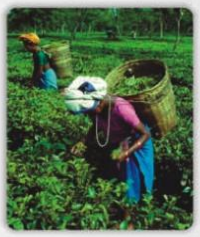
N·S·D·C
National
Skill Development
Corporation

Transforming the skill landscape

# Skills Gap Study of the North-East



***Disclaimer:***

National Skill Development Corporation (NSDC) engaged ICRA Management Consulting Services Limited (IMaCS) to prepare this report, which is based on independent research and analysis done by IMaCS. This report is not based or derived from any other report or research paper. Any similarity with any other paper may purely be a co-incidence.



This report is for information purposes only. While due care has been taken during the compilation of this report to ensure that the information is accurate to the best of IMaCSs' and NSDC's knowledge and belief, the content is not to be construed in any manner whatsoever as a substitute for professional advice.

IMaCS and NSDC neither recommend nor endorse any specific products or services that may have been mentioned in this report and nor do they assume any liability or responsibility for the outcome of decisions taken as a result of any reliance placed in this report.

Neither IMaCS nor NSDC shall be liable for any direct or indirect damages that may arise due to any act or omission on the part of the user due to any reliance placed or guidance taken from any portion of this report.

## About National Skill Development Corporation

National Skill Development Corporation (NSDC) is a pioneering Public Private Partnership (PPP), set up under the aegis of the Ministry of Finance, in July 2008, with a mandate to skill 150 million by 2022.

NSDC's mission is as follows:

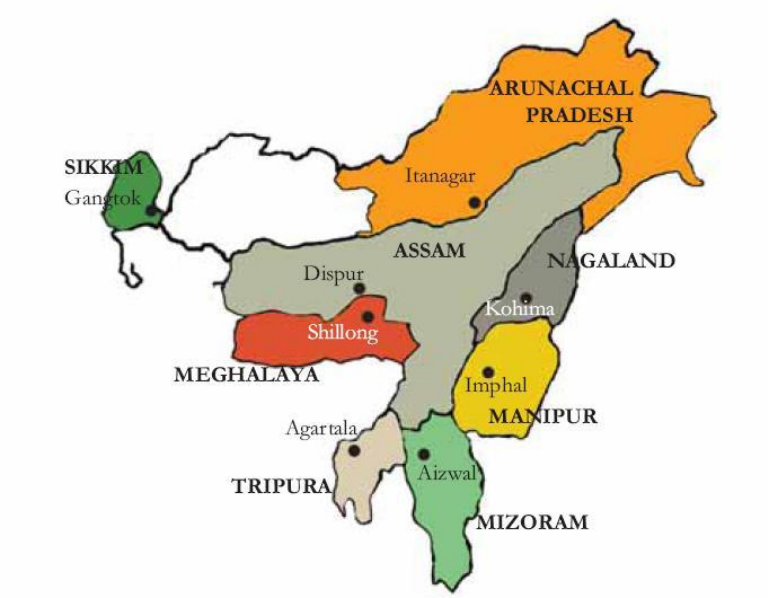
- Upgrade skills to international standards through significant industry involvement and develop necessary frameworks for standards, curriculum and quality assurance.
- Enhance, support and coordinate private sector initiatives for skill development through appropriate PPP models; strive for significant operational and financial involvement from the private sector.
- Focus on underprivileged sections of society and backward regions of the country thereby enabling a move out of poverty; similarly, focus significantly on the unorganised or informal sector workforce.
- Play the role of a 'market-maker' by bringing financing or viability gap funding, particularly in sectors where market mechanisms are ineffective or missing.
- Prioritise initiatives that can have multiplier or catalytic effect as opposed to one-off impact.

Globally, NSDC is a unique PPP in the area of skill development. NSDC's key differentiators are as follows:

- Funds as well as provides strategic support to the skill development activities of stakeholders and potential partners.
- Monitors implementation over entire life of the project.
- Enables skill development in high growth and unorganised sectors.
- Facilitates creation of 'Train the Trainer', centres
- Accountable for raising skills to international standards through sector specific industry involvement and setting systems and frameworks for standards, curriculum and quality assurance.
- Set up Sector Skill Councils
- Commissions periodic reports including skill gap surveys
- Support of industry associations, hence access to the best industry data enabling creation of industry specific curriculum, employability, etc.
- Facilitates creation of Labour Market Information Systems (LMIS)

## Foreword

The North Eastern States comprise Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.




The eight States located in India's North-East cover an area of 2,62,179 sq. km. constituting 7.9 per cent of the country's total geographical area, and 46million people or about 4 per cent of the total population of the country (Census 2011).

Most North Eastern States have remained one of the under developed and untapped regions of the country. Some of the reasons are as follows:

- Remoteness and isolation because of being mostly landlocked
- Lack of access to markets
- Limited connectivity to the rest of India
- Limited infrastructure
- Challenges in land acquisition
- Widespread use of traditional cultivation methods that are inefficient
- Lack of facilities such as cold storage for warehousing fruits and transporting to market
- Inadequate infrastructure that could help transport goods from the region
- Difficulty in accessing bank credit for enterprises
- Lack of confidence in seeking credit by small and tiny sector enterprises

- Poor awareness of markets, changing demand patterns, raw material sourcing, technology, branding and quality standards
- High and widespread dependence on Governments' programmes for market access, subsidy and training
- Educated seeking, mostly, Government jobs or relocating out of the region
- Stigma against labour oriented jobs
- Dependence on, mainly, local market for selling products from small and tiny sector
- Inadequate telecommunications connectivity

Despite these disadvantages, there are success stories of entrepreneurs who have started on small scale, overcome the difficulties and have grown in the last 15-20 years to make a name for themselves in the region. Though small now, their number is likely to grow as more people travel outside the region, attain education, training and skills, investing is made attractive by the States, markets linkages are developed, substantial buyers are attracted to the products from the region and, trained and skilled persons can be gainfully employed within the region.

It is in this context that the North Eastern Council (NEC) and the Ministry of Development of North Eastern Region (DoNER) have prepared Vision 2020 for the North Eastern Region.

The Vision 2020 envisages the following targets by 2020:

- Overall GSDP growth at a CAGR of 11.64 per cent between 2007-09 and 2019-20.
- Overall per capita income growth of 12.95 per cent between 2007-09 and 2019-20.

To support this vision, the Ministry of Development of North Eastern Region has formulated a Strategic Plan 2010-16 focusing on three broad dimensions:

**(A) Rapid socio-economic development:**

- Facilitating preparation of Strategic Plans for key sectors such as Agriculture, Road, Civil Aviation, Railways, Inland Water Transport, Power, Tele-Communication & IT, HRD, Health and Handloom & Handicrafts and implementation of the Plans so prepared by the line-Ministries and North Eastern States.
- Facilitating formulation of Projects, Schemes and Programmes by major Central Ministries in consonance with the requirement of the North-Eastern Region.

- Increasing the effectiveness of developmental expenditure in the North-East Region through higher levels of transparency, systemic improvements and independent monitoring mechanism.
- Creating an in-house database on important socio-economic indicators in the Region and its periodic assessment.
- Facilitating preparation of Regional Plan by the NEC.
- Providing critical support to the NEC for identification of appropriate regional projects and their implementation.
- Facilitating funding by External Agencies in critical Sectors in the North Eastern States.
- Undertaking pilot or demonstration projects in the North-East Region in certain sectors to provide fillip to these sectors.

**(B) Building capacities and competencies in critical sectors in the North Eastern States**

- Preparation of a Plan of Action for building capacities and competencies in critical sectors in the North Eastern States.
- Identifying institutes and organizations for imparting training and building capacities in the North Eastern Region.
- Setting up of Training Institutes in the Region in important fields through line Ministries, NEC or States.
- Augmenting the capacity of the existing training institutes in the North Eastern States.
- Use of IT as a tool to upgrade skills.

**(C)Promote the strengths of the Region**

- Preparation of a 'Plan of Action' for projecting and promoting key strengths of the Region.
- Promoting student and cultural exchanges among the States of the Region on one hand and between the Region and the rest of the country.
- Organizing business summits, exhibitions and cultural festivals to promote the Region.
- Undertaking well-conceived promotional campaigns in the print and electronic media for projecting a positive image of the Region.
- Arranging festivals and cultural exchanges between the Region and the neighbouring countries.
- Highlighting the achievements and success stories from the Region in mainstream media.
- Instituting an Award Scheme to honour and showcase the achievements of talented people of the Region.

While this requires substantial investment, implementation of Action Agenda outlined in the Vision and Strategic Plan, it also requires imparting of skills at all levels.

The North Eastern States, clubbed together, have some common attributes. But they also have significant variations related to culture, language, values, work preferences and ethics, and overall environment related to Government, infrastructure, terrain, proximity to or availability of markets and services. Hence, the skilling interventions may vary across states and districts despite, similarities of activities.

Given the above background, ICRA Management Consulting Services Limited (IMaCS) has been mandated by the NSDC to assist in identifying development and employment potential of districts of North Eastern States.

Nagaland gained Statehood in 1963. It is bounded by the Indian States of Assam, Arunachal Pradesh, and Manipur. It shares international borders with Myanmar. The state is mostly mountainous except those areas bordering Assam valley. It has 11 districts, inhabited by 16 major Naga tribes. About 89 per cent of the State population is tribal.

Agriculture and public administration are the biggest contributors to the State's Gross State Domestic Product (GSDP), together contributing to 43 per cent. Agriculture is also the biggest employer, with about 65 per cent of workers as cultivators. At 71 per cent, most of the population at is rural.

Kohima is the State capital, while Dimapur is the largest city and key economic centre. The only airport in the State is in Dimapur. It is connected by air to Delhi and Kolkata and rest of the country. Dimapur also has a railhead, which is on the main line of the North-East Frontier Railway.


***This report has been structured in three parts:***

**Part I** includes Foreword, Acknowledgements, Approach and Methodology, and Study Limitations.

**Part II** concentrates on the diagnostic analysis of Nagaland, human resources requirement, skill gaps assessed for Nagaland.

**Part III** presents a detailed set of recommendation for Nagaland.

## Acknowledgements

Carrying out a large scale survey is always a challenge. However, this task was made easy for the team by the support that they received from various stakeholders. The team acknowledges, with grateful thanks, useful information, references and support provided by NSDC and Ministry of Development of North Eastern Region.

IMaCS team has travelled extensively through the districts of Nagaland to conduct the surveys for this study. The team has interacted with a cross-section of stakeholders. This survey exercise would not have been possible without the support of key stakeholders some of whom we have listed below.

- Mr. Alemtemshi Jamir, Additional Chief Secretary, Nagaland
- Mr. M. Patton, Commissioner, Planning, Nagaland
- Ms. Kevileno Angami, Officer on Special Duty, Skill Development, Nagaland
- Ms. L Chishi, Deputy Commissioner, Mokokchung
- Mr. Anthony Nguilly, Additional Deputy Commissioner, Wokha
- Mr. Bei U Angami, Deputy Commisioner, Kohima
- Ms. Mary, General Manager, District Industries Centre, Dimapur

In addition, there are many persons or organisations who have contributed greatly towards the successful completion of this study. The team conveys sincere thanks to all of them for their generous support and contribution.

# TABLE OF CONTENTS

# LIST OF TABLES

## LIST OF FIGURES

# PART – I: Introduction

## 1. Report Objectives

National Skill Development Corporation (NSDC) has mandated ICRA Management Consulting Services Limited (IMaCS) to assess the development and employment generation potential of eight North Eastern states of India.As per the Terms of Reference, the report objectives are as follows:

i. Review the socio-economic profile of the North Eastern Region
ii. Identify developmental opportunities keeping in mind factor endowments and stakeholder perspectives
iii. Identify specific developmental initiatives/projects which also have impact on employment generation
iv. Assess skills required to aid in such employment generation
v. Suggest suitable interventions/recommendations to achieve the same at a regional level

## 2. Approach and Methodology

The study has been conducted in three phases:

**Phase – 1: Diagnostic Phase**

The objective of this phase was to understand the socio-economic profile of the North Eastern Region. The focus was on analyzing the economic and social position of the Region based on evolution of the level and type of economic activity and social development in each State. The factor advantages, constraints facing the Region either due to Regional factors or common among the states, and the challenges going forward have been analysed. We have thus identified the factor endowments of the State and the potential it holds. At the end of this stage, we have presented a snapshot of the State on economic and social aspects and a SWOT analysis of the State.

**Phase – 2: Synthesis Phase**

This was carried-out in two modules:

Module 1: Assessment of Development Potential

Module 2: Assessment of Employment Potential and Gaps

**Module 1: Assessment of Development Potential:**

The objective of this phase was to identify development opportunities across formal and informal sectors which provide livelihood opportunities for employment. We have also kept in mind the opportunities for

employment/livelihood generation identified as per the Vision 2020. This leads to the framework for identification of formal and informal sector employment/skilling opportunities

For this exercise, we have interacted with a cross-section of stakeholders of the Government/Industry to understand the following:

- What are the key developmental areas to focus?
- What needs to be done to leverage key strengths and factor endowments?
- How can bottlenecks to development be cleared?
- What various stakeholders need to do for development?

Based on the factor endowments and primary surveys conducted, we have identified potential and high growth opportunities for North Eastern States.

**Module 2: Assessment of Employment Potential**

For the developmental opportunities identified, we have assessed the following:

- Employment potential in the Region and on account of these identified developmental opportunities
- Skills required to be developed among the North Eastern Region workforce to tap into the same.

This phase has been executed by: Profiling skills required sustaining traditional skills and tapping into factor endowments, especially in the informal sector (wherever scalable) and interacting with industry (small, medium and large) and groups engaged in formal and informal sectors.

**Phase – 3: Recommendations**

Our interventions focus on various measures/potential ideas/projects required to be pursued for Development and Employment Generation. These interventions focus on the following:

- What is the enabling environment to be created to further development and employment generation?
- What are the interventions to enhance employment generation/job creation?
- What are the potential opportunities that can be tapped thereof and structured for private sector investment and NSDC interventions?

The report derives content for analyses from both, primary survey and secondary sources.

- The surveys were undertaken by visiting several districts of Nagaland meeting key stakeholders identified with the help of State/District Government Departments of Labour, Planning or Industries and using internal research and databases.
- Significant secondary research was also carried out in order to validate the findings of primary survey.

## 3. Study Limitations

While care has been taken to ensure correctness of information, the report outcomes for entire North East are affected by the following circumstances:

- While the field survey has been conducted keeping in mind maximum coverage, the survey has been constrained by factors such as – weather: a major part of the survey was conducted in the rainy season with landslides and flooding; availability of transportation; proper road connectivity; availability of persons to interview at select locations and offices; lack of documented and latest information; and inaccessible distances from within the State.
- While some districts had updated statistics, for others approximations have been made because of dated or non-existent data, particularly, for industries and institutions that have come up in recent years.
- Approximations include use of past growth rates for projections, regional average, national average, productivity growth, benchmarks with other States and others.

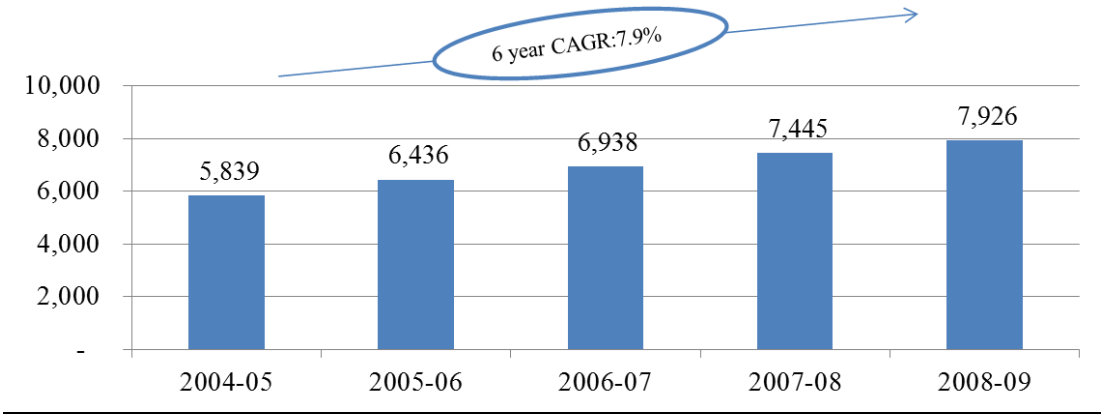
## PART – II (a): Diagnostic Analysis of Nagaland

## 4.1 Macro-Economic Overview

As of 2008-09, Nagaland had a Gross State Domestic Product (GSDP) of Rs 7,926 crore. It increased at a CAGR of 7.9 per cent between 2004-05 and 2008-09. The growth in Nagaland's GSDP was lower than All-India average of 8.6 per cent, but higher than the North East Region average of 6.3 per cent in the same period.

FIGURE 1: GROSS STATE DOMESTIC PRODUCT

(Rs Crore)




*Source: Central Statistical Organisation, Ministry of Programme Implementation & Statistics; IMaCS Analysis*

TABLE 1: COMPARISON OF GROSS STATE DOMESTIC PRODUCT

| Country / Region/ State | GSDP, Rs Crore, 2010-11 | GSDP growth rate, 5 year CAGR |
|---|---|---|
| India | 4,877,842 | 8.6% |
| North East Region | 126,649 | 6.3% |
| Nagaland^ | 7,926 | 7.9% |

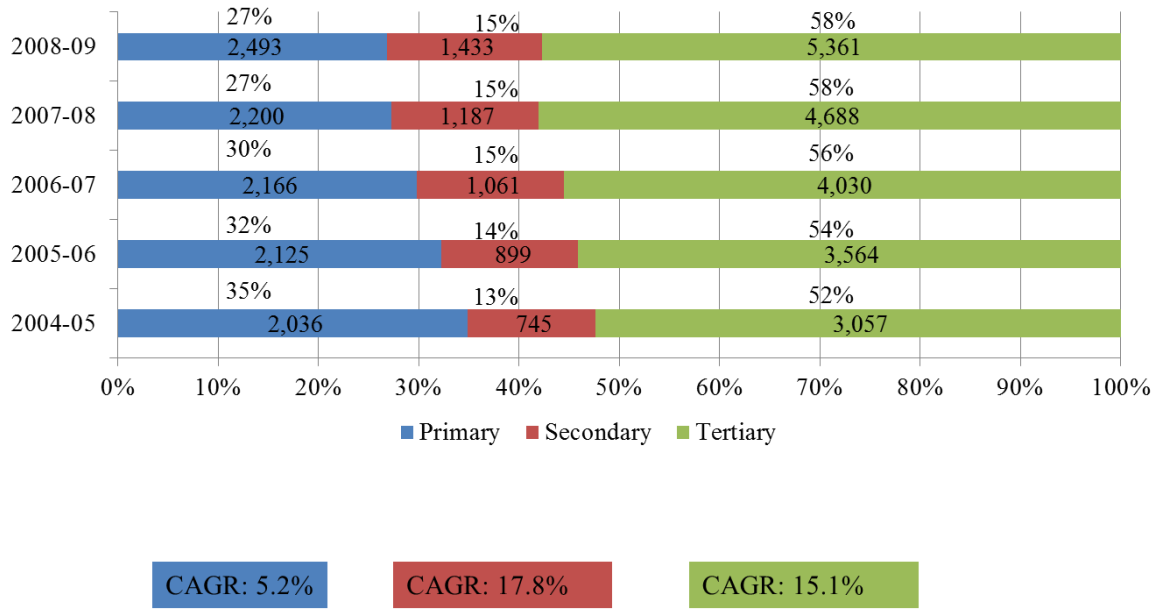
*^ Data for 2008-09, Source: Central Statistical Organisation, Ministry of Programme Implementation & Statistics; IMaCS Analysis*

The tertiary sector makes the biggest contribution to Nagaland's GSDP, at 58 per cent. It was followed by primary sector (27 per cent) and secondary sector (15 per cent). Between 2004-05 and 2008-09, the contribution of primary sector has decreased significantly from 35 per cent to 27 per cent. This has been

made up by increase in the contribution of secondary sector from 13 per cent to 15 per cent and tertiary sector from 52 per cent to 58 per cent. Secondary sector has witnessed the highest growth rate in this period, at 17.8 per cent CAGR, followed by tertiary sector at 15 per cent and primary sector at 5.2 per cent.

FIGURE 2: DISTRIBUTION OF GROSS STATE DOMESTIC PRODUCT

(Rs Crore)

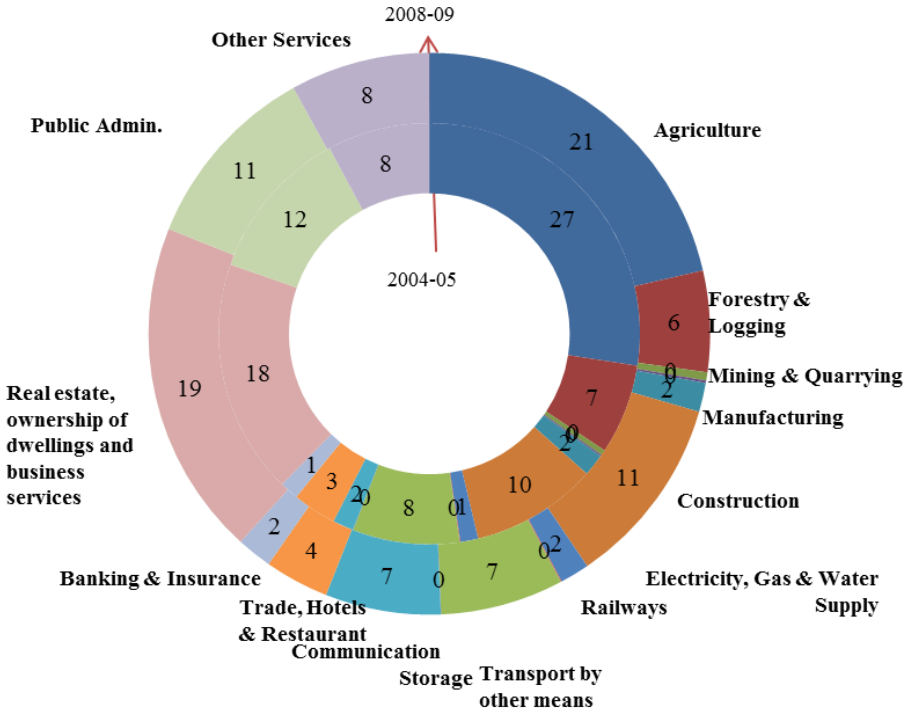



*Source: Central Statistical Organisation, Ministry of Programme Implementation & Statistics; IMaCS Analysis*

Sector-wise break-up of GSDP for 2008-09 indicates that despite its declining share, agriculture continues to be the biggest contributor to Nagaland's GSDP, at 21 per cent. This is closely followed by real estate, ownership of dwellings and business services, at 19 per cent. Other key contributors to GSDP are public administration and construction, at 11 per cent each.

Contribution of manufacturing has remained stagnant and small at just 2 per cent of GSDP. Manufacturing is mainly unregistered. Registered manufacturing makes little contribution to the GSDP.

## FIGURE 3: SECTOR-WISE DISTRIBUTION OF GROSS STATE DOMESTIC PRODUCT (%)

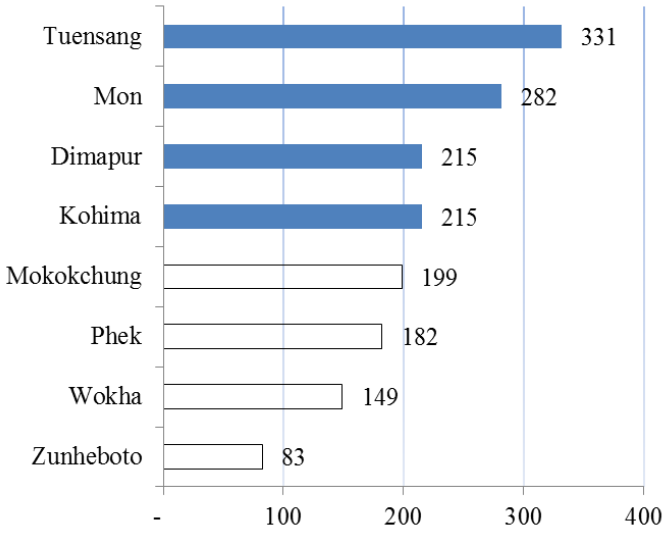



*Source: Central Statistical Organisation, Ministry of Programme Implementation & Statistics; IMaCS Analysis*

The district wise distribution of Nagaland's agriculture GSDP, for the year 2005-06, indicates that Tuensang makes the largest contribution to the agriculture GSDP of Nagaland, followed by Mon and Dimapur districts. Zunheboto and Wokha districts made small contribution.

## FIGURE 4: DISTRICT WISE CONTRIBUTION TO THE GROSS STATE DOMESTIC PRODUCT OF AGRICULTURE

(Rs Lakh, 2005-06)




*Source: Planning Commission (India); Important Economic Indicators of Nagaland 2009, Directorate of Economics and Statistics; IMaCS Analysis*

As of 2008-09, Nagaland had a per capita income of Rs 45,353, which was lower than India average of Rs 46,492, but higher than the North East Region (NER) average of Rs 43,970. District-wise per capita income is not available for Nagaland.

## TABLE 2: COMPARISON OF NAGALAND'S PER CAPITA INCOME WITH INDIA AND NER

| Country / Region/ State | Per capita Income, Rs, 2010-11 |
|---|---|
| India | 54,835 |
| North East Region | 46,359 |
| Nagaland^ | 45,353 |

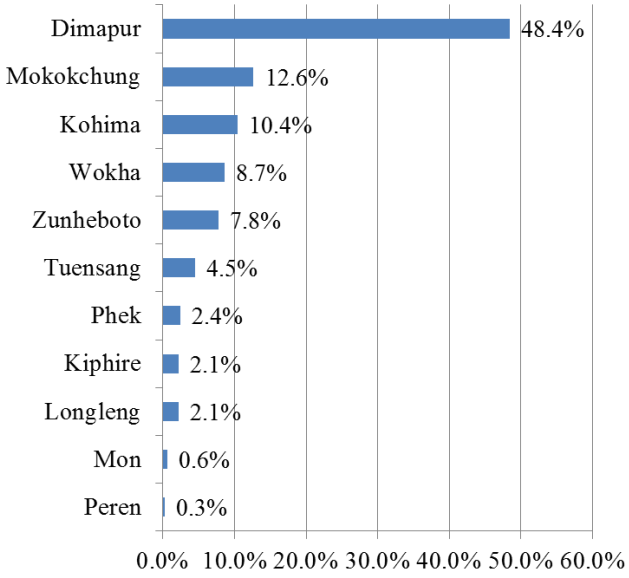
*Source: Central Statistical Organisation, Ministry of Programme Implementation & Statistics; IMaCS Analysis. ^ Nagaland figure for 2008-09.*

## 4.2 Industrial Activity Overview

Nagaland's industrial activity is dominated by Small Scale Industry (SSI). In addition, a significant role is played by the informal sector. As of 2007, Nagaland had 704 registered SSIs employing 13,150 persons. Of all the SSIs, close to half were in Dimapur district, followed by Mokokchung and Kohima districts. These SSIs are mainly involved in furniture making, weaving apparel and fabricated metal products.

FIGURE 5: DISTRICT-WISE DISTRIBUTION OF SSIs IN NAGALAND

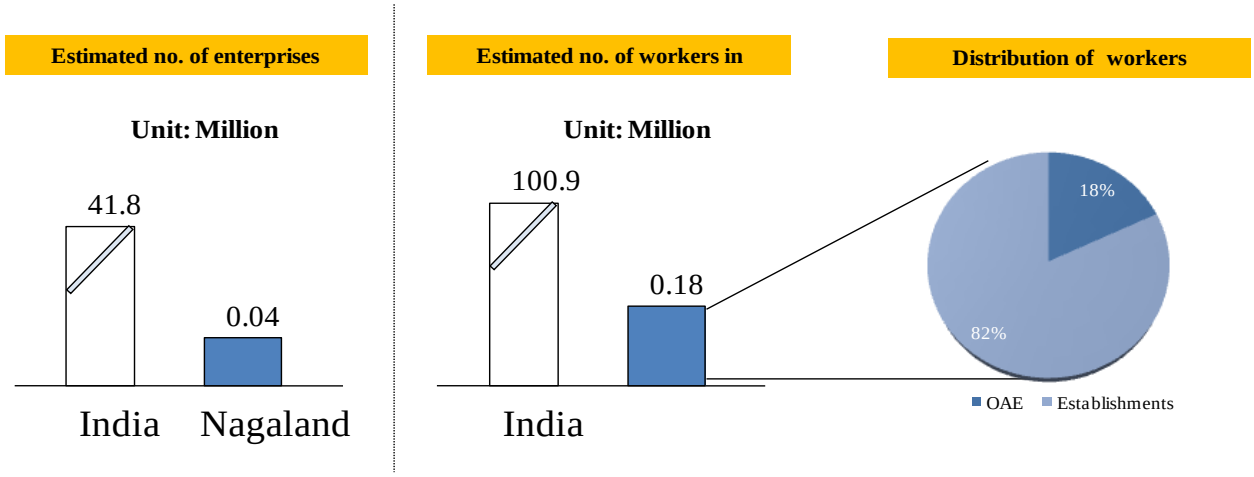
(As of 2007, 100% = 704)




*Source: Statistical Handbook of Nagaland 2009, Directorate of Economics and Statistics; IMaCS Analysis*

According to the Fifth Economic Census conducted in 2005, Nagaland had 35,578 establishments, employing 175,169 persons. While 18 per cent of the employment was in Own Account Enterprises (OAE), the remaining 82 per cent was in establishments.

## FIGURE 6: OAEs AND ESTABLISHMENTS IN NAGALAND




*OAE: Own Account Enterprises; Source: Fifth Economic Census 2005*

Retail trade alone accounts for 51 per cent of enterprises, while public administration accounts for highest employment, at 32 per cent.

## TABLE 3: SECTOR WISE DISTRIBUTION OF ENTERPRISES AND EMPLOYMENT IN NAGALAND

| | Enterprises | | | Employment | | |
|---|---|---|---|---|---|---|
| **Major activity group** | **OAE** | **Estt.** | **Total** | **OAE** | **Estt.** | **Total** |
| Farming of animals | 533 | 512 | 1,045 | 1,060 | 2,039 | 3,099 |
| Agricultural services | 10 | 25 | 35 | 25 | 107 | 132 |
| Fishing | 105 | 92 | 197 | 203 | 453 | 656 |
| Mining & quarrying | 10 | 69 | 79 | 13 | 533 | 546 |
| Manufacturing | 2,676 | 1,411 | 4,087 | 3,542 | 6,781 | 10,323 |
| Electricity, gas & water supply | 2 | 14 | 16 | 4 | 99 | 103 |
| Construction | 2 | 4 | 6 | 2 | 221 | 223 |
| Sale, Maintenance & Repair of MV and MC | 113 | 589 | 702 | 214 | 2,752 | 2,966 |
| Wholesale trade | 79 | 103 | 182 | 156 | 390 | 546 |
| Retail trade | 13,161 | 5,021 | 18,182 | 22,302 | 17,030 | 39,332 |
| Restaurants & hotels | 570 | 1,355 | 1,925 | 1,245 | 6,976 | 8,221 |
| Transport & storage | 172 | 176 | 348 | 217 | 637 | 854 |
| Posts & telecommunication | 406 | 237 | 643 | 741 | 1,247 | 1,988 |
| Financial intermediation | 1 | 67 | 68 | 2 | 1,250 | 1,252 |

| | Enterprises | | | Employment | | |
|---|---|---|---|---|---|---|
| **Major activity group** | **OAE** | **Estt.** | **Total** | **OAE** | **Estt.** | **Total** |
| Real estate, renting & buss. Serv. | 205 | 196 | 401 | 421 | 788 | 1,209 |
| Pub adm, defense, social security | 76 | 1,394 | 1,470 | 149 | 55,971 | 56,120 |
| Education | 30 | 2,288 | 2,318 | 70 | 24,380 | 24,450 |
| Health & Social work | 54 | 907 | 961 | 125 | 6,919 | 7,044 |
| Community, social &personalservices | 535 | 2,377 | 2,912 | 1,347 | 14,745 | 16,092 |
| Other activities | | 1 | 1 | | 13 | 13 |
| **Total** | **18,740** | **16,838** | **35,578** | **31,838** | **143,331** | **175,169** |

*OAE – Own Account Enterprises; Estt. – Establishments; MV - Motor Vehicle, MC – Motor Cycle, Pub adm – Public administration; serv – services; act. –activities. Sources: Fifth Economic Census, 2005; IMaCS Analysis*

## 4.3 Demography and Employment Structure

As per Census 2011, Nagaland has a population of over 19.8 lakh. At 19 per cent, a large share of this population is concentrated in the Dimapur district, followed by 14 per cent in Kohima district and 13 per cent in Mon district. About 71 per cent of the population lives in rural areas. Ratio of rural to total population is highest at 86 per cent in Mon district, followed by 85 per cent in Phek and Longleng districts. Dimapur is the most urbanised district with about 52 per cent of the population living in urban areas.

Overall, the share of tribal population in total population is 89 per cent. The ratio is high at 96 per cent in Zunheboto, Wokha, Phek and Tuensang districts. It is lowest at 61 per cent in Dimapur district. However, the State has about 60 per cent population in the working age group and another 35 per cent in the 0-14 year age group. This population is expected to join the workforce in the next 10 years and can be trained for reaping significant economic dividend. Also, the State has high literacy rate, at 80 per cent. These factors together make available a huge pool of literate human resources over the next few years.

## TABLE 4: DISTRICT DEMOGRAPHIC PROFILE OF NAGALAND

| District | Area share | Population density* | Rural to urban population* | Population* | Male to female ratio* | Percentage of tribal population | Villages* | Towns* | Literacy Rate* |
|---|---|---|---|---|---|---|---|---|---|
| Mon | 11% | 140 | 86% | 250,671 | 1.1 | 94% | 131 | 2 | 57% |
| Mokokchung | 10% | 120 | 71% | 193,171 | 1.1 | 94% | 108 | 4 | 93% |
| Zunheboto | 8% | 112 | 80% | 141,014 | 1.0 | 96% | 191 | 2 | 86% |
| Wokha | 10% | 102 | 79% | 166,239 | 1.0 | 96% | 153 | 1 | 88% |
| Dimapur | 6% | 410 | 48% | 379,769 | 1.1 | 61% | 222 | 7 | 85% |
| Phek | 12% | 81 | 85% | 163,294 | 1.1 | 96% | 117 | 2 | 79% |
| Tuensang | 26% | 90 | 81% | 196,801 | 1.1 | 96% | 144 | 1 | 74% |
| Longleng# | - | 89 | 85% | 50,593 | 1.1 | - | 49 | 1 | 73% |
| Kiphire# | - | 66 | 78% | 74,033 | 1.0 | - | 96 | 1 | 71% |
| Kohima | 19% | 213 | 54% | 270,063 | 1.1 | 91% | 105 | 3 | 86% |
| Peren# | - | 55 | 84% | 94,954 | 1.1 | - | 112 | 2 | 79% |
| **Nagaland** | **100%** | **119** | **71%** | **1,980,602** | **1.1** | **89%** | **1,428** | **26** | **80%** |

*# Formed after the 2001 Census.*
*Sources: Census 2011*; Census 2001; IMaCS Analysis*

## TABLE 5: POPULATION BY AGE-GROUPS

| District / Age group | 0-14 | 15-59 | 60+ | Others* | 0-14 | 15-59 | 60+ | Others* |
|---|---|---|---|---|---|---|---|---|
| Dimapur | 111,989 | 186,506 | 9,802 | 727 | 36.2% | 60.4% | 3.2% | 0.2% |
| Kohima | 112,925 | 184,376 | 12,167 | 616 | 36.4% | 59.5% | 3.9% | 0.2% |
| Mokokchung | 69,276 | 148,477 | 13,179 | 1,153 | 29.8% | 64.0% | 5.7% | 0.5% |
| Mon | 96,345 | 147,364 | 16,616 | 327 | 37.0% | 56.5% | 6.4% | 0.1% |
| Phek | 61,088 | 80,795 | 6,153 | 159 | 41.2% | 54.5% | 4.2% | 0.1% |
| Tuensang | 156,154 | 237,662 | 19,856 | 1,146 | 37.6% | 57.3% | 4.8% | 0.3% |
| Wokha | 59,728 | 95,341 | 5,900 | 254 | 37.0% | 59.1% | 3.7% | 0.2% |
| Zunheboto | 60,904 | 86,039 | 6,650 | 362 | 39.6% | 55.9% | 4.3% | 0.2% |
| **Nagaland** | **728,409** | **1,166,560** | **90,323** | **4,744** | **36.6%** | **58.6%** | **4.5%** | **0.2%** |

** Others are non-respondents*
*Source: Census 2001*

Nagaland's total working population as a percentage of total population is low, at 43 per cent. About 83 per cent of these workers are main workers and the remaining are marginal workers. Most of the workers are concentrated in Mon, Mokokchung, Dimapur and Kohima districts, together accounting for 52 per cent of total workers in the State.

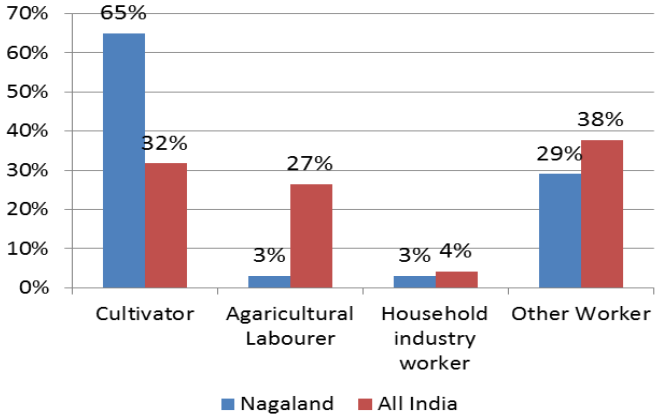
TABLE 6: DISTRICT WISE WORKER PROFILE

| District | Main workers, in '000 | Marginal workers, in '000 | Non-workers, in '000 | Working population as a % of total population |
|---|---|---|---|---|
| Kohima | 79 | 14 | 126 | 43% |
| Dimapur | 88 | 16 | 206 | 33% |
| Phek | 57 | 14 | 77 | 48% |
| Mokokchung | 82 | 27 | 123 | 47% |
| Wokha | 50 | 7 | 105 | 35% |
| Zunheboto | 47 | 9 | 97 | 37% |
| Tuensang | 69 | 10 | 113 | 41% |
| Mon | 108 | 23 | 130 | 50% |
| Peren | 35 | 6 | 49 | 46% |
| Kiphire | 39 | 3 | 60 | 41% |
| Longleng | 49 | 15 | 58 | 53% |
| **Nagaland** | **704** | **144** | **1,142** | **43%** |

*Source: Census 2001*

Of the total workers in the State, 65 per cent are cultivators, followed by 3 per cent agricultural labourers, 3 per cent in household industries and remaining at 29 per cent are other workers.

FIGURE 7: EMPLOYMENT PROFILE OF WORKERS
(Total workers = 845,796)



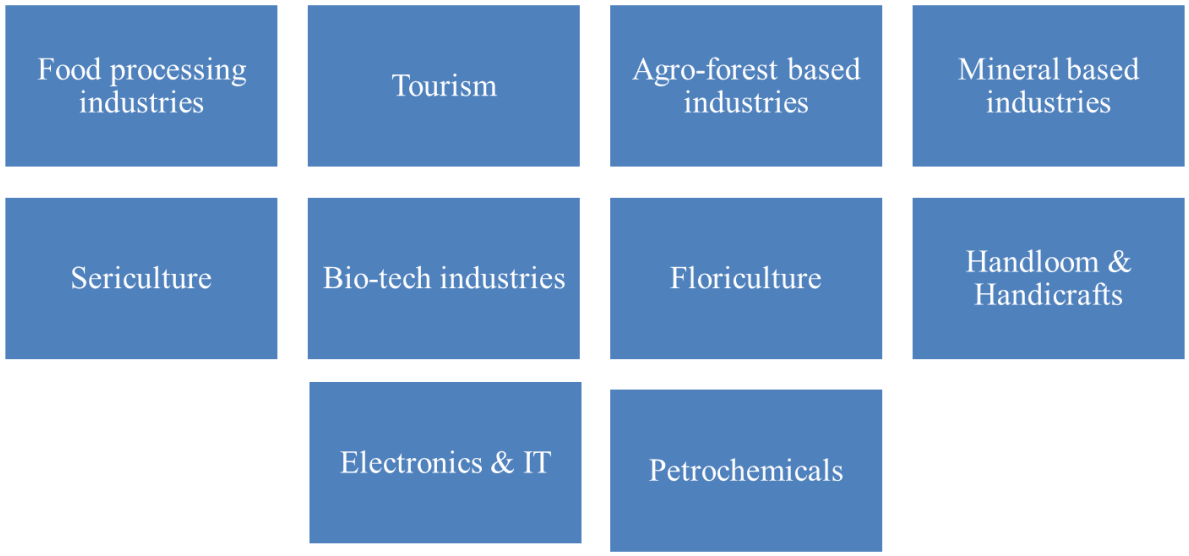

*Source: Census 2001*

## 4.4 Government Policy Support

The Nagaland Government announced the State Industrial Policy of Nagaland, 2000, to provide thrust to industrial activity in the State. Of all the sectors identified in the Policy, growth sectors such as food processing, agro-forest based industries, tourism, sericulture, floriculture; handloom and handicraft have started to come up. There is special focus on apiculture through the Bee and Honey Mission.

Some other sectors such as mineral based industries, bio-tech industries, electronics and IT and petrochemicals are yet to come up, mainly due to lack of private investment. The latter is on account of logistical and infrastructural issues, lack of market linkage and insurgency related issues.

FIGURE 8: THRUST AREAS IDENTIFIED UNDER STATE INDUSTRIAL POLICY OF NAGALAND, 2000

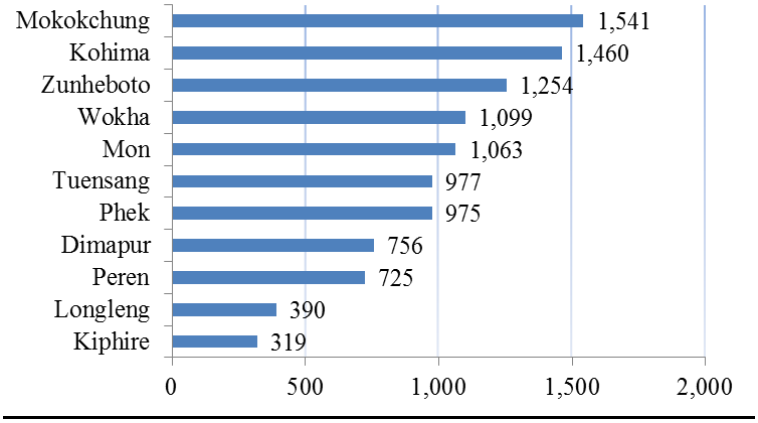


## 4.5 Infrastructure Status

As of 2008, Nagaland had a total road length of 15,078 km. Of this, about 70 per cent were State Highways. Also, about 44 per cent is surfaced and the remaining 56 per cent is un-surfaced roads. At 1,541 km, Mokokchung district has the highest road length, followed by Kohima district. As of 2007-08, the Nagaland State Transport (NST) covered 11,414 km of road length and on an average handled 5,128 passengers daily. The railway station at Dimapur connects Nagaland to rest of the country via Assam. Nagaland also has an airport at Dimpaur. A second airport is being planned for Kohima district.

FIGURE 9: DISTRICT-WISE ROAD LENGTH IN NAGALAND

(km, as of 2008-09)




*PWD: Public Works Department*

*Sources: Statistical Handbook of Nagaland 2009, Directorate of Economics and Statistics; IMaCS Analysis*

TABLE 7: ROAD INFRASTRUCTURE IN NAGALAND

(2008-09)

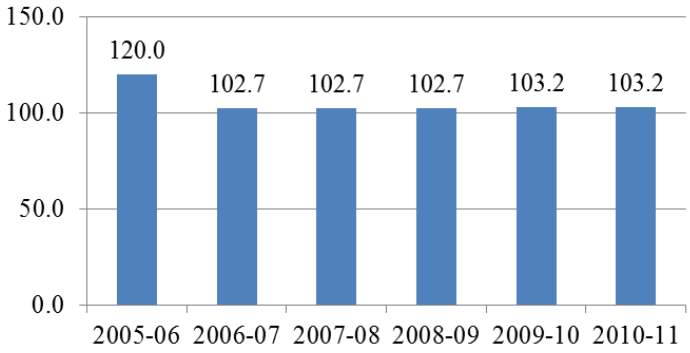
| Road type | Length, in km |
|---|---|
| State PWD | 10,521 |
| National Highways | 574 |
| National Highways maintained by BRO | 255 |
| Border Road Organisation (BRO) | 876 |
| Other Departments | 2,852 |
| **Total** | **15,078** |

*Sources: Statistical Handbook of Nagaland 2009, Directorate of Economics and Statistics; IMaCS Analysis*

As of August 2011, Nagaland had total installed capacity of 103.2 MW. About 51.7 per cent is contributed by hydro power, followed by renewable sources of energy and thermal power. Nagaland State owns about 30 per cent of the installed capacity, the remaining 70 per cent is from the Central sector power plants. There is no private installed capacity. The per capita power consumption was 108 units in 2007-08, as compared to the national average of 704 units.

FIGURE 10: TOTAL INSTALLED CAPACITY

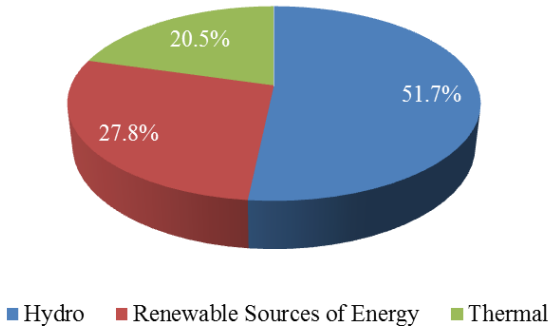
(MW)




*Sources: Central Electricity Authority; IMaCS Analysis*

FIGURE 11: FUEL WISE INSTALLED CAPACITY IN NAGALAND

(100% = 103.2 MW, as of August 2011)




*Sources: Central Electricity Authority; IMaCS Analysis*

As of August 2010, Nagaland had 62 telephone exchanges and 45,582 wire line connections. The service is provided through the Northeast-II circle of Bharat Sanchar Nigam Limited (BSNL). As of August 2010, BSNL had 250,364 total mobile phone connections in the State.

Broadband service is provided by Sify, BSNL, Reliance, Tata Indicom and Airtel. As of August 2010, there were 4,788 connections of BSNL. The Department of Telecom is implementing the scheme for augmentation, creation and management of infra-district SDHQ-DHQ OFC (Sub-division headquarter-district headquarter-optical fibre cable) network in the state. There are also 328 post offices in the State apart from private parcel and postal services.

## TABLE 8: TELECOM INFRASTRUCTURE IN NAGALAND

| Particular, as of Aug 2010 | No. |
|---|---|
| Telephone exchanges | 62 |
| Wire line connections | 45,582 |
| CDMA connections | 29,170 |
| GSM connections | 2,21,194 |
| Tele-density (percentage) | 14.9 |
| Broadband connections | 4,788 |

*Sources: Bharat Sanchar Nigam Limited; IMaCS Analysis*

## TABLE 9: TELECOM OPERATORS IN NAGALAND

| Telecom operators in Nagaland |
|---|
| • BSNL |
| • Bharti Airtel |
| • Aircel Limited |
| • Vodafone |
| • Reliance Communications |
| • Tata Indicom |

*Sources: IMaCS Analysis*

**Education infrastructure**

As of 2007-08, Nagaland had 2,533 schools with 479,732 students enrolled. The student teacher ratio in schools is 21.1 students per teacher. For higher education, there is one university, 46 colleges for general education and 26 specialised colleges. For technical education, there are three polytechnics providing diploma courses in various engineering trades. There are eight Industrial Training Institutes (ITI), offering courses in several trades.

TABLE 10: EDUCATION INFRASTRUCTURE IN NAGALAND

| Educational institutions, as of 2008-09 | Institutions | Students | Teachers |
|---|---|---|---|
| University | 1 | 472 | 73 |
| College of general education | 46 | 24,799 | 1,122 |
| Agri college | 1 | 305 | n/a |
| Theology college | 22 | 2,582 | 231 |
| Law college | 3 | 352 | 18 |
| Higher secondary schools | 69 | 75,015 | 2,394 |
| High schools | 337 | 160,352 | 6,628 |
| Middle schools | 465 | 88,752 | 5,804 |
| Primary schools | 1,662 | 155,613 | 7,956 |

*Data for schools is for 2007-08*
*Sources: Important Economic Indicators of Nagaland 2009, Directorate of Economics and Statistics; IMaCS Analysis*

TABLE 11: DETAILS OF COURSES OFFERED BY POLYTECHNICS IN NAGALAND

| Name of the polytechnic | Courses offered |
|---|---|
| Institute of Communication & Information Technology, Mokokchung | Information Technology<br>Electronics & Computer Maintenance Engineering<br>Telecomm Engineering |
| Government Polytechnic, Kohima | Modern Office Practice<br>Fashion Technology<br>Computer Application |
| Kheloshe Polytechnic, Zunheboto | Civil Engineering<br>Mechanical Engineering<br>Electrical Engineering<br>Automobile Maintenance Engineering |

*Sources: IMaCS Analysis*

As of 2008-09, Nagaland had 11 hospitals with 1,025 hospital beds. Availability of hospital beds is one bed per 1,932 persons. The State had 460 doctors, 449 pharmacists and 1,739 nurses.

## TABLE 12: HEALTH INFRASTRUCTURE IN NAGALAND

| Type of health institutions in Nagaland | No. of institutions, as of 2008-09 | No. of Hospital beds, as of 2008-09 |
|---|---|---|
| Hospital | 11 | 1,025 |
| Community Health Centres | 21 | 630 |
| Primary Health Centres | 86 | 612 |
| Subsidiary Health Centres | 27 | 54 |
| Sub-Centre | 397 | n/a |
| Dispensary | 15 | 30 |
| T.B. Hospital | 2 | 100 |
| Mental Hospital | 1 | 25 |
| Leprosy Hospital | - | 65 |

*Sources: Important Economic Indicators of Nagaland 2009; Statistical Handbook of Nagaland 2009, Directorate of Economics and Statistics; IMaCS Analysis*

## TABLE 13: KEY HEALTH INDICATORS IN NAGALAND

| Key health indicators, as on 2009 | | |
|---|---|---|
| | Nagaland | India |
| Birth Rate(per 1,000 persons) | 17.2 | 22.5 |
| Death Rate(per 1,000 persons) | 3.6 | 7.5 |
| Infant Mortality Rate (per 1,000 live births) | 26 | 50 |

*Sources: Important Economic Indicators of Nagaland 2009; Statistical Handbook of Nagaland 2009, Directorate of Economics and Statistics; IMaCS Analysis*

Nagaland Industrial Development Corporation (NIDC) is responsible for the development of industrial infrastructure in the State. It has 11 District Industries Centres (DICs) and six sub-DICs. NIDC is also responsible for running a Special Economic Zone (SEZ) for Agro and food processing industries. It has been set up in Dimapur. The State also has international border trade centres with Myanmar. In addition, the State also has designated industrial zones, along with growth centres and industrial estates.

TABLE 14: INDUSTRIAL INFRASTRUCTURE IN NAGALAND

| Industrial Infrastructure | Number |
|---|---|
| District Industries Centre (DIC) | 11 |
| Sub-DICs | 6 |
| International border trade centres | 5 |
| SEZ, Agro & food processing | 1 |
| Old Industrial Estate, Dimapur | 1 |
| New Industrial Estate, Dimapur | 1 |
| Mini Industrial Estates | 2 |
| Growth Centres | 6 |
| Industrial Zones | 12 |

*SEZ – Special Economic Zone; Sources: IMaCS Analysis*

## 4.6 Key Findings from the Diagnostic Analysis

**Macro-economic:**

- Nagaland's GSDP increased at the CAGR of 7.9 per cent between 2004 and 2008. Tertiary sector made the largest contribution to its GSDP at 58 per cent, followed by primary sector at 27 per cent and secondary sector at 15 per cent.
- While the share of primary sector has declined over the last six years, share of secondary and tertiary sectors has increased. This is due to the share of trade, hotels and restaurants, real estate, and public administration.
- Agriculture, retail trade and public administration are also the biggest employers in the State.
- Manufacturing activity is almost negligible, with manufacturing accounting for about 1.8 per cent of GSDP.

**Industrial activity:**

- Close to half of the SSIs in the State are concentrated in Dimapur district. These are mainly involved in furniture, weaving apparel and fabricated metal products.
- Industrial activity is low despite the availability of a SEZ, Industrial Estates, Growth Centres and Industrial Zones.

**Demography and employment:**

- Most of the population at 89 per cent is tribal. Close to 60 per cent of the population is in working age group and over 36 per cent is in the young age group of 0 to 14 years. This together makes available a huge pool of workforce in the State, which can be tapped both within and outside the State.

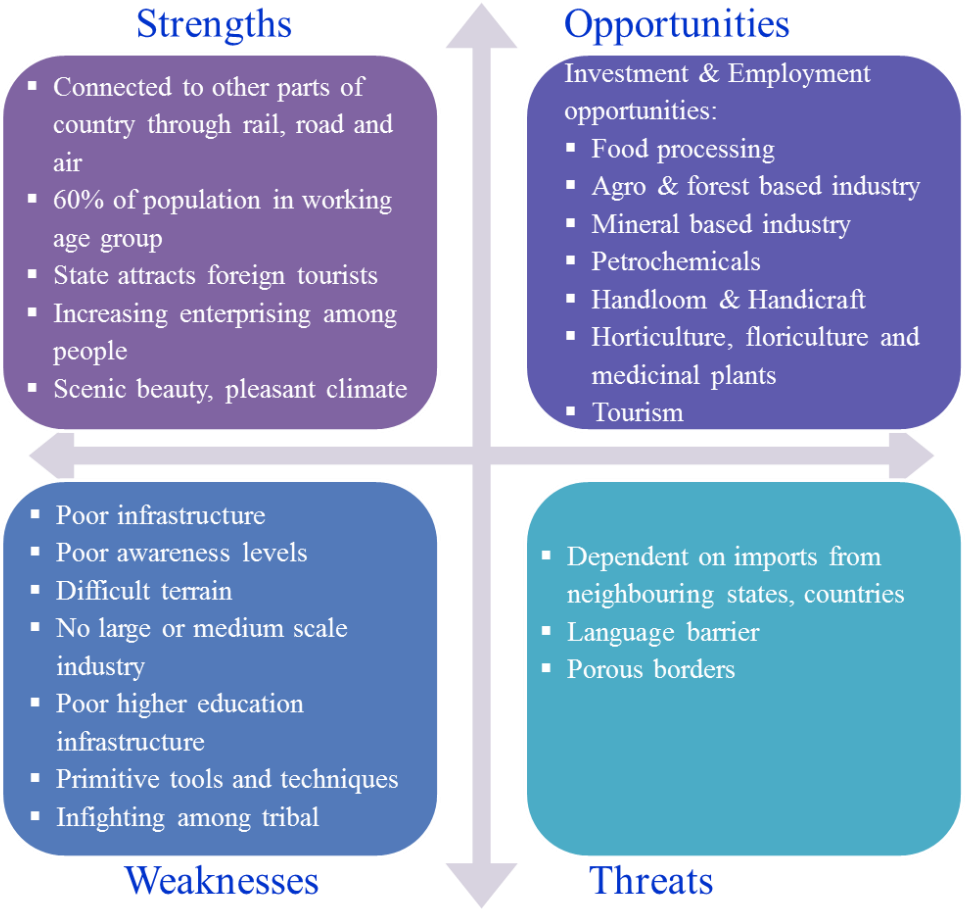
**Government Policy:**

- The State Industrial Policy, 2000, has identified sectors such as food processing, agro-forest based industries, tourism, sericulture, floriculture, handloom and handicraft, which have started to come up. These are the sectors which are based on State's natural endowments and traditional knowledge.
- Other identified sectors such as mineral based industries, bio-tech industries, electronics and IT and petrochemicals are yet to come up, mainly due to lack of private investment. The latter is on account of logistical and infrastructural issues, lack of market linkage and insurgency related issues.

**Infrastructure:**

- The State faces infrastructure and connectivity issues. Road and railway connectivity is exists, but in poor condition. Some arterial National Highways are under expansion and reconstruction. Hamlets connectivity through MNREGA funds is an on-going activity.
- Education and health infrastructure is poor in quality. There are eight Industrial Training Institutes and three polytechnics offering different trades. However, quality needs to be improved. Technology and scientific educational institutions are in demand.

## 4.7 SWOT Analysis of Nagaland



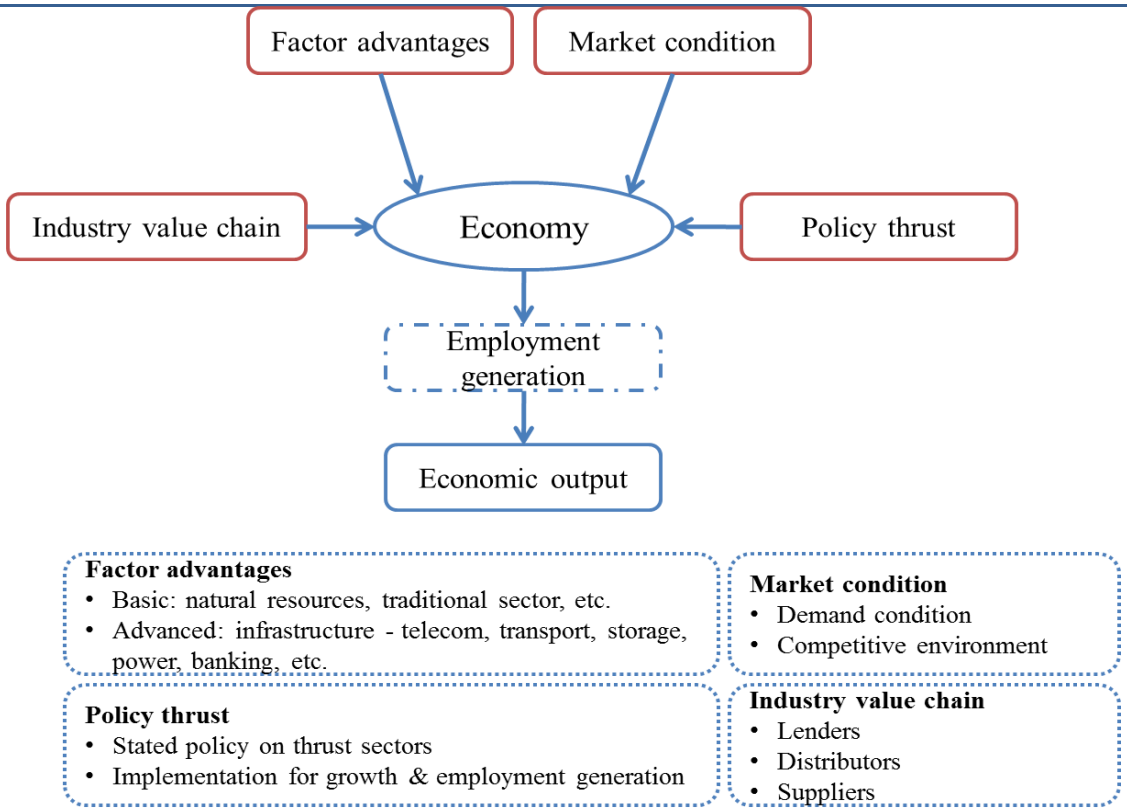
## PART – II (b): Identification of growth sectors

## 5.1 Criteria for selecting growth sectors

Given below are the criteria we have adopted for selecting sectors with potential for employment generation:

- Resident skills that will continue to be a source of employment generation in next 10 years – skill development required for enhancing competitiveness.
- Sectors with policy support from Central and State Government for expansion, training and marketing.
- Product is unique to the region or occurs abundantly because of factor advantages, but has just started to be exploited as an economic activity.
- Infrastructure investment required to support industrial and economic growth; investment which has started or is planned.
- Common service trades such as electricians, plumbers and repair mechanics – those which require service quality enhancement.

## 5.2 Framework for identifying growth engines



The above framework has been used to identify potential sectors where economic activities will create employment between 2011 and 2021.The growth engines for a State's economy are driven by the factor advantages within the State, market conditions, industry value chain available and Government policy support. These factors lead to growth in economic output which in turn determines the annual incremental employment opportunities within the State.

## 5.3 Identified sectors for livelihood opportunities and domestic demand

Based on the framework mentioned above, sectors have been identified for skilling and upgrading skills. These sectors are expected to provide employment opportunities in the coming 10 years. Sectors for domestic demand have been identified based on factor endowments, policy thrust, market potential, historical presence, availability of trained manpower, availability and quality of training centre, time taken to train and employment opportunities.

TABLE 15: SHORTLISTED SECTORS FOR LIVELIHOOD OPPORTUNITIES AND DOMESTIC DEMAND

| Sector | Factor endowments | Policy Thrust | Market Potential | Historical Presence | Availability and quality of training Centre | Time taken to train* | Employment opportunities ** |
|---|---|---|---|---|---|---|---|
| **Livelihood opportunities** | | | | | | | |
| Agriculture | √ | √ | √ | √ | × | Low | - |
| Fishery | √ | × | √ | √ | × | Low | - |
| Animal Husbandry | √ | √ | √ | √ | × | Low | - |
| **Sectors for domestic demand** | | | | | | | |
| Handloom and Handicrafts | √ | √ | √ | √ | × | Medium | - |
| Sericulture | √ | √ | √ | √ | √ | Medium | High |
| Horticulture | √ | √ | √ | √ | × | High | High |
| Food Processing | √ | √ | √ | × | - | Low | High |
| Hospitality | √ | √ | √ | × | × | Medium | Low |
| Construction | √ | √ | √ | √ | × | Low to Medium | High |
| Jatropha | √ | √ | √ | × | × | High | Low |
| IT / ITES | × | √ | √ | × | - | High | High |
| Healthcare | √ | √ | √ | | - | Medium to High | Medium |
| Education | √ | √ | √ | √ | - | Medium to High | High |

** Low: Up to one year; Medium: One to two years; High: More than two years. ** Low: Incremental employment potential of 0 to 1,000 persons; Medium: 1,000 to 2,000 persons; High: More than 2,000 persons. Source: IMaCS Analysis*

## 5.4 Identified sectors for migration

Sectors have also been identified for training and skill development for the purpose of migration to other states or overseas. The broad criteria for short listing these sectors include natural aptitude, youth aspiration, market potential, availability and quality of training centre and time taken to train.

TABLE 16: SHORTLISTED SECTORS FOR MIGRATION

| Sector | Natural aptitude | Youth aspiration | Market Potential | Availability and quality of training Centre | Time taken to train* |
|---|---|---|---|---|---|
| **Sectors for Migration** | | | | | |
| Beauty and Wellness | √ | √ | √ | √ | Low to Medium |
| Hospitality | √ | √ | √ | × | Medium to High |
| IT / ITES | × | √ | √ | × | Medium to High |
| Retail Services | √ | √ | √ | × | Low |
| Music | √ | √ | √ | × | Medium to High |
| Sports | √ | √ | √ | × | Medium to High |
| Ground staff at the airports | × | √ | √ | × | Low to Medium |
| Healthcare | × | √ | √ | × | Medium to High |
| Security | √ | √ | √ | × | Low to Medium |

** Low : Up to one year; Medium : One to two years; High: More than two years.*
*Source: IMaCS Analysis*

## 5.5 Type of skilling required in livelihood and domestic demand sectors

Skilling requirements have been classified under speciality skills, new skills and skill up-gradation.

TABLE 17: SKILLING REQUIRED IN LIVELIHOOD OPPORTUNITIES AND SECTORS OF DOMESTIC DEMAND

| Sectors | Specialty skills | New skills | Skill up-gradation |
|---|---|---|---|
| ***Livelihood opportunities*** | | | |
| Agriculture | | | ✓ |
| Fishery | | ✓ | ✓ |
| Animal Husbandry | | ✓ | ✓ |
| ***Sectors for domestic demand*** | | | |
| Handloom and handicrafts | | ✓ | ✓ |
| Horticulture | | ✓ | ✓ |
| Food processing | | ✓ | ✓ |
| Hospitality | | ✓ | ✓ |
| IT/ITES | ✓ | ✓ | ✓ |
| Healthcare | ✓ | ✓ | ✓ |
| Construction | ✓ | ✓ | ✓ |
| Education | | | ✓ |
| Jatropha | | ✓ | ✓ |

***Specialty skills****: technical or specific knowledge base essential*
***New skills****: training centres largely non-existent*
***Skill-up-gradation****: out-dated techniques and knowledge base*

## 5.6 Type of skilling required in sectors identified for migration

For migration related sectors as well, skilling requirements have been classified under speciality skills, new skills and skill up-gradation.

TABLE 18: SKILLING REQUIRED IN SECTORS FOR MIGRATION

| Sectors | Specialty skills | New skills | Skill up-gradation |
|---|---|---|---|
| ***Sectors for migration*** | | | |
| Beauty and Wellness | ✓ | ✓ | ✓ |
| Hospitality | | ✓ | ✓ |
| IT / ITES | ✓ | | ✓ |
| Retail Services | | ✓ | |
| Music | ✓ | ✓ | |
| Sports | | ✓ | ✓ |
| Ground staff at the airports | | ✓ | |
| Healthcare | ✓ | ✓ | ✓ |
| Security | | ✓ | ✓ |

***Specialty skills**: technical or specific knowledge base essential*
***New skills**: training centres largely non-existent*
***Skill-up-gradation**: out-dated techniques and knowledge base*

## PART – II (c): District level Analysis of Nagaland

## 6.1.Dimapur

Dimapur district was formed in the year 1997. Earlier, it was a sub-division under Kohima district. It is referred to as the gateway of Nagaland. It is also the main commercial centre of the State. The district is bounded by Kohima district on the south and east, Karbi Anglong district of Assam on the west, and the Karbi Anglong and stretch of Golaghat district of Assam, in the west and the north.The only railhead and airport of the State is located in Dimapur district.

### 6.1.1 Economy

Data on district wise contribution to Nagaland's GSDP is not available. However, district wise contribution to the agriculture GSDP of the State indicates that Dimapur made third biggest contribution to Nagaland's agriculture GSDP. As of 2005-06, Dimapur's agriculture GSDP was Rs 215 lakh.

Dimapur is also the key economic centre of Nagaland. Of the 704 SSIs registered in Nagaland in 2007, maximum at almost half (48.4 per cent) were concentrated in the Dimapur district alone.

### 6.1.2Demography

Dimapur's share in Nagaland's land area is 6 per cent. However, its share in State's population is high at 19 per cent. Thus, the district has a high population density at 410, the highest population density as compared to other districts in the State. Most of the population in the district is urban, at 52 per cent.

At 61 per cent, majority of the population is tribal. As per the Census 2011, total population is 379,769. Literacy rate is high at 85 per cent. Population is young, with 36.2 per cent of the population in the age-group of 0 to 14 years and 60.4 per cent of the population in the age-group of 15-59 years.

### 6.1.3Infrastructure

Infrastructure in Dimapur is developed as compared to other districts in the State. As of 2008-09, road length in the district under the Public Works Department (PWD) is 756 km. In terms of transport connectivity, the district also has the State's only rail head which connects Nagaland to the other parts of the country via Assam. The district is also home to the State's only airport.

Drinking water facilities are available in 215 of the 216 inhabited villages in the district. Electricity supply is, however, available in 178 villages.

TABLE 19: INFRASTRUCTURE FACILITIES IN DIMAPUR

| Facilities | Number of villages |
|---|---|
| Drinking water facilities | 215 |
| Safe drinking water | 201 |
| Electricity - supply | 178 |
| Electricity - domestic | 176 |
| Electricity - agriculture | 1 |

*Source: Census 2001, IMaCS Analysis*

**Education Infrastructure:**

Most of the education infrastructure in the State is concentrated in the Dimapur district. It has 185 primary schools, 57 middle schools and 24 secondary and senior secondary schools. For higher education, the district has seven colleges and one Women's ITI.

TABLE 20: EDUCATION INFRASTRUCTURE IN DIMAPUR

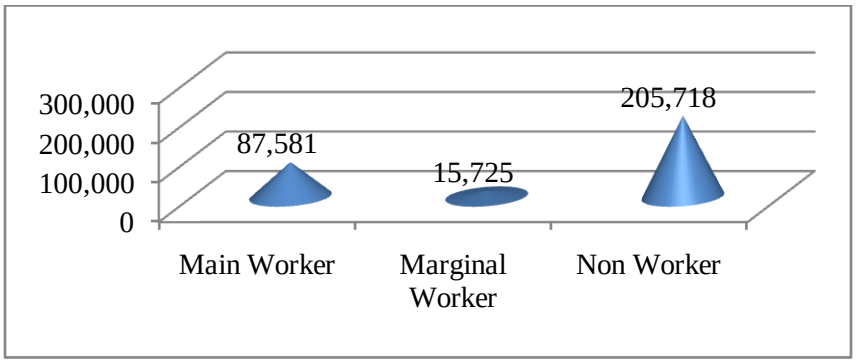
| Institute | No. of Villages |
|---|---|
| Primary school | 185 |
| Middle schools | 57 |
| Secondary/Sr Secondary schools | 24 |
| College | 7 |

*Source: Census 2001, IMaCS Analysis*

### 6.1.4 Employment Pattern

Dimapur has a total of 103,306 workers, with 33 per cent working population. About 85 per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, 29 per cent are cultivators, 5 per cent are agricultural labourers, 3 per cent are workers in household industry and the majority (63 per cent)are other workers. The category of 'other workers' include all government servants, municipal employees, teachers, factory workers, plantation workers, those engaged in trade, commerce, business, transport banking, mining, construction, political or social work, priests and entertainment artists.

FIGURE 12: EMPLOYMENT PATTERN IN DIMAPUR DISTRICT




*Source: Census 2001, IMaCS Analysis*

### 6.1.5 Potential sectors in district

Based on the factor advantages, following sectors have been identified in the district for skilling and upgrading skills:

**Horticulture:**

- Many fruits, vegetables, plantation crops and spices are grown in Dimapur district.
- Key fruits include pineapples, oranges, lemons and bananas. Spices and vegetables include colocasia, turmeric, cauliflower, chillies, ginger and black pepper.
- Pineapples are specifically grown in the Molvom Village of Dimapur. The village is also called as the "Pineapple Growers Society". Pineapple cultivation is being undertaken under the Horticulture Technology Mission.
- The agro-climatic conditions of Dimapur are suitable for growth and cultivation of medicinal and aromatic plants. A few private growers have already started cultivation of citronella grass and patchouli. Distillation plants are also coming up as commercial ventures in a number of locations.
- The agro-climatic conditions are also suitable for growth of ornamental flowers. Commercial production of flowers such as roses, liliums, anthuriums and carnations has already started.
- There is a floriculture project at Chumukedima, Dimapur. It has around 40,000 Anthurium plants having eleven varieties. Flowers from this are being exported to Delhi.

**Jatropha:**

- The district has availability of waste lands and those can be exploited for growth of jatropha, which can further be converted into bio-diesel.
- Plantation of jatropha has already started on a pilot basis.

**Sericulture:**

- Eri is the most prominent type of silk produced in Nagaland and occupies 88 per cent of the total area under silk cultivation.
- The Government has been providing thrust on the development of sericulture in the State. For promotion of sericulture, the Department of Sericulture of Nagaland recently inaugurated a Cocoon Bank in Dimapur.

**Hospitality:**

- Dimapur is one of the key tourism hubs of Nagaland. Thus, providing many opportunities for the hospitality industry.
- Presently, the hospitality industry in the district is under-developed and given the increasing tourist inflow, there is a need to ramp up investments in the industry.

**IT/ITES:**

- Given that Dimapur is the key economic centre of Nagaland and has better connectivity and infrastructure as compared to other districts, demand for IT and ITES is slowing growing.
- There is a demand for IT skills involving use of arts and crafts such as animation and creative arts.

**Others:**

- Other on-going and up-coming sectors in Dimapur district that will drive demand for human resources include healthcare and education.

## 6.2 Kohima

Kohima is a hill district of Nagaland, sharing its borders with the State of Assam and Dimapur district in the west, Phek district in the east, Manipur State and Peren district in the south and Wokha district in the north.

Kohima is also the State capital and was formed in the year 1963, when Nagaland gained Statehood. Since then, three more districts have been carved out of Kohima - the first in 1973 when Phek district was created, then in 1998 Dimapur was carved out and finally in 2004 when one of the youngest districts in the state called Peren das carved out of Kohima.

### 6.2.1 Economy

Data on district wise contribution to Nagaland's GSDP is not available. However, district wise contribution to the agriculture GSDP of the State indicates that Kohima made fourth highest contribution to Nagaland's agriculture GSDP. As of 2005-06, Kohima's agriculture GSDP was Rs 215 lakh.

In terms of industrial activity, of the 704 SSIs registered in Nagaland as of 2007, about 10.4 per cent are concentrated in the Kohima district. In addition, there is a significant presence of the informal sector.

### 6.2.2Demography

Kohima's share in Nagaland's land area is 19 per cent and its share in State's population is 14per cent. Population density in the district is 213. Majority of the population is rural at 54 per cent.

At 91 per cent, the population is mostly tribal. The total population is 270,063. Literacy rate is high, at 86 per cent. Population is young, with 36.4per cent of the population in the age-group of 0-14 year and 59.5 per cent of the population in the age-group of 15-59 years.

### 6.2.3Infrastructure

As of 2008-09, Kohima had the second highest road length in Nagaland at 1,460 km, under PWD. There are plans of an upcoming airport in the district. Drinking water facilities are available in 179 out of 180 inhabited villages in the district. Electricity supply is, however, available in 148 villages.

TABLE 21: INFRASTRUCTURE FACILITIES IN KOHIMA

| Facilities | Number of villages |
|---|---|
| Drinking water facilities | 179 |
| Safe drinking water | 150 |
| Electricity - supply | 148 |
| Electricity - domestic | 146 |
| Electricity - agriculture | Nil |

*Source: Census 2001, IMaCS Analysis*

**Education Infrastructure:**

The district has 164 primary schools, 65 middle schools and 33 secondary and senior secondary schools. For higher education, there are five colleges, one ITI and one Government polytechnic. The existing ITI also has a Centre of Excellence in the automobile sector.

TABLE 22: EDUCATION INFRASTRUCTURE IN KOHIMA

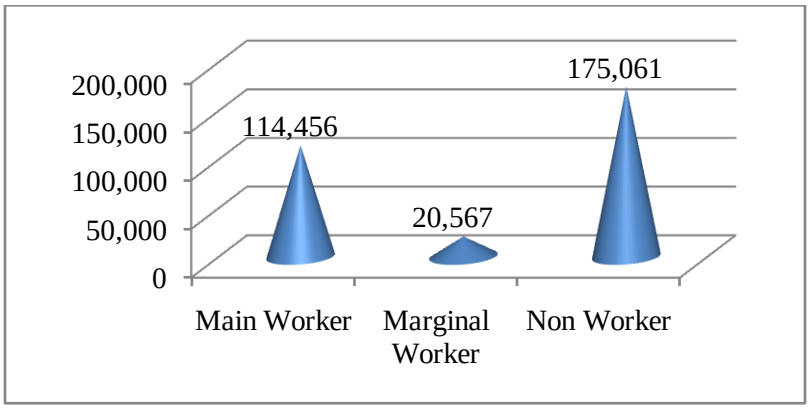
| Institute | No. of Villages |
|---|---|
| Primary school | 164 |
| Middle schools | 65 |
| Secondary/Sr Secondary schools | 33 |
| College | 5 |

*Source: Census 2001, IMaCS Analysis*

### 6.2.4 Employment Pattern

Kohima has over 135,023 workers, with 44 per cent working population. About 85 per cent are main workers, while the remaining are marginal workers. Of the total workers, 55 per cent are cultivators, 3 per cent are agricultural labourers, 3 per cent are household workers and 38 per cent other workers.

FIGURE 13: EMPLOYMENT PATTERN IN KOHIMA DISTRICT




*Source: Census 2001, IMaCS Analysis*

### 6.2.5 Potential sectors in district

Based on the factor advantages, following sectors have been identified in the district for skilling and upgrading skills:

**Horticulture:**

- Many fruits, vegetables, plantation crops and spices are grown in Kohima, due to its conducive agro-climatic conditions.
- Key fruits include oranges, pineapples, lemons, papayas, and bananas. Key spices and vegetables include chillies, tomatoes, ginger, colocasia, tapioca, chowchow, and turmeric.
- The district has specifically started undertaking cultivation of ornamental flowers, like roses, liliums, carnations and anthuriums.
- There is a Kohima Floriculture Project names as Niathu Garden. The State Department provides Lilium bulbs in batches, so that the project gets flowers all-round the year. Flowers from here are getting exported to Delhi also.
- Green-houses for roses are also being set up in Kohima.

**Sericulture:**

- Eri is the most prominent type of silk produced in Nagaland and occupies 88 per cent of the total area under silk cultivation.
- The State government is providing thrust to development of sericulture. This sector is expected to generate employment opportunities for the locals.

**Hospitality:**

- Being the State capital, Kohima attracts one of the highest numbers of tourists in the State, especially in December during the Hornbill Festival.
- The number of theme resorts is increasing, particularly for, tribal tourism.
- As the number of tourists increase further, there will be a higher demand for more investments in the hospitality industry in the district. This will further increase the demand for human resources.

## 6.3 Mokokchung

Mokokchung district is bounded by the State of Assam to its north, Nagaland's district Wokha to its west, Tuensang to its east, and Zunheboto to its south. It covers an area of 1,615 sq. km.

### 6.3.1 Economy

Data on district wise contribution to Nagaland's GSDP is not available. However, district wise contribution to the agriculture GSDP of the State indicates that as of 2005-06, Mokokchung's agriculture GSDP was Rs199 lakh.

In terms of industrial activity, of the 704 SSIs registered in Nagaland in 2007, about 12.6 per cent were concentrated in the Mokokchung district. In addition, there is a significant presence of the informal sector, particularly in the trade, horticulture, apiculture and weaving sectors.

### 6.3.2Demography

Mokokchung's share in Nagaland's land area and population is 10 per cent each. Population density in the district is 120. Most of the population is rural. Percentage of rural population is 71 per cent of the total population of 193,171 persons.

Majority of the population is tribal in nature at 94 per cent. Literacy rate is highest at 93 per cent, as compared to the other districts. Population is young, with 29.8 per cent of the population in the age-group of 0-14 year and 64 per cent of the population in the age-group of 15-59 years.

### 6.3.3Infrastructure

As of 2008-09, Mokokchung had the highest road length in Nagaland at 1,541 km under PWD. There is no railway or airport connectivity. Drinking water facilities are available in 101 out of 102 inhabited villages in the district. Electricity supply is, however, available in 97 villages.

TABLE 23: INFRASTRUCTURE FACILITIES IN MOKOKCHUNG

| Facilities | Number of villages |
|---|---|
| Drinking water facilities | 101 |
| Safe drinking water | 91 |
| Electricity - supply | 97 |
| Electricity - domestic | 94 |
| Electricity - agriculture | Nil |

*Source: Census 2001, IMaCS Analysis*

**Education Infrastructure:**

The district has 99 primary schools, 58 middle schools and 27 secondary and senior secondary schools. For higher education, there are two colleges, one ITI and one polytechnic (Institute of Communication and Information Technology).

TABLE 24: EDUCATION INFRASTRUCTURE IN MOKOKCHUNG

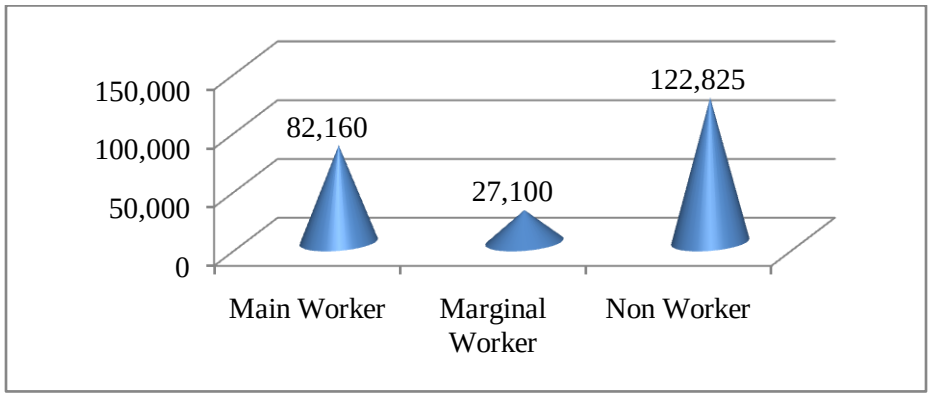
| Institute | No. of Villages |
|---|---|
| Primary school | 99 |
| Middle schools | 58 |
| Secondary/Sr Secondary schools | 27 |
| College | 2 |

*Source: Census 2001, IMaCS Analysis*

### 6.3.4 Employment Pattern

Mokokchung has 109,260 workers, with 47 per cent working population. About 75 per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, majority at 61 per cent are cultivators, 5 per cent are agricultural labourers, 3 per cent are household workers and 30 per cent are other workers.

FIGURE 14: EMPLOYMENT PATTERN IN MOKOKCHUNG DISTRICT




*Source: Census 2001, IMaCS Analysis*

### 6.3.5 Potential sectors in district

Based on the factor advantages, following sectors have been identified in the district for skilling and upgrading skills:

**Horticulture and food processing:**

- The agro-climatic conditions of Mokokchung are suitable for cultivation of different types of fruits, vegetables, plantation crops and spices.
- Key fruits include oranges, lemons, papayas, bananas, and pineapples. Key spices and fruits include sweet potatoes, chillies, tomatoes, ginger, colocasia, and turmeric.
- There is also potential for growing medicinal and aromatic plants like citronella grass.
- The district has also been chosen for commercial production of ornamental flowers like roses, carnations, liliums and jerberas.
- There is also a Model Floriculture Centre for Roses and Carnations at Yisemyong village in Mokokchung, covering an area of about 38 acres. The Centre is producing world-class quality roses.
- There is a Longkhum vegetable village project at Mokokchung district. It is producing tomatoes. Besides tomatoes, the villagers are also cultivating chillies, maize, cucumber, cabbages and potatoes. It is aided by the Horticulture Technology Mission.
- The district also has potential for setting up of the food processing industry. The only existing State run fruit canning factory is located at Longnak in Mokokchung district.

**Jatropha:**

- The district has availability of waste lands and those can be exploited for growth of jatropha, which can further be converted into bio-diesel.
- Plantation of jatropha has already started on a pilot basis.

**Sericulture:**

- Mokokchung is the key silk farm area in Nagaland.
- Eri is the most prominent type of silk produced in Nagaland and occupies 88 per cent of the total area under silk cultivation.

## 6.4 Mon

Mon district is the northernmost district of Nagaland. It is bounded by the state of Arunachal Pradesh to its north, Assam to its west, Myanmar to its east, Longleng district to its south-west and Tuensang District to its south. In 2006, Mon was named as one of the 250 most backward districts of India. It is one of the districts in Nagaland currently receiving funds from the Backward Regions Grant Fund Programme (BRGF).

### 6.4.1 Economy

Data on district wise contribution to Nagaland's GSDP is not available. However, district wise contribution to the agriculture GSDP of the State indicates that as of 2005-06, Mon made the second highest contribution to Nagaland's agriculture GSDP at Rs 282 lakh.

In terms of industrial activity, of the 704 SSIs registered in Nagaland in 2007, Mon had the second lowest proportion of SSIs at just 0.6 per cent. However, there is a significant presence of the informal sector.

### 6.4.2Demography

Mon's share in Nagaland's land area is 11 per cent and its share in State's population is at 13 per cent. Population density in the district is at 140. Most of the population is rural. The ratio of rural population to total population is 86 per cent.

Percentage of tribal population is high at 94 per cent of the total population of 250,671 persons. The district has the lowest literacy rate in the State at 57 per cent. Population is young, with 37 per cent of the population in the age-group of 0 to 14 years and 56.5 per cent of the population in the age-group of 15-59 years.

### 6.4.3Infrastructure

Mon is among the remotest districts in Nagaland with major road accessibility from Assam. As of 2008-09, Mon district had a road length of 1,063 km under PWD. There is no railway or airport connectivity. Drinking water facilities are available in all 110 inhabited villages in the district. Electricity supply is, however, available in only 102 villages.

TABLE 25: INFRASTRUCTURE FACILITIES IN MON

| Facilities | Number of villages |
|---|---|
| Drinking water facilities | 110 |
| Safe drinking water | 106 |
| Electricity - supply | 102 |
| Electricity - domestic | 102 |
| Electricity - agriculture | Nil |

*Source: Census 2001, IMaCS Analysis*

**Education Infrastructure:**

The district has 107 primary schools, 60 middle schools and 13 secondary and senior secondary schools. In terms of technical education, there is one ITI.

TABLE 26: EDUCATION INFRASTRUCTURE IN MON

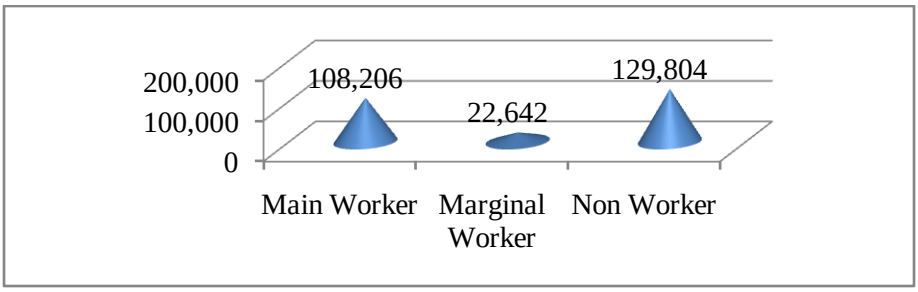
| Institute | No. of Villages |
|---|---|
| Primary school | 107 |
| Middle schools | 60 |
| Secondary/Sr Secondary schools | 13 |
| College | - |

*Source: Census 2001, IMaCS Analysis*

### 6.4.4 Employment Pattern

Mon district has a total of 130,848 workers, with 50 per cent of total population. About 83 per cent are main workers, while the remaining are marginal workers. The district is primarily dependent on agriculture. Of the total workers, majority at 82 per cent are cultivators, 4 per cent are agricultural labourers, 2 per cent are household and 12 per cent other workers.

FIGURE 15: EMPLOYMENT PATTERN IN MON DISTRICT




*Source: Census 2001, IMaCS Analysis*

### 6.4.5 Potential sectors in district

Based on the factor advantages, following sectors have been identified in the district for skilling and upgrading skills:

**Horticulture:**

- Mon district is rich in flora and fauna. Some of the rare flowers like Blue Vanda, White Orchids, Foxtail, Wild Lilies, Maples etc. are found in the mountainous region of the district.
- There are also variety of medicinal plants, edible plants etc. which are of great botanical value.
- The district's agro-climatic conditions are suitable for growth of many types of fruits like apples, pears, plums, peaches, oranges, lemons, bananas, pineapples etc. It is also suitable for growth of spices and vegetables like colocasia, ginger, sweet potato, chillies, tomatoes, tapioca, etc.

## 6.5 Phek

Phek, a hilly district, is a district in the south-eastern part of Nagaland, bounded by Myanmar in the east, Zunheboto and Tuensang districts in the north, Manipur State in the south and Kohima district in the

west. Earlier, it was a part of Kohima district and was made a separate district in year 1973. Agriculture is the main occupation of the people of Phek.

### 6.5.1 Economy

Data on district wise contribution to Nagaland's GSDP is not available. However, district wise contribution to the agriculture GSDP of the State indicates that as of 2005-06, Phek had agriculture GSDP of Rs182 lakh.

In terms of industrial activity, of the 704 SSIs registered in Nagaland in 2007, Phek'sproportion of SSIs was at 2.4 per cent. However, there is a significant presence of the informal sector.

### 6.5.2Demography

Phek's share in Nagaland's land area is 12 per cent. However, its share in State's population is 8 per cent. The population density in the district is second lowest in the State, at 81. At 85 per cent of population, it is mostly rural.

Most of the population is tribal, at 96 per cent of the total population. Total population in the district is at 163,294. Literacy rate is 79 per cent. Population is young, with 41.2 per cent of the population in the age-group of 0-14 year and 54.5 per cent of the population in the age-group of 15-59 years.

### 6.5.3Infrastructure

As of 2008-09, Phek district had a road length of 975 km under PWD. There is no railway or airport connectivity. Drinking water facilities are available in all 104 inhabited villages in the district. Electricity supply is, however, available in 102 villages.

TABLE 27: INFRASTRUCTURE FACILITIES IN PHEK

| Facilities | Number of villages |
|---|---|
| Drinking water facilities | 104 |
| Safe drinking water | 103 |
| Electricity - supply | 102 |
| Electricity - domestic | 101 |
| Electricity - agriculture | Nil |

*Source: Census 2001, IMaCS Analysis*

**Education Infrastructure:**

The district has 102 primary schools, 55 middle schools and 22 secondary and senior secondary schools. For higher education, there is one college and one ITI.

TABLE 28: EDUCATION INFRASTRUCTURE IN PHEK

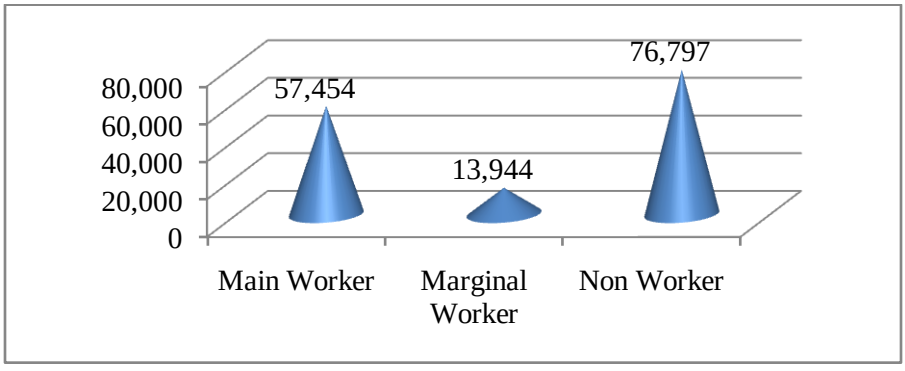
| Institute | No. of Villages |
|---|---|
| Primary school | 102 |
| Middle schools | 55 |
| Secondary/Sr Secondary schools | 22 |
| College | 1 |

*Source: Census 2001, IMaCS Analysis*

### 6.5.4 Employment Pattern

Phek district has a total of 71,398 workers, with 48 per cent working population. About 80 per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, 72 per cent are cultivators, 2 per cent is agricultural labourers, 2 per cent is workers in household industry and 24 per cent other workers.

FIGURE 16: EMPLOYMENT PATTERN IN PHEK DISTRICT




*Source: Census 2001, IMaCS Analysis*

### 6.5.5 Potential sectors in district

Based on the factor advantages, following sectors have been identified in the district for skilling and upgrading skills:

**Horticulture:**

- Key grown fruits include oranges, lemons, bananas, and pineapples.
- Key grown spices and vegetables include chillies, ginger, colocasia, tapioca, chowchow, sweet potatoes, and also medicinal and aromatic plants.
- Some of the key activities undertaken in the district under the Horticulture Technology Mission are cardamom cultivation, floriculture, spice development, and development of medicinal and aromatic plants.

## 6.6 Tuensang

Tuensang district is the largest and eastern-most district of Nagaland. It is one of the original districts of Nagaland, which was formed at the time Nagaland gained Statehood in 1963. Over the years, Mon, Longleng and Kiphire districts have been carved out of it.

The district shares a long and porous border with Myanmar along its eastern side. It is bounded by Mon in the north east, Longleng in the north, Mokokchung and Zunheboto in the west and Kiphire in the south.

### 6.6.1 Economy

Data on district wise contribution to Nagaland's GSDP is not available. However, district wise contribution to the agriculture GSDP of the State indicates that as of 2005-06, Tuensang made the highest contribution to Nagaland's agriculture GSDP at Rs331 lakh.

In terms of industrial activity, of the 704 SSIs registered in Nagaland in 2007, Tuensang's proportion of SSIs was at 4.5 per cent. However, there is a significant presence of the informal sector.

### 6.6.2Demography

Tuensang's share in Nagaland's land area is26 per cent. However, its share in State's population is low at 10 per cent. Thus, the population density in the district is low at 90. The district is mostly rural, with rural population at 81 per cent of the total population.

Most of the population is tribal at 96 per cent of the total population. Total population in the district is small at 196,801 persons. Literacy rate is 74 per cent. Population is young, with 37.6 per cent of the

population in the age-group of 0 to 14 years and 57.3 per cent of the population in the age-group of 15-59 years.

### 6.6.3Infrastructure

As of 2008-09, Tuensang district had a road length of 977 km under PWD. There is no railway or airport connectivity. Drinking water facilities are available in all 251 inhabited villages in the district. Electricity supply is, however, available in 238 villages.

TABLE 29: INFRASTRUCTURE FACILITIES IN TUENSANG

| Facilities | Number of villages |
|---|---|
| Drinking water facilities | 251 |
| Safe drinking water | 234 |
| Electricity - supply | 238 |
| Electricity - domestic | 235 |
| Electricity - agriculture | 8 |

*Source: Census 2001, IMaCS Analysis*

**Education Infrastructure:**

The district has 230 primary schools, 111 middle schools and 40 secondary and senior secondary schools. For higher education, there are four colleges and one ITI.

TABLE 30: EDUCATION INFRASTRUCTURE IN TUENSANG

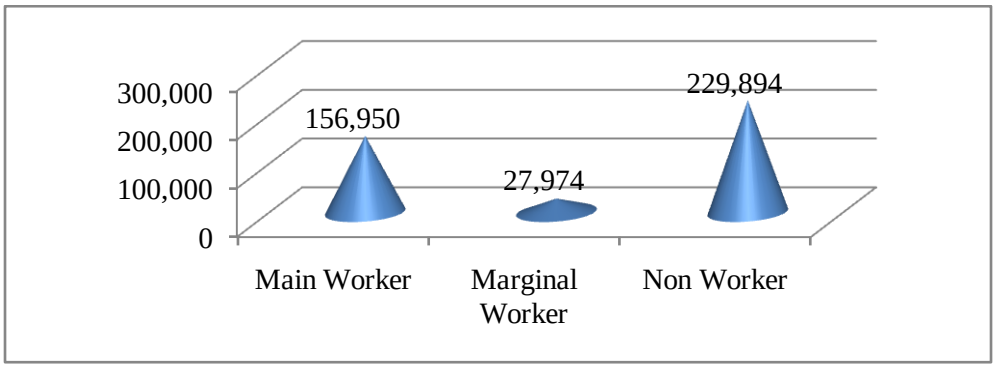
| Institute | No. of Villages |
|---|---|
| Primary school | 230 |
| Middle schools | 111 |
| Secondary/Sr Secondary schools | 40 |
| College | 4 |

*Source: Census 2001, IMaCS Analysis*

### 6.6.4 Employment Pattern

Tuensang district has a total of 184,924 workers, with 45 per cent working population. About 85per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, majority at 80 per cent are cultivators, 3 per cent is agricultural labourers, 2per cent are workers in household industry and the 14 per cent other workers.

FIGURE 17: EMPLOYMENT PATTERN IN TUENSANG DISTRICT




*Source: Census 2001, IMaCS Analysis*

### 6.6.5 Potential sectors in district

Based on the factor advantages, following sectors have been identified in the district for skilling and upgrading skills:

**Horticulture:**

- Teunsang district is a major producer of bean.
- Key fruits grown in the district include oranges, lemons, bananas, and pineapples.
- Key spices and vegetables grown in the district include chillies, ginger, colocasia, tapioca, and turmeric.
- There is also potential for growth of medicinal and aromatic plants.

**Jatropha:**

- The district has availability of waste lands and those can be exploited for growth of jatropha, which can further be converted into bio-diesel.

## 6.7 Wokha

The Wokha district is situated in the mid-western part of Nagaland, adjacent to the Sibsagar district of Assam. It is bounded by Nagaland's Mokokchung district in the North, Kohima district in the south, Zunheboto district in the east and the Assam in the west. In 2006, it was named as one of the 250 most backward districts of India.

### 6.7.1 Economy

Data on district wise contribution to Nagaland's GSDP is not available. However, district wise contribution to the agriculture GSDP of the State indicates that as of 2005-06, Wokha district made the second lowest contribution to Nagaland's agriculture GSDP at Rs149 lakh.

In terms of industrial activity, of the 704 SSIs registered in Nagaland in 2007, Wokha's proportion of SSIs was at 8.7 per cent. However, there is a significant presence of the informal sector.

### 6.7.2Demography

Wokha district has a share of 10 per cent in Nagaland's land area. Its share in State's population is eight per cent. The population density in the district is 102. The district is mostly rural, with rural population at 79 per cent of the total population.

Most of the population is tribal at 96 per cent of the total population. Total population in the district is 166,239 persons. Literacy rate is high at 88 per cent. Population is young, with 37 per cent of the population in the age-group of 0-14 year and 59 per cent of the population in the age-group of 15-59 years.

### 6.7.3Infrastructure

As of 2008-09, Wokha district had a road length of 1,099 km under PWD. There is no railway or airport connectivity. Drinking water facilities are available in all the 128 inhabited villages in the district. Electricity supply is available in 105 villages.

TABLE 31: INFRASTRUCTURE FACILITIES IN WOKHA

| Facilities | Number of villages |
|---|---|
| Drinking water facilities | 128 |
| Safe drinking water | 114 |
| Electricity - supply | 105 |
| Electricity - domestic | 104 |
| Electricity - agriculture | Nil |

*Source: Census 2001, IMaCS Analysis*

**Education Infrastructure:**

The district has 104 primary schools, 32 middle schools and 13 secondary and senior secondary schools. For higher education, there is one college and one ITI.

TABLE 32: EDUCATION INFRASTRUCTURE IN WOKHA

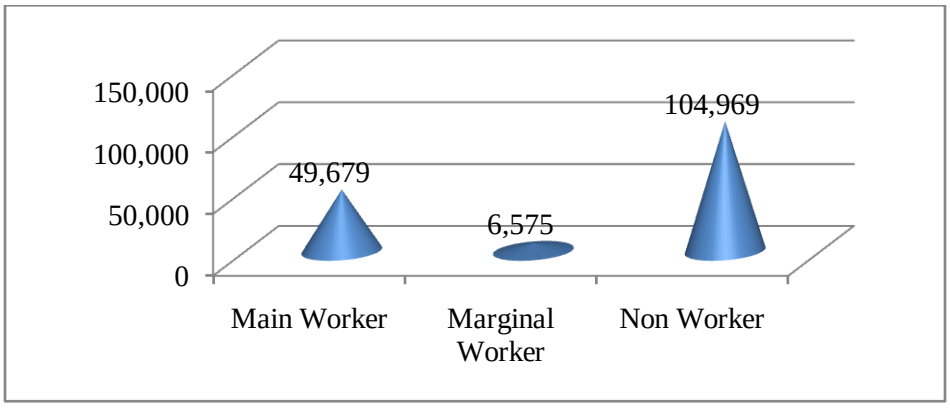
| Institute | No. of Villages |
|---|---|
| Primary school | 104 |
| Middle schools | 32 |
| Secondary/Sr Secondary schools | 13 |
| College | 1 |

*Source: Census 2001, IMaCS Analysis*

### 6.7.4 Employment Pattern

Wokha district has a total of 56,254 workers, with 35 per cent working population. About 88 per cent of them are main workers, while the remaining are marginal workers. Of the total workers, majority at 63 per cent are cultivators, one per cent is agricultural labourers, three per cent is workers in household industry and 33 per cent is other workers.

FIGURE 18: EMPLOYMENT PATTERN IN WOKHA DISTRICT




*Source: Census 2001, IMaCS Analysis*

### 6.7.5 Potential sectors in district

Based on the factor advantages, following sectors have been identified in the district for skilling and upgrading skills:

**Horticulture:**

- Key fruits grown in the district include oranges, lemons, mosambi, bananas, pineapples and passion fruit.
- Passion fruit is grown on priority in the district. There is a passion fruit ark near the Hume Pipe industry in Wokha. This farm has become a successful model for other passion fruit growers in the State.
- Key spices and vegetables grown in the district include sweet potatoes, chillies, tomatoes, beans, ginger, colocasia, tapioca, chowchow, and turmeric.
- There is also potential for growth of medicinal and aromatic plants.
- There is potential for floriculture as well. There is a Floriculture project at Satsuphen, Wokha. The entrepreneurs, Kaka and Brothers have been successfully harvesting their liliums and lilium of the Longsa Flower Growers' Association.

**Tourism:**

- Wokha has several locations with associated legends and mythical stories.
- There is potential for development of eco-tourism, tribal tourism and adventure tourism.

- Being close to Kohima and well connected to it, it is ideal as a tourism circuit destination for day trips and activities.

**Fisheries:**

- Wokha is a key supplier of fish in the State because of the Doyang water reservoir.
- Scientific fishing, processing, storage and pondage techniques are necessary to develop fishing in the district.

## 6.8 Zunheboto

Zunheboto district is situated in central Nagaland and is bounded by Mokokchung district in the east and Wokha district in the west. It is home to the Nagaland University.

### 6.8.1 Economy

Data on district wise contribution to Nagaland's GSDP is not available. However, district wise contribution to the agriculture GSDP of the State indicates that as of 2005-06, Zunheboto district made the lowest contribution to Nagaland's agriculture GSDP at Rs83 lakh.

In terms of industrial activity, of the 704 SSIs registered in Nagaland in 2007, Zunheboto's proportion of SSIs was at 7.8 per cent. However, there is a significant presence of the informal sector.

### 6.8.2Demography

Zunheboto's share in Nagaland's land area is 8 per cent. However, its share in State's population is 7 per cent. The population density in the district is 112. The district is mostly rural, with rural population at 80 per cent of the total population.

It has a high percentage of tribal population in the State at 96 per cent of its total population. As of 2011, its total population stands at 141,014. Literacy rate is high at 86 per cent. Population is young, with 39.6 per cent of the population in the age-group of 0 to 14 years and 55.9 per cent of the population in the age-group of 15-59 years.

### 6.8.3Infrastructure

Infrastructure needs more development. As of 2008-09, Zunheboto district had a road length of 1,254 km under PWD. There is no railway or airport connectivity. Drinking water facilities are available in 186 out of 187 inhabited villages in the district. Electricity supply is, however, available in all 187 villages.

TABLE 33: INFRASTRUCTURE FACILITIES IN ZUNHEBOTO

| Facilities | Number of villages |
|---|---|
| Drinking water facilities | 186 |
| Safe drinking water | 180 |
| Electricity - supply | 187 |
| Electricity - domestic | 187 |
| Electricity - agriculture | Nil |

*Source: Census 2001, IMaCS Analysis*

**Education Infrastructure:**

The district has 178 primary schools, 44 middle schools and 17 secondary and senior secondary schools. For technical education, there is one ITI and one polytechnic in the district.

TABLE 34: EDUCATION INFRASTRUCTURE IN ZUNHEBOTO

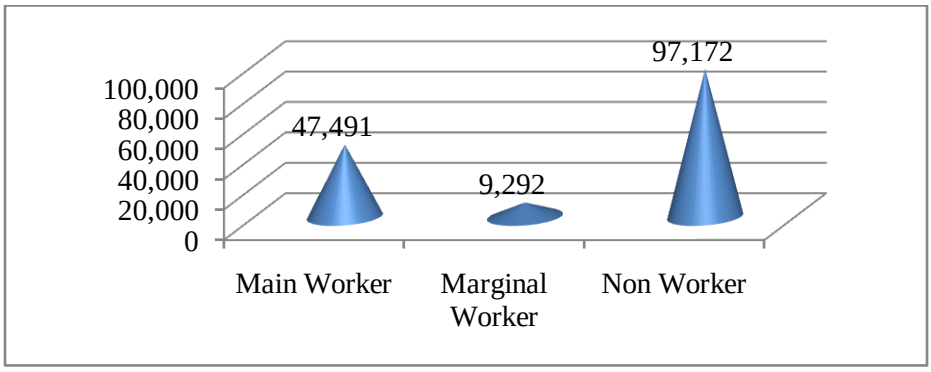
| Institute | No. of Villages |
|---|---|
| Primary school | 178 |
| Middle schools | 44 |
| Secondary/Sr Secondary schools | 17 |
| College | - |

*Source: Census 2001, IMaCS Analysis*

### 6.8.4 Employment Pattern

Zunheboto has a total of 56,783 workers, with 37 per cent working population. About 84 per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, majority at63 per cent are cultivators, 4 per cent is agricultural labourers, 2 per cent are workers in household industry and 31 per cent other workers.

FIGURE 19: EMPLOYMENT PATTERN IN ZUNHEBOTO DISTRICT




*Source: Census 2001, IMaCS Analysis*

### 6.8.5 Potential sectors in district

Based on the factor advantages, following sectors have been identified in the district for skilling and upgrading skills:

**Food processing:**

- Due to its conducive agro-climatic conditions, the Zunheboto district is able to grow fruits and vegetables, which can be further processed into jams, jellies, pickles etc.
- Key fruits grown in the district include oranges, bananas, kiwi fruit and pineapples. Key spices and vegetables include chillies, ginger, colocasia, tapioca, and turmeric.

**Jatropha and Forest plantation:**

- The district has availability of waste lands and those can be exploited for growth of jatropha, which can further be converted into bio-diesel.
- The district is also focussing on forest plantations of key wood types, under Central Government assistance.

## PART – II (d): Skill Gap Analysis

## 7.1Bamboo

About 5 per cent of India's bamboo grows in Nagaland. Based on which, bamboo based industries have started to come up.

**Potential**

- Bamboo is found extensively all over Nagaland. It occurs predominantly in parts of Dimapur, Peren, Mon and Mokokchung districts.
- Nagaland is estimated to have 448,000 hectares of land under bamboo, which is about five per cent of the growing stock of bamboo in the country.
- About 22 species of bamboo have been identified in the State. Predominant ones are Kakoo (Dendrocalamushamitonii), Daloo (Teinostachyumdulloa) and Jati (Bambusatulda).

**Government thrust**

- To promote bamboo development in the State, the Government of Nagaland notified the Bamboo Policy for the State in March 2005.
- One of the objectives of the policy is to promote bamboo based industries. Nagaland Bamboo Development Agency has been set up to achieve the objectives of this policy.

**Current status**

- Bamboo industries are yet to take off in a big way in the State. However, some of the products are manufactured on a small scale in the State. These include bamboo mats, incense sticks, blinds, bamboo charcoal, bamboo shoots, bamboo roads, etc.
- Nagaland Bamboo Resource Centre has also been established, as a centre of excellence for facilitating technology and information for resource and enterprise developments, creating awareness on the potentials of bamboo, building the capacity of bamboo farmers and entrepreneurs, etc.
- A few bamboo charcoal production units have also come up in the State.

## 7.1(a) Skill mapping and gap analysis in bamboo

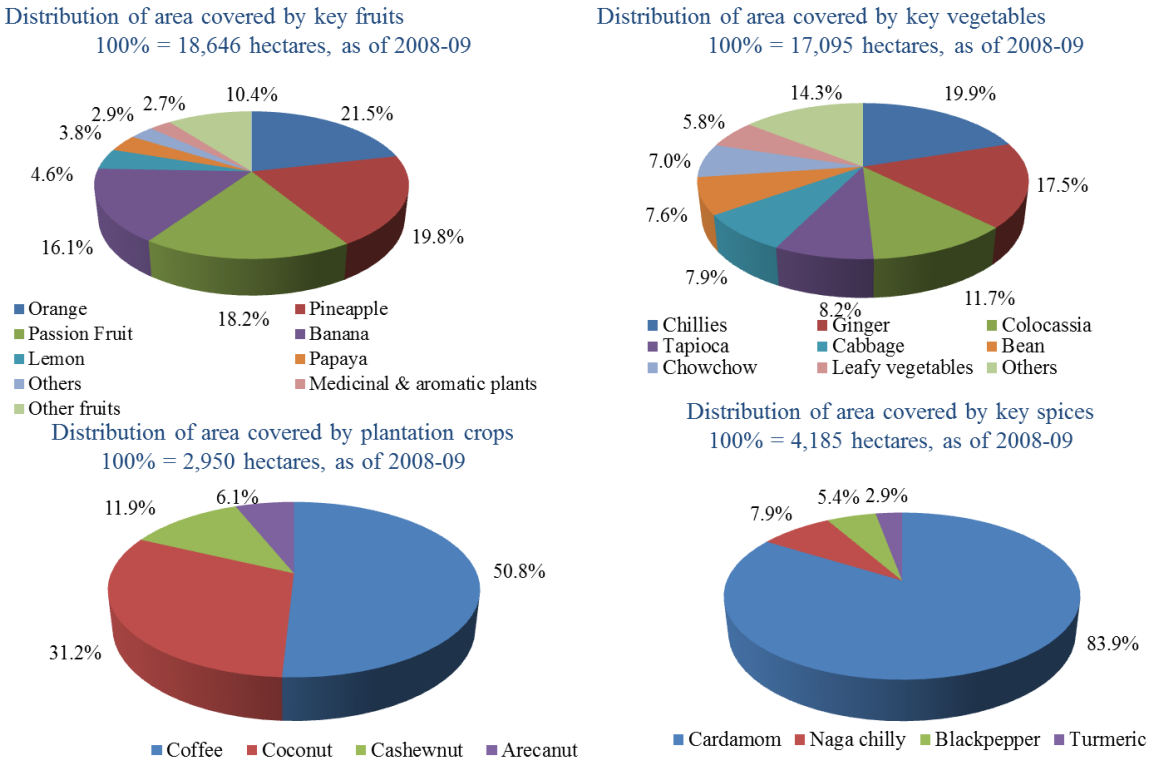
| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| *Agarbatti*making units | Manufacturing of bamboo *agarbatti*sticks | • Ability to cut and clean the bamboo poles<br>• Ability to cut bamboo poles into appropriately sized strips<br>• Ability to feed strips into machines<br>• Ability to operate the machine which produces *agarbatti*sticks<br>• Ability to roll paste on bamboo sticks and final finishing of the product<br>• Ability to package and market the final product | • Lack of marketing skills<br>• Lack of packaging skills<br>• Lack of ability to do attractive pricing |

| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Small briquette making units | Manufacturing bamboo charcoal briquettes | • Ability to clear bamboo stems off its leaves<br>• Ability to cut bamboo in standard sizes<br>• Ability to feed cleared stems into the machine<br>• Ability to operate the machine, which manufactures briquettes<br>• Ability to do packaging, marketing, and appropriate pricing of the final product | • Lack of packaging skills<br>• Lack of understanding of branding<br>• Lack of understanding of pricing and marketing |

## 7.2Horticulture, floriculture and medicinal plants

Horticulture and plantation crops of Nagaland are mainly consumed locally as there is low production scale.

FIGURE 20: DISTRIBUTION OF AREA - FRUITS, VEGETABLES, PLANTATION CROPS & SPICES




*Source: Statistical Handbook of Nagaland 2009; IMaCS Analysis*

There is also traditional knowledge for use of some medicinal plants. Based on this, potential exists for scientific classification and commercial use.

**Potential**

- Nagaland has a rich diversity of medicinal and aromatic plants. The State Government in association with School of Agriculture, Medzhiphema, near Dimapur, has so far identified 600 species of such plants.
- Some of the key medicinal plants in Nagaland are: *Gensing, Yew, Agar, Tulsi, Bel, Sarpgandha, Amla, Chiratha, Rudrakshae*tc.

**Policy thrust**

- The State Government launched the Nagaland Bio Resource Mission (NBRM) in July 2007 with a view to encourage farmers for the cultivation of indigenous medicinal and aromatic plants on a commercial basis. Cluster cultivation is being encouraged at the district and village level by individual farmers, SHGs & NGO with active involvement of NBRM in technical back up and financial assistance.
- The Nagaland Horticulture Department has also decided to focus more on adopting medicinal and aromatic plants as alternative crops.

**Initiatives**

The Government has set up herbal gardens in Nagaland for promotion and conservation of medicinal plants. So far, herbal gardens have been opened at Dimapur, Wokha, Mon, Mokokchung and Kohima.

The State has also started exploring its floriculture potential. Nagaland holds the record for world's tallest rhododendron. Given below is the overview of some of the successful floriculture ventures in Nagaland.

- **Floriculture project at Satsuphen, Wokha:** The entrepreneurs, Kaka and Brothers have been successfully harvesting their liliums and lilium of the Longsa Flower Growers' Association.

- **Mokokchung low cost lilium project at Chuchuyimpang:** The SHG lilium project at the Hospital Colony, showed an example of plants grown in different phases so that harvesting could be organized all year round.

- **Model Floriculture Centre for Roses and Carnations at Yisemyong:** Covering an area of about 38 acres, the Centre is producing world-class quality roses.

- **Kohima Floriculture Project named NiathuGarden:** The State Department provides Lilium bulbs in batches, so that the project gets flowers all-round the year. Exporting flowers to Delhi.

- **Floriculture project at Chumukedima, Dimapur:** It has around 40,000 Anthurium plants having eleven varieties. Exporting flowers to Delhi.

- **Sovima:** Blossom Florist, Akruzo Putstire, is the biggest Anthurium grower in the State

## 7.2(a) Skill mapping and gap analysis in horticulture and floriculture

| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Grower | To grow fruits and flowers with best possible productivity and quality | • Knowledge about the growing pattern of crops<br>• Knowledge of different seasons in which different crops should be harvested and planted<br>• Knowledge about high quality seeds<br>• Knowledge about pest control, which includes management of weeds, insects / mites, and diseases<br>• Good understanding of cultural practices which include crop rotation, culling, cover crops, intercropping, double cropping, composting etc.<br>• Understanding of international standards to ensure best quality and higher production | • Lack of understanding of international standards to ensure best quality and higher production<br>• Lack of modern techniques<br>• Lack of understanding of modern machinery<br>• Inability to reach commercial scale of production<br>• Inability to scale up production |

| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Marketing agents | Marketing of crops | • Capability to establish market linkages<br>• Understanding of market demand<br>• Understanding of pricing methodology<br>• Capability to strike good bargains with the potential buyers both in domestic and international markets<br>• Ability to ensure timely transportation to prevent it from getting perished and wasted<br>• Soft skills to deal with clients | • Inability to establish market linkages<br>• Lack of understanding of packaging, branding and pricing |

## 7.2(b) Skill mapping and gap analysis in fruit processing

| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Fruit processing entrepreneur | Processing of fruits and vegetables | • Ability to visually examine fruits / vegetables and separate rotten fruits / vegetables<br>• Ability to differentiate between different quality grades based on size and other normative approaches<br>• Ability to appropriately size / dice as well as the ability to make end produce visually appealing<br>• Knowledge of latest preservation and processing technologies<br>• Ability to adapt to newer storage technologies<br>• Quality control techniques<br>• Branding knowledge<br>• Strong negotiation skills<br>• Packing, selling and marketing skills | • Lack of understanding of marketing, branding and pricing<br>• Inability to do attractive packaging<br>• Inability to scale up production<br>• Lack of negotiation skills<br>• Lack of knowledge on preparation of diverse but cost effective and quality products |

## 7.2(c) Skill mapping and gap analysis in medicinal plants

| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Medicinal plant grower<br>Medicinal plant entrepreneur | Production of medicinal plants<br>Conversion to extracts for selling as herbal products with medicinal value | • Knowledge of plant varieties and medicinal value<br>• Plantation management and pest control<br>• Ability to grow medicinal plants according to soil, climate and altitude requirements of the plant<br>• Market creation for medicinal products<br>• Pricing and accounting skills<br>• Ability to record traditional medicine practices<br>• Ability to extract medicinal properties of a plant<br>• Ability to package, brand and market product<br>• Ability to develop tie-ups with the farmers | • Lack of understanding of production, marketing, branding and pricing<br>• Lack of knowledge of medicinal values and plant value<br>• Quality control and partnerships non-existent |

## 7.3 Handloom and Handicraft

**Handloom**

- Handloom weaving is popularly practiced in Mokokchung, Wokha, Tuensang, Zunheboto, Mon, Phek and Kohima districts.
- The weavers produce shawls, shirts, jackets, bed-sheets, bed covers, shoulder bags, table mats etc. The motifs and designs differ according to the tribes preparing it.
- The Nagaland Handloom and Handicraft Development Corporation market the handloom products within and in other states of India. The handloom products of the corporation are produced in its centers and also bought from the local weavers of the state.

**Basketry**

- Baskets are made primarily by women from cane and bamboo.
- The cane baskets of Khonoma village are particularly well known for their intricate weaves.
- The cane baskets by the Khiamngan weavers in the Tuensang District are also known for the fineness of their work that gives it a lace-like appearance.

**Wood-carving**

- Nagas are known for their wood carving skills. Skilled craftsmen produce works of art such as village gates and house posts as well as objects of utility.
- One of the finest specimens is found at Shangnyu village in Mon District. The work of art at Shangnyu consists of a massive wooden panel that has carvings depicting objects of art as well as those of ritual and utility value.
- The Diezephe Craft village in Dimapur district is specifically known for wood carving works. Major source of income is from woodcraft only.

**Other handicrafts**

Other handicraft works include metal works, jewellery and bead work / ornaments and pottery.

## 7.3(a) Skill mapping and gap analysis in handicrafts industry

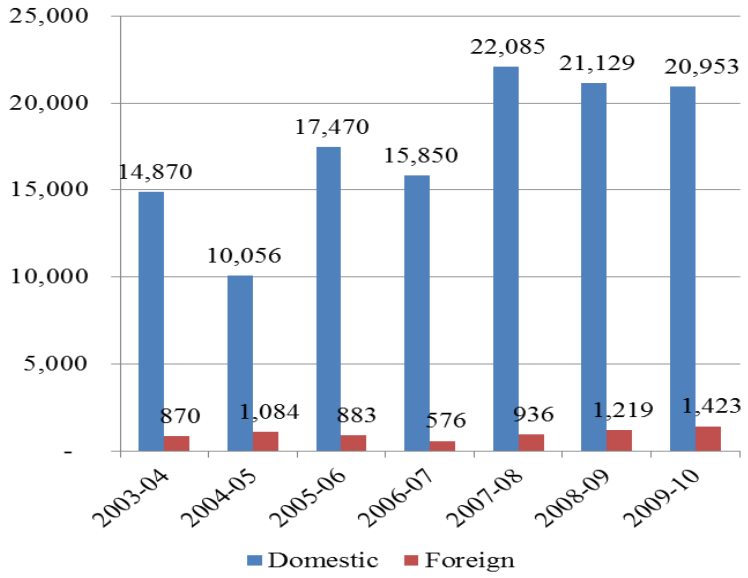
| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Handicraft artisan groups | Creating products that represent the state's tribal traditions | • Sourcing of raw materials at competitive prices<br>• Producing material that can withstand international competitiveness in terms of design, colour combinations and quality<br>• Packaging and transport methods<br>• Appropriate pricing<br>• Market creation in neighbouring states and tie-ups with bulk buyers<br>• Linking products with tourism | • Innovative designs that change with consumer preference, yet keep the traditional motif intact<br>• Use of IT for cost effective design, sourcing and sales<br>• Use of packaging materials such as styrofoam, etc.<br>• Creating sales avenues at key tourist places and<br>• Accounting and pricing skills<br>• Negotiation skills |

## 7.4 Tourism and hospitality

- The State has diverse ethnicity and is also known as the 'Land of Festivals'. The 'Hornbill Festival' is a renowned one. Tribal tourism also attracts some tourists.
- Nagaland's bio-diversity includes unique birds, moths and insects, and wild animals.
- The State attracted 22,376 tourists in 2009-2010. About 94 per cent of these were domestic, while remaining was foreign.
- The number of tourists in the State has increased at a CAGR of 5.2 per cent between 2003 and 2010.
- The State has not yet realised its true tourism potential due to various reasons, including security perception, poor road and transport infrastructure and inadequate accommodation facilities for travellers.

- The State has potential for development of eco-tourism (including bird watching), wildlife tourism, rural tourism, adventure tourism and tribal tourism.

FIGURE 21: TOURIST ARRIVALS IN NAGALAND, IN NOS.




*Source: Important Economic Indicators of Nagaland 2009, Directorate of Economics and Statistics; IMaCS Analysis*

**Value chain in tourism and hospitality industry**

| Local tour operator | Logistics provider | Hotels & restaurants |
|---|---|---|
| • Provide end to end travel solutions<br>• Crate customised packages based on customer preferences | • Provide uninterrupted logistics support<br>• Liaison with Tour operators and hotels | • Accommodation<br>• Food & Beverage<br>• Recreational facilities |

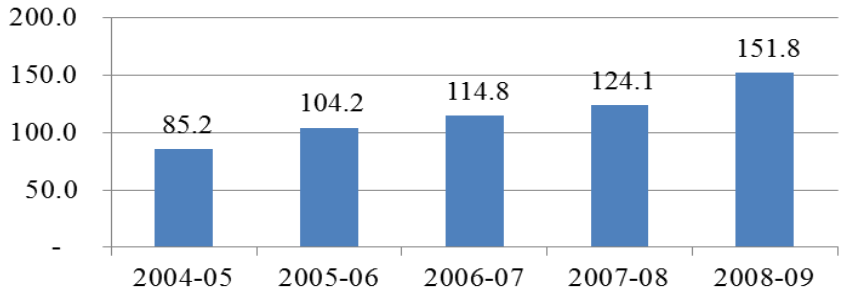
## 7.4(a) Skill mapping and gap analysis in tourism and hospitality industry

| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Hotel, resorts, home stay-unit and restaurant owner | Running the enterprise | • Ability to raise capital<br>• Ability to train staff in various capacities<br>• Ability to learn and adopt international practices and service quality<br>• Ability to offer combination packages with activities for guests along with safe and comfortable stay<br>• Ability to offer multi-cuisine restaurants<br>• Ability to brand and market<br>• Ability to highlight tribal or other local tradition that still remains unseen by many<br>• Ability to use local produce and products<br>• Ability to generate business in lean months<br>• Computer, accounting and management skills | • Hotel enterprises limited to Kohima and of average quality in terms of service, staff and food<br>• Branding, marketing and packaging non-existent<br>• Lack of maintenance during lean seasons |

## 7.5Sericulture

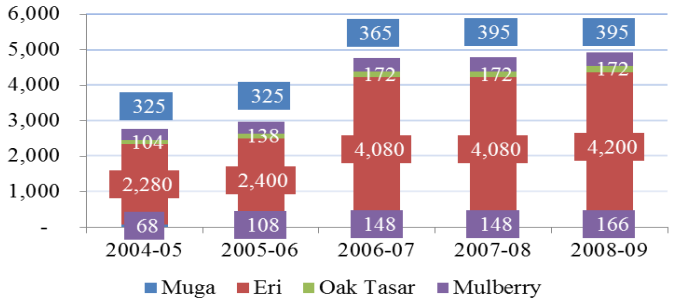
- Nagaland produces four varieties of silk: Eri, Muga, Oak Tasar and Mulberry.
- Eri is the most prominent one and is occupies 88 per cent of the total area under silk cultivation. Mokokchung and Zunheboto districts are the key silk farm areas.
- Production of Eri silk has increased at a CAGR of 16 per cent from 85.2 MT in 2004-05 to 151.8 MT in 2008-09.
- For promotion of sericulture in the State, The Department of Sericulture recently inaugurated a Cocoon Bank in Dimapur. The bank aims to improve silk production from the State to make it competitive in the country.
- The authorities buy cocoons from the villages across the State and then sell in market for extraction of silk for the production of clothes and other materials.

FIGURE 22: PRODUCTION OF SPUN ERI SILK (MT)




*MT – Metric Tonne; Sources: Statistical Handbook of Nagaland 2009; IMaCS Analysis*

FIGURE 23: AREA UNDER SILK CULTIVATION (HECTARES)




*Sources: Statistical Handbook of Nagaland 2009; IMaCS Analysis*

## 7.5(a) Skill mapping and gap analysis in sericulture

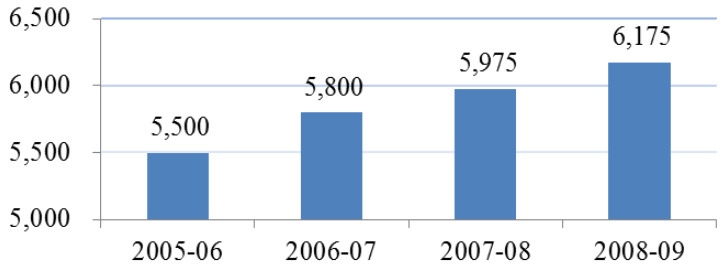
| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Silk plantation farmer | Growing plants and cocoon for silk | • Knowledge of silk moth varieties, their morphometric characters, and plantation requirements conservation of natural habitat<br>• Cocoon rearing and disease free plantation management | • Lack of training on scientific rearing<br>• Ability to set up unit for drawing silk thread |
| Weaver | Silk yarn user for generating cloth | • Commercial exploitation<br>• Use of modern methods and techniques for design and weaving to improve marketability, and productivity | • Use of more efficient looms<br>• Use of computer aided designs<br>• Improved stitching |

## 7.6 Fisheries

- In 2008-09, Nagaland produced 6,175 MT of fish.
- Over 58 per cent of this was concentrated in Dimapur district, followed by 12.3 per cent in Wokha district and remaining in other districts.
- Fish production has increased at a CAGR of four per cent between 2005 and 2008.
- The Department of Fisheries is trying to motivate and educate fish farmers to adopt modern methods of scientific technologies on aquaculture development in the State.

## FIGURE 24: FISH PRODUCTION

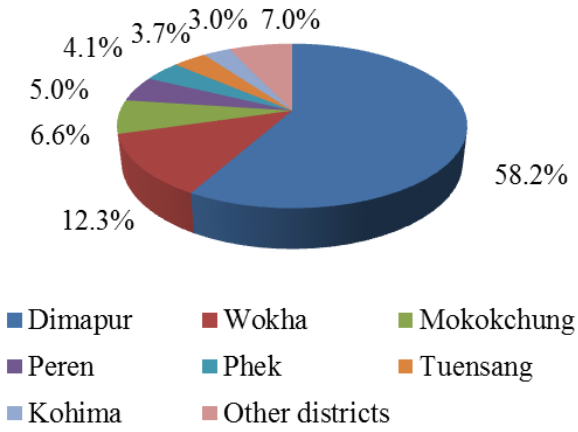
(MT)




*MT – Metric Tonne; Sources: Statistical Handbook of Nagaland 2009; Important Economic Indicators of Nagaland 2009, Directorate of Economic and Statistics, IMaCS Analysis*

## FIGURE 25: DISTRICT WISE DISTRIBUTION OF FISH PRODUCTION

(100% = 6,175 MT, as of 2008-09)




*MT – Metric Tonne; Sources: Statistical Handbook of Nagaland 2009; Important Economic Indicators of Nagaland 2009, Directorate of Economic and Statistics, IMaCS Analysis*

## 7.6(a) Skill mapping and gap analysis in fishery

| Entity | Role | Expected competencies | Skill gaps |
|---|---|---|---|
| Private fisheries owner | Managing fish farm | • Knowledge of topography, soil texture, optimum size of pond, water supply to pond, vegetation around pond, animal and human waste in the area, leakages in pond and water quality<br>• Use of proper fish feeds, fish stocking variety, duration and quantity, harvesting percentage, harvest size<br>• Fishing and harvesting techniques<br>• Basic fish processing techniques | • Knowledge for scientific farm management<br>• Lack of fish preservation and processing skills<br>• Market creation in surrounding states many of which have shortage of fish and import from Bangladesh |

## 7.6 Other potential sectors

**Minerals**

- Nagaland is estimated to have mineral reserves of coal, limestone, iron, nickel, cobalt, chromium, gold, etc. Most of it unexplored.
- The main established mineral reserve comprise of petroleum and natural gas. In fact, ONGC had started exploration in the State in 1981 and had discovered reserves of natural gas and oil in Champang block in Wokha region, which borders Assam. However, the Naga insurgents, opposed further explorations leading to closure of all exploration work in 1994. ONGC resumed operations in 2007 in Nagaland after a ceasefire agreement was signed between the Indian government and the Naga insurgents.

**Piggery**

Nagaland is one of the highest importers of pig in the country for both meat and breeding purposes. Piggery is very popular among the rural people in Nagaland. As per the 2007 livestock Census, the State had 697,793 pigs.

**Forest based plantations**

Since felling of trees is banned, the Central Government is helping in creating wood plantations along with district forest departments.

**Jatropha / bio-diesel**

- Locals in Nagaland have also started growing Jatropha for bio-diesel.
- Currently, locals lack the skills to extract oil out of this. Thus, they are looking for people outside the State who can take up this activity.

**IT**

There is demand for IT skills involving use of arts and crafts such as animation and creative arts

**Construction**

Roads and bridges are the major areas of construction activities. These projects are funded under several schemes including PMGSY, MNREGA and NLCPR

**Security**

Traditionally, Nagas have been warriors. They have the natural ability to be trained as security guards. The Government is keen to provide such training.

**Beautician**

Dimapur and Kohima have beauty parlours. There is scope for training beauticians and yoga therapists who migrate to other parts of the country.

**Nursing**

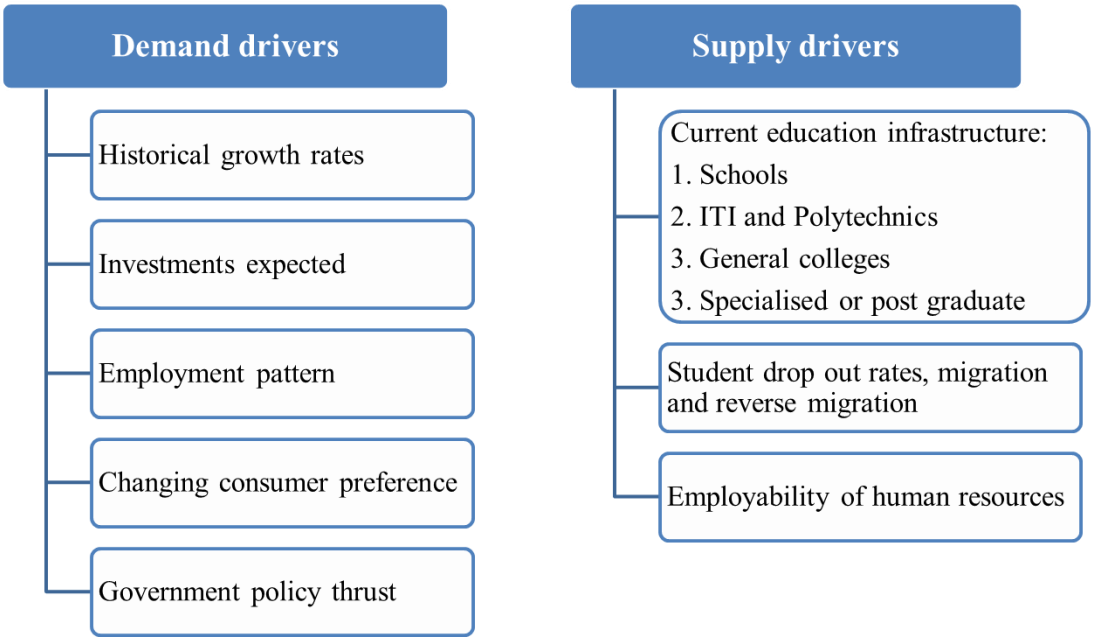
A nursing college with capacity of 20 seats has started this year. Most nurses are trained out the state, such as Assam Nursing College. Radiology technician courses are also to be offered.

## PART – II (e): Forecasting of Human Resource Requirement

## 8.1 Human resource forecasting model

IMaCS has developed a model for estimating human resources requirement for the state based on growth of potential industries at district level. The model is depicted diagrammatically as follows:

FIGURE 26: HUMAN RESOURCES FORECASTING MODEL

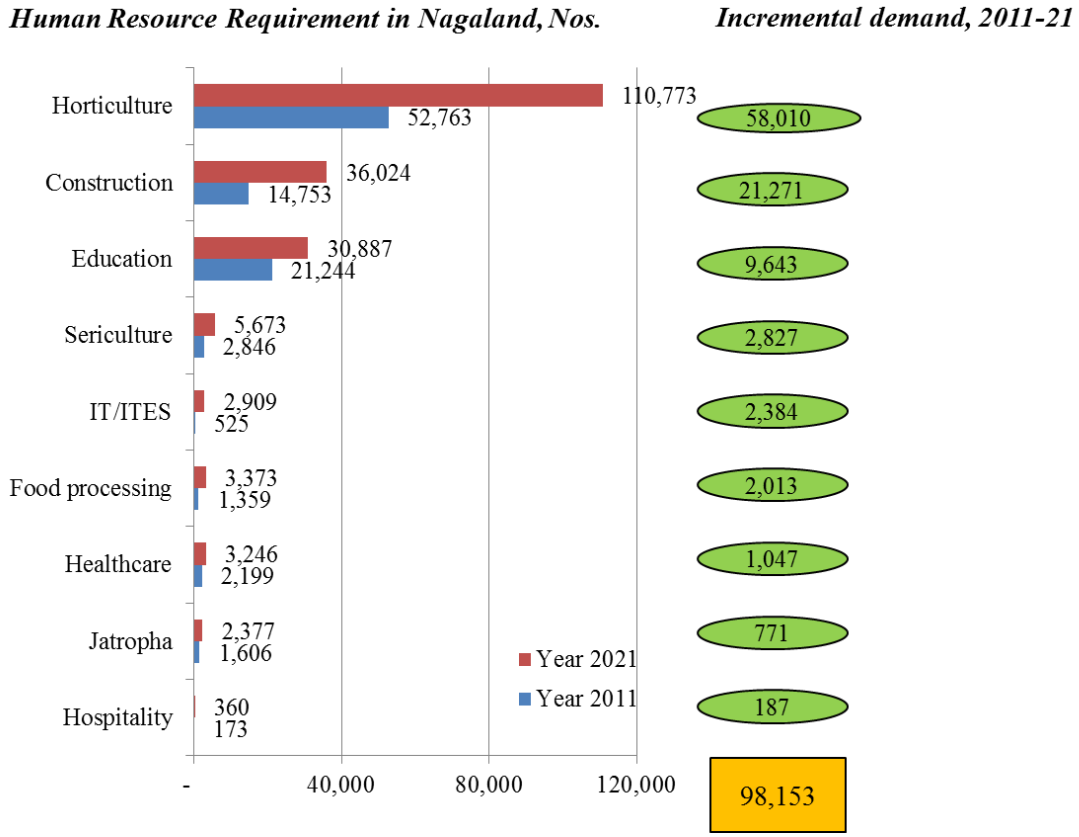



*Source: IMaCS Analysis*

## 8.2 Incremental demand in Nagaland

According to our estimates, Nagaland will have an incremental demand of around 98,153 persons between 2011 and 2021.About 11 per cent may be added as replacement demand from persons retiring. Most of the domestic demand is expected to come from the horticulture sector, followed by construction, education and sericulture.

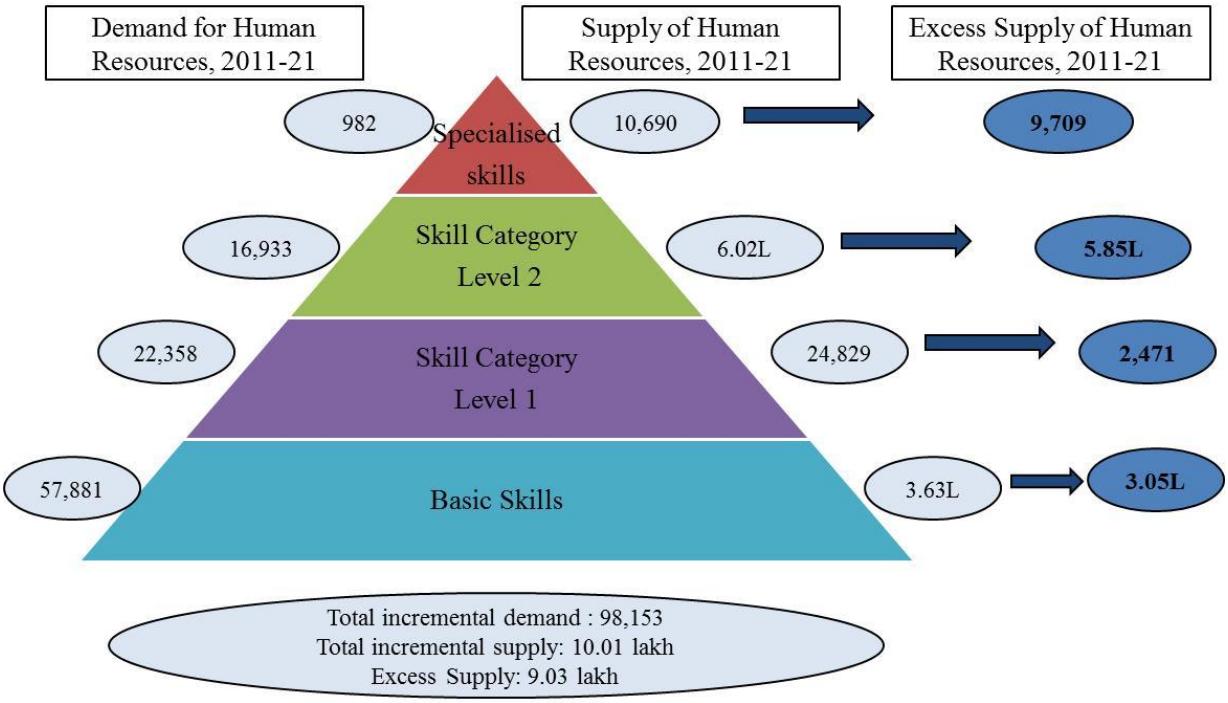
FIGURE 27: HUMAN RESOURCES REQUIREMENT IN NAGALAND




*Source: IMaCS Analysis*

The demand is expected to fall short of supply, leaving an excess supply of human resources of 9.03 lakh. The IMaCS skill pyramid analysis indicates that there is an expected excess supply at all skill levels between 2011 and 2021.

FIGURE 28: DEMAND AND SUPPLY OF HUMAN RESOURCES IN NAGALAND




*Specialised skills include: master weavers, food technologist, PhDs, Designers, etc.*
*Source: IMaCS Analysis*

## 8.3 District-wise human resource requirement in Nagaland – 2011-21

IMaCS estimates for incremental human resources requirement at district level for all the sectors indicates that maximum demand between 2011 and 2021 is expected to come from Dimapur, followed by Mon district.

## TABLE 35: DISTRICT WISE INCREMENTAL HUMAN RESOURCES REQUIREMENT IN NAGALAND 2011-2021

| Districts / sectors | Human Resource Requirement between 2011 and 2021 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Handloom | Handicraft | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Cons truction | State |
| Dimapur | - | - | 9,888 | 912 | - | 1,893 | 38 | 2,384 | 109 | 4,216 | - | **19,440** |
| Kiphire | - | - | 1,979 | - | - | 10 | - | - | 47 | 1,597 | 13,285 | **16,918** |
| Kohima | - | - | 5,350 | 351 | - | 695 | 139 | - | 174 | - | - | **6,710** |
| Longleng | - | - | 110 | - | - | 7 | - | - | 41 | 818 | - | **976** |
| Mokokchung | - | - | 4,767 | 189 | 441 | 50 | 3 | - | 142 | 834 | - | **6,425** |
| Mon | - | - | 15,370 | - | - | 20 | 3 | - | 89 | - | 3,130 | **18,612** |
| Peren | - | - | 412 | - | - | 15 | - | - | 50 | 45 | - | **523** |
| Phek | - | - | 11,452 | - | - | 15 | - | - | 101 | 881 | - | **12,449** |
| Tuensang | - | - | 4,313 | 105 | - | 12 | - | - | 118 | - | - | **4,548** |
| Wokha | - | - | 4,258 | 351 | - | 20 | 3 | - | 85 | 567 | - | **5,284** |
| Zunheboto | - | - | 110 | 105 | 331 | 90 | 3 | - | 89 | 684 | 4,856 | **6,268** |
| **Nagaland** | **-** | **-** | **58,010** | **2,013** | **771** | **2,827** | **187** | **2,384** | **1,047** | **9,643** | **21,271** | **98,153** |

*Source: IMaCS Analysis*

## 8.4 Stakeholder feedback

IMaCS has interacted with different stakeholders in the State, to gauge their views on skill requirements in Nagaland. The Stakeholder feedback is given in the table below.

TABLE 36: STAKEHOLDER FEEDBACK

| Stakeholder | Key findings |
|---|---|
| ***Industry specific feedback*** | |
| Handloom and Handicrafts | • Raw materials are sourced from Guwahati and Thailand. Products are uncompetitive outside state. |
| Horticulture and fruit processing | • New and exotic fruits are being tried. Need for market development branding and basic processing and packaging units and quality certifications. |
| Hotels | • Tourism is growing, but restricted to the few days of festivals. Local legends and stories should be promoted to outside world to attract tourists to the districts. |
| Jatropha plantation | • There is a need for setting up bio-diesel units and finding buyers to develop the available potential |
| Construction | • Most construction labour comes from Nepal, Bihar and Tripura |
| Others | • Forest resources provide scope for environmentalists and ornithologists. |
| Industry feedback | • Insurgency threat does not allow economic growth. Anyone who earns over Rs 1 lakh per month is a target for abduction for ransom. |
| ***Government feedback*** | • The Government's perspective is that traditional sectors such as handloom and handicraft do not have much scope for development as a big economic activity. Rather new areas such as IT, Tourism, Apiculture and Horticulture should be focussed upon. |
| ***Students / Unemployed youths feedback*** | • Technology training is important for finding gainful employment |

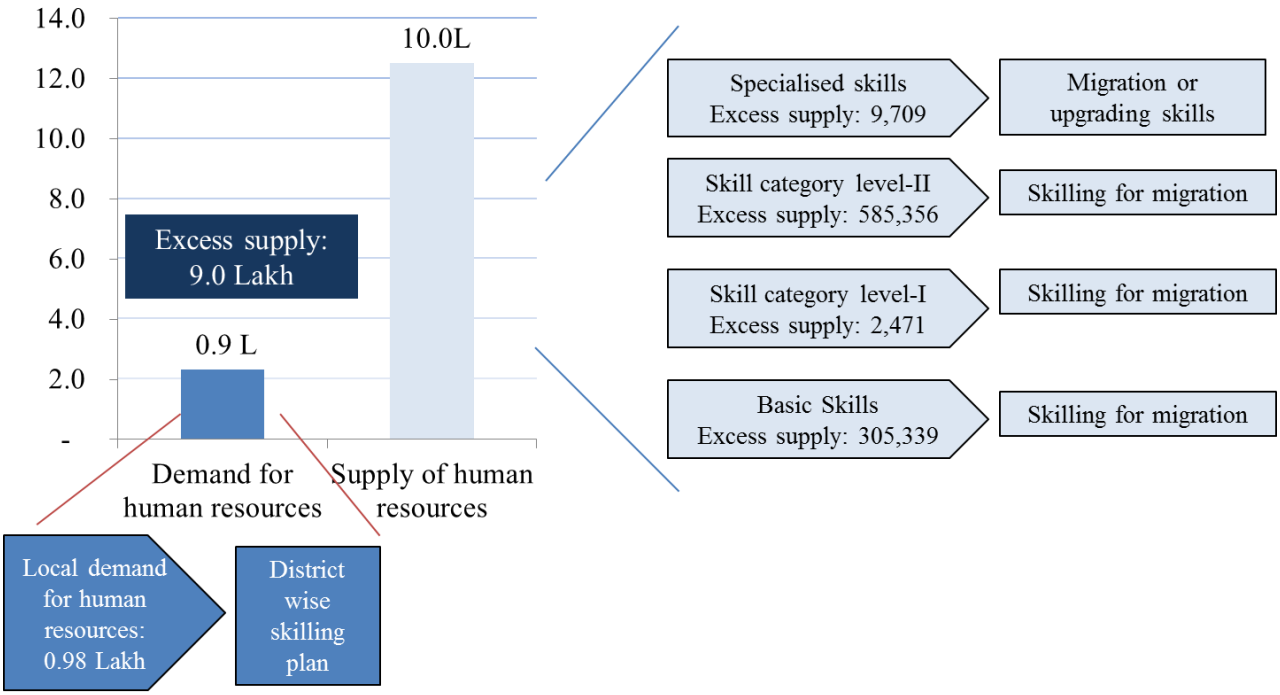
*Source: IMaCS Survey and Analysis*

# PART – III: Recommendations

## 9.1 Interventions for human resource Demand-Supply gap management

An overall excess human resource supply of 9 lakh is expected. Since the domestic demand is expected to be insufficient to absorb the total supply of human resources in the next 10 years, the excess manpower would have to be skilled for migration so as to benefit from the job opportunities arising in other parts of the country or overseas.

FIGURE 29: DEMAND-SUPPLY SCENARIO FOR HUMAN RESOURCES FOR NEW SKILLING IN NAGALAND FROM 2011 TO 2021

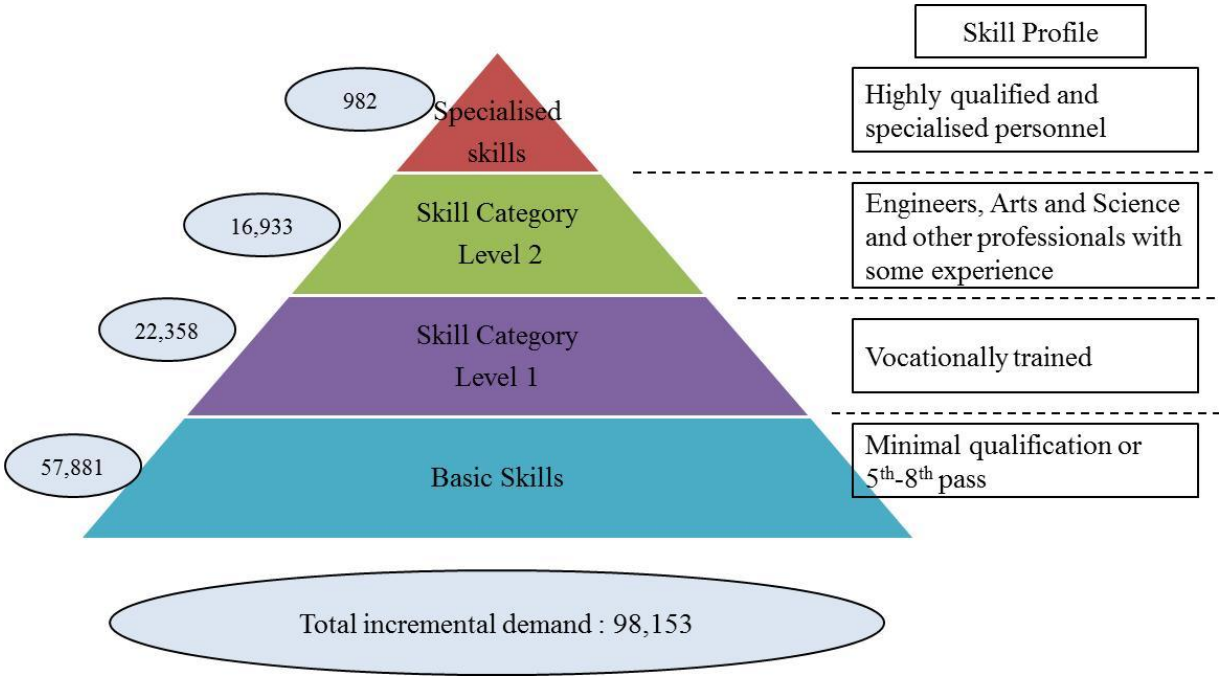



*Source: IMaCS Analysis*

## 9.2 Areas for skilling within state – 2011-21

Areas for skilling within the State have been identified at different levels of the pyramid.

FIGURE 30: AREAS FOR SKILLING WITHIN STATE BETWEEN 2011 AND 2021




*Specialised skills include: master weavers, food technologist, PhDs, Designers, etc.; Source: IMaCS Analysis*

Locally about 98,153 persons are expected to be required from the various domestic demand sectors.

## FIGURE 31: AREAS FOR SKILLING FOR DEMAND SECTORS IDENTIFIED WITHIN NAGALAND

Human resource pool required for demand sectors identified within Nagaland: 98,153

| Sector | Basic Skills: 57,881 | Skill Category Level-I: 22,358 | Skill Category Level-II: 16,933 | Specialised Skill: 982 |
|---|---|---|---|---|
| Handloom | Basic weaving, working with looms | Weaving with some experience deciding patterns, colours and designs | Entrepreneurship managing working capital, overseeing the weaving process, and establishing market linkages | Master weaving, Designing |
| Handicraft | Basket making, furniture making, making different crafts using bamboo, cane and wood | Craftsmanship with some experience in intricate and complex designs | Entrepreneurship managing working capital, overseeing the crafting process, and establishing market linkages | Master craftsperson-ship |
| Horticulture | Fruit, flower and spices growing | Farm extension services, Packaging | Management of Grower co-operative | Marketing management |
| Fruit Processing | Drying and processing of food and fruits into jams, jelly, juice, pickles etc. | Distribution, Packaging | SHG lead executive, Entrepreneurship | Food technology, Management |
| IT / ITES | - | Data entry in hotels, hospitals and offices (govt. and private), Call centre: customer service and helpline | IT entrepreneurship, hardware maintenance | IT system specialist |
| Healthcare | Support in hospitals and clinics | Paramedical treatment | Nurses and Doctors | Specialists |
| Education | - | - | Teachers, Principals | Researcher, Trainer |
| Construction | Construction labourer | Mason, Welding, Machine operation, Electric Works | Agent, Contractor | Project Management |

| Sector | Basic Skills: 57,881 | Skill Category Level-I: 22,358 | Skill Category Level-II: 16,933 | Specialised Skill: 982 |
|---|---|---|---|---|
| Hospitality | Housekeeping | Chefs, Attendants, Computer Operations | Hotel Manager, Entrepreneur | Tourism package development planning |
| Jatropha plantation | Growing | Farm Worker | Managing Grower co-operative | Marketing management |

*Source: IMaCS Analysis*

In addition to the areas identified above, there is also a likelihood of demand in livelihood activities like agriculture, fishery and animal husbandry. Based on these sectors, additional workforce that may be available for skill up-gradation is about 5.55 lakh persons.

## FIGURE 32: LIVELIHOOD ACTIVITIES IN NAGALAND WHICH NEED SKILL UP-GRADATION

| Activity | Description | Skill level | 2011 employment |
|---|---|---|---|
| Agriculture (Cultivation) | Terrace and jhum cultivation are widely practiced by the tribal communities of Nagaland. Rice is the key crop grown. | Mostly, unscientific methods of cultivation used. | 548,845 |
| Fishery | In 2008-09, Nagaland produced 6,175 MT of fish. Fish production has increased at a CAGR of four per cent between 2005 and 2008. | Out-dated fish farming techniques used. | 656 |
| Animal Husbandry | Animal husbandry is the main occupation for many people in the State. Nagaland is one of the highest importers of pig in the country for both meat and breeding purposes. As per the 2007 livestock Census, the State had 697,793 pigs. | Household activity with primitive rearing, feeding and processing skills. | 7,984 |
| Apiculture | Forest and climate provide ideal climate for bee keeping make it ideal. | Traditional methods used. | 2,500 |

*Source: IMaCS Analysis*

## 9.3 Skilling for migration

An excess pool of 90,288 persons available per year may be available for migration.

FIGURE 33: AREAS FOR SKILLING FOR MIGRATION TO OTHER STATES OR OVERSEAS


| Sectors | Areas for skilling |
|---|---|
| Beauty | Support staff in beauty salons, hair cutting and styling, dress styling, spa services, salon / spa management, hair and skin specialisation |
| Hospitality and wellness | Housekeeping, Cooking, Attendants, Hotel Management, Entrepreneurship, Tourism package development planning |
| IT / ITES | Data entry in hotels, hospitals and offices (govt. and private), Call centre: customer service and helpline, IT entrepreneurship, hardware maintenance, IT system specialist |
| Retail services | Sales, customer relationship management, front desk, entrepreneurship |
| Music | Singing, music, music composing |
| Ground staff at the airports | Handling of baggage and cargo, aircraft support staff, ticketing, addressing passenger needs and queries |
| Healthcare | Paramedics, Nurses and Doctors, Elderly care |
| Security | Security personnel working on contract with security agencies, Entrepreneurship |

*Source: IMaCS Analysis*

## 9.5Private sector skill development opportunities at the district level

### 9.5.1 Dimapur– skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Capacity building through setting up of focussed co-operatives in areas like pineapple, medicinal plants (like citronella grass, patchhouli) and ornamental flowers.
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

**Jatropha**

- Awareness of jatropha plantation techniques
- Skills to attract oil out of jatropha plants
- Building market linkages
- Entrepreneurial skills
- Educating growers on the potential of jatropha

**Sericulture**

- Knowledge about silk moth varieties, their morphometric characters, and plantation requirements
- Skills related to cocoon rearing and disease free plantation management
- Building market linkage and commercial exploitation
- Awareness of modern methods and techniques for design and weaving to improve marketability, and productivity

**Hospitality**

- Technical skills like housekeeping, front office management
- Soft skills like communication skills, client relationship, time management etc.
- Culinary skills
- Language and soft skills training
- Understanding of cultural differences

**IT/ITES**

- Tally Operators and Accounts
- Data entry operators
- Hardware mechanics

## TABLE 37: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN DIMAPUR

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 6445 | 0 | 680 | 1234 | 27 | 1603 | 44 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 816 | 0 | 49 | 156 | 2 | 242 | 22 | 4174 | 0 |
| Skill Category Level 1 | 0 | 0 | 2529 | 0 | 173 | 484 | 8 | 515 | 42 | 0 | 0 |
| Specialised skills | 0 | 0 | 99 | 0 | 9 | 19 | 0 | 24 | 1 | 42 | 0 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 3173 | 557 | 0 | 617 | 11 | 813 | 22 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 402 | 40 | 0 | 78 | 1 | 123 | 11 | 2087 | 0 |
| Skill Category Level 1 | 0 | 0 | 812 | 106 | 0 | 158 | 2 | 176 | 8 | 0 | 0 |
| Specialised skills | 0 | 0 | 49 | 7 | 0 | 9 | 0 | 12 | 1 | 21 | 0 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 3271 | 123 | 0 | 617 | 16 | 790 | 22 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 414 | 9 | 0 | 78 | 1 | 119 | 11 | 2087 | 0 |
| Skill Category Level 1 | 0 | 0 | 1284 | 31 | 0 | 242 | 5 | 254 | 21 | 0 | 0 |
| Specialised skills | 0 | 0 | 50 | 2 | 0 | 9 | 0 | 12 | 1 | 21 | 0 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.2 Kiphire– skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

TABLE 38: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN KIPHIRE

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1290 | 0 | 0 | 6 | 0 | 0 | 19 | 0 | 8788 |
| Skill Category Level 2 | 0 | 0 | 163 | 0 | 0 | 1 | 0 | 0 | 9 | 1581 | 1082 |
| Skill Category Level 1 | 0 | 0 | 506 | 0 | 0 | 3 | 0 | 0 | 18 | 0 | 3283 |
| Specialised skills | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 133 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 635 | 0 | 0 | 3 | 0 | 0 | 9 | 0 | 3429 |
| Skill Category Level 2 | 0 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 5 | 791 | 422 |
| Skill Category Level 1 | 0 | 0 | 162 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 847 |
| Specialised skills | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 52 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 655 | 0 | 0 | 3 | 0 | 0 | 9 | 0 | 5359 |
| Skill Category Level 2 | 0 | 0 | 83 | 0 | 0 | 0 | 0 | 0 | 5 | 791 | 660 |
| Skill Category Level 1 | 0 | 0 | 257 | 0 | 0 | 1 | 0 | 0 | 9 | 0 | 2002 |
| Specialised skills | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 81 |

*Some figures might not add up, due to rounding off of the decimal points; Source: IMaCS Analysis*

### 9.5.3 Kohima – skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Capacity building through setting up of focussed co-operatives in area like medicinal plants, flowers like liliums, anthuriums, roses and carnations.
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

**Jatropha**

- Awareness of jatropha plantation techniques
- Skills to attract oil out of jatropha plants
- Building market linkages
- Entrepreneurial skills
- Educating growers on the potential of jatropha

**Sericulture**

- Knowledge about silk moth varieties, their morphometric characters, and plantation requirements
- Skills related to cocoon rearing and disease free plantation management
- Building market linkage and commercial exploitation
- Awareness of modern methods and techniques for design and weaving to improve marketability, and productivity

**Hospitality**

- Technical skills like housekeeping, front office management
- Soft skills like communication skills, client relationship, time management etc.
- Culinary skills
- Language and soft skills training
- Understanding of cultural differences

## TABLE 39: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN KOHIMA

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 3487 | 0 | 262 | 453 | 99 | 0 | 70 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 441 | 0 | 19 | 57 | 8 | 0 | 35 | 0 | 0 |
| Skill Category Level 1 | 0 | 0 | 1368 | 0 | 67 | 178 | 30 | 0 | 68 | 0 | 0 |
| Specialised skills | 0 | 0 | 53 | 0 | 4 | 7 | 1 | 0 | 2 | 0 | 0 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1717 | 4 | 0 | 227 | 39 | 0 | 35 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 217 | 0 | 0 | 29 | 3 | 0 | 17 | 0 | 0 |
| Skill Category Level 1 | 0 | 0 | 439 | 1 | 0 | 58 | 9 | 0 | 14 | 0 | 0 |
| Specialised skills | 0 | 0 | 26 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 0 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1770 | 258 | 0 | 227 | 60 | 0 | 35 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 224 | 19 | 0 | 29 | 5 | 0 | 17 | 0 | 0 |
| Skill Category Level 1 | 0 | 0 | 695 | 65 | 0 | 89 | 18 | 0 | 34 | 0 | 0 |
| Specialised skills | 0 | 0 | 27 | 3 | 0 | 3 | 1 | 0 | 1 | 0 | 0 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.4 Longleng - skilling interventions

#### Horticulture

- Awareness of latest farming techniques
- Building market linkages
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

TABLE 40:SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN LONGLENG

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 72 | 0 | 0 | 5 | 0 | 0 | 16 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 9 | 0 | 0 | 1 | 0 | 0 | 8 | 810 | 0 |
| Skill Category Level 1 | 0 | 0 | 28 | 0 | 0 | 2 | 0 | 0 | 16 | 0 | 0 |
| Specialised skills | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 35 | 0 | 0 | 2 | 0 | 0 | 8 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 405 | 0 |
| Skill Category Level 1 | 0 | 0 | 9 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 |
| Specialised skills | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 36 | 0 | 0 | 2 | 0 | 0 | 8 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 4 | 405 | 0 |
| Skill Category Level 1 | 0 | 0 | 14 | 0 | 0 | 1 | 0 | 0 | 8 | 0 | 0 |
| Specialised skills | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.5 Mokokchung - skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Capacity building through setting up of focussed co-operatives in area like medicinal plants (including citronella grass) and ornamental flowers.
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

**Fruit Processing**

- Making jams, jelly, pickles, juices etc.
- Drying, grading, sorting and packaging
- Building market linkage
- Cold storage and warehousing facilities

**Sericulture**

- Knowledge about silk moth varieties, their morphometric characters, and plantation requirements
- Skills related to cocoon rearing and disease free plantation management
- Building market linkage and commercial exploitation
- Awareness of modern methods and techniques for design and weaving to improve marketability, and productivity

**Jatropha**

- Awareness of jatropha plantation techniques
- Skills to attract oil out of jatropha plants
- Building market linkages
- Entrepreneurial skills
- Educating growers on the potential of jatropha

## TABLE 41: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN MOKOKCHUNG

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 3107 | 287 | 141 | 32 | 2 | 0 | 57 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 393 | 36 | 10 | 4 | 0 | 0 | 29 | 826 | 0 |
| Skill Category Level 1 | 0 | 0 | 1219 | 113 | 36 | 13 | 1 | 0 | 55 | 0 | 0 |
| Specialised skills | 0 | 0 | 48 | 4 | 2 | 0 | 0 | 0 | 1 | 8 | 0 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1530 | 15 | 130 | 16 | 1 | 0 | 29 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 194 | 1 | 16 | 2 | 0 | 0 | 14 | 413 | 0 |
| Skill Category Level 1 | 0 | 0 | 391 | 3 | 33 | 4 | 0 | 0 | 11 | 0 | 0 |
| Specialised skills | 0 | 0 | 23 | 0 | 2 | 0 | 0 | 0 | 1 | 4 | 0 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1577 | 126 | 158 | 16 | 1 | 0 | 29 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 200 | 9 | 20 | 2 | 0 | 0 | 14 | 413 | 0 |
| Skill Category Level 1 | 0 | 0 | 619 | 32 | 62 | 6 | 0 | 0 | 28 | 0 | 0 |
| Specialised skills | 0 | 0 | 24 | 2 | 2 | 0 | 0 | 0 | 1 | 4 | 0 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.6 Mon- skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Capacity building through setting up of focussed co-operatives in areas like medicinal plants
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

TABLE 42: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN MON

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 10017 | 0 | 0 | 13 | 2 | 0 | 36 | 0 | 2071 |
| Skill Category Level 2 | 0 | 0 | 1268 | 0 | 0 | 2 | 0 | 0 | 18 | 0 | 255 |
| Skill Category Level 1 | 0 | 0 | 3931 | 0 | 0 | 5 | 1 | 0 | 35 | 0 | 773 |
| Specialised skills | 0 | 0 | 154 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 31 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 4932 | 0 | 0 | 6 | 1 | 0 | 18 | 0 | 808 |
| Skill Category Level 2 | 0 | 0 | 624 | 0 | 0 | 1 | 0 | 0 | 9 | 0 | 99 |
| Skill Category Level 1 | 0 | 0 | 1262 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 200 |
| Specialised skills | 0 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 5085 | 0 | 0 | 6 | 1 | 0 | 18 | 0 | 1263 |
| Skill Category Level 2 | 0 | 0 | 644 | 0 | 0 | 1 | 0 | 0 | 9 | 0 | 155 |
| Skill Category Level 1 | 0 | 0 | 1996 | 0 | 0 | 3 | 0 | 0 | 17 | 0 | 472 |
| Specialised skills | 0 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.7 Peren - skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

TABLE 43: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN PEREN

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 269 | 0 | 0 | 10 | 0 | 0 | 20 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 34 | 0 | 0 | 1 | 0 | 0 | 10 | 45 | 0 |
| Skill Category Level 1 | 0 | 0 | 105 | 0 | 0 | 4 | 0 | 0 | 19 | 0 | 0 |
| Specialised skills | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 132 | 0 | 0 | 5 | 0 | 0 | 10 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 17 | 0 | 0 | 1 | 0 | 0 | 5 | 22 | 0 |
| Skill Category Level 1 | 0 | 0 | 34 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 |
| Specialised skills | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 136 | 0 | 0 | 5 | 0 | 0 | 10 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 17 | 0 | 0 | 1 | 0 | 0 | 5 | 22 | 0 |
| Skill Category Level 1 | 0 | 0 | 54 | 0 | 0 | 2 | 0 | 0 | 10 | 0 | 0 |
| Specialised skills | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.8 Phek - skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

TABLE 44: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN PHEK

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 7463 | 0 | 0 | 10 | 0 | 0 | 41 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 945 | 0 | 0 | 1 | 0 | 0 | 20 | 872 | 0 |
| Skill Category Level 1 | 0 | 0 | 2929 | 0 | 0 | 4 | 0 | 0 | 39 | 0 | 0 |
| Specialised skills | 0 | 0 | 115 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 3675 | 0 | 0 | 5 | 0 | 0 | 20 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 465 | 0 | 0 | 1 | 0 | 0 | 10 | 436 | 0 |
| Skill Category Level 1 | 0 | 0 | 940 | 0 | 0 | 1 | 0 | 0 | 8 | 0 | 0 |
| Specialised skills | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 3789 | 0 | 0 | 5 | 0 | 0 | 20 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 480 | 0 | 0 | 1 | 0 | 0 | 10 | 436 | 0 |
| Skill Category Level 1 | 0 | 0 | 1487 | 0 | 0 | 2 | 0 | 0 | 20 | 0 | 0 |
| Specialised skills | 0 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.8 Tuensang - skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

**Jatropha**

- Awareness of jatropha plantation techniques
- Skills to attract oil out of jatropha plants
- Building market linkages
- Entrepreneurial skills
- Educating growers on the potential of jatropha

TABLE 45: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN TUENSANG

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 2811 | 0 | 79 | 8 | 0 | 0 | 47 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 356 | 0 | 6 | 1 | 0 | 0 | 24 | 0 | 0 |
| Skill Category Level 1 | 0 | 0 | 1103 | 0 | 20 | 3 | 0 | 0 | 46 | 0 | 0 |
| Specialised skills | 0 | 0 | 43 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1384 | 1 | 0 | 4 | 0 | 0 | 24 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 175 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 |
| Skill Category Level 1 | 0 | 0 | 354 | 0 | 0 | 1 | 0 | 0 | 9 | 0 | 0 |
| Specialised skills | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1427 | 77 | 0 | 4 | 0 | 0 | 24 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 181 | 6 | 0 | 0 | 0 | 0 | 12 | 0 | 0 |
| Skill Category Level 1 | 0 | 0 | 560 | 20 | 0 | 2 | 0 | 0 | 23 | 0 | 0 |
| Specialised skills | 0 | 0 | 22 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

*Source: IMaCS Analysis*

### 9.5.8 Wokha - skilling interventions

**Horticulture**

- Awareness of latest farming techniques
- Building market linkages
- Capacity building through setting up of focussed co-operatives in area like passion fruit, medicinal plants and ornamental flowers
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

**Jatropha**

- Awareness of jatropha plantation techniques
- Skills to attract oil out of jatropha plants
- Building market linkages
- Entrepreneurial skills
- Educating growers on the potential of jatropha

**Sericulture**

- Knowledge about silk moth varieties, their morphometric characters, and plantation requirements
- Skills related to cocoon rearing and disease free plantation management
- Building market linkage and commercial exploitation
- Awareness of modern methods and techniques for design and weaving to improve marketability, and productivity

## TABLE 46: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN WOKHA

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 2775 | 0 | 262 | 13 | 2 | 0 | 34 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 351 | 0 | 19 | 2 | 0 | 0 | 17 | 562 | 0 |
| Skill Category Level 1 | 0 | 0 | 1089 | 0 | 67 | 5 | 1 | 0 | 33 | 0 | 0 |
| Specialised skills | 0 | 0 | 43 | 0 | 4 | 0 | 0 | 0 | 1 | 6 | 0 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1366 | 4 | 0 | 6 | 1 | 0 | 17 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 173 | 0 | 0 | 1 | 0 | 0 | 9 | 281 | 0 |
| Skill Category Level 1 | 0 | 0 | 349 | 1 | 0 | 2 | 0 | 0 | 7 | 0 | 0 |
| Specialised skills | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 1409 | 258 | 0 | 6 | 1 | 0 | 17 | 0 | 0 |
| Skill Category Level 2 | 0 | 0 | 178 | 19 | 0 | 1 | 0 | 0 | 9 | 281 | 0 |
| Skill Category Level 1 | 0 | 0 | 553 | 65 | 0 | 3 | 0 | 0 | 17 | 0 | 0 |
| Specialised skills | 0 | 0 | 22 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.8 Zunheboto - skilling interventions

**Fruit processing**

- Making jams, jelly, pickles, juices etc.
- Drying, grading, sorting and packaging
- Building market linkage
- Cold storage and warehousing facilities

**Jatropha**

- Awareness of jatropha plantation techniques
- Skills to attract oil out of jatropha plants
- Building market linkages
- Entrepreneurial skills
- Educating growers on the potential of jatropha

**Sericulture**

- Knowledge about silk moth varieties, their morphometric characters, and plantation requirements
- Skills related to cocoon rearing and disease free plantation management
- Building market linkage and commercial exploitation
- Awareness of modern methods and techniques for design and weaving to improve marketability, and productivity

## TABLE 47: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN ZUNHEBOTO

Incremental 2011-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 72 | 215 | 79 | 59 | 2 | 0 | 36 | 0 | 3212 |
| Skill Category Level 2 | 0 | 0 | 9 | 27 | 6 | 7 | 0 | 0 | 18 | 677 | 395 |
| Skill Category Level 1 | 0 | 0 | 28 | 85 | 20 | 23 | 1 | 0 | 35 | 0 | 1200 |
| Specialised skills | 0 | 0 | 1 | 3 | 1 | 1 | 0 | 0 | 1 | 7 | 49 |

Incremental Phase-I: 2011-2016

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 35 | 1 | 97 | 29 | 1 | 0 | 18 | 0 | 1253 |
| Skill Category Level 2 | 0 | 0 | 4 | 0 | 12 | 4 | 0 | 0 | 9 | 339 | 154 |
| Skill Category Level 1 | 0 | 0 | 9 | 0 | 25 | 8 | 0 | 0 | 7 | 0 | 310 |
| Specialised skills | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 19 |

Incremental Phase-II: 2017-2021

| Sectors | Handloom | Handicrafts | Horticulture | Food processing | Jatropha | Sericulture | Hospitality | IT/ITES | Healthcare | Education | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimal education | 0 | 0 | 36 | 77 | 118 | 29 | 1 | 0 | 18 | 0 | 1959 |
| Skill Category Level 2 | 0 | 0 | 5 | 6 | 15 | 4 | 0 | 0 | 9 | 339 | 241 |
| Skill Category Level 1 | 0 | 0 | 14 | 20 | 46 | 12 | 0 | 0 | 17 | 0 | 732 |
| Specialised skills | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 3 | 30 |

*Some figures might not add up, due to rounding off of the decimal points.*
*Source: IMaCS Analysis*

### 9.5.9 Skilling interventions in sectors across all districts

**Construction**

- Plumbers, Fitters, Turners, Welders, Electricians
- Foreman
- Quality and Process Executives
- Supervisors
- Masonry

- Machine Experts

**Health and education**

- Para-medics, Nurses & Assistants
- Teachers
- Trainers for vocational education

## 9.5 Key interventions for Nagaland

- Nagaland's people have greater propensity to migrate than persons from other states in the region. This is likely to help create skilling and training centres in the State for the purpose of seeking jobs in other states of India or overseas. It would initially be necessary too, to skill for migration given the significant excess supply of human resources expected in the next 10 years to 2021.
- Between 2011 and 2021, around 90,288 persons per year are expected to be available for migration. Key opportunities include beauty and wellness, hospitality, IT / ITES, retail, music, sports, ground staff at airports, healthcare and security.
- For local demand of skills, combining skill training with entrepreneurial skills would be necessary, depending on the level of training.
- Specialist skill development institutes for tribal and adventure tourism, environmentalists and ornithologists would help use the traditional skills of local youth.

### Advanced factor conditions required for employment creation

Advanced factor advantages or market conditions include state specific infrastructure, market conditions or value chain requirements.

- Better roads for connecting districts, neighbouring States and tourism sector development.
- Cold storage, warehousing and basic processing facilities for success of horticulture.
- Banking penetration in districts.

# Annexure

## 1. Methodology used for Demand projections

The following methodology has been adopted for making demand side projections of human resources:

- Identification of key economic activities in each district.
- Estimation of current employment numbers in each district, based on information available from Government publications and IMaCS primary survey.
- Forecasting of future employment requirements, using different assumptions (explained in the slide on assumptions) for each industry.
- Different assumptions have been used because of differences in nature, demand and growth potential, factor endowments, commercialisation status, policy thrust, past growth trends, past and expected investments, employment pattern and opportunities for migration of all economic activities.
- Forecasts have been done for all existing and potential industries identified by us. District wise distribution of employment in 2021 is assumed to remain same as it was in 2011.

## 2. List of Abbreviations

| List of Abbreviations | |
|---|---|
| **CAGR** | Compound Annual Growth Rate |
| **DDP** | District Domestic Product |
| **DoNER** | Ministry of Development of North Eastern Region |
| **GDP** | Gross Domestic Product |
| **GSDP** | Gross State Domestic Product |
| **IT** | Information Technology |
| **ITI** | Industrial Training Institute |
| **NEC** | North Eastern Council |
| **NEDFi** | North Eastern Development Finance Corporation Limited |
| **NER** | North Eastern Region |
| **NES** | North Eastern States |
| **NGO** | Non-Governmental Organisation |
| **No.** | Number |
| **NSDC** | National Skill Development Corporation |
| **PPP** | Public Private Partnership |
| **PWD** | Public Works Department |
| **SHG** | Self Help Group |
| **SIDO** | Small Industries Development Organisation |

## 3. List of people met in Nagaland

| Person Met | Designation | Organisation | Organisation Type | District |
|---|---|---|---|---|
| Mr.AlemtemshiJamir | Additional Chief Secretary | Secretariat | State Government | State |
| Ms.KevilenoAngami | Officer on Special Duty | Secretariat | State Government | State |
| M. Patton | Commissioner & Secretary | Secretariat | State Government | State |
| | Director | Directorate of Statistics | State Government | State |
| Ms. L Chishi | DC | District Administration | State Government | Mokokchung |
| Mr.LipokAao | Assistant Agronomist | Agriculture Department, District | State Government | Mokokchung |
| Dr.Sanand | Executive | MDCMPU Limited | KOMUL-Milk processing | Mokokchung |
| Dr.Temsumeren | General Manager | MDCMPU Limited | KOMUL-Milk processing | Mokokchung |
| Mr. G Zhekuto Sumi | Forest Officer | District Forest Department | National Afforestation Scheme | Zunheboto |
| Mr.Tohuvi, KikumAao | Agriculture Officer | Agriculture Department, District | District Administration | Zunheboto |
| | Farmer | Aotsakili village | Plantation | Zunheboto |
| Mr.Anthony Nguilly | ADC | District Administration | State Government | Wokha |
| Mr.Phyobemo | Proprietor | Private fish farm | Private | Wokha |
| | Farmer | Passion fruit farm | Private | Wokha |
| Mr.Nlumo | Beekeeper | Private apiculture | Private | Wokha |
| | Farmer | Private floriculture | Private | Wokha |
| Mrs.Bina | Weaver | Charity Club: Multipurpose Society | NGO | Wokha |
| Mr Bei U Angami | DC | District Administration | State Government | Kohima |
| Mr L Hangsingh | Deputy Secretary | Secretariat | State Government | State |
| Mr E Meru | Secretary | Secretariat | State Government | State |
| | Deputy Director | Department of Industries | State Government | State |
| Mr Jamia | Joint Director | Department of Industries | State Government | State |
| Ms Merry | General Manager | District Industry Center | State Government | Dimapur |
| Mr MuthingYuha | Director | ITI-Kohima | State Government | State |
| Mr Kevin | Manager | NBDC | State Government | Dimapur |
| Mr Chakesang | General Manager | Handloom and Handicrafts | State Government | State |
| Ms Alilah | Instructor | Handloom and Handicrafts | State Government | State |
| Mr C P Samy | Officer | Nagaland Industry Development Corporation | State Government | State |

| Person Met | Designation | Organisation | Organisation Type | District |
|---|---|---|---|---|
| Mr Jemjen | Assistant Manager | Nagaland Industry Development Corporation | State Government | State |
| Mr Vet Duolo | Manager | ExoDelicia Food Products | Private | Dimapur |
| Mr Duolo | Manager | Kuda Cold Storage | Private | Dimapur |
| Mr Kaho | Officer | Highway nursery | Private | Dimapur |
| Mr T Ruho | Propreiter | Ruho timber | private | Kohima |
| Mr Baza | Director | NGO for Women | NGO | Kohima |

## 4. Nagaland – List of Handicraft Clusters

| District | Product | Details |
|---|---|---|
| Dimapur | Cane and Bamboo craft | Basket, Akhi and akha, mats, shields, hats, chungas or drinking cups, mugs, nicklets and armlets, konyak baskets |
| Dimapur | Dry Reed Flower | Flowers decoration. |
| Dimapur | Metal Craft | Tribal images, Heads, Beads, and Ornaments. |
| Dimapur | Woodwork | Non-sticky utensils, Idols, panels. |
| Kohima | Cane and Bamboo | Basket, Akhi and akha, mats, shields, hats, chungas or drinking cups, mugs, nicklets and armlets, konyak baskets |
| Kohima | Woodwork | |
| Mokokchung | Cane and Bamboo craft | Basket, Akhi and akha, mats, shields, hats, chungas or drinking cups, mugs, nicklets and armlets, konyak baskets |
| Mokokchung | Metal Craft | Tribal images, Heads, Beads, and Ornaments. |
| Mon | Cane and Bamboo craft | Basket, Akhi and akha, mats, shields, hats, chungas or drinking cups, mugs, nicklets and armlets, konyak baskets |
| Mon | Woodwork | |
| Phek | Cane and Bamboo craft | Basket, Akhi and akha, mats, shields, hats, chungas or drinking cups, mugs, nicklets and armlets, konyak baskets |
| Tuensang | Cane and Bamboo craft | Basket, Akhi and akha, mats, shields, hats, chungas or drinking cups, mugs, nicklets and armlets, konyak baskets |
| Tuensang | Metal Craft | Tribal images, Heads, Beads, and Ornaments. |
| Wokha | Cane and Bamboo craft | Basket, Akhi and akha, mats, shields, hats, chungas or drinking cups, mugs, nicklets and armlets, konyak baskets |
| Zunheboto | Cane and Bamboo craft | Basket, Akhi and akha, mats, shields, hats, chungas or drinking cups, mugs, nicklets and armlets, konyak baskets |
| | Stone carving | Utensils, Decorative items. |
| | Artistic textiles | Shawl, bags, purses, jackets, coat and other items of wall hanging |

## 5. Training Capacity for Vocational Education in Nagaland

| Type of institution | No. of institutions | Seating capacity | District |
|---|---|---|---|
| ITI | 1 | 356 | Kohima |
| ITI | 1 | 120 | Mon |
| ITI | 1 | 216 | Dimapur |
| ITI | 1 | 100 | Phek |
| ITI | 1 | 120 | Mokokchung |
| ITI | 1 | 80 | Wokha |
| ITI | 1 | 120 | Tuensang |
| ITI | 1 | 60 | Zunheboto |
| Institute of Communication & Information Technology | 1 | 90 | Mokokchung |
| Polytechnic | 1 | 90 | Kohima |
| Polytechnic | 1 | 120 | Zunheboto |
| Nursing institute | 1 | 50 | Kohima |
| NIIT | 1 | 20 | Kohima |
| NIIT | 1 | 20 | Dimpaur |

## About ICRA Management Consulting Services Limited

### IMaCS - An introduction

ICRA Management Consulting Services Limited (IMaCS) is a multi-line management consulting firm headquartered in India. It has an established track record of 17 years in management and development consulting across various sectors and countries. IMaCS has completed more than 1,200 consulting assignments with about 600 clients and has worked in over 40countries across the globe. IMaCS is a wholly-owned subsidiary of ICRA Limited (ICRA), one of India's leading credit rating agencies. IMaCS operated as an independent division of ICRA till March 2005[1], when it was de-merged from ICRA and became a standalone company in its present form.

Through the process of carrying out several assignments over the past 17 years, IMaCS has accumulated considerable analytical and consulting expertise, backed by the following organisational capabilities:

- An extensive and organised database on several sectors.
- Knowledge of key factors of success in different projects and program.
- An ability to research emerging global trends, both in specific countries as well as in different sectors, based on primary and secondary data.
- Performance benchmarking
- Quantitative and financial modelling
- Ability to identify the various types of risks and suggest appropriate strategies to mitigate the same
- Ability to work in different geographies on its own and through affiliate partners

[1] Under the name "ICRA Advisory Services"


Regd. Office D-4, Clarion Collection, (Qutab Hotel)
Shaheed Jeet Singh Marg, New Delhi 11 0 016 India
nsdc@nsdcindia.org • Tel 011 46 56 0412 - 16 • Fax 011 4656 0417
www.nsdcindia.org

Design: www.fulki.co.in