Power, Phek highlighted the shortage of staff in the Department of Power in Phek district.

Mr. Dunoh Trakgha, Lower Division Assistant, Department of Power, Phek stated that shortage of staff adversely affects maintenance of the power lines or power grids.

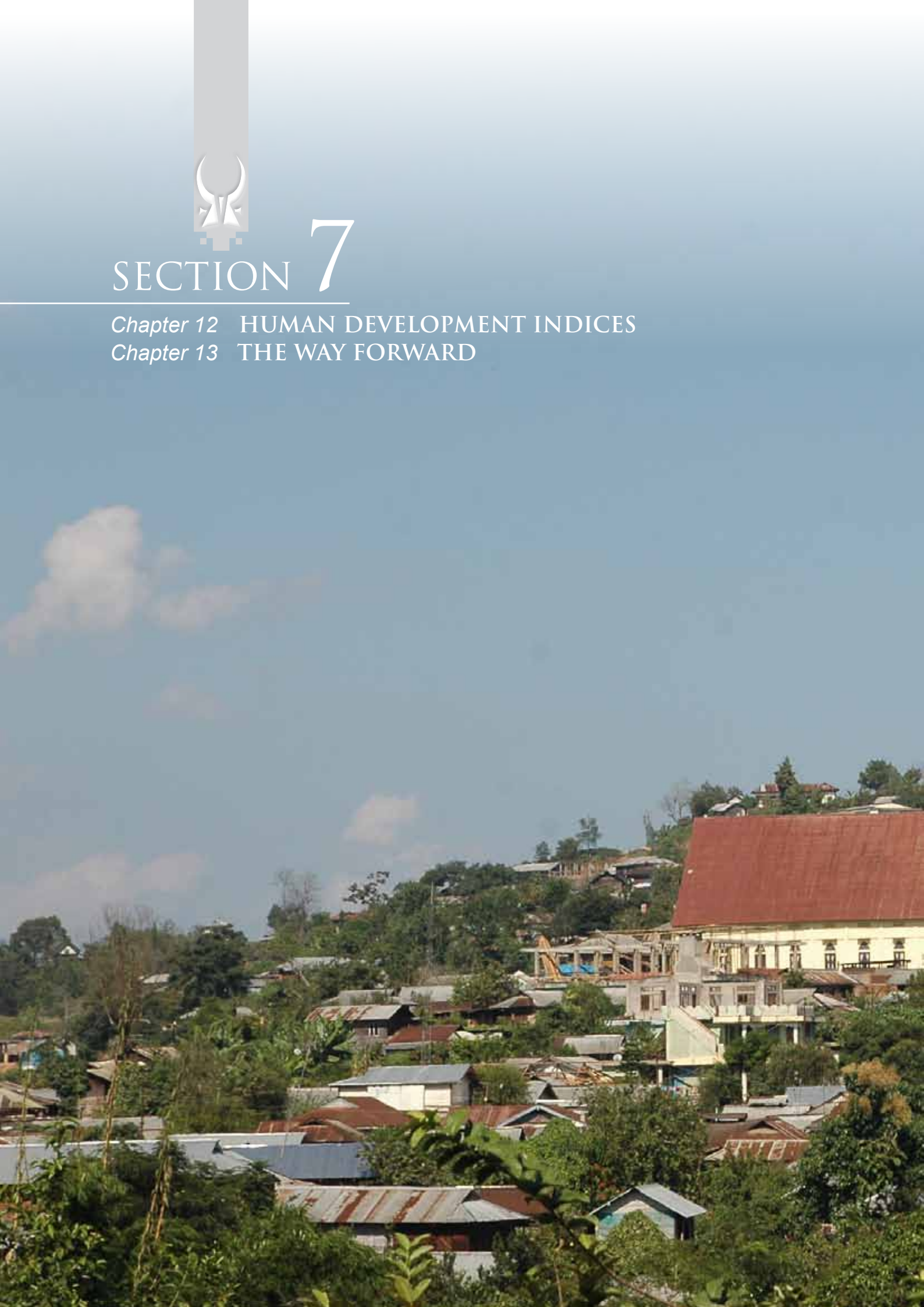
Mr. Bendang Longkumer, Motor Vehicle Inspector, District Transport Office, Phek said that since there was only one Government bulldozer for the entire district, it takes time to clear the roads during landslides. This adversely affects communication with other parts of the State. He expressed satisfaction with the public transportation system and the bus services. He also mentioned that due to bad road conditions, registration of commercial vehicles was less.

Pat Keyhie, Urban Development Officer, Department of Urban Development said that most of the roads connecting villages are unmetalled (kuccha) and need to be metalled.

All the participants highlighted the absence of road connectivity to Moki village under Phek district. The participants also highlighted the shortage of manpower in the Department of Power which adversely affects the repair and maintenance of the power lines during power breakdown.

The list of participants in this sectoral discussion is in appendices.

SECTION 7



IN CONCLUSION

In the concluding section two things have been done. One, based on published data and on our own estimates we carry forward from Nagaland's Human Development Report, 2004 to see how the various indices have changed for Phek district. Second, we bring together the findings of the research and consultations to outline a possible forward looking vision for the district of Phek. This might serve as a useful policy document for administrators and policy makers for future district planning.

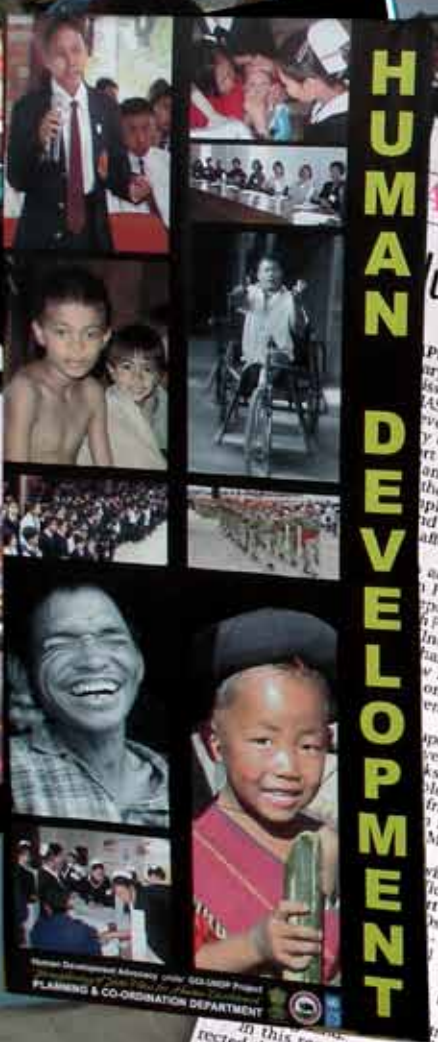
View of Meluri Town


SENSITIZATION PROGRAMME FOR VILLAGE LEVEL FUNCTIONARIES ON HUMAN DEVELOPMENT
under UNDP-GOI Project
Recruitment of JCO (Army) as Pandit
Sensitization on human development underway
Volunteers for peace
'Strengthening of State Plans for Human Development'
What is Human Development?
How do the Human Development Goals relate to the Millennium Development Goals
What is Human Development Index?
HUMAN DEVELOPMENT

SECTION 7

CHAPTER - 12

HUMAN DEVELOPMENT INDICES



12.1 INTRODUCTION

The Human Development Report for Nagaland for 2004 (HDR 2004) indicated that Phek was among the low performing districts of the State. Hence, in this report we have tried to see how the district of Phek has changed in terms of the quantitative improvement made 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 have 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 revision.

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 (GDP) 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 level 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 METHODODLOGY

Our principal data sources are the Census 2001, Statistical Handbook of Nagaland (various issues) and district wise data on 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 sources; the Census of 2001, Directorate of Education and Directorate of Economics and Statistics (DES). For the data on enrollment for 2001 and 2009 we have used data supplied by the DES. For the population in age group of 16-18 years we used the Census figures for 2001 to get the Gross Enrollment Ratio for 2001. We assumed that the break up of population in age group of 6-18 years for males and females is the same as 2001 in working out the numbers for 2009. The total population in the age group of 6-18 year for 2009 is obtained from the projections supplied by Indicus Analytics Private Limited.

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 per capita Net State Domestic Product (NSDP) of 2005-2006 (indiastat.com or Statistical Handbook, Government of Nagaland) for Nagaland by taking State Cumulative Growth of Agricultural Product (CGAP) from data provided by Indicus Analytics. We then assumed that agriculture accounts for 30 percent of district income to estimate the District Domestic Product (DDP). 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 questionnaire 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[17] 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 1995-1997. 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).

We would like to express our 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 Phek district.

[17] *The United Nation Software Package for Mortality Measurement*

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 Analytics, Male Work Participation Rates for 2008-2009 were calculated by subtracting female work participation rates from 1 (one). 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 1991 and 2001). In case of absolute numbers, compound annual growth was used to make estimations for the years 2001 and 2009. However, since 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 people 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 of India 2001 data was used for proportion of population living in kutcha house proportion of population without own toilet.

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 Phek district have been revised due to the updation of data with 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 2001 data. Additionally, the methodology for recalculating the indices remains the same as that mentioned in the HDR 2004.

Box 12.1. Development Indices for Phek

	HDI	Rank	GDI	Rank	HPI	Rank
Published Indices for 2001 as given in HDR 2004*	0.65	5	0.45	4	40.88	6
Revised Indices	0.67	2	0.55	3	40.67	6

**Source: Nagaland Human Development Report 2004*

Some explanation is necessary to explain the change in the recalculated indices for 2001. The change in the indices is explained by the replacement of data used in the earlier calculations by updated data from Census and revised DES data. 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 for the Phek district.

12.3.5 INTERTEMPORAL COMPARISONS

Over the period of analysis, the GDI has shown an increase for Phek district in absolute terms, but the relative rank has shown a decrease. This can be attributed to the general increase in the development levels in the State. Also, interestingly, the HPI has shown a remarkable improvement in absolute terms. This progress has also reflected in the change of relative rank of Phek. It has advanced from being one of the districts in the lower band of the State (sixth rank in 2001) to being one of the better performing districts, with respect to poverty alleviation. The figures for GDI have also shown an improvement, both in relative rank terms as well as absolute terms.

Box 12.2. Intertemporal Comparisons

Year	District	HDI	Rank	GDI	Rank	HPI	Rank
2001*	Phek	0.67	2	0.55	3	40.67	6
2008	Phek	0.62	3	0.57	2	25.66	2

**Source: Nagaland Human Development Report 2004, Census of India 2001*

The perceptible improvement in HPI can be attributed to progress in specific indices. The numbers for the index measuring the proportion of children denied medical facilities has shown an improvement and this same trend is noticed in the index measuring the proportion of people living in kutcha houses and the index measuring the proportion of people with no access to toilet facilities. One reason for this could be the difference in the data sources used in estimating these indices in the two years. In case of the index measuring the proportion of people living in kutcha houses and the index measuring the proportion of people with no access to toilet facilities, the data has been sourced from the DHDR Sample Survey 2004 and in case of 2008, census figures have been taken. However, it would be wrong to attribute all the increase to changes in data sources and it would be reasonable to conclude that living conditions in terms of types of houses, access to toilets and health provisioning has shown some improvement over the years. This seems to be also reflected in improvements in the economic conditions as shown by the improvement in the HDI. However, this improvement seems to have been insufficient to raise the relative status of Phek in relation to other districts of the State.

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 and also recently released Census data. Hence, the only reasonable conclusion seems to be that Phek's status in terms of all indices seems to have improved over time. This seems to be especially true in terms of provision of shelter and health facilities. However, this does not seem to have been sufficient to raise the relative standing of the district in the State.

SECTION 7

CHAPTER - 13

THE WAY FORWARD

THE WAY FORWARD

Like some of the other districts of the State, Phek too has a relatively recent history of economic development. The first is perhaps, that the British administration did not penetrate the areas of the district as it did in the neighboring areas of Kohima. There is very little record of the spread of education or religion in the areas; and most of the development activities appear to have taken place only after the post independence period. Further, perhaps due to the poor connectivity and remoteness, Phek district was probably the most involved, and at the same time, most severely affected by the Indo-Naga conflict in the fifties. Given such a background, the people of Phek have probably taken longer to become part of the modern process of development. In fact, the tribes of the district were regarded among the backward tribes of the State and included in the reservation policy of the State government, along with the tribes of the erstwhile districts of Tuensang and Mon.

A look at the present human development indices for Phek shows, that it has been one of the middle level districts in terms of the Human Development Index (HDI) and the Gender Development Index (GDI). However, the actual difference in the indices for the district as relative to the more developed districts like Kohima, Mokokchung and Dimapur are only marginal. Comparison of these indices, over the period 2001 and 2008 indicates, that Phek has maintained its relative position, viz a viz, the other districts in this respect.

"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

The most remarkable change in the indices for Phek over the period 2001 and 2008 are reflected in the Human Poverty Index (HPI). Here, Phek's relative standing has jumped, from being near the bottom in 2001, to being second only to Kohima in this regard. The HPI reflects changes in poverty levels, immunization rates and availability of basic services like water and toilets. A closer look at the indices show, that the main factors behind the jump, in the rank of Phek, have been the success of its program of immunization of children and the fact that the access to water supply for the people is superior, to even than that of Kohima district. Furthermore, there has generally been an improvement in the provision of basic services like housing, toilets etc., which has pushed the HPI index of Phek to almost being the highest among all the districts of Nagaland.

Phek has also maintained its relative ranking, viz a viz, the other districts, in the HDI and GDI. In the case of the HDI, one important change in Phek has been the dramatic improvement in the educational level of its inhabitants. The Chakhesang tribe is now vying with the advanced tribes for placements in various high end jobs in the government and elsewhere. In fact, such improvements have led to the demand, that the members of the Chakhesang tribe of Phek be segregated from the still relatively backward tribes of Tuensang and Mon district. The reservation policy of the State has since been reviewed and the percentage share of reservation changed for the tribes of Phek district. In that sense, the tribes of Phek are slowly shrugging off their image of backwardness and developing at equal pace with the other more advanced tribes of the State.

"Phek is one of the most progressive districts in the State"

Shri. Neiphiu Rio
Chief Minister of Nagaland

Though it is well developing and is a relatively prosperous district, Phek is predominately a rural district with 91 percent of its population living in rural areas. In addition, about 75 percent of main workers derive their livelihood from the agricultural sector. To that extent, the industrial sector is virtually non-existent in Phek. The dominance of rural workers is also made possible by the low density of population: actually the lowest in the State of Nagaland. It would not be too wrong to state that Phek is one of the dominant agricultural districts of the State.

Given the dominance of the rural work force and the preeminence of the agricultural sector of the district, it is clear, that it is here the immediate developments must be targeted. The way forward for Phek, economically, must lie in the agricultural sector. In one sense, the structural nature of the land use in the district indicates, that the development paradigm for Phek must be somewhat different than the highly urbanized districts like Kohima.

The main inputs into agriculture are labour and land. The labour force of Phek is known to be strong and very hard working. Further, the Chakhesang tribe in particular, has mastered the art of TRC (Terrace Rice Cultivation), which has been developed even on 60 percent slopes in certain areas. The terrace cultivation is further associated with water management systems that is traditional, but amazingly scientific. Despite torrential rains and even during cloud bursts, which cause landslide and flash flood effects in many parts of the State, there is very little report of such happenings in

the terrace cultivations of Phek district. Side by side, with the wet terrace systems of cultivation and water management, the district has been the pioneer in the development of paddy cum fish culture.

The people of the district are also very conscience of self-reliance and self-dependence. The district has banned the import of pigs into the district for the last few years. Although they initially faced some problems, the determined efforts had eventually paid off and the district is on its way to self-sufficiency in pig production. This is an example that the other districts of the State could emulate. This is mentioned only to bring into focus, the mature and determined attitude of the people of the district in respect to their own development.

With such a background, however, the highly developed TRC with very favourable land-man ratio has created two problems. First, the agriculture production methods remain traditional and there is little movement for improvements through modernization of practices. As a result agriculture is still subsistence oriented, with the dominance of paddy cultivation. Secondly, since the basic food security is maintained through terrace cultivation, the attitude to jhum system of cultivation is not as serious, as compared to the other northern tribes that rely entirely on jhum for their agriculture. The people of the district, thus, indulge in random burning of the forest under the mistaken belief that it leads to better re-growth. There is also the belief that such practices enhance hunting opportunities. This has actually led to a considerable loss of bio-diversity in the jungles. The CPO (Chakhesang Peoples Organization), realizing the dangers, has taken various steps to check such practices. Such efforts of the civil society needs to be assisted and encouraged, as the conservation and preservation of the ecology and the environment of the district is another strong area for its development.

"Socio - economic empowerment of women is of vital importance"

Smt. Sano Vamuzo
Chairperson,
Nagaland State Women Commission

The easy availability of land has implied, that not much attention is being paid to increasing the productivity of land. The data indicates that increase in production has taken place by extending the margin of cultivation rather than increasing productivity. Between 2001 and 2007, the paddy yield has remained constant at around 1.63 tonnes per hectare. This is, by and large, is true for other traditional crops. Some productivity increase does show up in pulses and other cereals. Efforts should therefore,

begin by ensuring that productivity is increased, particularly in paddy through better practices. There could be some research to see whether the upland terrace rice paddy varieties could be improved for higher yield; and also to see whether shorter duration crops can be introduced. There could also be more research to see how the fallow lands, after harvest, can be put to more productive use. These exercises must be made, as the main focus of the district in the near future must lie in moving cultivation away from subsistence farming to a better mix of basic and commercial crops.

As productivity increases, farmers may be encouraged to shift to other commercial crops such as horticultural crops, especially passion fruit, cardamom etc., in which many farmers of the district are already taking up quite well. The farmers of the district are also becoming aware of the potentials of medicinal plants and the possibility of developing it as an economy. While there are some progressive farmers who are trying to develop protocols to cultivate the erstwhile wild herbs and plants like Taxas Baccata, there has also been the inroads of unscrupulous traders from Myanmar and Manipur, who have randomly purchased the 'Paris Polyphalia', almost leading to its extinction. Phek too has further suffered rampant and random felling of trees primarily because of the abundance of timber in its forest areas. It was especially acute in the Pokhungri area of Meluri, especially during the late eighties and early nineties, when the mineral roads were developed by the Border Road Task Force (BRTF) through the North Eastern Council (NEC). The way forward now lies in tapping the non-timber forest wealth of the district. The people of the district have to be educated, not only on how to exploit but at the same time on how to preserve and cultivate and thus make optimum use of such wealth of their land. Proper directions should be evolved to develop them into an economy. Here, the way ahead suggested is a proper mapping of the bio-diversity available and demonstration of its potential to land owners. Other non-land based activities related to land as also the forest, could be dairy farming and Mithun farming for which there is a large scope in view of their large reserves of forest like the Zanibu range.

The shift to commercial farming will entail development of post harvest management abilities of the people such as in the areas of storage and preservation technology, marketing, transportation and processing as without this, any commercial agricultural activity would be futile. Some entrepreneurs of Phek district have taken the lead in some form of processing, such as drying of cardamom, preserving Naga King chilly etc., but the efforts are still few and far in between. While the State has been playing some role in promoting such activities, for successful post harvest activities it is crucial to involve the private sector. But even for this, at the current development of the State of Nagaland, it is unlikely to happen without active State intervention.

Outside agriculture and rural occupations, Phek's other natural advantages lie in three other areas and give some indication of the way ahead for Phek. The three areas are mining, tourism and trade.

Phek is endowed with abundant natural beauty. There are three major rivers passing through the district and there are also three picturesque lakes including the famed Shilloi lake located in the district. The district also has the legendary Zanibu range, with its vast area of primary forest, making the district very rich in diverse flora and fauna. Given the low density of population in Phek and its natural beauty, the district could be a natural destination for adventure and eco tourism. The potential is further heightened by the strong and colorful traditional life that still prevails in the district. These have to be developed in a rational manner with the necessary infrastructure. Here too, the capacity of the private sector will have to be developed. An area worth examining would be community based tourism activities, in which, people from the district seem to excel.

Phek has large natural deposits of limestone and marble, which suggest that mining activities and relative industries, such as cement factory and decorative stones, could begin in a big way. Here, given that most land is privately owned, in planning the way ahead for Phek, the State has to ensure that the kind of 'coal mining', that has devastated Mon, should not recur in Phek. The exploitation of its minerals should be undertaken with care and the promotion of the private sector should be undertaken in a controlled manner.

Phek is the natural geographic location that can connect Dimapur; the road, rail and air head, of not only Nagaland, but the entire North East, with Myanmar. Avangkhung, close to Leyshi in Myanmar, has already been recognized as an international border trade point. So also Molleh, close to Pansat in Myanmar, is seen as another potential trade points. When these centres are developed, the international trade that will pass through the district will dramatically change the economy of the district. It is therefore necessary to give priority attention to the development of the necessary infrastructure for this activity.

Central to any development paradigm, is the state of infrastructure, and in the case of Nagaland, it is roads. In Phek, the road length per hundred square kilometers is 80.9 kms, which is slightly more than the all Nagaland average of 80.7 kms per hundred square kilometers. This implies, that the total road length in Phek district is better than some other parts of the State. Yet the quality of these roads are poor and most of the roads are not all weather roads. Proper surfacing of these roads is crucial to delivery

of all services and crucial to economic development. Further, due to some reasons, the road connectivity of the district is peculiar, in that, the connectivity of the district seem to have been determined more by need to connect its neighbouring areas, rather than its own economic requirements. The main roads passing through the district are the Zunheboto- Kohima road and the Kiphire-Kohima road, both of which have been constructed under the aegis of the Border Road Organisation. Neither of them pass through Phek, the district headquarter, and thus, the connectivity to its own district headquarter from other places of the district is very poor. It is also peculiar, that a large section of the district, comprising Meluri sub-division, is connected to the rest of the district through a road passing through Manipur. The economic transaction is very low on this route at present and there is no visible bottleneck. But we can imagine the confusion that will arise, when major goods involving minerals, as also those pertaining to international trade, have to pass through this road.

There is therefore, a need for proper planning of the road linkages of the district in order to rationalize the economic activity, and thereby increase the wealth of the district. The present Phek – Pfutsero road, under the SRDP-NE, is one good move in the direction towards the connectivity of the western part of the district with the district headquarter, that will also shorten the distance between Phek headquarter and the State capital Kohima. The next important linkage will be a road that connects Phek headquarters with Meluri, without crossing Manipur. This road will not only shorten the distance to Meluri area, which is the mineral belt in the district, but will also facilitate international trade to move smoothly, without the problems of too many check points in between. This will also benefit the people of Kiphire area.

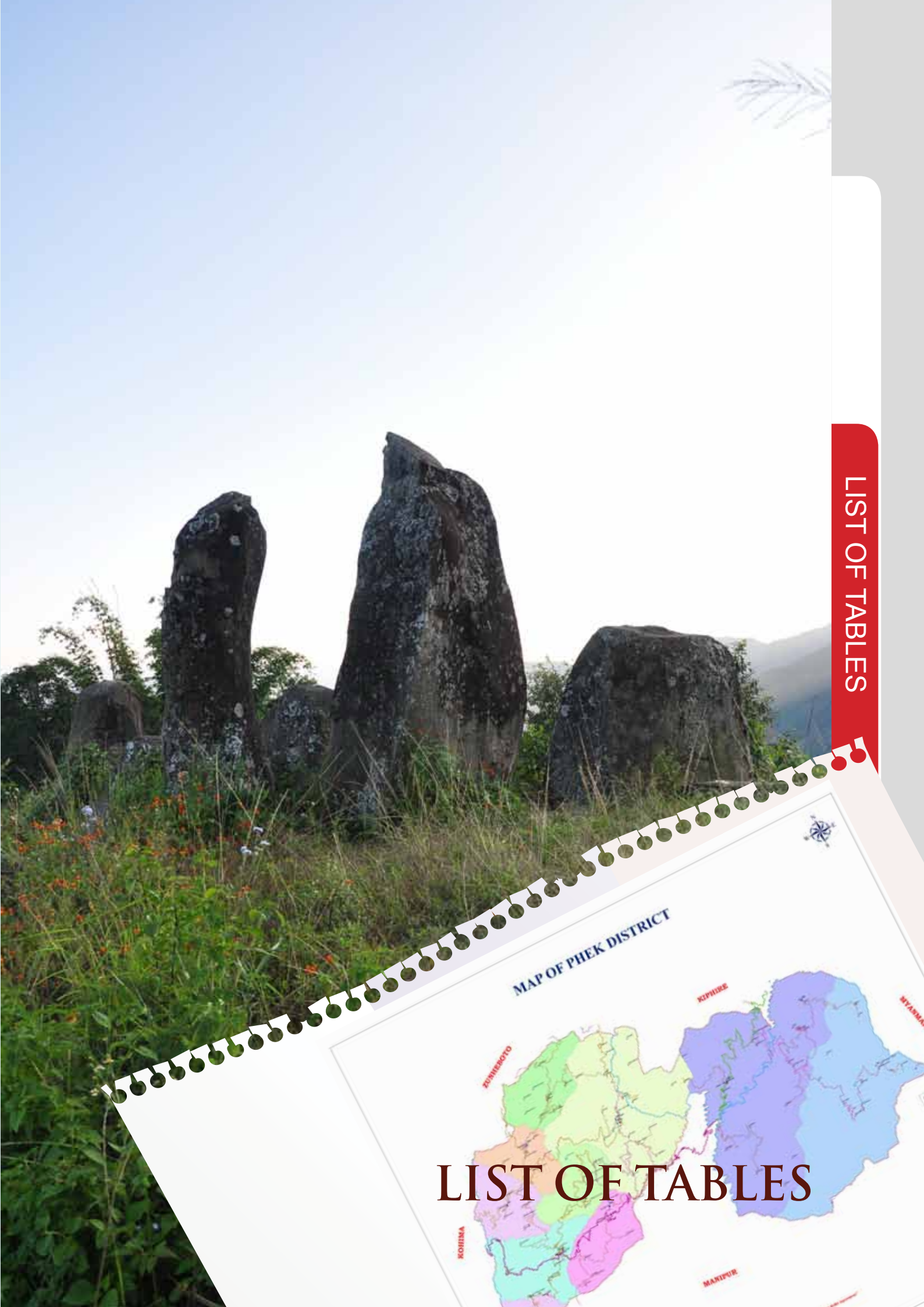
It would be safe to say, that the quality of life in Phek district has progressed enormously since the beginning of this decade, and the people there are, in some sense, even better off than those of more prosperous districts like Kohima. However, the way ahead lies in determining areas of improvement. Thus, while health services are reasonable, our survey indicates, that these services are better in the relatively smaller urban areas. In rural areas, the main problem lies in the health infrastructure and the availability of specialized care, for which residents still have to travel to Kohima. One aspect, which the district can start thinking on, is the promotion of the private sector in some of the essential services like education and health care.

This directional change, or the promotion of the private sector, is necessary, as the problem of employment becomes an issue. While the education sector has progressed satisfactorily, the main source of employment is still the Government sector. Unless other options open up quickly, as the Government employment opportunities dry up,

social tensions would emerge that will affect the stable manner in which the district has been progressing. Such changed approach is necessary for the whole State and Phek district should lead the way in adapting to the new paradigms that are emerging. It would also be necessary to see, that the kind of education sought by the youth of the district, conforms to the development paradigm chosen for the State, such as technical education in areas like engineering, soil sciences, dairy science etc. It is necessary, in planning for the future, to see that this is kept in mind, or else the problem of educated unemployed will become as problematic as in the neighbouring districts like Kohima.

For the improvement of services in the social sector, it is important to realize, that delivery of services in Phek, as in other parts of Nagaland, depends crucially on the success of the flagship communitisation program of the State. Here, Phek has distinct advantages over the other districts. The two successful community-based programmes in Nagaland were started here. The Village Development Board (VDB) was started at Kütsapo Village in 1976 and was implemented throughout Nagaland by 1980 as the crux of all Rural Development programs. The communitisation of public institutions and services is an offshoot of the success of the VDB that had its roots in Phek. Now that the communitisation program has been extended to areas like education, health services, power, water supply and sanitation, it is necessary to see its appropriate implementation in the district, through closer monitoring and supervision.

In conclusion, the way ahead for Phek lies in building on the relative prosperity that already exists. A development paradigm, based on developing the agriculture sector, along with developing the inherent strengths of the district in areas such as in mining, tourism and trade. Such processes have to be augmented by well planned infrastructure, especially roads, that should eventually pave the way for the emergence of entrepreneurship and a vibrant private sector. In such a manner, it is envisaged that the district will progress and grow economically to become a leading district in Nagaland.



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CHAPTER-1

PROFILE

Table No.1.1. Basic Profile of Phek District

Area	2026 Sq. Km
Total Population (Census of India 2001)	148245
Density of Population	73 per Sq. Km
Sex Ratio	923/1000
Total No. of Households	28874
Total No. of Villages	104
Total No. of Towns	1
Live Birth Rate	36.24
Infant Death Rate (Per 1000 Population) (2006)	3.45
Death Rate (Per 1000 Population) (2006)	8.43

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)
Phek	T	148246	77082	71164	923
	R	135383	69773	65610	940
	U	12863	7309	5554	760
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.

CHAPTER-2

AGRICULTURE

Table No.2.1. Agricultural Land Use in 2001

Category	Nagaland (Area in Hectares)	Phek (Area in Hectares)	Percentage Area of District to State's Total
Total Jhum Area	917087	52660	5.74
Current Jhum Area	131349	21054	55.19
Terrace/Wet Rice	75988	15561	40.79
Horticulture Crops	15450	1533	4.01
Total Area (Excluding Total Jhum Area)	1139874	38148	11.70

Source: Department of Agriculture, Government of Nagaland.

Table No.2.2. Cropped Area *(In Percentage)*

Crops	Nagaland		Phek	
Cereals	2000-2001	2006-2007	2000-2001	2006-2007
a. Paddy	63.05	44.50	57.37	46.1
b. Other Cereals	21.91	24.91	23.06	28.74
Pulses	1.06	10.13	8.35	9.09
Oil Seeds	9.82	18.97	8.84	13.51
Commercial Crops	4.17	1.49	2.35	2.50
Percentage of Cropped Area to State's Total Cropped Area			18.01	19.07

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

Table No.2.3. Irrigated Area - Phek 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
Phek	14820	16850	14455	17400	175	1950
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. Work Force in Agriculture - Phek District

Sl. No.	Categories	1991			2001		
		Total	Male	Female	Total	Male	Female
1	Total Workers	46670	25206	21464	71620	37382	34238
2	Cultivators	35317	15156	20161	52094	23080	29014
3	Percentage Cultivators to Total Worker		42.91	-57.08		-44.3	-55.69
4	Agricultural Labour	179	119	60	1361	740	621
5	Total Agricultural Labour (2+4)	35496	15275	20221	53455	29635	29635
6	Percentage of Agricultural Workers to Total Workers	76.05	60.6	94.2	74.63	63.72	86.55

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

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Table No.2.5. Work Force in Agriculture - 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 heeled) (In Number)	Fertilizer Consumption (In Tonnes)	Fertilizer Consumption (In Tonnes)
	2004	2003	2001-2002	2005-2006
Phek	2	8	25.75	15
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 of Crops

(Area in Hectares; Production & Yield in Metric Tonnes)

Crops		Nagaland		Phek	
Cereals		2000-2001	2006-2007	2000-2001	2006-2007
a. Paddy	A	150400	164700	24650	20990
	P	230560	263520	40300	34620
	Y	1.53	1.6	1.63	1.64
b. Other Cereals	A	52274	92180	9910	13080
	P	72050	127580	13020	18490
	Y	1.37	1.38	1.31	1.41
Pulses	A	25500	37500	3590	4140
	P	20960	45000	2990	5030
	Y	0.82	1.2	0.83	1.21
Oil Seeds	A	23430	70210	3800	6150
	P	27100	63030	4170	5360
	Y	1.15	0.90	1.09	0.87
Commercial Crops	A	9940	5510	1010	1140
	P	50880	303680	10830	8330
	Y	5.11	55.11	10.72	7.30
Total	A	238534	370100	42960	45500
	P	367480	802810	71310	71830
	Y	1.54	2.17	1.65s	1.57

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		Nagaland		Phek	
Cereals		2000-2001	2006-2007	2000-2001	2006-2007
Paddy	A	63.05	44.50	57.37	46.13
	P	62.74	32.82	56.51	48.19
Other Cereals	A	21.91	24.90	23.06	28.74
	P	19.60	15.89	18.25	25.74
Pulses	A	1.06	10.13	8.35	9.09
	P	5.70	5.60	4.19	7
Oil Seeds	A	9.82	18.97	8.84	13.51
	P	7.37	7.85	5.84	7.46
Commercial Crops	A	4.16	1.48	2.35	2.50
	P	13.84	37.82	15.18	11.59

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

Table No.2.9. Percentage Share of Area and Production of Crops to Total Cropped Area and Production during 2001 to 2007

Crops		Nagaland	Phek
Cereals			
Paddy	A	9.51	-14.84
	P	14.30	-14.09
	Y	4.56	0.88
Other Cereals	A	76.34	31.98
	P	77.07	42.01
	Y	1.02	7.59
Pulses	A	1370.59	15.32
	P	114.69	68.22
	Y	46.34	45.87
Oil Seeds	A	199.65	61.84
	P	132.58	28.53
	Y	-21.93	-20.57
Commercial Crops	A	-44.57	12.87
	P	496.86	-23.08
	Y	978.56	-31.85
Total	A	55.16	5.91
	P	118.46	0.72
	Y	40.86	-4.89

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

Table No.2.10. Area, Production and Yield of Fruits in Phek 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
Apple	40	70	3.22	30	10	0.33	2.62	0.41
Pear	140	720	3.57	30	55	1.83	2.62	2.28
Plum	307	930	3.02	26	40	1.53	2.27	1.66
Peach			0	40	18	0.45	3.50	0.74
Orange	480	4800	10	327	160	0.48	28.63	6.65
Lemon	60	390	6.5	51	0	0	4.46	0
Pomelo	25	225	9	0	0	0	0	0
Pomegranate	20	120	6	0	0	0	0	0
Papaya	50	900	18	100	120	1.2	8.75	4.99
Banana	300	5400	18	128	500	3.90	11.20	20.80
Guava	100	1000	10	40	290	7.25	3.50	12.06
Mango	100	600	6	40	20	0.5	3.50	0.83
Litchi	50	250	5	0	0	0	0	0
Jack Fruit	75	450	6	0	0	0	0	0
Pineapple	320	8460	26.43	150	350	2.33	13.13	14.56
Passion fruit	348	2784	8	50	10	0.2	4.37	0.41
Grapes	0	0	0		0	0	0	0
Medicine & Aromatic	0	0	0	50	10	0.2	4.37	0.41
Mosambi	0	0	0	0	20	0	0	0.83
Others	430	2952	9	80	800	10	7	33.2
Total	3312	29890	10.89	1142	2403	2.10	0	0

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

Table No.2.11. Area and Production of Major Vegetables in Phek District (Area in Hectare; Production & Yield in Metric Tonnes)

Vegetables	2001			2007			2007	
	Area	Production	Yield	Area	Production	Yield	Percentage Share of Area to Total Area	Percentage Share of Production to Total Production
Potato	150	2040	13.6	830	7550	9.09	38.07	59.36
Sweet Potato	40	610	15.25	5	12	2.4	0.22	0.09
Cabbage	100	1400	14	20	41	2.05	0.91	0.32
Cauliflower	36	288	8	10	15	1.5	0.45	0.11
Brinjal	82	820	10	10	15	1.5	0.45	0.11
Chillies	100	900	9	110	180	1.63	5.04	1.41
Peas	40	260	6.5	10	70	7	0.45	0.55
Beans	330	1980	6	50	65	1.3	2.29	0.51
Ladies Finger	90	900	10	0	0	0	0	0
Tomato	82	1148	14	60	70	1.16	2.75	0.55
Ginger	244	3416	14	260	600	2.30	11.92	4.71
Garlic	127	1651	13	20	28	1.4	0.91	0.22
Radish	280	1400	5	20	15	0.75	0.91	0.11
Colocassia	188	2632	14	180	1000	5.55	8.25	7.86
Tapioca	375	3750	10	100	1000	10	4.58	7.86
Chowchow	188	2256	12	105	1040	9.90	4.81	8.17
Blackpepper	400	6000	15	0	0	0		
Turmeric	25	225	9	10	60	6	0.45	0.47
Tree Tomato	287	3444	12	20	158	7.9	0.91	1.24
Leafy Veg.	468	4690	10.027	300	200	0.66	13.76	1.57
Others	0	0	0	60	600	10	2.75	4.71
Total	3632	39810	10.96	2180	12719	5.83	0	0

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

Table No.2.12. Major Plantation Crops in Phek District. (Area in Hectare; Production & Yield in Metric Tonnes)

2001				2007		
Crop	Area	Production	Yield	Area	Production	Yield
Coffee	300	10	0.03	0	0	0
Cardamom	510	360	0.70	150	15	0.1
Cashew Nut	20	0	0	0	0	0
Areca Nut	5	0	0	0	0	0
Coconut	100	500	5	0	0	0
Total	935	870	0.93	150	15	0.1

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

Table No.2.13. Horticultural Crops (Area in Hectare; Production & Yield in Metric Tonnes)

2001				2007			Percentage Change during 2001 to 2007		
Crop	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield
Fruits	2743	2952	1.07	1142	2403	2.10	-58.36	-18.59	95.52
Vegetables	3632	39810	10.96	2180	12719	5.83	-39.97	-68.05	-46.77
Plantation Crops	935	870	0.93	150	15	0.1	-83.95	-98.27	-89.25
Total	7310	43632	5.96	3472	15137	4.35	-52.50	-65.30	-26.95

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

Table No.2.14 Ranking of Top Five Fruits and Vegetables in Phek District during 2007

Sl. No.	Production			Area			Yield		
	Fruits	Vegetables	Plantation Crops	Fruits	Vegetables	Plantation Crops	Fruits	Vegetables	Plantation Crops
1	Banana	Potato	Cardamom	Pineapple	Potato	Cardamom	Guava	Chowchow	Cardamom
2	Pineapple	Chowchow		Orange	Leafy Vegetable		Banana	Potato	
3	Guava	Colocassia & Tapioca		Banana	Colocassia		Pineapple	Colocassia	
4	Orange	Chilies		Papaya	Chilies		Pear	Tree Tomato	
5	Papaya	Leafy Vegetable		Passion Fruits and Medicine & Aromatic	Chowchow & Tapioca		Plum	Peas	

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

Table No.2.15. Livestock Production in Phek District

Livestock	1997		2003		Percentage Change during 1997 to 2003.	
	Number	Per Capita	Number	Per Capita	Number	Per Capita
Cattle	19252	0.18	13577	0.09	-29.47	-51.4
Buffaloes	1378	0.01	3104	0.02	125.25	125.25
Mithun	3996	0.03	4416	0.02	10.51	-23.84
Pig	28484	0.27	61261	0.41	115.07	48.20
Sheep	0	0	74	0	0	0
Goat	5380	0.05	6374	0.04	18.47	-18.35
Rabbit	6710	0.06	5942	0.04	-11.44	-38.97
Dogs	5103	0.04	8696	0.05	70.40	17.42
Fowls	279276	2.73	355713	2.39	27.36	-12.22
Ducks	7880	0.07	14318	0.09	81.70	25.20
Total	357459	3.49	473475	3.19	32.45	-8.72

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

Table No.2.16. 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.2.17. District Domestic Product for Agriculture in Phek 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)
Phek	29087.62	16914.02	18561.57	46869.79	11.84
Nagaland	235413.6	84338.99	12496.57	38277.73	14.21

Source: 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.2.18. 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.2.19. Agricultural Finance in Phek District *(₹. in Lakhs)*

District/ State	Agriculture Credit of All Scheduled Commercial Banks	Agriculture Credit of All Scheduled Commercial Banks Direct Finance	Agriculture Credit of All Scheduled Commercial Banks Indirect Finance	Agriculture Credit of All Scheduled Commercial Banks	Agriculture Credit of All Scheduled Commercial Banks Direct Finance	Agriculture Credit of All Scheduled Commercial Banks Indirect Finance
1	2	3	4	5	6	7
	March 2001			March 2005		
Phek	20283	20107	176	17349	17349	0
Nagaland	200088	186954	13134	298748	227616	28100
Percentage to Total	10.14	10.76	1.34	5.81	7.62	0

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 ₹ 5 Lakhs 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. District 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 Phek District in 2009

Occupation	Phek		Total	
	Rural	Urban	Rural	Urban
Farmer or Cultivator	888	56	4320	135
Daily Wage Earner	18	N.A.	24	39
Government Servant	213	131	71	1187
Business/Entrepreneurs	93	26	139	378
Others	42	44	137	417

Source: DHDR Sample Survey 2009

Table No.4.2. Types of Workers in Phek District in 2001

Workers	Phek
Total Workers	71,620
Main Workers	57,594
Marginal Workers	14,026
Non-Workers	76,626

Source: Census of India 2001

Table No.4.3. Urban Dwellings

District	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
Phek	113	144	N.A.	71	90	96	170	85	2
Nagaland	959	1148	49	517	756	883	1412	624	120

Source: DHDR Sample Survey 2009

CHAPTER-5

HEALTH

Table No.5.1. Health Indices

Sl.No	Index	Nagaland	National	National target for 2012
1	Infant Mortality Rate (IMR)	38 (NFHS-3)	57	30
2	Maternal Mortality Rate (MMR)	240 (ITSP)	289 (ITSP)	100
3	Total Fertility Rate (TFR)	3.7 (NFHS-3)	3.1 (NFHS-3)	2.1

Source: National Family Health Survey 2005-2006

Table No.5.2. Health Centres in Nagaland *(In Numbers)*

Sl.No	Health Centre	Total
1	Districts Hospitals	11
2	Community Health Centre (CHC)	21
3	Primary Health Centre (PHC)	86
4	Subsidiary Health Centre	27
5	Big Dispensaries	15
6	Sub Centre (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

Table No.5.3. Medical Professionals in Phek District in 2008 (In Numbers)

Sl.No	Man power	Phek	Nagaland
1	MBBS Doctors	14	396
2	Specialist	7	122
3	GNM Nurses	13	628
4	ANM Nurses/MHW	41	841

Source: Directorate of Health and Family Welfare, Government of Nagaland

Table No.5.4. Location of Health Units in Phek District in 2008

Category	Location	Location of Primary Health Centre	Location of Sub-Centre
Block I	Pfütsero CHC	Khezakeno	Zapami
		Zuketsa	Lekhromi/ Kami
		Razeba (N.F)	Pfütseromi
		Chizami	Chobama
		Thetsumi (N.F)	Zami
		Porba	Mesulumi
		Sakraba (N.F)	Gidemi
		Phusachodu	Pholami
		Kikruma	Rukizu
		Thiphuzu (N.F)	RD block
Block II	Phek	Lozaphuhu	Losami
		Khuza	Khomi
			Lanyi
			Phek basa
			Kotisu
			Sohomi
			Tehephu
			Ketsakono
			Sothotsu
			Chepoketa
			Metsale
			Ketsapo
Block III	Meluri CHC	Lephrori	Matikhru
			Reguri
			New Thewati
			Phokhungri
			Zipu
			Akhegow
			Hutsu
			Phor
			Laruri
Block IV	Chozuba CHC	Ruzazho	K Basa
		Chetheba	Thinyizu
			Chesezu Nawe
			Runguzu Nasa
			Runguzu Nawe
			Kheso
			Chozuba Village
			Phungi
			Sathazu Nawe
			Sathazu Nasa
			Phungi
			Sathazu Nawe
			Sathazu Nasa
			Sekrezu
			Khetsami
			T. Tsese
			Dzulha
			Thevopisu

Source: Directorate of Health and Family Welfare, Government of Nagaland

Table No.5.5. Medical Professionals in the Community Health Centres, Primary Health Centres & Sub Centres in Phek District (In Numbers)

Sl.No.	Name of the Post	Specialist	Required	GDMO's	Required
1.	Medical Officer	7	6	14	16
2.	Nursing Personnel	(BSc./MSc.)	-	-	-
	GNM	1(BSc)	5	13	26
	ANM			43	18
3.	Dresser			3	-
4.	Pharmacist/ Compounder			22	-
5.	Laboratory Technician			7	14
6.	Radiographer			1	2
7.	Dhobi			-	3
8.	Sweepers			8	2
9.	Chowkidar			8	-
10.	Peon			3	1
11.	UDA			-	3
12.	LDA			10	15
13.	ANM			18	-
14.	Health Educator			1	17
15.	Health Assistant (Female)			3	15
16.	Health Assistant (Male)			-	18
17.	Health Worker (Female)			27	17
18	Health Worker (Male)			11	30
19.	Driver			5	13
20.	Grade – IV			94	43

Source: Directorate of Health and Family Welfare, Government of Nagaland

Note: 1. GDMO : General Duties Medical Officers

Table No.5.6. Record of Diseases Treated

Total OPD Cases	44904
Total Communicable Diseases	26962
Total Non- Communicable Diseases	17941
Common Communicable Diseases	ARI & Diarrhoeal Diseases
Common Non- Communicable Diseases	Hypertension & Gastritis
Total Blood Smears Collected for Malaria Parasite	7884
Total No. of VDRL Positive Detected	70
Total No. of Leprosy Cases Detected	Nil
Total Deaths due to Malaria	2
Total No. with I.D. Related Diseases	Nil

Source: Directorate of Health and Family Welfare and Integrated Surveillance Bureau

Note: 1. VDRL: Venereal Disease research Laboratory
2. I.D. : Infectious Disease

Table No.5.7. Occurrence of Tuberculosis (Revised National Tuberculosis Control Programme)

	Population (In Lakhs)	TB Suspects	Suspects Examined Per Lakhs Population	Smear Postive Patients Diagnose	Percentage of Smear Test	Total Patient Initiated	Total Case Notification rate	NSP Patients	Annualized NSP Case Rate Percentage	NSN
Phek	1.6	660	419	78	47	154	386	62	155	20
State	21.8	8742		1344		2986		1176		751

Source: Directorate of Health and Family Welfare - Revised National Tuberculosis Control Programme (RNTCP), Government of Nagaland

Note: 1. RNTCP : Revised National Tuberculosis Control Programme
2. NSN : New Smear Negative
3. NSP : New Smear Positive
4. SM : Smear

Table No.5.8. Integrated Counseling and Test Centre (ICTC)

	Number of Clients Receiving Pre-Test Counseling Info.			Number of Clients Tested for HIV			Number of Clients Receiving Post-Test Counseling			Total No. of Clients Testing Zero-Positive (After 3 Specified Tests)			No. of clients receiving pre-test out of ANC registered.	Number of cases tested for HIV	No. of cases Diagnosed HIV+ve	No. of live births to HIV +ve mothers	Mother-baby pairs received nevirapine.	
	ICTC clients (excluding pregnant women)	ICTC clients Pregnant women	Total ICTC	ICTC clients (excluding pregnant women)	ICTC clients Pregnant women	Total ICTC	ICTC clients (excluding pregnant women)	ICTC clients Pregnant women	Total ICTC	ICTC clients (excluding pregnant women)	ICTC clients Pregnant women	Total ICTC						
Phek	1537	907	2444	1186	746	1932	1153	687	1840	17	6	23	907	746	6	3	3	
State	45521	16847	62368	43189	16348	59537	41685	14511	56196	1396	166	1562	16847	16348	166	130	121	

Source: Directorate of Health and Family Welfare & Nagaland State AIDS Control Society, Government of Nagaland

CHAPTER – 6

BASIC SERVICES

Table No.6.1. Actual Expenditure and Budget Allocation under ARWSP/PMGY/BMS in Phek District

(₹ in Lakh)

Actual Expenditure (2001-2002)		Budget Provision for (2002-2003)		Actual Expenditure (2002-2003)				Budget Provision (2003-2004)			
ARWSP	PMGY	ARWSP	PMGY	ARWSP	PMGY	BMS	Total	ARWSP	PMGY	BMS	Total
106.25	175.59	165.3	46.82	62.45	94.1	65.16	221.7	157.8	73.62	56.92	288.32

Source: Department of Public Health Engineering 2003-2004, 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 Phek 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	1734	67	102909	46	40465	119	145108	5	12	21	30	45	113

Source: Department of Public Health Engineering 2003-2004, Government of Nagaland

Table No.6.3. Status of Rural Water Supply in Phek District

Year	NC	PC	SB	FC	Total
April 2008	0	5	1	111	117
January 2009	0	5	1	111	117

Source: Annual Administrative Reports 2008-2009, Department of Public Health Engineering, Government of Nagaland
Note: 1. NC : Not Covered
2. PC : Partially Covered
3. SB : Slip Back
4. FC : Fully Covered

Table No.6.4. Total Sanitation Campaign Physical Progress Report in Phek District as on 19/02/2009

Individual BPL Household		Individual APL Household		Sanitary Complex for Women		School Toilets		Balwadi Toilets		Rural Sanitary Marts	
O	A	O	A	O	A	O	A	O	A	O	A
18742	3778	1160	0	11	3	155	31	89	0	2	2
	20%		0%		27%		20%		0%		100%

Source: Annual Administrative Report 2008-2009, Department of Public Health Engineering, Government of Nagaland

Note: 1. O : objectives
2. A : achievements

CHAPTER-7

EDUCATION

Table No.7.1. Literacy Rate of Phek District

Year	Phek District			Nagaland		
	Total	Male	Female	Total	Male	Female
1971	18.95	28.86	9.40	27.40	35.02	18.65
1981	37.99	49.09	25.27	42.57	50.06	33.89
1991	60.00	70.67	49.32	61.60	67.60	54.70
2001	70.31	78.37	62.26	66.59	71.76	61.46

Source: Census of India 1971, 1981, 1991& 2001

Table No.7.2 Educational Institutions in Phek District in 2008-2009

Sl. No.	DIS & EBRC	Villages/ Towns	Government Sector						Private Sector				
			PS	MS	HS	HSS	College	DIET & JNV	PS	MS	HS	HSS	Theological College
1	Chozuba	19	29	10	5	1	N.A.	N.A.	8	9	2	1	
2	Pfütsero	27	37	6	8		1	2	4	12	9	1	1
3	Phek	28	28	8	2	1	1	N.A.	1	6	5	N.A.	
4	Meluri	30	30	11	2	N.A.	N.A.	N.A.	1	2	3	N.A.	
5	Total	104	124	35	17	2	2	2	14	29	19	2	1

Source: Directorate of School Education, Nagaland Board of School Education, 2008-2009, Government of Nagaland

Table No.7.3. Status of Enrolment, Drop-Out and Completion Rate of Phek District and Nagaland (In Percentage)

Year	6-11 Age Group			11-14 Age Group			Completion Rate	No. of Primary Graduates	Transition Rate from Primary to Upper Primary
	GER	NER	Cohort Drop-out	GER	NER	Cohort Drop-Out			
Phek									
2005-2006	88.00	87.00	2.43	77.00	56.00	12.37			
2007-2008	113.00	96.54	14.60	71.00	65.25	10.40	78.00	3169	100.59
2008-2009	95.36	92.39	2.43	99.73	87.34	4.09	91.23	4323	95.61
Nagaland									
2005-2006	95.32	88.60	8.85	78.56	67.44	12.79	87.86	30690	81.46
2007-2008	108.00	89.00	7.40	90.65	82.00	8.20	84.97	34684	86.76
2008-2009	100.23	94.27	2.51	103.47	89.24	3.91	78.54	45704	89.24

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.7.4. Performance Levels of Children of Different Age-Groups

Activity	2006					2008				
	Phek		Nagaland		India	Phek		Nagaland		India
	Percentage	District Rank	Percentage	State Rank	Percentage	Percentage	District Rank	Percentage	State Rank	Percentage
Children (Age 3-4) or Pre-School	79.3	7th	79.7	15th	73.1	46.7	9th	70.5	23rd	76.4
Children (Age 6-14) Out of School	15.5	1st	5.0	13th	6.6	2.3	9th	4.5	10th	4.3
Children (Age 6-14) in Private School	28.2	5th	48.7	2nd	18.8	47.6	3rd	41.6	6th	22.5
Mothers (Age 17-55) Who Can Read	41.4	8th	58.8	13th	47.2	N.A.	N.A.	N.A.	N.A.	N.A.
Children (Std I-II) Who Can Read Letters, Words or More	95.8	6th	96.9	2nd	73.0	90.6	9th	96.3	5th	75.4
Children (Std I-II) Who Can Recognize Numbers 1-9 or More	90.2	8th	92.9	2nd	59.3	92.6	9th	96.3	6th	75.7
Children (Std III-V) Who Can Who Can Do Subtraction or More	70.7	6th	73.5	13th	65.1	77.2	4th	68.6	11th	54.9
Children (Std III-V) Who Can Tell Time of Both Clocks	N.A.	N.A.	N.A.	N.A.	N.A.	69.8	5th	70.4	6th	46.9
Children (Std III-V) Who Can Do Currency Tasks	N.A.	N.A.	N.A.	N.A.	N.A.	90.7	3rd	86.0	4th	73.1

Source: Annual Status of Education Report, 2006 & 2008

Table No.7.5. Children's Performance *(In Percentage)*

Item	Year	Class 4			Class 8		
		Boys	Girls	Total	Boys	Girls	Total
Phek	2004-2005	13.87	10.55	12.22	13.36	14.89	14.09
	2005-2006	34.62	14.95	21.38	12.94	11.55	12.24
	2006-2007	19.64	19.92	19.78	18.36	18.12	18.23
	2007-2008	22.35	24.07	23.21	24.18	24.83	24.49
	2008-2009	22.65	23.72	23.17	22.71	21.42	22.04
Nagaland	2004-2005	15.04	14.88	14.96	9.86	10.21	10.04
	2005-2006	14.98	14.94	14.96	13.66	13.41	13.53
	2006-2007	14.20	14.29	14.25	12.87	13.39	13.14
	2007-2008	19.71	21.70	20.74	18.12	18.41	18.27
	2008-2009	22.35	24.03	23.19	23.67	24.12	23.91

Source: District Information System on Education 2004-2005 to 2008-2009

Table No.7.6. Infrastructure Created under SSA

Sl No	Items of Work	Upto 2008-2009	
		Phek	Nagaland
1	GPS Construction	4	91
2	GMS Construction	8	80
3	Block Resource Centre	4	46
4	Additional Class Rooms	418	3402
5	Toilets	197	3122
6	Drinking Water Facilities	163	1179
7	Boundary Wall	158	1668
8	Electrification	24	239
	Total	976	9827

Source: State Mission Authority, Sarva Shiksha Abhiyan Report 2009-2010

Chapter-8

Gender Issues

Table No.8.1. Enrolment of Students in Nagaland and Phek during 2000-2001 and 2007-2008 *(In Numbers)*

Year	Nagaland/ Phek	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
	Phek	7630	7572	4674	4484	7285	6467	1585	1300	40997
2007-2008	Nagaland	162798	147991	66877	64348	17474	17387	10464	8785	461204
	Phek	12907	11987	5374	5300	1564	1406	224	116	38878

Source: Directorate of School Education 2001-2002, 2007-2008, Government of Nagaland.

Chapter – 9

Infrastructure and Connectivity

Table No.9.1. Road Network in Phek 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 Phek	Percentage of Total Roads in Phek to Total Roads in Nagaland	Total Road Length per 100 sq. kms
Phek	575.4	1063.2	1638.6	12.2	35.1	80.9
Nagaland	6225.62	7145.83	13371.45	100	46.6	80.7

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

Table No.9.2. Density of Road Network in Phek 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
Phek	575.4	1063.2	28.4	52.5
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 Phek District during 2005-2007

Sl. No.	Type of Vehicle	RTO Kohima	Total Registration Nagaland	Percentage of Registration in RTO Kohima to State's Total
1.	Transport Vehicles			
	Trucks & Lorries, Light Motor Vehicles (Goods)	128	4158	3
	Buses	12	197	6
	Taxis	4	283	1
	Light Motor Vehicles (Passengers)	0	0	0
	Total Transport	144	5086	3
2.	Non-Transport Vehicles			
	Two Wheelers	41	2862	1
	Cars	56	2647	2
	Jeeps	33	482	7
	Omni Buses	0	134	0
	Tractors	1	32	3
	Trailers	0	36	0
	Other Vehicles Not Covered	0	0	0
	Total Non-Transport	131	6231	2
3.	Government Vehicles	0	435	0
4.	Grand Total	275	11752	2

Source: Annual Administrative Report 2006-2007, Department of Motor Vehicles, Government of Nagaland

Table No.9.4. Performance of Village Electricity Management Boards in Phek District

District/ Nagaland	No. of Single Point Metering Villages	Total Billed upto March 2008 (₹ in Lakhs)	Total Collection upto March 2008 (₹ in Lakhs)	Percentage of Collection	Arrear (₹ in Lakhs)	Percentage of Arrear
Phek	50	46.44	32.3	69.55	14.15	30.47
Nagaland	552	816.06	543.83	66.64	272.23	33.36

Source: 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 Rupees	Monthly Billing Post-SPM in Rupees	Percentage Increase	20 Percent Rebate for VEMBs
Phek	581	720	24	1,031
Nagaland	2,41,302	4,48,534	86	1,11,656

Source: Communitisation of Electricity Management in Villages, Department of Power, January 2004, Government of Nagaland

Table No.9.6. Number of Telephone Connections

District/State	2000-2001	2001-2002	2002-2003	2003-2004	Percentage to Total During 2003-2004
Phek	960	1145	1661	1610	3.4
Nagaland	33052	38597	44647	47035	100

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

Chapter – 10

Forest and Natural Resources

Table No. 10.1. Forest Area of Nagaland *(Sq. Km)*

Description	Nagaland
Geographical Area	16579
Very dense forest	238
Moderate dense forest	5602
Open Forest	7881
Total	13719
Forest Area as % of Geographical Area	82.75
Changes (2005-2007)	-201

Source: Forest Survey of India (FSI), State Forest Report 2009, Government of Nagaland

Table No.10.2.Protected Forest Area in Phek District *(Area in Hectare)*

Shilloi	8,857.80
Sangtam-Kuki	8,401.97
Athumza	1,472.00
Chipoketami	2,000.00
Total	20,731.77

Source: Annual Administrative Report 2008-2009, Department of Forest, Government of Nagaland,

Table No.10.3. Area Under Forest *(Area in Hectares)*

Year	District	Total Forest	Reserved Forest	Proposed Reserved Forest	Protected Forest Accessible	Village Forest Degraded	Wildlife Sanctuary
2008	Phek	56593.26	N.A.	761.59	20731.77	35100	N.A.
	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.10.4. Ownership of Forest Area in Nagaland *(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 Phek

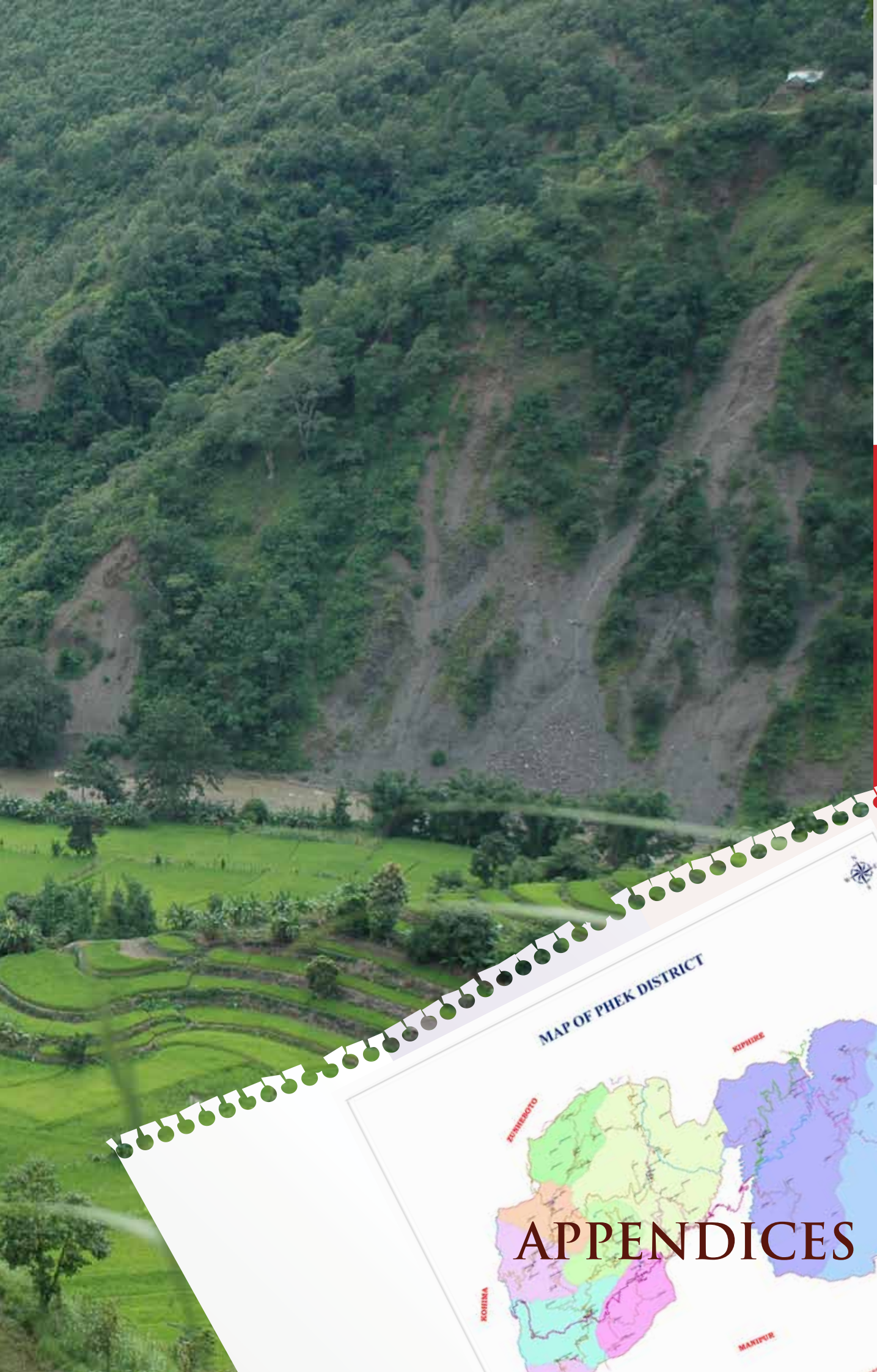
	HDI	Rank	GDI	Rank	HPI	Rank
Published Indices in HDR 2004*	0.65	5	0.45	4	40.88	6
Revised Indices	0.67	2	0.55	3	40.67	6

**Source: Nagaland Human Development Report 2004*

Table No.12.2. Intertemporal Comparisons

Year	District	HDI	Rank	GDI	Rank	HPI	Rank
2001*	Phek	0.67	2	0.55	3	40.67	6
2008	Phek	0.62	3	0.57	2	25.66	2

**Source: Nagaland Human Development Report 2004, Census of India 2001*


MAP OF PHEK DISTRICT
KIPHIRE
ZUNHEBOTO
MYANMA
KOHIMA
MANIPUR

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 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. Systematic random sampling is simple and widely known procedure of sampling technique. 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 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)
				≤75,000, (Code-1) ≥75,000≤1,50000, (Code-2) ≥150000≤30000, (Code-3) ≥3,00000, (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: BASIC 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: Ye s- 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: Ye s- 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, Non - 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 & 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 Each 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 ₹ 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 the item)		
1	Given a choice where would you prefer to settle down? *(Code: Rural - 1, Urban – 2)*		Code
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)

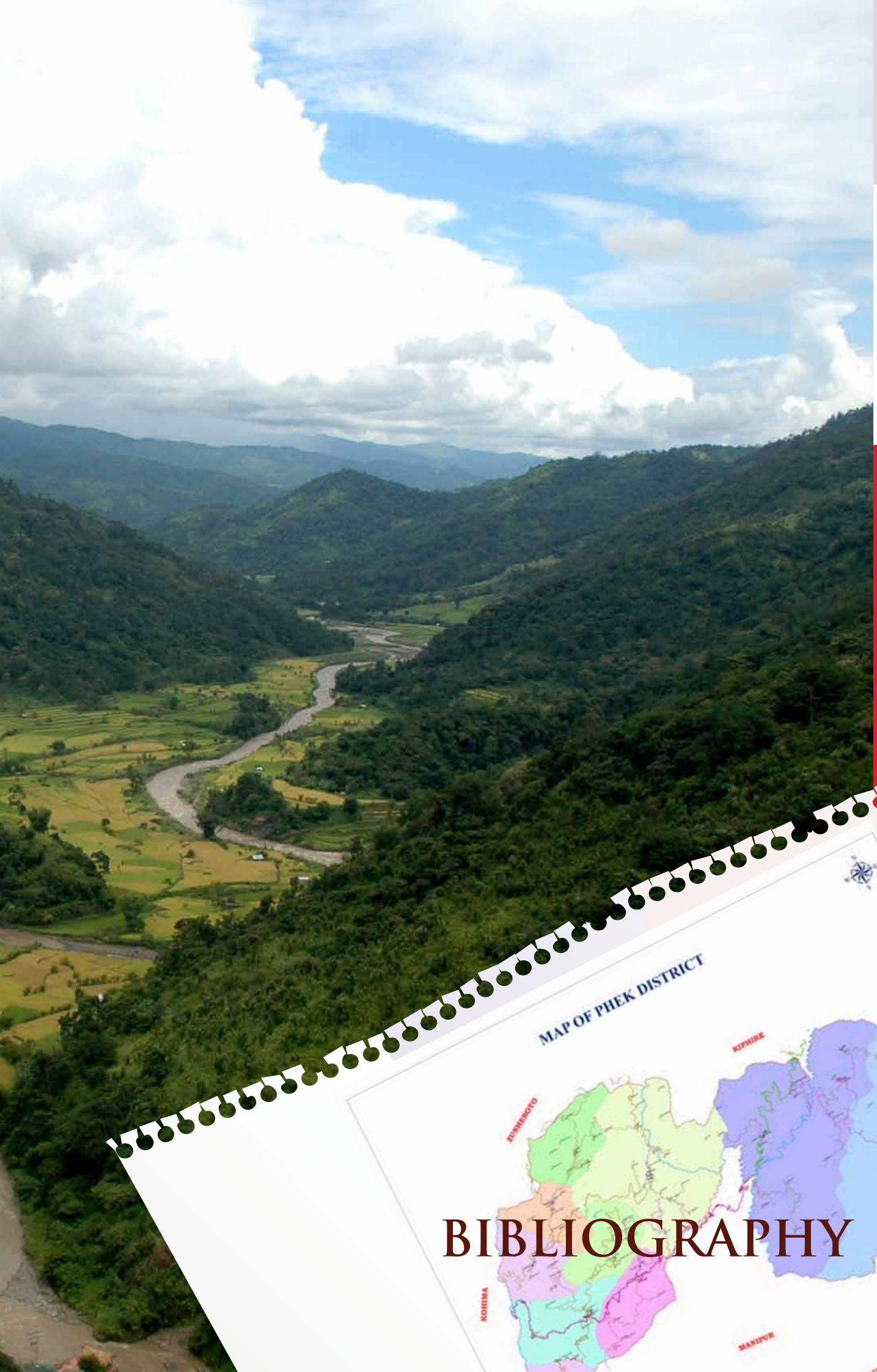
Sl.No.	Item (Give the Code as specified against each item)	Code
1	Status of the Dwelling Unit (House). (Code: Own House - 1, Rented - 2)	
2	Number of Rooms in the Dwelling Unit (House) (Code: Two Rooms - 1, Three Rooms - 2, Four & Above - 3)	
3	Use of Latrine. (Code: Exclusive Use of Household - 1, Shared with Other Household(s) - 2, Public/ Community Latrine - 3)	

2. PARTICIPANTS IN THE WORKSHOP CUM CONSULTATION ON PHEK DISTRICT HUMAN DEVELOPMENT REPORT 2009 HELD IN THE BADMINTON STADIUM, PHEK ON 9.10.2009.

Sl. No.	Name of the participants	Designation/Departments
1	Manoj Pant	Professor, Jawaharlal Nehru University
2	Kevileno Angami	OSD, Planning & Co-ordination Deptt.
3	Dr. N. L. Changkija	Medical Superintendent, Naga Hospital Authority Kohima
4	Dr. B. Kilangla Jamir	Associate Professor, Dept. of Economics, Nagaland University
5	Chozule Kikhi	Deputy Director, Horticulture Deptt.
6	Dr. K. Hoshi	Former Member of Nagaland Legislative Assembly
7	M.Tunyi	JIO, SIB, Phek
8	P. Keyhie	UDO
9	Tseibou Khusoh	Contractor
10	Dr. Mudozo	D.V.O Phek
11	Y. Sapu	D.C.O Phek
12	Dr. Imnapokium	District Hospital, Phek
13	Dr. Nephrezo	M.O, District Hospital, Phek
14	Renthungo Ngulie	UDA, Medical Superintendent's office, Phek
15	Keneigutuo Albert	DPM, CMO office
16	T. Lumchamo Lotha	DIO (NIC)
17	Dr. Neisakho	D.M.O, Phek
18	Dr. Tia Jamir	Medical Superintendent, District Hospital, Phek
19	Dr. Norbert Noraho	Principal, Phek Government College
20	Rev. D.N. Soho	Pastor, PTBC
21	V. Vero	Social Worker
22	W. Ritse	DPRO Phek
23	John Lohe	Joint Director, School Education
24	M. Phese	Citizen, Phek
25	B. Venuh	Lecturer, Phek College
26	VezhosaK.S. Anden	Lecturer, Phek College
27	M.J Angami	Scientist, NIC Phek
28	S. Nyekha	District Education Officer (Education)
29	Vilienu Nguzhu	DSCO, Phek
30	Veshietso	Inspector District Evaluation
31	Neposo	Project Director, DRDA, Phek
32	Er. V. Chakhesang.	EE-PHED, Phek
33	Mego Angami	SICS, Phek
34	N. Kenye	ARCS, Phek
35	Yibonsao Lotha	Employment Officer
36	Purazo Dozo	JSCO (Soil)
37	Vizovolie	HA (Soil)
38	Vekkhoveyi Venuh	President PDUCO
39	Khrulucho	SOS, Phek
40	Nuvechi	S.K Phek
41	Medongulie	UDA, ADS Office, Phek

42	Dr. Senowelo	VAS (Vety), Phek
43	Vecoyi	LDA, DVO
44	Pusanu	SO Sericulture
45	Yashimeren	Superindent, Sericulture
46	Enchi Longkumer	Vice Principal, ITI
47	Bendangtoshi	Station Superintendent NST
48	Bendang Longkumer	MVI (DTO)
49	Khruvazo Vero	Inspector, Home Guard
50	P. Chisapa	Office Assistant DEO
51	Mudorayi Heise	Vice President Chakhesang Students Union
52	Dunoh Trakha	LDA, PWD (Mech)
53	Shiekhozo	Inspector, LMCP
54	Tsuknungwati	Inspector, ARCS
55	T. Meren Jamir	ARCS
56	Avi Movi	President PTCSU
57	Vesavo	General Secretary, PTCSU
58	Imyulepdang	DHO Phek
59	Vesakholu	DHO Office
60	Mezolu	DHO Office
61	Kewelhiteu	DHO Office, Phek
62	Augustine M. Yanthan	DPO, Phek
63	Zarenthung	Under Secretary, Planning
64	James, A. Neikha	Planning Assistant
65	Wehi	DEO Office
66	Khreingu Thevo	Planning
67	Vikehienuo Zhasa	Planning
68	Virukrieto Mor	DRDA, Phek
69	Imlitongzuk	DRDA, Phek
70	Chizvohu Lohe	DB, D.C Office
71	Zacivo Chizo	DB, D.C Office
72	Shuthihi	OS
73	Keduwe	Inspector, DIC, Phek
74	Vechuhu	DB, D.C Office
75	Neihite	Graduate Teacher, GHSS, Phek
77	Hunepa	DB, D.C Office, Phek
78	Vesupra	DB, D.C Office, Phek
79	Nuchipa	DB, D.C Office, Phek
80	Zachizo Nienu	DB, D.C Office, Phek
81	Wemhelo	DB, Chizami, Phek
82	Zilhocie	Peon, Chizami, Phek
83	Khruvotso	DB, D.C Office, Phek
84	Khuksiyi	DB, D.C Office, Phek
85	Vezoshulu	LDA, D.C Office
86	Veshilu	Student, Phek
87	Vetulu	Student, Phek
88	Tsukhukiu	Student., Phek
89	A. Ritachu Thor	SDC, Electrical, Phek
90	Kilangmeren	DFO, Phek

91	Mapethi	DB, D.C Office, Phek
92	K. Kapfo	SDPO, Phek
93	Razouvolie Dozo	SDO Civil, Phek
94	Khunucho Khamo	DB, D.C Office, Phek
95	Bethel Lasuh	W.P, SP Office
96	Khruvonelu	W.P, SP Office
97	Vekhrivralu	W.P, SP Office
98	Chundano	W.P, SP Office
99	Aneikho Kotsho	LDA. SP Office
100	Lhunyizo	DPRO Office
101	Kinboi	LDA
102	Kuluthilu	LDA
103	Savelu	Peon
104	Kudupalu	LDA
105	Dzieno	Typist
106	Kewekonou Mero	LDA
107	Nusuvolu	UDA
108	Tsonulu	LDA
109	Yekhunulu	Citizen, Phek
110	Wetsu	Citizen, Phek
111	Vevolu	Citizen, Phek
112	Khrusalu	Citizen, Phek
113	Kezukha	Citizen, Phek
114	Lhiveso	D.C Office
115	Kuduveyi	D.C Office
116	Huvesuyi	LDA
117	Thepuchiyi	UDA
118	Posazo	Driver
119	Thuzu	Driver
120	Velasu	Driver
121	Kevenolu	LDA
122	K.Koza	Accountant
123	Kedutsho	I.A, Phek
124	H.R. Epao	Evaluation Inspector
125	Kuvejpoyi Lohe	UDA
126	S. Pillai	PS to D.C, Phek
127	Shikali Wotsa	Planning Department
128	T.L.Anungba Pongen	ADC, Planning
129	A. Inavi Chishi	Planning Department
130	Kevimhietuoü Sorhie	United Nations Volunteer
131	Dr. Temjenzulu	Assistant Professor
132	Charles Kikon	Statistical Officer
133	Arenla Kechu	Assistant Director, Urban Development
134	Bendangtoshi	United Nations Volunteer
135	Vekhoto thisa	Planning Department



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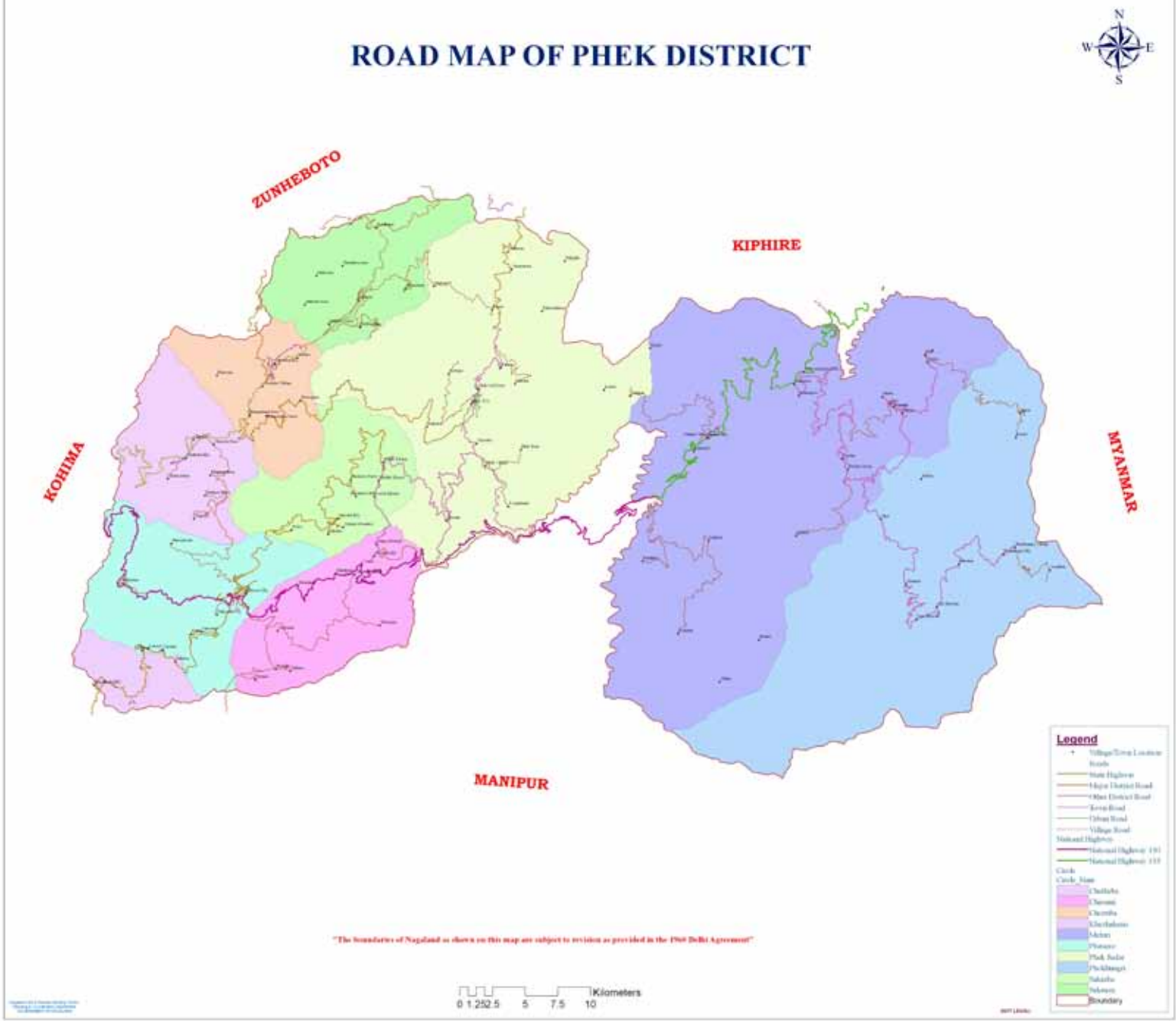
MAP OF PHEK DISTRICT

"The boundaries of Nagaland as shown on this map are subject to revision as provided in the 1960 Delhi Agreement"

ROAD MAP OF PHEK DISTRICT

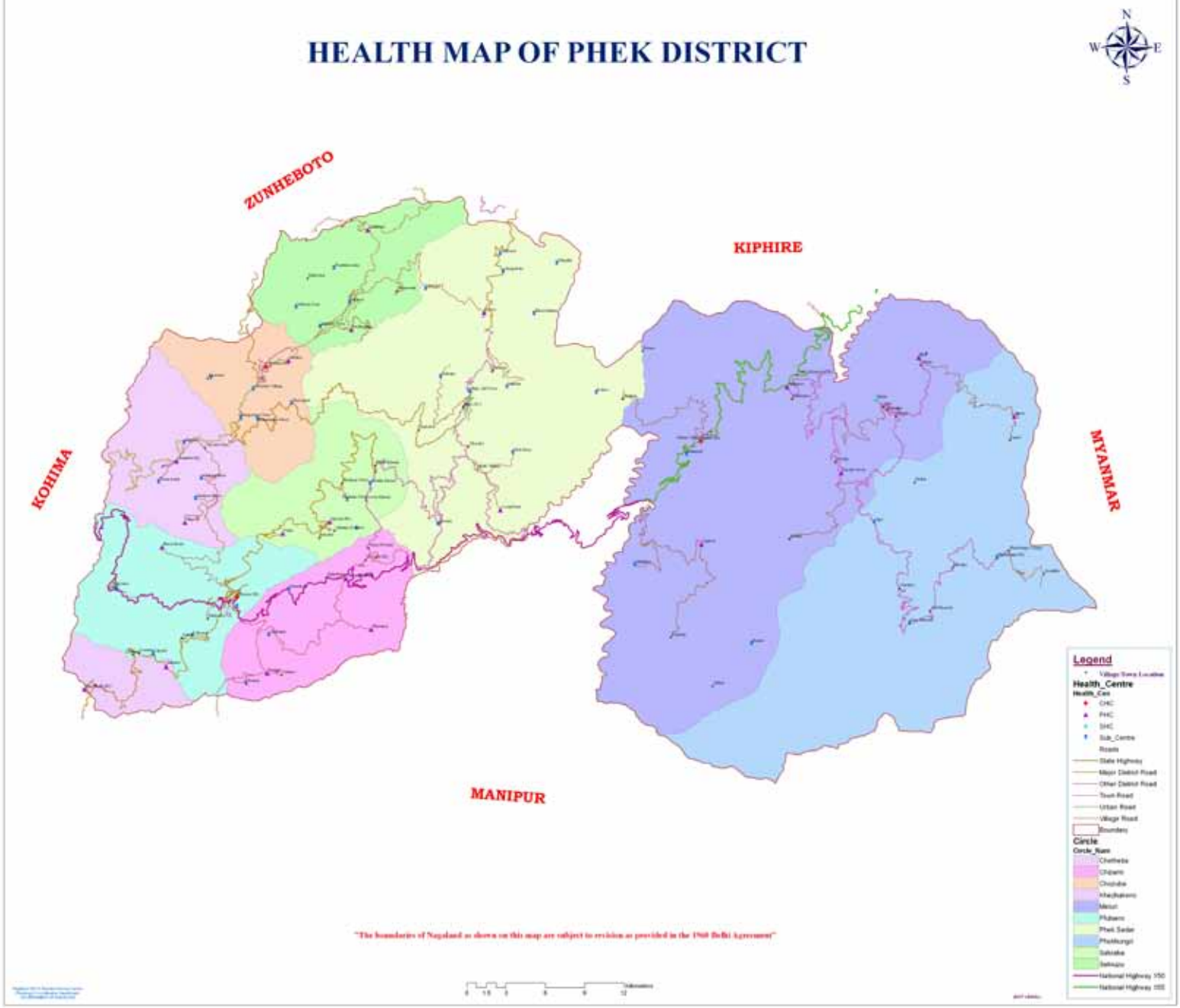


EDUCATION MAP OF PHEK DISTRICT

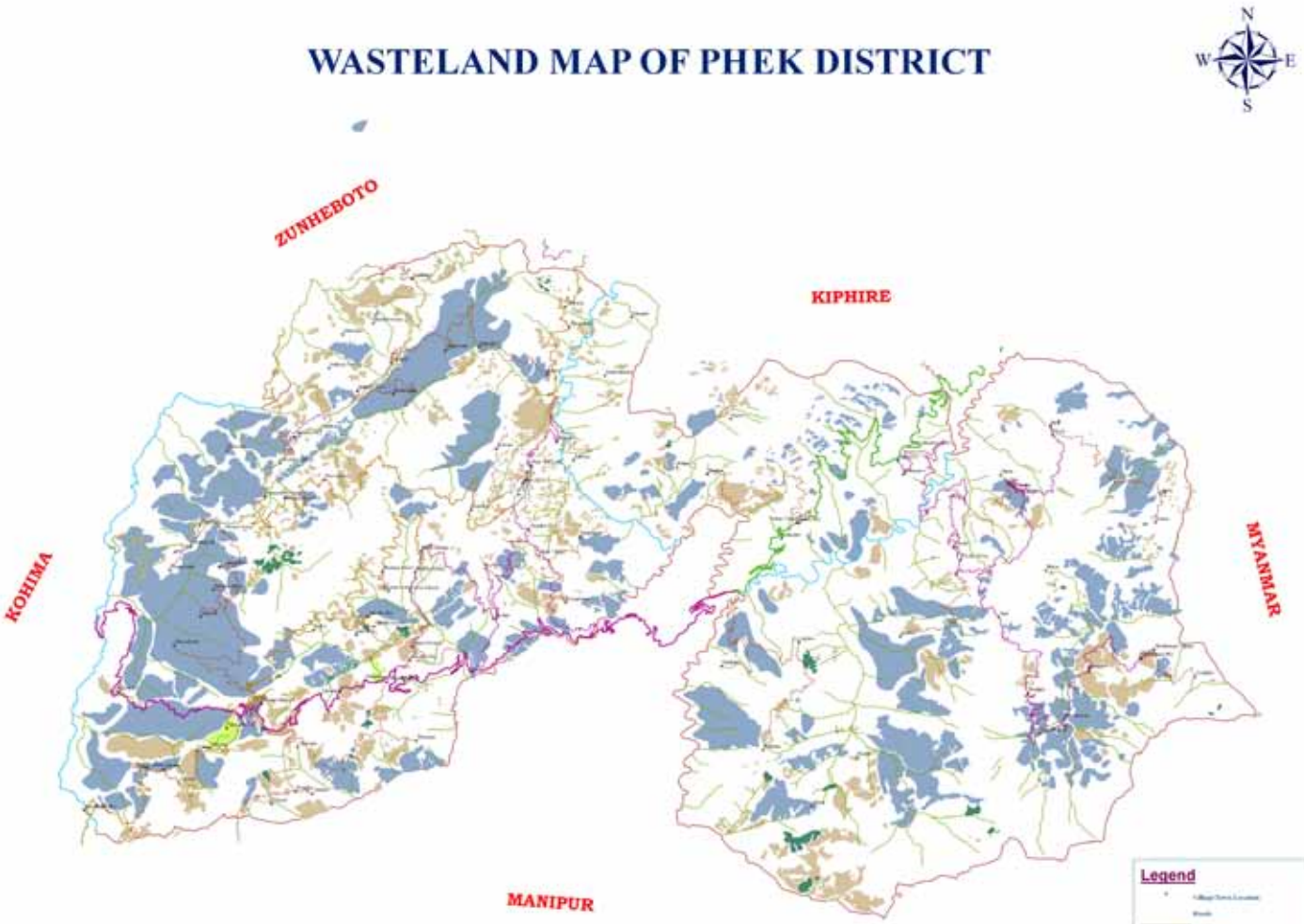
"The boundaries of Nagaland as shown on this map are subject to revision as provided in the 1960 Delhi Agreement"

Kilometers
0 1 2 4 6 8

HEALTH MAP OF PHEK DISTRICT

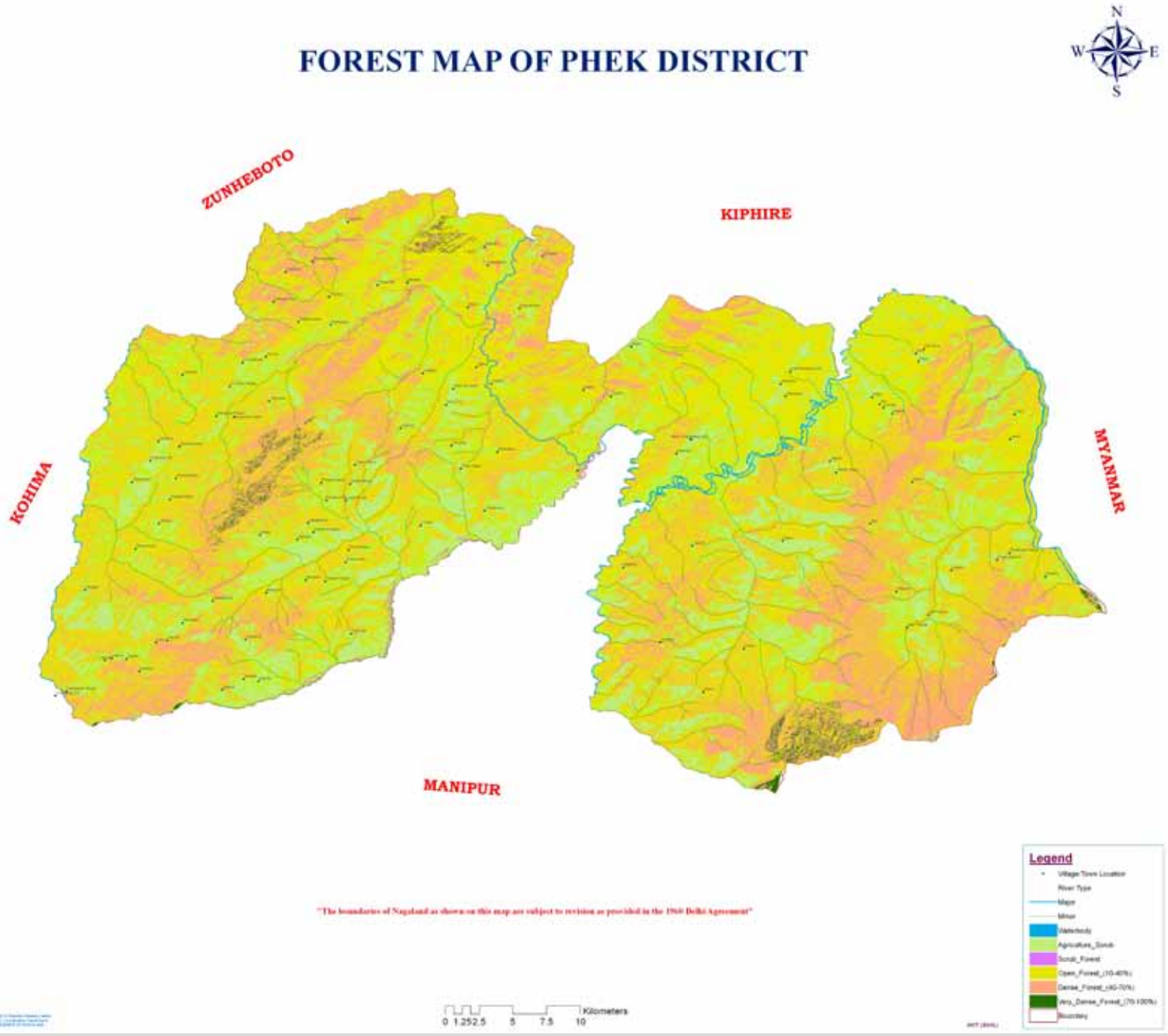


WASTELAND MAP OF PHEK DISTRICT



"The boundaries of Nagaland as shown on this map are subject to revision as provided in the 1960 Delhi Agreement"

FOREST MAP OF PHEK DISTRICT



DRAINAGE MAP OF PHEK DISTRICT