



Skills Gap Study of the **North-East**



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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:

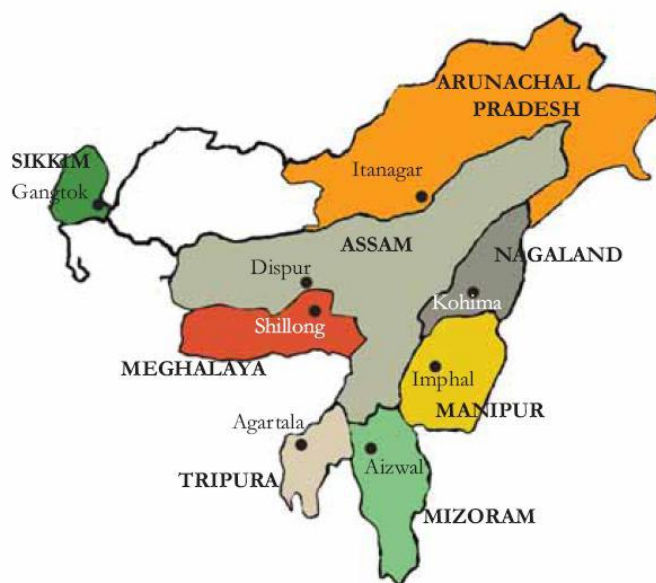
- Upgrade skills to international standards through significant industry involvement and develop necessary frameworks for standards, curriculum and quality assurance.
- Enhance, support and coordinate private sector initiatives for skill development through appropriate PPP models; strive for significant 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.



Mizoram became the 23rd State of India in February 1987. It shares its border with the states of Tripura, Assam and Manipur and with the neighbouring countries of Bangladesh and Myanmar. It is a small State

with a population of just over 10 lakh. Over 95 per cent of Mizoram's population is tribal. The literacy rate is high at 91.6 per cent, which is the third highest literacy rate in India after Kerala and Lakshdweep.

Aizawl is the capital city and the hub of all economic activity in the state. The ancient method of *Jhum* cultivation is still practiced heavily in the state and most of the population is engaged in agriculture. The state has very little industrial development and has no large scale industry. Most of the economic activities are in the unorganised sector.

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 Mizoram, human resources requirement and skill gaps assessed for Mizoram.

Part III presents a detailed set of recommendations for Mizoram.

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 through the districts of Mizoram 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.

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- Mr. Shurbir Singh, Deputy Commissioner, Aizawl district
- Ms. Niharika Rai, Deputy Commissioner, Kolasib district
- Mr. V. Sapchhunga, Deputy Commissioner, Lunglei district
- Mr. P. Lalchuanga, Deputy Commissioner, Serchhip district
- Mr. Rodney, Deputy Commissioner, Mamit district
- Mr. Kunal, Deputy Commissioner, Saiha district
- Mr. D. Lalhmingthanga, Deputy Commissioner, Lawngtlai district

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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 Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura and 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:

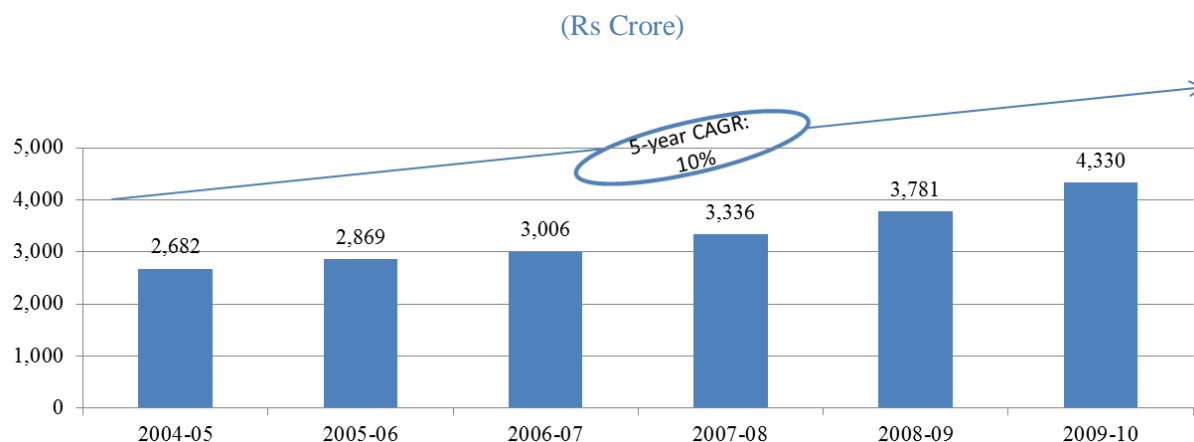
- While the field survey has been conducted keeping in mind maximum coverage, the survey has been constrained by factors such as – weather: a major part of the survey was conducted in the rainy season with landslides and flooding; availability of transportation; proper road connectivity; availability 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 Mizoram

4.1 Macro-Economic Overview

As of 2009-10, Mizoram had a Gross State Domestic Product (GSDP) of Rs 4,330 crore. It increased at a CAGR of 10 per cent between 2004-05 and 2009-10. The growth in Mizoram's GSDP was higher than All-India average of 8.6 per cent and North East Region's average of 6.3 per cent.

FIGURE 1: GROSS STATE DOMESTIC PRODUCT



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, 2004-10
India	4,877,842	8.6%
North East Region	126,649	6.3%
Mizoram [^]	4,330	10.1%

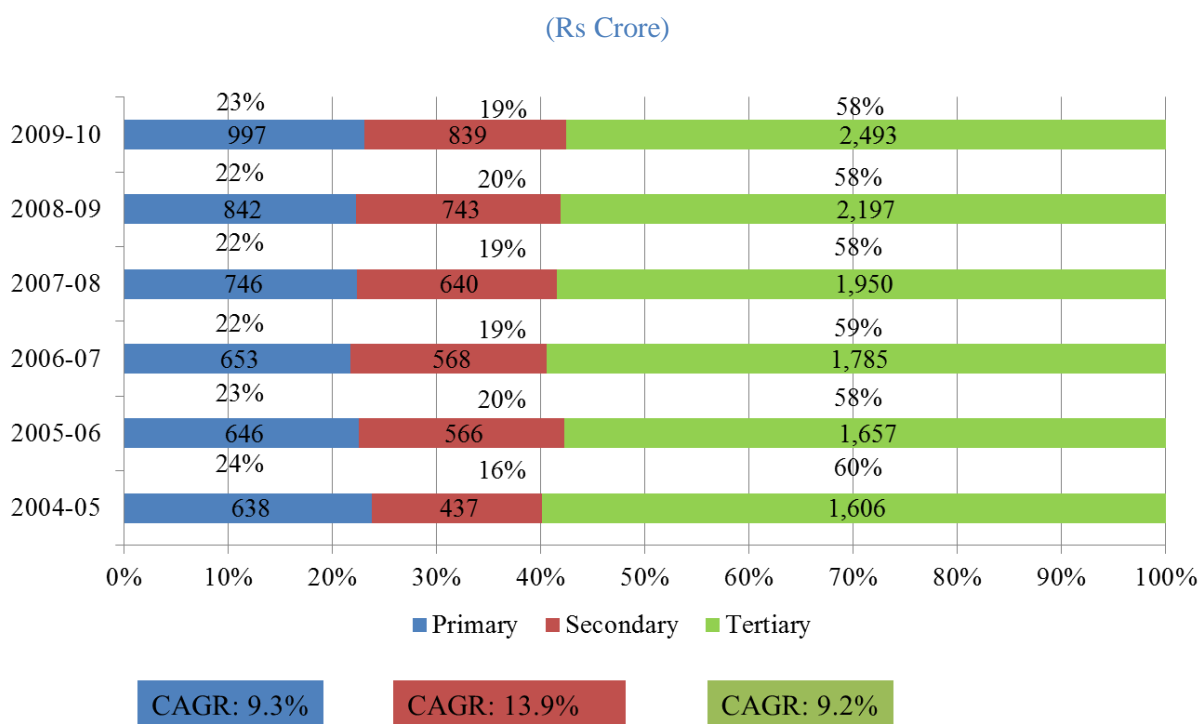
[^]2009-10

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

The tertiary sector makes the biggest contribution to GSDP, at 58 per cent. It is followed by primary sector (23 per cent) and secondary sector (19 per cent). Between 2004-05 and 2009-2010, the contributions of primary and tertiary sectors have decreased marginally, while the contribution of

secondary sector to GSDP has increased. The rate at which secondary sector has grown during this period is also higher than that in the primary and tertiary sectors. Growth in secondary sector is mainly on account of greater construction activity.

FIGURE 2: DISTRIBUTION OF GROSS STATE DOMESTIC PRODUCT

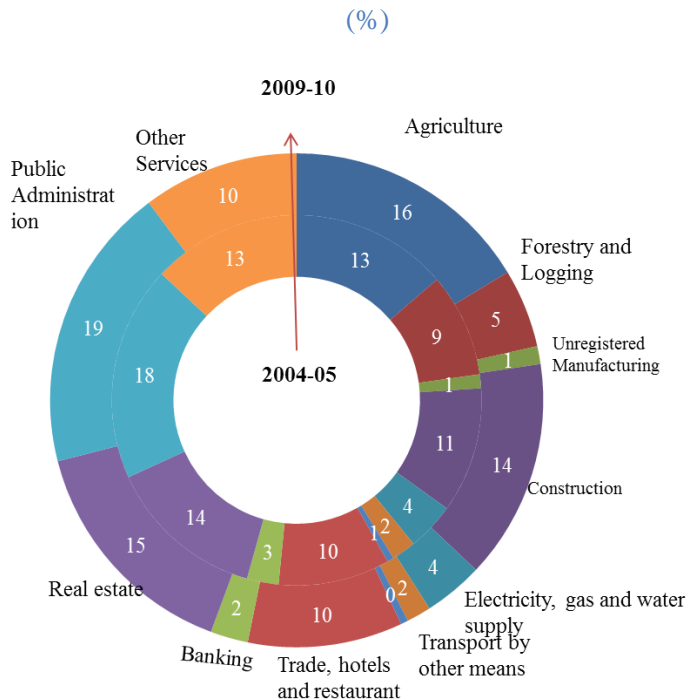


Source: Central Statistical Organisation, Ministry of Programme Implementation & Statistics; IMaCS Analysis

Sector-wise break-up of GSDP for 2009-2010 indicates that public administration is the biggest contributor to GSDP, at 19 per cent. It is followed by agriculture at 16 per cent and real estate, dwellings and business services at 15 per cent.

Between 2004-05 and 2009-2010, the GSDP contribution increased for construction and agriculture at three percentage points each. Contribution of manufacturing remained stagnant and small at just 1 per cent of GSDP. Registered manufacturing had little contribution to the State’s GSDP.

FIGURE 3: SECTOR-WISE DISTRIBUTION OF GROSS STATE DOMESTIC PRODUCT

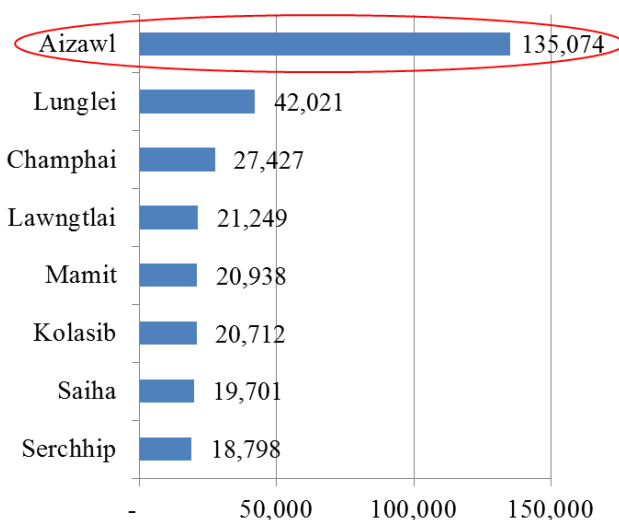


Source: Central Statistical Organisation, Ministry of Programme Implementation & Statistics; IMACS Analysis

The latest district wise GSDP data is available for the year 2006-07. Of the eight districts of Mizoram, Aizawl district alone contributes to over 44 per cent of the GSDP. It is home to the State capital. Most of the other districts (except Lunglei and Champhai) have low level of economic activity with self-sufficiency model of living.

FIGURE 4: DISTRICT-WISE GDDP

(Rs Lakh, 2006-07)



Source: Economic Survey of Mizoram, 2010-11; IMaCS Analysis

As of 2009-2010, Mizoram had a per capita income of Rs 45,982, which is lower than India average of Rs 46,492, but higher than the North East Region average of Rs 43,970.

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

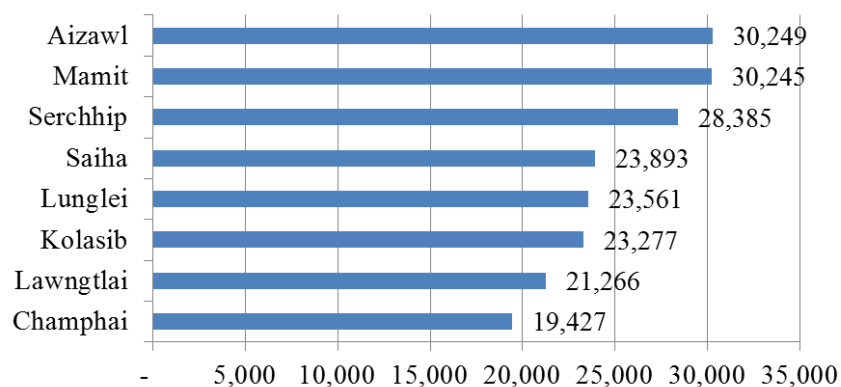
Country / Region/ State	Per capita income in Rs, 2009-10
India	46,492
North East Region	43,970
Mizoram	45,982

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

Aizawl district had the highest per capita income, at Rs 30,249. It was followed by Mamit and Serchhip. While greater economic activity is the key reason for Aizawl's high per capita income, low population density is a major cause for high per capita income of Mamit and Serchhip districts.

FIGURE 5: DISTRICT WISE PER CAPITA INCOME IN MIZORAM

(Rs, 2006-07)



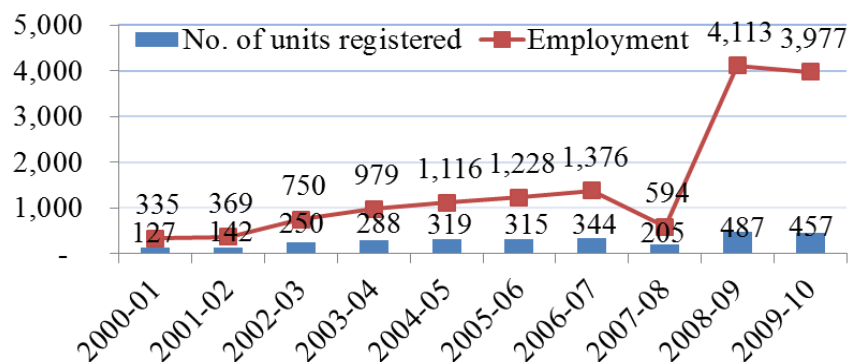
Source: Economic Survey of Mizoram, 2010-11; IMAcS Analysis

4.2 Industrial Activity Overview

Mizoram's industrial activity is dominated by Small Scale Industry (SSI). The informal sector plays a significant role. As of March 2010, Mizoram had 7,888 registered SSI units, employing 39,377 persons. They are mainly involved in metal products, hosiery and garments, wood products and other activities such as repair services and food products.

In 2009-2010, about 457 SSI units registered with the Directorate of Industries, providing employment to 3,977 persons at an investment of Rs 19.78 crore. Of the SSIs registered in 2009-2010, almost 60 per cent were in Aizawl district.

FIGURE 6: YEAR-WISE SSI PERFORMANCE



Sources: Statistical Abstract Mizoram 2009, Economic Survey 2010-11, Handbook of Statistics 2010, Directorate of Industries

TABLE 3: DISTRICT-WISE PERFORMANCE OF SSIs
(2009-2010)

District	Units registered	Persons employed (No.)	Investment (Rs Lakh)
Mamit	18	86	83
Kolasib	41	581	2,710
Aizawl	292	2,634	17,603
Champhai	35	177	36
Serchhip	24	159	45
Lunglei	20	147	105
Lawngtlai	14	45	22
Saiha	43	284	203
Mizoram	487	4,113	20,808

Sources: Statistical Abstract Mizoram 2009, Economic Survey 2010-11, Handbook of Statistics 2010, Directorate of Industries

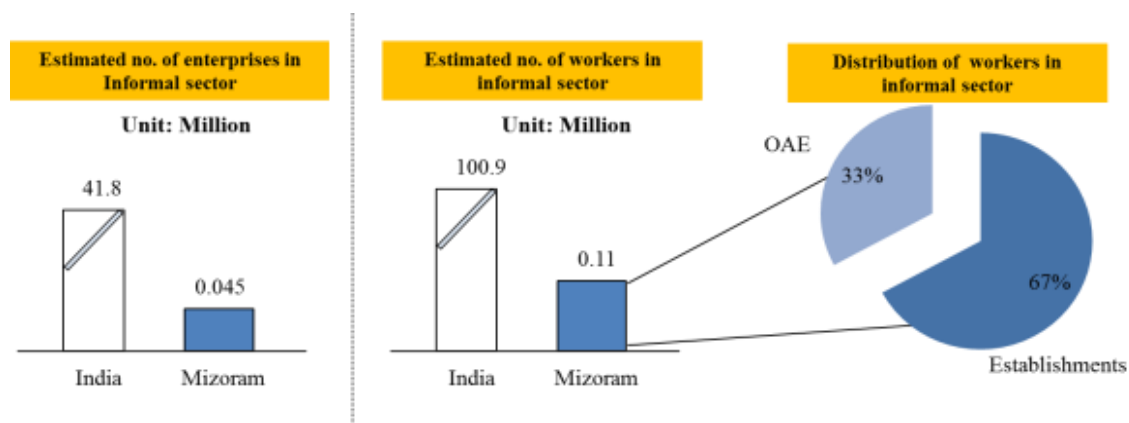
TABLE 4: ACTIVITY-WISE PERFORMANCE OF SSIs REGISTERED
(2009-2010)

Break-up of 457 SSIs registered in 2009-10	
Metal products	26.7 %
Hosiery and garments	15.7%
Wood products	12.0%
Others (repair service and foods)	45.6 %

Sources: Statistical Abstract Mizoram 2009, Economic Survey 2010-11, Handbook of Statistics 2010, Directorate of Industries

According to the Fifth Economic Census 2005, Mizoram had over 45,000 establishments, employing 106,706 persons. While 33 per cent of the employment is in Own Account Enterprises (OAE), the remaining 67 per cent is in establishments.

FIGURE 7: OAEs AND ESTABLISHMENTS IN MIZORAM



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

Of the total employment in enterprises sector in Mizoram, maximum at 33 per cent is concentrated in public administration alone. This is followed by retail trade and education. Retail trade is mostly concentrated in the informal sector.

TABLE 5: SECTOR WISE EMPLOYMENT IN MIZORAM'S ENTERPRISES

Employment	OAE	Establishments	Total
Agricultural activities	11,879	1,602	13,481
Manufacturing	4,037	4,931	8,968
Sale, Maint. & Repair	256	1,698	1,954
Retail Trade	16,910	3,781	20,691
Restaurants & Hotels	1,385	2,835	4,220
Transport & Storage	1,862	2,602	4,464
Posts & Telecommunications	209	501	710
Public Administration Defence, Social Security	12	23,195	23,207
Education	34	17,653	17,687
Health & Social Work	76	4,871	4,947
Other community and personal services	516	4,357	4,873
Others	192	1,312	1,504
Total	37,368	69,338	106,706

Source: Fifth Economic Census, 2005

4.3 Demography and Employment Overview

As per Census 2011, Mizoram has a population of over 10.91 lakh people. At 37 per cent, a majority of this population is concentrated in the Aizawl district, followed by 14 per cent in Lunglei district and 11.5 per cent in Champhai district.

Over 50 per cent of the population lives in rural areas. In fact, Lawngtlai district has 100 per cent rural population and Mamit district 83 per cent. Aizawl is the most urbanised district with about 77 per cent of the population living in urban areas. At 98 per cent and 96 per cent, respectively, Serchipp and Saiha districts have a large tribal population. They are also the lowest contributors to Mizoram's GSDP.

TABLE 6: DISTRICT DEMOGRAPHIC PROFILE OF MIZORAM

District	Area share	Population density (per sq.km)	Rural to Total population	Population* Population*	Population share*	Male to Female population*	Percentage of tribal population	Towns*	Inhabited villages*	Literacy*
Mamit	14.3%	21	83.0%	85,757	7.9%	1.08	93.9%	3	87	86.0%
Kolasib	6.6%	48	44.7%	83,054	7.6%	1.05	89.8%	4	39	94.5%
Aizawl	17.0%	91	23.8%	404,054	37.0%	0.99	93.2%	4	97	98.5%
Champhai	15.1%	34	61.2%	125,370	11.5%	1.02	96.8%	4	84	93.5%
Serchhip	6.7%	38	52.0%	64,875	5.9%	1.02	98.1%	3	34	98.8%
Lunglei	21.5%	30	57.8%	154,094	14.1%	1.06	95.3%	3	163	89.4%
Lawngtlai	12.1%	29	100.0%	117,444	10.8%	1.06	95.4%	1	161	66.4%
Saiha	6.6%	44	67.5%	56,366	5.2%	1.02	96.2%	1	54	88.4%
Mizoram	100.0%	42	50.4%	1,091,014	100.0%	1.03	94.5%	23	719	91.6%

Sources: *Census 2011; Census2001

About 60 per cent of Mizoram's population is in the working age group and 35 per cent in 0-14 year group that would be joining the workforce in the next 10 years. In addition, the State has high literacy rate, of 92 per cent, which is the third highest literacy rate in India, after Kerala and Lakshadweep. These factors, together, make available a huge pool of literate human resources, which can be tapped over the next few years.

TABLE 7: POPULATION BY AGE-GROUPS

District / Age group	0-14	15-59	60+	Others*	Total	0-14	15-59	60+	Others*
Mamit	23,877	35,359	2,011	1538	62,785	38.0%	56.3%	3.2%	2.4%
Kolasib	23,335	38,920	2,120	1585	65,960	35.4%	59.0%	3.2%	2.4%
Aizawl	104,124	203,257	10,513	7782	325,676	32.0%	62.4%	3.2%	2.4%
Champhai	39,937	61,919	3,872	2664	108,392	36.8%	57.1%	3.6%	2.5%
Serchhip	19,839	30,492	2,077	1453	53,861	36.8%	56.6%	3.9%	2.7%
Lunglei	48,772	80,717	4,504	3230	137,223	35.5%	58.8%	3.3%	2.4%
Lawngtlai	29,254	40,890	2,019	1457	73,620	39.7%	55.5%	2.7%	2.0%
Saiha	24,598	33,484	1,816	1158	61,056	40.3%	54.8%	3.0%	1.9%
Mizoram	313,736	525,038	28,932	20867	888,573	35.3%	59.1%	3.3%	2.3%

* Others are non-respondents.

Source: Census 2001 and Statistical Abstract Mizoram, 2009

Mizoram's total working population was 52.6 per cent as a percentage of total population. About 78 per cent of these were main workers and the remaining marginal. At 35 per cent, most of the workers were concentrated in the Aizawl district, followed by 15 per cent in Champhai district, 15 per cent in Lunglei district and remaining in others.

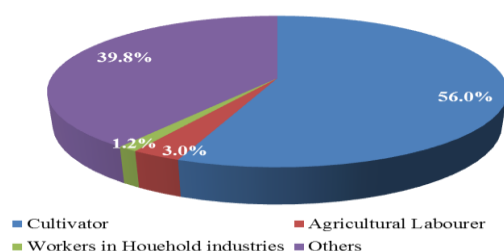
TABLE 8: DISTRICT-WISE WORKER PROFILE

District	Main workers	Marginal workers	Non workers	Working population as a % of total population	Total male to female worker ratio
Mamit	27,428	7,737	27,620	56.0%	1.2
Kolasib	27,441	8,069	30,450	53.8%	1.3
Aizawl	1,25,328	37,633	1,62,715	50.0%	1.4
Champhai	49,658	18,476	40,258	62.9%	1.1
Serchhip	24,783	7,740	21,338	60.4%	1.1
Lunglei	60,870	10,922	65,431	52.3%	1.3
Lawngtlai	26,188	7,905	39,527	46.3%	1.4
Saiha	20,754	6,227	34,075	44.2%	1.2
Mizoram	3,62,450	1,04,709	4,21,414	52.6%	1.3

Source: Census 2001

Of the total main workers in the State, 56 per cent were cultivators, followed by 3 per cent agricultural labourers, 1.2 per cent in household industries and remaining at 39.8 per cent other workers. District-wise distribution indicates that Mamit district has the highest percentage of workers as cultivators (78 per cent) and Aizawl district the lowest, at 32 per cent.

FIGURE 8: EMPLOYMENT PROFILE OF MAIN WORKERS
(100% = 362,450)



Source: Census 2001

Majority of the workers in Aizawl district at 65 per cent are in the category of ‘other workers’. They 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. This is also corroborated by the fact that most of the population (83 per cent) in Mamit district is in rural areas, most of the population (77 per cent) in the Aizawl district lives in the urban areas.

TABLE 9: DISTRICT-WISE DISTRIBUTION OF WORKERS

District	Cultivators	Agricultural labourer	Workers in household industry	Other workers
Mamit	77.52	3.29	0.80	18.39
Kolasib	61.52	3.83	1.13	33.52
Aizawl	31.41	2.51	1.47	64.61
Champhai	70.20	6.37	1.12	22.31
Serchhip	72.77	2.32	2.64	22.27
Lunglei	65.24	1.52	0.59	32.65
Lawngtlai	71.52	3.09	0.99	24.40
Saiha	67.66	1.28	0.80	30.26
Mizoram	55.97	2.99	1.21	39.83

Source: Economic Survey Mizoram 2010-11, Statistical Abstract 2009

4.4 Government Policy Support

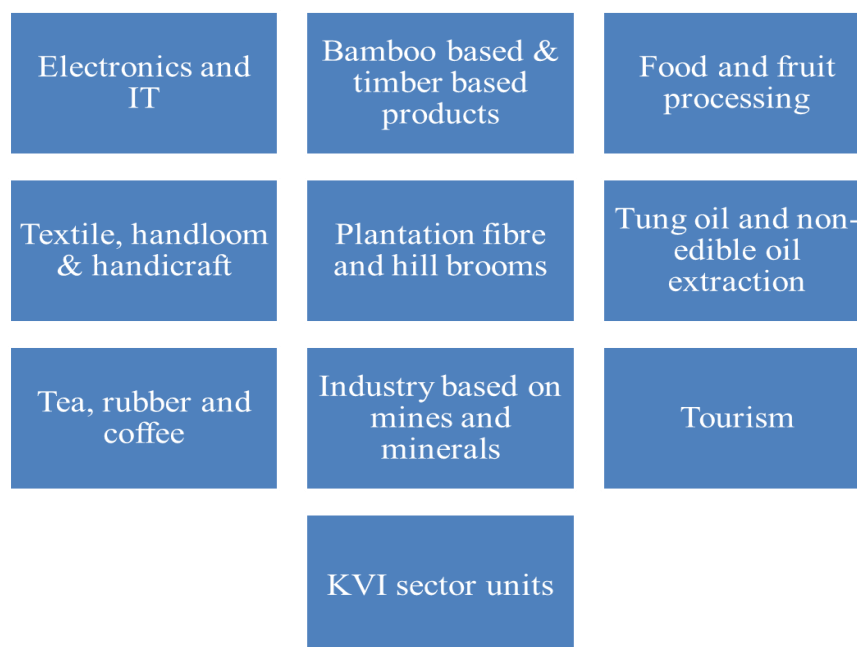
The Mizoram Government announced the New Industrial Policy, 2000, to provide thrust to industrial activity in the State. The policy aims to achieve the following:

- Enrichment of industrial growth potential in sectors such as agriculture, horticulture and forest.
- Establishment of proper linkage amongst the industries, based on resources available in these sectors.
- Formation of suitable mechanism for attracting and growth of capital formation.
- Identification and development of entrepreneurial and managerial skills through training.
- Balanced sector and regional growth by promoting industries under all sectors.
- Promotion and modernisation of textile industry including traditional Sericulture and Handloom, and Handicraft sectors.
- Encouragement to joint ventures between local entrepreneurs and industrialists from outside the State on selective basis.
- Creation of self-employment opportunities.
- Development of infrastructure such as Growth Centres, Industrial Estates, Export Promotion Industrial Park, IT Park Integrated Infrastructure Development Centre, SEZ and Industrial Areas.
- Re-structuring of State public sector units (PSU).
- Rehabilitation package for sick industries which merit revival.
- Creation of training and R&D facilities.
- Administrative support.
- Policy on FDI including investment from outside the State: “FDI will be encouraged and from outside the State with caution and restraint so as to safeguard the socio-cultural identity of the indigenous people of Mizoram”.
- Environment and pollution control.
- Administrative support system.

The State Industrial Policy, 2000, had identified a few areas as thrust sectors. Of these, some of the sectors such as bamboo, handloom, handicraft, plantation fibre, and Khadi & Village Industries have grown since then. The growth can be attributed to putting to use the readily available resources in Mizoram and traditional skills of the people.

Other sectors such as electronics, IT, food and fruit processing, mines and minerals have had little growth due to lack of adequate infrastructure, investments and market linkage for products. Tea, rubber and coffee plantations have been started on pilot basis.

FIGURE 9: THRUST AREAS IDENTIFIED UNDER ‘NEW INDUSTRIAL POLICY, 2000’



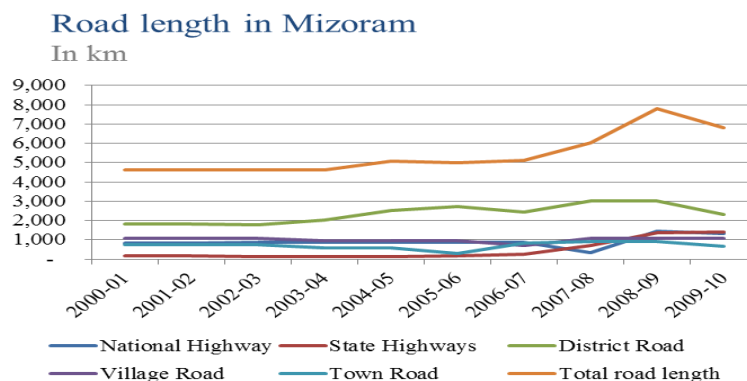
4.5 Infrastructure Overview

As of April 2010, Mizoram had a total road network of 7,049 km. Of this, 33 per cent were district roads, 20 per cent were state highways, 19 per cent were National Highways, 15 per cent were village roads and the remaining were town roads and others.

The state is connected through National Highways (NH)-44A, NH-54, NH-54A, NH-54B, NH-150 and NH-154 to the neighbouring states. The key agencies that maintain roads in the state are the Public Works Department (PWD) and Pushpak (Border Roads Organisation). As of 2008-09, the Mizoram State Transport covered 30 routes of 3,768 km providing connectivity across the state. Of this, 20 routes and 2,767 km (73.4 per cent) were in Aizawl alone.

Railway connectivity is almost negligible. A railway line extends to Mizoram at Bairabi, near the Assam border, measuring 1.5 km from Katakall Junction. There is one operational airport at Lengpui in Aizawl district. Daily air connectivity is available through multiple air carriers.

FIGURE 10: ROAD LENGTH IN MIZORAM



Note: In 2008-09, increase in road length is due to inclusion of Project Pushpak's work in National and State Highways in 2008-09. In 2006-07, increase in town road is due to the merger of satellite towns and Aizawl city and other roads as town roads.

Sources: Statistical Handbook 2010, Statistical Abstract 2009

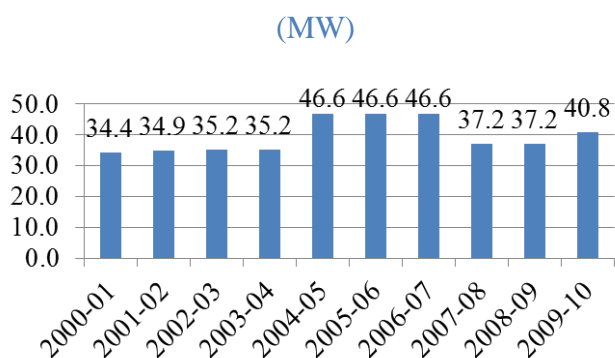
TABLE 10: DISTRICT WISE ROAD LENGTH AND ROAD DENSITY
(As of 2010)

District	Total road length, in km	Road density
Mamit	780	3.9
Kolasib	758	1.8
Aizawl	1,552	2.3
Champhai	1,314	2.4
Serchhip	555	2.6
Lunglei	1,288	3.5
Lawngtlai	908	2.8
Saiha	652	2.1

Sources: Statistical Handbook 2010, Statistical Abstract 2009

Mizoram has hydroelectric potential of 4,500 MW. However, little has been harnessed. As of March 2010, Mizoram’s installed capacity was 40.77 MW.

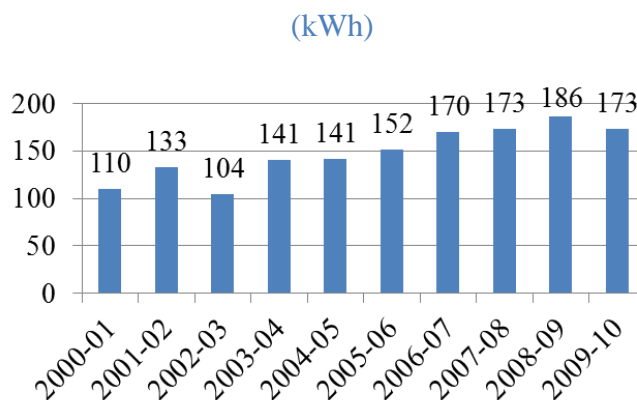
FIGURE 11: TOTAL INSTALLED CAPACITY



Sources: Statistical Handbook 2010, Statistical Abstract 2009

Bulk of the State’s power demand is met from Central Sector Generating Stations. In 2009-2010, only 4.75 per cent of the total energy demand was met within the state, the remaining 95.25 per cent was imported. The total power consumption in the state was 191 MU, with 67 per cent being consumed by domestic users.

FIGURE 12: PER CAPITA POWER CONSUMPTION



Sources: Statistical Handbook 2010, Statistical Abstract 2009

As of April 2010, about 81 per cent villages in the state were electrified. Highest percentage of electrified villages was in Serchhip district at 100 per cent, while only 51 per cent were electrified in Lawngtlai.

TABLE 11: DISTRICT-WISE PERCENTAGE OF VILLAGES ELECTRIFIED

District	% of electrified villages
Mamit	91%
Kolasib	84%
Aizawl	90%
Champhai	89%
Serchhip	100%
Lunglei	86%
Lawngtlai	51%
Saiha	78%

Sources: Statistical Handbook 2010, Statistical Abstract 2009

As of March 2010, Mizoram had 621,417 mobile subscribers. In 2009-2010, the subscriber base increased 22 per cent over 2008-09. Mobile penetration was at 47 per cent, with the maximum being in Aizawl district (74 per cent) and lowest in Lawngtlai district, at 12 per cent.

Maximum number of subscribers was with Airtel at 35 per cent, followed by Reliance and BSNL. Tata Indicom and Vodafone also established a subscriber base in the state in 2009-2010. As of March 2008, the State also had 64 telephone exchanges and 56,720 landline telephone connections.

TABLE 12: DISTRICT-WISE NUMBER OF MOBILE SUBSCRIBERS

(As of March 2009)

District	Airtel	BSNL	Reliance	Aircel	Total	Mobile penetration
Mamit	6,160	1,241	736	10,320	18,457	22%
Kolasib	13,280	3,207	9,399	12,900	38,786	47%
Aizawl	130,280	55,030	92,502	21,500	299,312	74%
Champhai	2,270	3,441	2,216	12,900	20,827	17%
Serchhip	7,000	2,607	7,215	11,180	28,002	43%
Lunglei	27,300	17,636	10,118	17,200	72,254	47%
Lawngtlai	6,000	3,029	5,308	-	14,337	12%
Saiha	5,020	4,102	7,342	-	16,464	29%
Total	197,310	90,293	134,836	86,000	508,439	47%

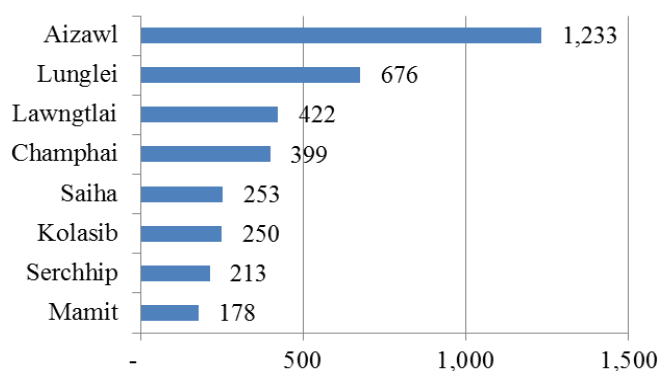
Sources: Statistical Handbook 2010, Statistical Abstract 2009

Education infrastructure

As of March 2009, Mizoram had 3,624 schools, 21,414 teachers and 276,011 students. Teacher-pupil ratio was 13. Aizawl has maximum school concentration, at 34 per cent with 38 per cent of teachers and 40 per cent of all students. Of the total number of schools in Mizoram, 49 per cent are primary schools, 35 per cent are middle schools, 14 per cent are high schools and remaining 2 per cent are higher secondary.

FIGURE 13: DISTRICT-WISE NUMBER OF SCHOOLS IN MIZORAM

(As of March 2009)



Source: Statistical Abstract 2009

Higher and technical education is provided through colleges, polytechnics and Industrial Training Institutes (ITI) in the State. As of March 2010, the State has one University, 22 colleges, two polytechnics, three ITIs, a College of Teacher Education, a Mizoram Hindi Training College and two District Institutes of Education and Training (DIET).

TABLE 13: DISTRICT WISE DISTRIBUTION OF COLLEGES

(As of March 2010)

District	Colleges
Mamit	2
Kolasib	1
Aizawl	9
Champhai	2
Serchhip	1
Lunglei	3
Lawngtlai	2
Saiha	1

Source: Department of Labour, Employment and Industrial Training; Directorate of Higher and Technical Education; Statistical Abstract 2009, Handbook of Statistics 2010

TABLE 14: DISTRICT WISE DISTRIBUTION OF ITI S

(As of March 2010)

ITI	No. of trades taught	No. of trainees enrolled
Aizawl	20	349
Lunglei	4	35
Saiha	4	28

Source: Department of Labour, Employment and Industrial Training; Directorate of Higher and Technical Education; Statistical Abstract 2009, Handbook of Statistics 2010

There are plans for setting up new polytechnics in four more districts – Champhai, Mamit, Kolasib and Lawngtlai at a cost of Rs 12.3 crore each. First instalment of Rs 2 crore each was released in 2009-2010 by the Ministry of Human Resources Development.

There are plans for setting up more institutes of higher education. These include National Institute of Technology (NIT), Indian Institute of Information Technology (IIIT), Rajiv Gandhi Indian Institute of Management (RGIIM) and Institute of Hotel Management (IHM). Site has been selected for NIT at Thenzawl in Serchhip district.

TABLE 15: COURSES OFFERED BY POLYTECHNICS IN MIZORAM

Women Polytechnic, Aizawl

Courses	Intake of students	Duration of course (years)
Civil Engineering	30	3
Electrical Engineering	30	3
Mechanical Engineering	30	3
Computer Science Engineering	30	3

Polytechnic, Lunglei

Courses	Intake of students	Duration of course (years)
Modern Office Practice	30	3
Electronics & Telecommunication Engineering	30	3
Garment Technology	30	3
Beauty Culture & Cosmetology	20	3

Source: Higher and Technical Education Handbook, 2010

TABLE 16: COURSES OFFERED BY ITI AIZAWL

Trade	Seating capacity	Duration (years)
Electrician	32	2
Wireman	32	2
Fitter	32	2
Motor mechanic	32	2
Welder	16	1
Electronic	32	2
Carpentry	16	1
Plumber	16	1
Draughtsman	16	2
Radio & TV mechanic	32	2
Diesel Mechanic	16	1
IT & ESM	32	2
Surveyor	16	2
Mechanic	32	2
Mason	32	1
Copa	20	1
Hair & Skin Care	16	1
Cutting & Sewing	32	1
Bakery & Confectionary	16	1
Stenography	16	1

TABLE 17: COURSES OFFERED BY ITI LUNGLEI AND ITI SAIHA

ITI Lunglei			ITI Saiha		
Trade	Seating capacity	Duration (years)	Trade	Seating capacity	Duration (years)
Carpentry	16	1	Electrician	16	2
Mechanic	32	2	Mechanic	32	2
Copa	20	1	IT & ESM	32	2
Dress making	16	1	Hair & Skin Care	16	1

Source: Department of Labour, Employment and Industrial Training

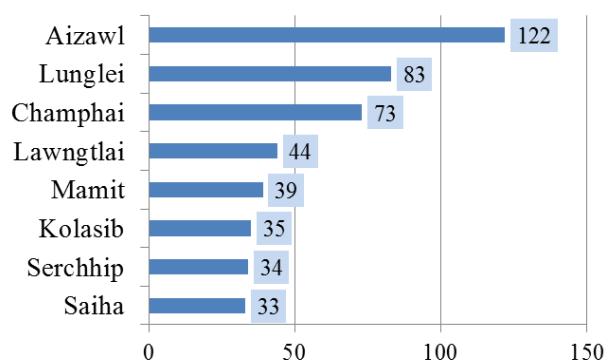
Health infrastructure

As of 2008-09, Mizoram had 24 hospitals. Of this, 14 were in Aizawl district alone. Other districts have a government hospital each. Lunglei, Lawngtlai and Saiha have a private hospital in addition.

Total number of beds in government hospitals was 1,101. Community Health Centres, Primary Health Centres and Private / Nursing Homes had 270, 570 and 828 beds each. Health services need improvement especially in rural areas with no private health providers.

FIGURE 14: DISTRICT-WISE NUMBER OF MEDICAL INSTITUTIONS

(As of 2008-09)



Sources: Statistical Abstract 2009, Economic Survey 2010-11

TABLE 18: HEALTHCARE PERSONNEL

Availability of health personnel, 2008-09	
Doctor-population ratio	3,637
Nurse-population ratio	2,074
Health workers-population ratio	1,794

TABLE 19: HEALTH INDICATORS

Health indicators, as of 2008	
Birth Rate	21.5
Death Rate	6.3
Infant Mortality Rate	38.3

Sources: Statistical Abstract 2009, Economic Survey 2010-11

Industrial infrastructure

Mizoram has an industrial estate at Zuangtui in Aizawl, where land has been demarcated for industrial units. Plans are underway to establish seven more industrial estates in Aizawl, Kolasib, Lunglei, Champhai and Lawngtlai districts.

Two border trade centres are also being set up to facilitate border trade with neighbouring countries. Both are yet to become operational. These are at Zokhawthar in Champhai district for trade with Myanmar and at Kawrpuchhuah in Aizawl district for trade with Bangladesh.

4.6 Key Findings from the Diagnostic Analysis

Macro-economic:

- Mizoram's GSDP has increased at a CAGR of 10 per cent in the six years to. This is mainly driven by the increasing construction activity in the State.
- Tertiary sector has the biggest share in GSDP at 58 per cent, due to a high share of public administration. Latter is a big source of income and employment in the State.
- Manufacturing activity is almost non-existent with a share of just 1 per cent in GSDP. This has remained constant in the six years because of lack of entrepreneurial activity, poor market access and high cost of production.
- Almost half of economic activity in the State is concentrated in Aizawl district, which is home to the State capital. Most of the other districts are self-sufficient in basic needs.

Industrial activity:

- SSI activity has increased in the last few years. Over half of the SSI units are concentrated in the Aizawl district.
- Informal sector plays a key role in the economy, providing employment to over a lakh of people. Most of these are employed in public administration, retail trade and agricultural activities.
- Most of the upcoming industrial activity in the State will be based on its factor endowments, activities based on climatic conditions and aspirations of the youth.

Demography and employment:

- Most of the population is tribal in nature. Share of tribal population in total population is as high as 98 per cent in Serchhip district and 96 per cent in Saiha district – the bottom two districts in terms of their contribution to Mizoram’s GSDP.
- About 35 per cent of the total population is in the 0-14 year age group. They would be joining the working age population in the next 10 years. There is a significant demographic dividend to be reaped from this segment of population.
- In addition, the State has high literacy rate of around 92 per cent, the third-highest among all states in India, after Kerala and Lakshadweep.
- These factors, together, make available a huge pool of literate human resources, which can be tapped over the next 10 years.

Government policy:

- The State Industrial Policy, 2000, had identified a few areas as thrust sectors. Of these, some sectors such as bamboo, handloom, handicraft, plantation fibre, and khadi-village industries have had some growth since then. These are sectors which have grown due to availability of natural resources and traditional skills of people.
- Others such as electronics and IT, food and fruit processing, mines and minerals have had little growth because of inadequate infrastructure, lack of investment (both from within and from outside the state) and poor market linkage.
- Investments have been made on pilot basis in tea, rubber and coffee.

Infrastructure:

- Infrastructure availability is poor. However, construction has picked up in the last few years and the Government is focusing on development of roads, railway, hydroelectric power plants and telecom infrastructure. This is expected to create an environment conducive to industrial growth over the next five to 10 years.
- Social infrastructure including health and education is mostly concentrated in Aizawl. Institutes in other districts are not up to the mark. Students prefer to move out for education either to Aizawl or outside the State. Health infrastructure also requires improvement.

- For vocational training, the State has two polytechnics and three ITIs. The courses and trades offered are in line with domestic demand. However, the quality of infrastructure and course material may not be up to contemporary standards.

4.7 SWOT Analysis of Mizoram



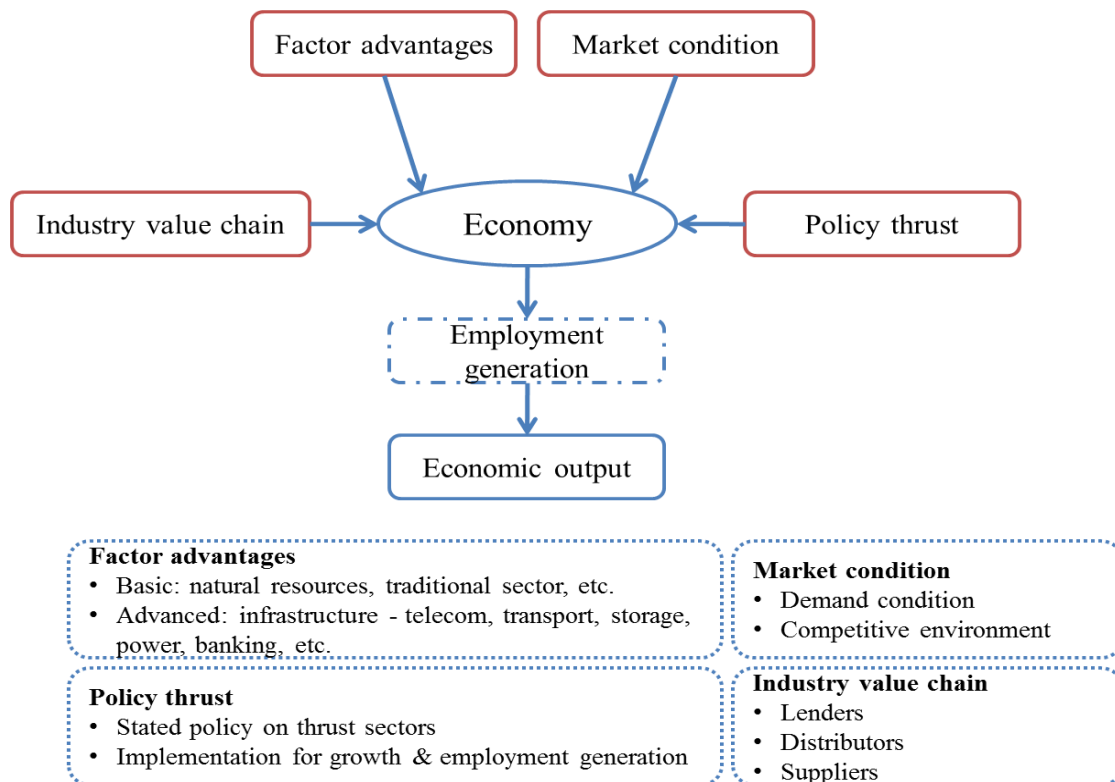
PART – II (b): Identification of growth sectors

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 20: 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	√	√	√	√	√	Medium	High
Handicrafts	√	√	√	√	√	Medium	Medium
Horticulture	√	√	√	√	×	High	High
Food Processing	√	√	√	×	×	Low	High
Hospitality	√	√	√	√	×	Medium	Low
IT/ITES	×	√	√	×	×	High	Medium
Forest based	√	√	√	√	×	Low	High
Construction	√	√	√	√	×	Low to Medium	High
Healthcare	√	√	√	×	×	Medium to High	Low
Other services: Motor Repair, Beauty Culture	√	×	√	×	×	Low	Low to High

* Low : Up to one year; Medium : One to two years; High: More than two years. ** Low: Incremental employment potential of 0 to 1,500 persons; Medium: 1500 to 3,000 persons; High: More than 3,000 persons between 2011 and 2021.

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 21: 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
Fashion Designing	√	√	√	×	High
Flight attendants	×	√	√	×	Medium to High
Ground staff at the airports	×	√	√	×	Low to Medium
Healthcare	×	√	√	×	Medium to High
Language Skills	√	√	√	×	Low to Medium
Trainers	×	√	√	×	Medium to High

* 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 22: SKILLING FOR LIVELIHOOD AND DOMESTIC DEMAND SECTORS

Sectors	Specialty skills	New skills	Skill up-gradation
Livelihood opportunities			
Agriculture			✓
Fishery		✓	✓
Animal Husbandry		✓	✓
Sectors for domestic demand			
Handloom and Handicraft	✓	✓	✓
Horticulture		✓	✓
Food Processing		✓	✓
Hospitality		✓	✓
IT/ITES	✓		✓
Forest based products	✓	✓	
Construction	✓		
Healthcare	✓	✓	✓
Others including motor repair and beauty culture	✓	✓	✓

Specialty skills: technical or specific knowledge base essential

New skills: training centres largely non-existent

Skill-up-gradation: out-dated techniques and knowledge base

Source: IMACS Survey and Analysis

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 23: 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		✓	✓
Fashion Designing	✓	✓	✓
Flight attendants		✓	✓
Ground staff at the airports		✓	✓
Healthcare	✓	✓	✓
Language Skills		✓	✓
Trainers		✓	✓

Specialty skills: technical or specific knowledge base essential

New skills: training centres largely non-existent

Skill-up-gradation: out-dated techniques and knowledge base

Source: IMaCS Survey and Analysis

PART – II (c): District level Analysis of Mizoram

6.1.Aizawl

Aizawl is the largest district and Aizawl city is the State capital. It is the economic hub of Mizoram and contributes to over 44 per cent of Mizoram's GSDP. It also has the highest per capita income among all the districts. Majority of the industry in the State is also located here, as it has better infrastructure and accessibility as compared to the other districts. Aizawl is also the most urbanised district with high literacy rate.

6.1.1 Economy

As of 2006-07, Aizawl had a District Domestic Product of Rs 135,074 lakh. Its per capita income was Rs 30,249, the highest amongst all the districts. Most of the industrial activity in the State is concentrated in Aizawl district. Of the 457 SSI units registered in the State in 2009-2010, 60 per cent were in Aizawl district alone.

6.1.2 Demography

Aizawl's share in Mizoram's land area is 17 per cent. However, its share in State's population is high, at 37 per cent. The district has the highest population density at 91 as compared to other districts in the State. It has the highest urbanisation of about 77 per cent.

Population is mostly tribal in nature at 93.2 per cent of the total population of 404,054 persons. Literacy rate is highest among all districts at 98.5 per cent. Population is young, with 32 per cent of the population in the age-group of 0-14 years and 62.4 per cent of the population in the age-group of 15-59 years.

6.1.3 Infrastructure

Aizawl has the most highly developed infrastructure in Mizoram. However, modernisation is necessary for higher growth rate. The district has the highest road length in Mizoram at 1,552 km and has a road density of 2.3 km of road per sq. km. of land area. Over 90 per cent of the villages are electrified. Total number of mobile subscribers in the district is highest amongst all the districts, at 299,312. Most of these are Airtel customers, followed by Reliance, BSNL and Aircel. Mobile penetration is about 74 per cent.

Drinking water facilities are available in all 96 inhabited villages in the district. Electricity supply is, however, available in 81 villages.

TABLE 24: INFRASTRUCTURE FACILITIES IN AIZAWL

Facilities	Number of villages
Drinking water facilities	96
Safe drinking water	53
Electricity supply	81
Electricity - domestic	74
Electricity - agriculture	Nil

Source: Census 2001, IMaCS Analysis

Education Infrastructure:

Most of the education infrastructure in the State is also concentrated in the Aizawl district. The State University is situated in the Aizawl district. The district has nine colleges, one ITI, and one polytechnic institute.

TABLE 25: EDUCATION INFRASTRUCTURE IN AIZAWL

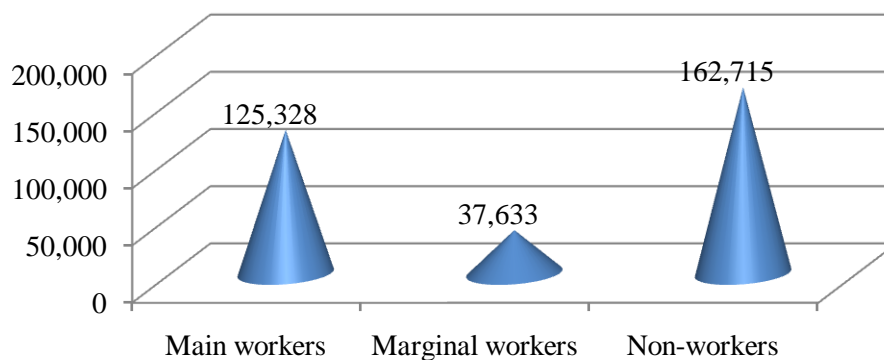
Institutes	No. of villages
Primary school	86
Middle schools	68
Secondary/Sr Secondary schools	43
College	9

Source: Census 2001, IMaCS Analysis

6.1.4 Employment Pattern

Aizawl has 162,961 workers, bringing the working population ratio as a percentage of total population at 50 per cent. About 77 per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, 31.4 per cent are cultivators, 2.5 per cent are agricultural labourers, 1.5 per cent is workers in household industry and the majority at 64.6 per cent is 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 15: EMPLOYMENT PATTERN IN AIZAWL 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 or upgrading skills:

Handloom and handicrafts:

- Mizo handloom and handicrafts have a market locally as well as in neighbouring states of Manipur, Meghalaya and Assam.
- The handloom industry manufactures shawls, bags, ties, stoles etc, while the handicraft industry uses locally available raw materials like bamboo, cane and wood.
- There are several handloom and handicraft clusters in the state, the notable one in Aizawl.
- Aizawl has 143 handloom and weaving co-operative societies with 3,721 members.
- There is also one handloom and one handicraft training centre.
- Mizoram Apex Handloom and Handicrafts Cooperative Society (MAHCO), which ensure input and output linkages for its members is also located in the Aizawl district.
- Handloom and handicraft products are produced by various self-help groups (SHG) and small entrepreneurs in the district.

Horticulture and fruit processing:

- The soil and topography of Aizawl is conducive to growing variety of fruits, vegetables, spices, medicinal and aromatic plants, and exotic flowers.
- Some of the key crops in Aizawl are mandarin oranges, areca nut, ginger, turmeric, iskut, cabbage, and anthurium flower.
- Most of the fruits and vegetables are either consumed locally or sold to neighbouring States.
- However, exotic flowers such as anthurium are exported to other parts of India as well as UAE, UK, Japan and Australia.
- The turmeric processed in Reiek village, is famous locally.
- The abundant horticulture produce provides raw material and potential for setting up of fruit processing industry in the district.
- The Mizoram Food and Allied Industries Corporation Limited (MIFCO) is already engaged in buying farm produced passion fruit and processes it into juice at its Chhinchipp and Sairang concentrate plants in Aizawl district.

Tourism and hospitality:

- Aizawl is the key tourism hub in the State. It is located at about 1,132 metres above sea level.
- It also has the State's only airport, ensuring connectivity for the tourists.
- The district has Durtlang peaks on the North, is situated on steep hills overlooking the sylvan valley of the river Tlawng in the west and river Tuirial in the Western South.
- Being the state capital, Aizawl is also the political and cultural centre of Mizoram.
- The district has a few hotels in addition to the government tourist lodge. More tourism infrastructure is expected to come up.

IT/ITES:

- IT / ITES is currently in the beginning stages in the district.
- Due to easy accessibility and availability of infrastructure as compared to other districts, Aizawl has the maximum potential for growth of IT and ITES related industry.

Forest based industry:

- Mizoram contributes to 14 per cent of the country's growing stock of bamboo, covering 49.1 per cent of State's geographical area. Bamboo is grown abundantly in Aizawl also, based on which, bamboo based industry has come up in the district.
- Main bamboo products include *agarbatti* stick making, bamboo chips and other bamboo diversified products.

Construction:

- Large scale construction activity is going on in the district and more activity is expected to come up in future.
- Among key projects, some of the up-coming projects are 38 MW Tuirini HEP, 42 MW Tuivawl HEP, along with some road construction and bridge construction works.

Other services:

- Other existing and up-coming services include health, education, motor repair and beauty culture.

6.2 Champhai

Champhai district shares its border with Myanmar and is situated 192 km away from the capital Aizawl. Major towns in the district are Ngopa, Khawhai and Khawzawl. It is also known as "The Rice bowl of Mizoram". Agriculture is the key economic activity in the district. The district is placing focus on horticulture development, especially grape production.

6.2.1 Economy

As of 2006-07, the district made the third highest contribution to the State's GSDP at Rs 27,427 lakh each. Its per capita income, however, was low at Rs 19,427. Most of the economic activity is agro-based. In addition, there is presence of informal sector. Border trade with Myanmar takes place, mostly through informal channels.

6.2.2 Demography

Champhai's share in Mizoram's land area is 15 per cent and its share in State's population is high at 11.5 per cent. Population density in the district is low at just 34. Majority of population is rural, at 61 per cent.

Population is mostly tribal, at 96.8 per cent of the total population of 125,370 persons. Literacy rate is high at 93.5 per cent. Population is young, with 36.8 per cent of the population in the age-group of 0-14 years and 57 per cent of the population in the age-group of 15-59 years.

6.2.3 Infrastructure

The district has the second highest road length in Mizoram at 1,314 km and has a road density of 2.4 km of road per sq. km. of land area. Over 89 per cent of the villages are electrified. Total number of mobile subscribers in the district is at 20,827. Most of these are Aircel customers, followed by BSNL, Airtel and Reliance. Mobile penetration is very low, at just 17 per cent.

Drinking water facilities are available in all 88 inhabited villages in the district. Electricity supply is, however, available in 64 villages.

TABLE 26: INFRASTRUCTURE FACILITIES IN CHAMPHAI

Facilities	Number of villages
Drinking water facilities	88
Safe drinking water	76
Electricity supply	64
Electricity - domestic	64
Electricity - agriculture	Nil

Source: Census 2001, IMaCS Analysis

Education Infrastructure:

Quality of education infrastructure needs to be upgraded. There are schools for basic education. However, for higher and technical education, there are no ITIs or polytechnics. However, there are plans of setting up a new polytechnic in the district.

TABLE 27: EDUCATION INFRASTRUCTURE IN CHAMPHAI

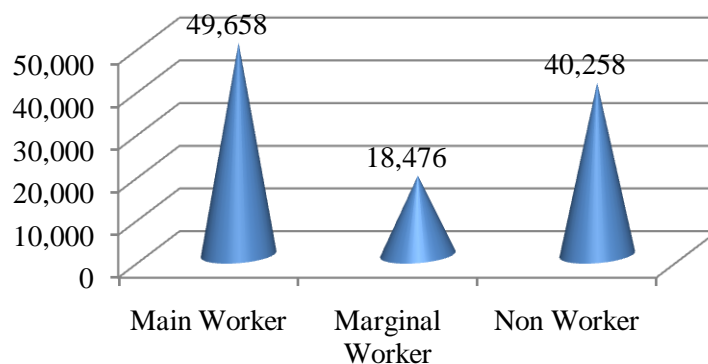
Institutes	No. of villages
Primary school	80
Middle schools	72
Secondary/Sr Secondary schools	41
College	2

Source: Census 2001, IMaCS Analysis

6.2.4 Employment Pattern

Champhai has 68,134 workers, bringing the working population ratio as a percentage of total population at 62.9 per cent. About 73 per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, 70.2 per cent are cultivators, 6.4 per cent are agricultural labourers, 1.1 per cent is workers in household industry and 22.3 per cent is other workers.

FIGURE 16: EMPLOYMENT PATTERN IN CHAMPHAI 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 or upgrading skills:

Handloom and handicrafts:

- Mizo handloom and handicrafts have a market locally as well as in neighbouring states of Manipur, Meghalaya and Assam.
- The handloom industry manufactures shawls, bags, ties, stoles etc, while the handicraft industry uses locally available raw materials like bamboo, cane and wood.
- Champhai has seven handloom and weaving co-operative societies having a membership of 162 persons.
- There is also one handicraft training centre.

Horticulture and fruit processing:

- The soil and topography of Champhai is conducive to growing a variety of fruits, vegetables, spices, medicinal and aromatic plants and exotic flowers.
- Some of the key crops in Champhai are passion fruit, banana, areca nut, ginger, grapes, and roses.
- Most of the fruits and vegetables are either consumed locally or sold to neighbouring States.
- Grape produced in the district is called as ‘Bangalore Blue’. It is mainly grown in East: Champhai and Hnahlan.
- Two wineries have also come up in the district, producing wine which is locally called as ‘Zawlaidi’. It is presently consumed locally.

Tourism and hospitality:

- Champhai district borders the country of Myanmar. Due to this, it attracts many tourists to see the hills of Myanmar. It is also a place for shopping various imported goods.
- The district is set at an altitude of 1,678 metres.
- The Champhai town is also a convenient base for trekking and visiting landmarks and historical places in the vicinity including Rih Dil, the mythical lake located 5 km from the border within Myanmar.

Forest based industry:

- Mizoram contributes to 14 per cent of the country’s growing stock of bamboo, covering 49.1 per cent of State’s geographical area. Bamboo is grown abundantly in Champhai district also, based on which, bamboo based industry has come up in the district.

- Main bamboo products include *agarbatti* stick making, bamboo chips and other bamboo diversified products.

Construction:

- Construction activity is going on in the district and more activity is expected to come up in future.
- Among key projects, some of the up-coming projects are 5 MW Tlawva SHP, 210 MW Tuivai HEP, along with some road construction and bridge construction works.

Other services:

- Other existing and up-coming services include health, education, motor repair and beauty culture.

6.3 Kolasib

Kolasib district is situated on the northern part of Mizoram. It is bounded by Cachar district and Hailakandi district of Assam on the north and north west respectively; on the south and east by Aizawl district of Mizoram and on the south west by Mamit district of Mizoram. The district has a location advantage and serves as a main link of road connection in Mizoram with other States. The only rail head in the State is also located at Bairabi in Kolasib district. There is also an upcoming bamboo cluster in the State close to Bairabi, which will provide a major thrust to the bamboo industry.

6.3.1 Economy

As of 2006-07, the District Domestic Product was Rs 20,712 lakh. Its per capita income, however, was low at Rs 23,277. It is primarily an agrarian economy. In addition, there is presence of informal sector. The railway connectivity to the district also provides boost to forest based industries.

6.3.2 Demography

Kolasib's share in Mizoram's land area is 6.6 per cent and its share in State's population is at 7.6 per cent. Population density in the district is low, at 48. It is the second most urbanised district in Mizoram with urban population at over 63 per cent.

It has the lowest percentage of its tribal population as compared to other districts, at 89.8 per cent of the total population. Total population in the district is small, at 83,054. Literacy rate is high at 94.5 per cent.

Population is young, with 35.4 per cent of the population in the age-group of 0-14 years and 59 per cent of the population in the age-group of 15-59 years.

6.3.3 Infrastructure

Infrastructure in the district needs more development. Total road length in Kolasib is at 758 km and has a road density of 1.8. Over 84 per cent of the villages are electrified. Total number of mobile subscribers in the district is at 38,786. Most of these are Airtel customers, followed by Aircel, BSNL and Reliance. Mobile penetration is low at 47 per cent.

Drinking water facilities are available in all 39 inhabited villages in the district. Electricity supply is, however, available in 30 villages.

TABLE 28: INFRASTRUCTURE FACILITIES IN KOLASIB

Facilities	Number of villages
Drinking water facilities	39
Safe drinking water	34
Electricity supply	30
Electricity - domestic	30
Electricity - agriculture	Nil

Source: Census 2001, IMaCS Analysis

Education Infrastructure:

Quality of education infrastructure needs to be upgraded. For higher education, there is one college also. There are no ITIs or polytechnics. However, there are plans of setting up a new polytechnic in the district.

TABLE 29: EDUCATION INFRASTRUCTURE IN KOLASIB

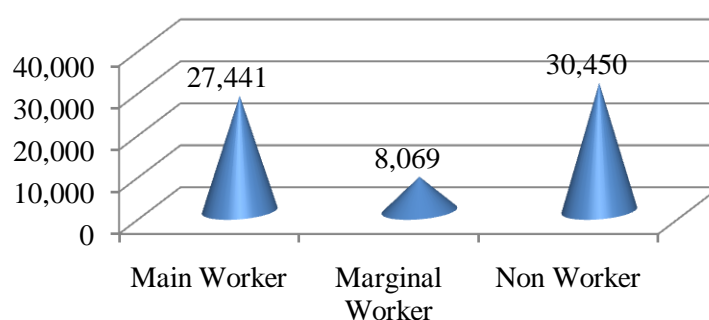
Institutes	No. of villages
Primary school	30
Middle schools	24
Secondary/Sr Secondary schools	12
College	1

Source: Census 2001, IMaCS Analysis

6.3.4 Employment Pattern

Kolasib has a total of 35,510 workers, bringing the working population ratio as a percentage of total population at 53.8 per cent. About 77 per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, 61.5 per cent are cultivators, 3.8 per cent are agricultural labourers, 1.2 per cent is workers in household industry and 33.5 per cent is other workers.

FIGURE 17: EMPLOYMENT PATTERN IN KOLASIB 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 or upgrading skills:

Handloom and handicrafts:

- Mizo handloom and handicrafts have a market locally as well as in neighbouring states of Manipur, Meghalaya and Assam.
- The handloom industry manufactures shawls, bags, ties, stoles, etc., while the handicraft industry uses locally available raw materials like bamboo, cane and wood.
- Kolasib district has three handloom and weaving co-operative societies having 65 members.

Horticulture and fruit processing:

- The soil and topography of Kolasib district is conducive to growing a variety of fruits, vegetables, spices, medicinal and aromatic plants and exotic flowers.

- Some of the key crops grown in Kolasib are iskut, bananas, areca nut, ginger, bird's eye chilly, aromatic and medicinal plants.
- Most of the fruits and vegetables are consumed locally.
- Production of Aloe Vera and Patchouli has been started recently
- There is a distillation unit for Patchouli at Horticulture Centre, Thingdawl, Kolasib

Forest based industry:

- Mizoram contributes to 14 per cent of the country's growing stock of bamboo, covering 49.1 per cent of State's geographical area. Bamboo is grown abundantly in Kolasib district also, based on which, bamboo industry has come up in the district.
- Over 45 per cent of the bamboo grown in Mizoram is produced in Kolasib district alone.
- Main bamboo products include *agarbatti* stick making, bamboo chips and other bamboo diversified products.
- In the Bairabi district of Kolasib, a bamboo cluster has also come up, which has several bamboo chipping units and more units manufacturing other bamboo diversified products.

Construction:

- Construction activity is going on in the district and more activity is expected to come up in future.
- Among key projects, some of the up-coming projects are 12 MW Serlui 'B' HEP, 60 MW Tuirial HEP, 80 MW Bairabi Dam project, along with some road construction and bridge construction works.

Other economic activities:

- Other existing and up-coming services include health, education, motor repair and beauty culture.
- Oil has also been discovered in the district and ONGC is conducting exploration works.

6.4 Lawngtlai

Lawngtlai district shares its boundaries with Lunglei and Saiha district in the north and south, respectively. It covers an area of 2,258 sq. km. Agriculture is the main occupation of people. There are two autonomous district councils within the district. The two-in-one district comprises the Lai Autonomous District Council (LADC) and the Chakma Autonomous District Council (CADC) with their headquarters at Lawngtlai and Kamalanagar, respectively.

6.4.1 Economy

As of 2006-07, the District Domestic Product was Rs 21,249 lakh. Its per capita income, however, was low at Rs 21,266. It is primarily an agrarian economy. In addition, there is presence of informal sector.

6.4.2 Demography

Lawngtlai's share in Mizoram's land area is 12.1 per cent and its share in State's population is at 10.8 per cent. Population density in the district is low at 29. District is completely rural.

Percentage of tribal population is high at 95.4 per cent. Total population in the district is 117,444. It has the lowest literacy rate in the State at 66.4 per cent. Population is young, with 39.7 per cent of the population in the age group of 0-14 years and 55.5 per cent in the age-group of 15-59 years.

6.4.3 Infrastructure

Infrastructure in the district needs more development. Total road length in Lawngtlai is at 908 km and has a road density of 2.8. Over 51 per cent of the villages are electrified. Total number of mobile subscribers in the district is at 14,337. Most of these are Airtel customers, followed by Reliance and BSNL. Mobile penetration is lowest in Mizoram at just 12 per cent.

Drinking water facilities are available in all 139 inhabited villages in the district. Electricity supply is, however, available in only 27 villages.

TABLE 30: INFRASTRUCTURE FACILITIES IN LAWNGTLAI

Facilities	Number of villages
Drinking water facilities	139
Safe drinking water	42
Electricity supply	27
Electricity - domestic	27
Electricity - agriculture	Nil

Source: Census 2001, IMA CS Analysis

Education Infrastructure:

Quality of education infrastructure needs to be upgraded. For higher education, there are two colleges also. There are no ITIs or polytechnics. However, there are plans of setting up a new polytechnic in the district.

TABLE 31: EDUCATION INFRASTRUCTURE IN LAWNGTLAI

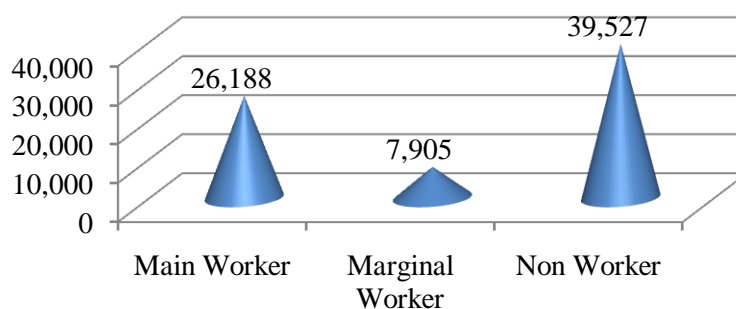
Institutes	No. of villages
Primary school	134
Middle schools	40
Secondary/Sr Secondary schools	13
College	2

Source: Census 2001, IMaCS Analysis

6.4.4 Employment Pattern

Lawgtlai has 34,093 workers, bringing the working population ratio as a percentage of total population at 46.3 per cent. About 77 per cent of the workers are main workers, while the remaining are marginal workers. Of the total workers, 71.5 per cent are cultivators, 3.1 per cent are agricultural labourers, 0.1 per cent is workers in household industry and 24.4 per cent is other workers.

FIGURE 18: EMPLOYMENT PATTERN IN LAWNGTALI 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 or upgrading skills:

Horticulture:

- The soil and topography of Lawngtlai district is conducive for growth of a variety of fruits, vegetables, spices, medicinal and aromatic plants and exotic flowers.
- Most of the fruits and vegetables are consumed locally.

Construction:

- Construction activity is going on in the district and more activity is expected to come up in future.
- It includes roads, bridges and building construction.

Other services:

- Other existing and up-coming services include health, education, motor repair and beauty culture.

6.5 Lunglei

Lunglei is situated in the south-central part of Mizoram. It is one of the prominent districts of Mizoram, covering an area of 4,538 sq. km. It is the biggest district in Mizoram. It is bounded on the north by the districts of Mamit and Serchhip and on the south by the districts of Lawngtlai and Saiha. It also borders Myanmar and Bangladesh.

6.5.1 Economy

As of 2006-07, the district had made the second highest contribution to Mizoram's GSDP after Aizawl at Rs 42,021 lakh. Its per capita income was Rs 23,561. The district is primarily agrarian in nature.

6.5.2 Demography

Lunglei's share in Mizoram's land area is the largest, at 21.5 per cent. However, its share in State's population is just 14.1 per cent, at 154,094. Thus, the population density in the district is low at 30. It is mostly rural, with rural population at 57.8 per cent of the total.

Most of the population is tribal, at 95.3 per cent. Total Literacy rate is high at 89.4 per cent. Population is young, with 35.5 per cent falling in the age-group of 0-14 years and 58.8 per cent in 15-59 years.

6.5.3 Infrastructure

Total road length in Lunglei is at 1,288 km and has a road density of 3.5 km of road per sq. km. of land area. Over 86 per cent of the villages are electrified. Total number of mobile subscribers in the district is at 72,254. Most of these are Airtel customers, followed by BSNL, Aircel, and Reliance. Mobile penetration is low, at 47 per cent.

Drinking water facilities are available in all 160 inhabited villages in the district. Electricity supply is, however, available in 101 villages.

TABLE 32: INFRASTRUCTURE FACILITIES IN LUNGLEI

Facilities	Number of villages
Drinking water facilities	160
Safe Drinking water	39
Electricity supply	101
Electricity - domestic	101
Electricity - agriculture	Nil

Source: Census 2001, IMaCS Analysis

Education Infrastructure:

Quality of education infrastructure needs to be upgraded. For higher and technical education, there are three colleges, one ITI and one polytechnic.

TABLE 33: EDUCATION INFRASTRUCTURE IN LUNGLEI

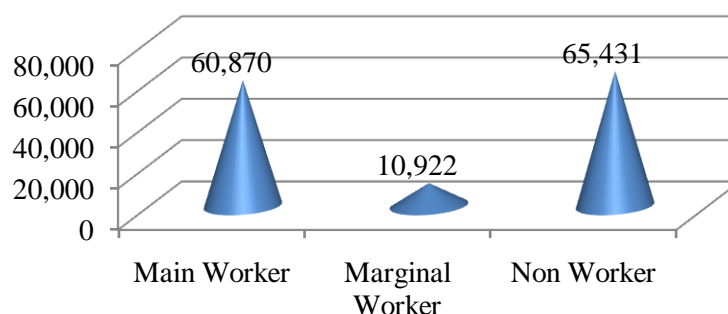
Institutes	No. of villages
Primary school	130
Middle schools	82
Secondary/Sr Secondary schools	30
College	

Source: Census 2001, IMaCS Analysis

6.5.4 Employment Pattern

Lunglei has 71,792 workers, with 52 per cent working population in total. About 85 per cent are main workers, while the remaining marginal. Of the total workers, 65.2 per cent are cultivators, 1.5 per cent is agricultural labourers, 0.7 per cent is workers in household industry and 32.6 per cent is other workers.

FIGURE 19: EMPLOYMENT PATTERN IN LUNGLEI 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 or upgrading skills:

Horticulture and fruit processing:

- The soil and topography of Lunglei district is conducive for growth of a variety of fruits, vegetables, spices, medicinal and aromatic plants and exotic flowers.
- Most of the fruits and vegetables produced are consumed locally.
- Based on the horticulture abundance, there is a scope for developing fruit processing also.

Tourism and hospitality:

- Lunglei is blessed with natural beauty.
- Due to this, it attracts tourists from far and wide.
- Some of the notable tourist places in the district include Zobawk, Kawmzawl, Khawnglung Wildlife Sanctuary.

Forest based industry:

- Mizoram contributes to 14 per cent of the country's growing stock of bamboo, covering 49.1 per cent of State's geographical area. Bamboo is grown in Lunglei district also, based which bamboo industry has come up in the district.
- Main bamboo products include *agarbatti* stick making, bamboo chips and other bamboo diversified products.

Construction:

- Construction activity is going on in the district and more activity is expected to come up in future.
- On-going and up-coming construction work includes roads, bridges and building construction.

Other services:

- Other existing and up-coming services include health, education, motor repair and beauty culture.
- Oil has also been discovered in the district and ONGC is conducting exploration works.

6.6 Mamit

Mamit district covers an area of 3,025 sq. km. It is bounded on the north by Hailakandi district of Assam, on the west by North Tripura district of Tripura and Bangladesh, on the south by Lunglei district and on the east by Kolasib and Aizawl districts.

6.6.1 Economy

As of 2006-07, the District Domestic Product was Rs 20,938 lakh. Its per capita income was second highest in Mizoram, at Rs 30,245. The district's economy is primarily agrarian.

6.6.2 Demography

Mamit's share in Mizoram's land area is 14.3 per cent. However, its share in State's population is at 7.9 per cent. Total population is 85,757. Thus, the population density in the district is low, at just 21 and lowest in Mizoram. It has 83 per cent rural population.

Most of the population is tribal, at 93.9 per cent of the total. Literacy rate is high, at 86 per cent. Population is young, with 38 per cent of the population in the age-group of 0-14 years and 56.3 per cent in the age-group of 15-59 years.

6.6.3 Infrastructure

Total road length in Mamit is at 780 km with a road density of 3.9 km of road per sq. km. of land area. Over 91 per cent of the villages are electrified. There are 18,457 mobile subscribers in the Mamit. Most of these are Aircel customers, followed by Airtel, BSNL, and Reliance. Mobile penetration is low, at 22 per cent.

Drinking water facilities are available in 81 villages out of 82 inhabited villages in the district. Electricity supply is, however, available in 63 villages.

TABLE 34: INFRASTRUCTURE FACILITIES IN MAMIT

Facilities	Number of villages
Drinking water facilities	81
Safe drinking water	20
Electricity supply	63
Electricity - domestic	63
Electricity - agriculture	Nil

Source: Census 2001, IMaCS Analysis

Education Infrastructure:

Quality of education infrastructure needs to be upgraded. For higher and technical education, there are two colleges. There are no ITIs or polytechnics. However, there is a plan to set up a new polytechnic in the district.

TABLE 35: EDUCATION INFRASTRUCTURE IN MAMIT

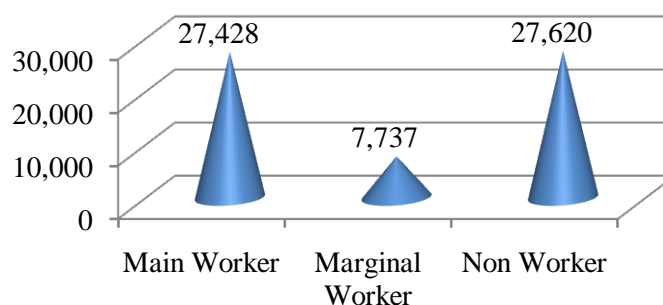
Institute	No. of villages
Primary school	72
Middle schools	44
Secondary/Sr Secondary schools	24
College	2

Source: Census 2001, IMaCS Analysis

6.6.4 Employment Pattern

Mamit has a total of 35,165 workers, bringing the working population ratio as a percentage of total population at 56 per cent. About 78 per cent of the workers are main workers, while the remaining are marginal workers. Of the total, 77.5 per cent are cultivators, 3.3 per cent is agricultural labourers, 0.8 per cent work in household industry and 18.4 per cent are other workers.

FIGURE 20: EMPLOYMENT PATTERN IN MAMIT 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 or upgrading skills:

Horticulture and fruit processing:

- The soil and topography of Mamit district is conducive for growth of a variety of fruits, vegetables, spices, medicinal and aromatic plants and exotic flowers.

- Some of the key crops grown include mandarin oranges, areca nut, ginger, turmeric, anthuriums, and aromatic and medicinal plants.
- Currently, most of the fruits and vegetables are consumed locally or for sale to neighbouring States.
- Based on the horticulture abundance, there is a scope for developing fruit processing.
- An Aloe Vera processing unit is underway at West Lungdar in Mamit.
- Market agreement of Aloe Vera has already been signed between Mizoram Bio-tech Society and growers. It plans to sell Aloe Gel concentrate to Global Biotech, Gurgaon.

Forest based industry:

- Mizoram contributes to 14 per cent of the country's growing stock of bamboo, covering 49.1 per cent of State's geographical area. Bamboo is grown abundantly in Mamit district, based on which, bamboo industry has come up in the district.
- Over 52 per cent of bamboo produced in Mizoram is grown in the Mamit district alone.
- Main bamboo products include *agarbatti* stick making, bamboo chips and other bamboo diversified products.

Construction:

- Construction activity is going on in the district and more activity is expected to come up in future.
- On-going and up-coming construction work includes roads, bridges and building construction.

Other services:

- Other existing and up-coming services include health, education, motor repair and beauty culture.

6.7 Saiha

Saiha is the southern-most district in Mizoram. It borders Myanmar on the eastern and southern sides. It is also bounded by the Lunglei and Lawngtlai districts. It covers an area of 1,399 sq. km and is the least populous district in Mizoram.

6.7.1 Economy

As of 2006-07, the district had the second lowest District Domestic Product in Mizoram, at Rs 19,701 lakh. Its per capita income was Rs 23,893. The district has primarily agrarian economy.

6.7.2 Demography

Saiha's has the lowest share in Mizoram's land area at 6.6 per cent and also in population, at 5.2 per cent. Total population in the district is smallest in the State, at 56,366. The population density in the district is low, at 44. The district has 67.5 per cent rural population at.

Most of the population is tribal, at 96.2 per cent of the total population. Literacy rate is high at 88.4 per cent. Population is young, with 40.3 per cent of the population in the age-group of 0-14 years and 54.8 per cent of the population in the age-group of 15-59 years.

6.7.3 Infrastructure

Total road length in Saiha is at 652 km with road density of 2.1 km of road per sq. km. of land area. Over 78 per cent of the villages are electrified. There are 16,464 mobile subscribers in the district. Most of these are Reliance customers, followed by Airtel and BSNL. Mobile penetration is low, at 29 per cent.

Drinking water facilities are available in all the 68 inhabited villages in the district. However, safe drinking water is available only one village. Electricity supply is available in 26 villages.

TABLE 36: INFRASTRUCTURE FACILITIES IN SAIHA

Facilities	Number of villages
Drinking water facilities	68
Safe drinking water	1
Electricity supply	26
Electricity - domestic	26
Electricity - agriculture	Nil

Source: Census 2001, IMA CS Analysis

Education Infrastructure:

Quality of education infrastructure needs to be upgraded. For higher and technical education, there is one college and one ITI.

TABLE 37: EDUCATION INFRASTRUCTURE IN SAIHA

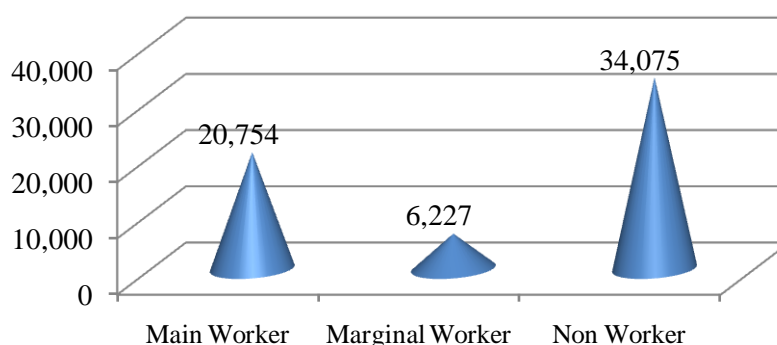
Institute	No. of villages
Primary school	67
Middle schools	51
Secondary/Sr Secondary schools	20
College	1

Source: Census 2001, IMaCS Analysis

6.7.4 Employment Pattern

Saiha has 26,981 workers, with 44 per cent working age population. About 77 per cent are main workers, while the remaining marginal. Of the total workers, 67.6 per cent are cultivators, 1.3 per cent is agricultural labourers, 0.8 per cent is work in household industry and at 30.3 per cent are other workers.

FIGURE 21: EMPLOYMENT PATTERN IN SAIHA 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 or upgrading skills:

Horticulture and fruit processing:

- The soil and topography of Saiha district is conducive for growth of a variety of fruits, vegetables, spices, medicinal and aromatic plants and exotic flowers.
- Most of the fruits and vegetables are consumed locally.
- Based on the horticulture abundance, there is a scope for developing fruit processing also.

Forest based industry:

- Mizoram contributes to 14 per cent of the country's growing stock of bamboo, covering 49.1 per cent of State's geographical area. Bamboo is grown in Saiha district also, based on which bamboo industry has come up in the district.
- Main bamboo products include *agarbatti* stick making, bamboo chips and other bamboo diversified products.

Construction:

- Construction activity is going on in the district and more activity is expected to come up in future.
- On-going and up-coming construction work includes roads, bridges and building construction.

Other services:

- Other existing and up-coming services include health, education, motor repair and beauty culture.

6.8 Serchhip

Serchhip district is located at a distance of 110 km from the State capital Aizawl. It is bounded by the Champhai, Aizawl, Mamit and Lunglei districts and shares a short boundary with Myanmar. It occupies an area of 1,421 sq. Km and is the second least populous district of Mizoram. The district is known for the Baktwang village for its carpentry cluster.

6.8.1 Economy

As of 2006-07, the District Domestic Product in Mizoram was Rs 18,798 lakh, the lowest among all districts. Its per capita income was Rs 28,385. The district has an agrarian economy.

6.8.2 Demography

Serchhip's share in Mizoram's land area is second lowest, at 6.7 per cent. However, its share in State's population is at 5.9 per cent. As of 2011, its total population stands at 64,875, the second lowest among all districts of Mizoram. The population density in the district is low at just 38. It has 52 per cent rural population.

It has the highest percentage of tribal population in the State, at 98.1 per cent. Literacy rate is high at 98.8 per cent, highest among all districts of Mizoram. Population is young, with 36.8 per cent of the population in the age group of 0-14 years and 56.6 per cent of the population in the age group of 15-59 years.

6.8.3 Infrastructure

Total road length in Serchhip is at 555 km with road density of 2.6 km of road per sq. km. of land area. The district has achieved 100 per cent rural electrification. There are 28,002 mobile subscribers. Most of these are Aircel customers, followed by Reliance, Airtel and BSNL. Mobile penetration is 43 per cent.

Drinking water facilities are available in all the 35 inhabited villages in the district. Electricity supply is, however, available in 34 villages.

TABLE 38: INFRASTRUCTURE FACILITIES IN SERCHHIP

Facilities	Number of villages
Drinking water facilities	35
Safe drinking water	15
Electricity supply	34
Electricity - domestic	34
Electricity - agriculture	Nil

Source: Census 2001, IMaCS Analysis

Education Infrastructure:

Quality of education infrastructure needs to be upgraded. For higher and technical education, there is one college and there are also plans for setting up of National Institute of Technology (NIT) at Thenzawl.

TABLE 39: EDUCATION INFRASTRUCTURE IN SERCHHIP

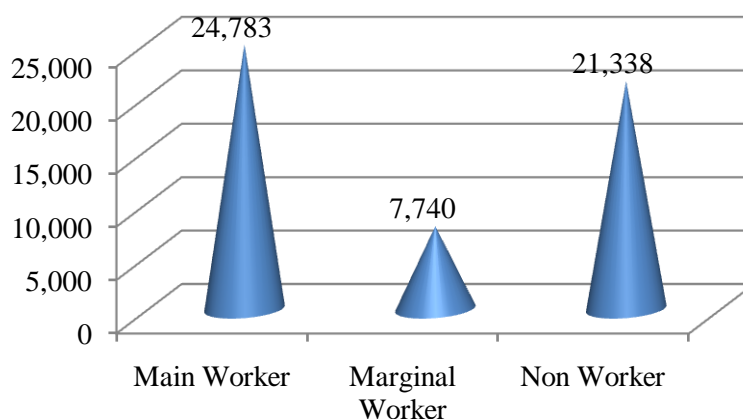
Institute	No. of villages
Primary school	32
Middle schools	50
Secondary/Sr Secondary schools	15
College	1

Source: Census 2001, IMaCS Analysis

6.8.4 Employment Pattern

Serchhip has 32,523 workers, with 60.4 per cent working-age population. About 76 per cent are main workers, while the remaining marginal. Of the total workers, 72.7 per cent are cultivators, 2.3 per cent are agricultural labourers, 2.6 per cent work in household industry and 22.3 per cent is other workers.

FIGURE 22: EMPLOYMENT PATTERN IN SERCHHIP 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 or upgrading skills:

Handloom and handicrafts:

- Mizo handloom and handicrafts have a market locally as well as in neighbouring states of Manipur, Meghalaya and Assam.
- The handloom industry manufactures shawls, bags, ties, stoles etc, while the handicraft industry uses locally available raw materials like bamboo, cane and wood.
- Serchhip district has nine handloom and weaving co-operative societies with 158 members.

Horticulture and fruit processing:

- The soil and topography of Serchhip district is conducive for growth of a variety of fruits, vegetables, spices, medicinal and aromatic plants and exotic flowers.
- Some of the key crops grown include bananas, passion fruit, areca nut and ginger.

- Most of the fruits and vegetables are consumed locally or sold to neighbouring States.
- Based on the horticulture potential, there is a scope for developing fruit processing. MIFCO already runs a fruit processing plant in the Serchhip district.

Construction:

- Construction activity is going on in the district and more activity is expected to come up in future.
- On-going and up-coming construction work includes roads, bridges and building construction.

Other services:

- Other existing and up-coming services include health, education, motor repair and beauty culture.

PART – II (d): Skill Gap Analysis

7.1 Horticulture

Mizoram has 11.63 lakh hectares of potential cultivable land available for horticulture crops such as fruits, vegetables and spices. Of that, only 1.09 lakh (9.4 per cent) hectare has been covered, so far.

Most of the production in the State is for local sale and consumption, while some crops are sold to neighbouring states also. Exotic flowers such as Anthurium are also exported to UAE, UK, Japan and Australia. Aromatic and medicinal plants such as Aloe Vera and Patchouli are beginning to be grown for sale outside Mizoram.

TABLE 40: HORTICULTURE CROPS IN MIZORAM

Name of the crop	Area in hectares, 2009-10	Production in MT, 2009-10	Major production districts
Mandarin Orange	10,607	13,265	Mamit, Aizawl
Banana	8,655	84,810	Serchhip
Passion Fruit	5,341	27,880	Champhai, Serchhip
Areca nut	4,800	12,000	All districts
Ginger	6,200	31,000	All districts
Bird eye chilly (dry)	8,700	47,850	Kolasib
Turmeric	4,500	22,500	Mamit
Iskut / Chayote	3,500	54,250	Aizawl
Cabbage	2,400	21,600	Aizawl
Grapes	1,172	9,962	Champhai
Anthurium	28	79*	Aizawl, Mamit
Rose	6	28*	Champhai
Aromatic/medicinal plants	-	-	Kolasib, Mamit

*In lakh no.s

Sources: Department of Horticulture, Mizoram; Handbook of Statistics 2010, Statistical Abstracts 2009, IMACS Analysis

TABLE 41: KEY CROPS GROWN IN MIZORAM

Horticulture Product	Description
Passion fruit	<ul style="list-style-type: none"> • Thrust area under Horticulture Technology Mission • Cultivation area increased by 40 per cent between 2001-10 • Production increased by 57.5 per cent between 2001-10 • MIFCO buys farm produced passion fruit and processes it into juice at its Chhinchipp and Sairang concentrate plants in Aizawl district • As of 2008, there were about 1,400 passion fruit growers • Passion Fruit Growers' Association exists and works closely with the State Horticulture Department
Grapes	<ul style="list-style-type: none"> • Thrust area under Horticulture Technology Mission

Horticulture Product	Description
	<ul style="list-style-type: none"> • Harvest area increased by 68.5 per cent between 2002-10 • Production increased by 64.6 per cent between 2002-10 • Grape produced in Mizoram is wine variety, also called as 'Bangalore Blue' • Mainly grown in East: Champhai and Hnahlan • There are two wineries as of now. Trial runs started in July 2010 • The wine produced is locally called 'Zawlaidi'. Consumed locally. • There are Grape Growers Societies at Champhai and Hnahlan, which have 995 families as members
Banana	<ul style="list-style-type: none"> • Cultivation area increased by 16.9 per cent between 2002-10 • Production doubled during this period • Variety grown is called "Tall Cavendish" • It is mainly sold in Assam, Meghalaya, and Manipur • Grown in Baktawng, Serchhip district; Champhai and Kolsaib also. • Thrust area under Horticulture Technology Mission
Mandarin Orange	<ul style="list-style-type: none"> • Area under cultivation increased at 8.6 per cent CAGR from 5,482 hectares to 10,607 hectares, between 2002 and 2010.
Chayote	<ul style="list-style-type: none"> • Of all vegetables grown in Mizoram, Chayote (also called Iskut) has the highest sales in neighbouring states and Bangladesh • Over 1,000 families are engaged in Iskut cultivation • Mizoram Iskut Growers Association (MIGA) has been formed by Iskut Growers to create market linkage. • Poor storage facility and unscientific preservation techniques are the key constraints. Waste is used to feed pigs.
Birds Eye Chillies	<ul style="list-style-type: none"> • Grows in large scale, only in Mizoram • It has external demand ensuring an assured market • It is marketed in dry form as it is easy to pack and transport • Area harvested increased by 40 per cent between 2002-10 • Production increased 199 per cent in the same period
Ginger	<ul style="list-style-type: none"> • Mizoram is among the large producers of ginger in the country • However, it is mostly used locally • Horticulture Department provides training on making ginger ale, ginger nectar, ginger candy • The training is mostly women centric
Turmeric	<ul style="list-style-type: none"> • Harvested area increased 41.5 per cent between 2002-10; Production increased 30 per cent • The Multi-farming Cooperative Society - Reiek, processes turmeric • Packed turmeric powder is sold locally • Scope exist for entrepreneurship
Anthurium	<ul style="list-style-type: none"> • Mizoram is the largest cut Anthurium producer in India • About 79 lakh cut Anthurium were produced in 2009-10 • One-third is sold locally; Remaining sold to other parts of India, UAE, UK, Japan and Australia • About 300 families are engaged. Over 90 per cent are women • 'Zo Anthurium Growers Society', is registered in the State

Horticulture Product	Description
	<p>Horticulture Department</p> <ul style="list-style-type: none"> • Bangalore based Zopar Exports runs two farms in Aizawl and one in Champhai • Since 2006, the state organises annual ‘Anthurium Festival’ to promote tourism.
Rose	<ul style="list-style-type: none"> • Horticulture Department started commercial cultivation of rose under hi-tech green-house in 2006 • In 2009-10, Mizoram produced 29 lakh roses (over 10 varieties) • Rose cut flowers are marketed by Bangalore-based Zopar Exports • They are also sold to neighbouring states of Assam and Meghalaya • Champhai has been chosen for mass production of rose. It is also known as the “Rose Bowl of Mizoram”.
Aromatic and Medicinal Plants	<ul style="list-style-type: none"> • Production of Aloe Vera and Patchouli has started recently • There is a distillation unit for Patchouli at Horticulture Centre, Thingdawl, Kolasib • Aloe Vera processing unit is underway at West Lungdar, Mamit • Market agreement of Aloe Vera has already been signed between Mizoram Bio-tech Society and growers. It plans to sell Aloe Gel concentrate to Global Biotech, Gurgaon.

Source: IMAcS Survey and Analysis

TABLE 42: POTENTIAL MARKETS FOR EXPORT OF HORTICULTURE PRODUCTS OF MIZORAM

Products	Singapore	USA	UK	Germany	Netherlands	Russia	Middle East	Pakistan	Australia	Japan	Malaysia	Thailand	Bangladesh	New Zealand	Austria	France	Italy	Belgium	Canada	Ukraine	China
Passion Fruit	*	***	***	***	**		***		*	*	**				*			**	*		
Grapes		**	*	**	*	*	*						**			*		**	*		
Fresh cut flowers (including Anthurium)	***		**	**	***				**	***				**			**				
Ginger & derivatives			***	***	*				***	**				**		*			*		
Mandarin orange	***												***		***						
Medicinal plants	***		***	***		**	***	**	**	**	***	**								***	**
Banana		*	**	**		***				**	*		**					*	*		
Chayote squash			*				*									*					

Note: *** = Market with maximum potential , **= High potential, * = Good potential

Source: Exim Bank report 'Mizoram: Export Potential and Prospects', June 2009

7.1(a) Skill mapping and gap analysis in horticulture

Entity	Role	Expected competencies	Skill gaps
Grower	To grow the crop with best possible productivity and quality	<ul style="list-style-type: none"> • Knowledge about the growing pattern of different crops • Knowledge of different seasons in which different crops should be harvested and planted • Knowledge about pest control, which includes management of weeds, insects / mites, and diseases • Good understanding of cultural practices which include crop rotation, culling, cover crops, intercropping, double cropping, composting etc. • Understanding of international standards to ensure best quality and higher production 	<ul style="list-style-type: none"> • Most of the farmers in Mizoram are engaged in <i>jhum</i> cultivation • Commercial production of crops has started mainly after the introduction of the Horticulture Technology Mission in 2002. • Most of the farmers lack most of the skills required for commercial cultivation of horticulture crops. The gap is partly filled by the training provided by the State Department of Horticulture

Entity	Role	Expected competencies	Skill gaps
Growers / Labourer	Harvesting and Post harvesting management of the crops	<ul style="list-style-type: none"> • Awareness on appropriate methods and time of harvesting • Prevention of microbial contamination of fresh produce • Understanding of sanitization of vegetables and fruits by dipping and flowers by spraying • Understanding of best practices of sorting, grading and packing • Ensuring worker hygiene and sanitation practices 	<ul style="list-style-type: none"> • Commercial production of crops is new in Mizoram. Growers and labourers lack most of the skills required for the same • Training is provided to some extent by the State Department of Horticulture

Entity	Role	Expected competencies	Skill gaps
Marketing agents	Marketing of crops in raw or processed forms	<ul style="list-style-type: none"> Understanding of basic processing technologies, like processing fruits into pulp, juice, jam, jelly, pickle etc. for sale in local market and even outside the state Capability to establish market linkages Understanding of market demand Understanding of pricing methodology Capability to strike good bargains with the potential buyers both in domestic and international markets Ability to ensure timely transportation of cost to prevent it from getting perished and wasted Soft skills to deal with clients 	<ul style="list-style-type: none"> The Department of Horticulture has started providing trainings to women self help groups on basic processing techniques However, most of the crops are still sold in raw form due to total lack of understanding of processing techniques and also due to lack of processing facilities Training on entrepreneurship, marketing and soft skills is required for development of the sector

Source: ImaCS Survey and Analysis

7.2 Bamboo based industry

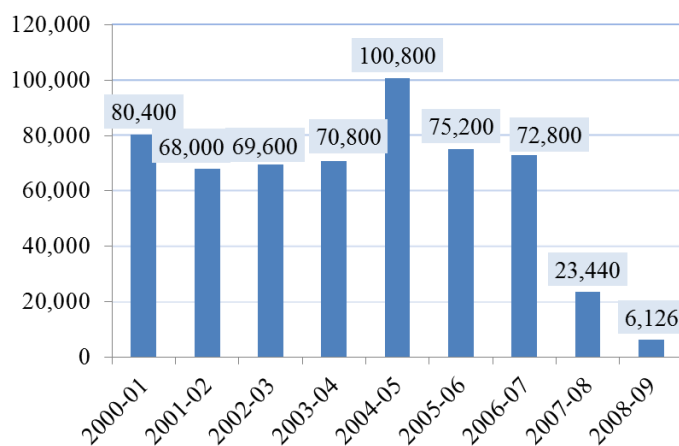
- Mizoram contributes to 14 per cent of the country's growing stock of bamboo, covering 49.1 per cent of State's geographical area. Bamboo forests are found mainly along the river banks and abandoned *jhum* lands as a dominant secondary vegetation.
- There are over 20 species of bamboo in the state, of which *Mautak* is the dominant forest resource.
- The State's Industrial Policy places special focus on bamboo based products: fibre-board, bamboo mat-ply, different kind of household products and high quality toothpick, chopstick and joss-stick.
- The policy also gives special preference to FDI in Bamboo processing sector.
- In 2002, the government also set up Bamboo Development Agency (BDA) for development of the bamboo sector.
- However, no big industry has come up in the sector yet. There are small scale units engaged in manufacturing of *agarbatti* sticks, handicrafts, furniture, toothpicks, bamboo chips, chopsticks, etc. The sector generated revenue of Rs 1.35 crores in 2009-2010.

Bamboo production in Mizoram declined significantly in 2008-09, due to onset of Mautam (bamboo flowering) in 2007-08. The Mautam famine is a cyclic ecological phenomenon that occurs every 48 years in Mizoram and destroys all bamboo produce. Currently, bamboo is in the process of regenerating from the seeds.

FIGURE 23: BAMBOO PRODUCTION IN MIZORAM

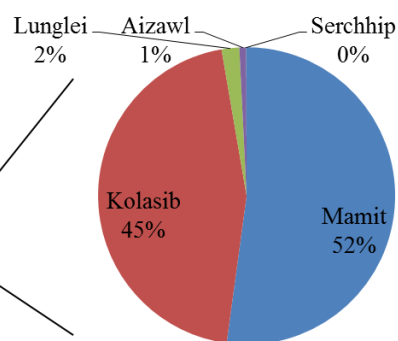
Bamboo production in Mizoram

In thousands



District wise production of bamboo

In 2008-09, Percentage shares



Source: Statistical Abstract 2009, IMaCS Analysis

Bamboo products manufactured in Mizoram

- Agarbatti stick making:** There are about 1,000 families who are engaged in making incense sticks in the State. Local entrepreneurs provide raw material, machines and training to the artisans for production of agarbatti sticks. A bamboo cluster is coming up at Bairabi in Kolasib. It is expected to be ready in a year. It will have agarbatti stick making units, and other diversified bamboo products. Employment will be generated for about 500 persons.
- Bamboo chipping units:** Nine bamboo chipping units being established in the State at Chuhvel, Bungthuam, Dapchhuah, Falkawn, Maubuang, Bairabi, Hortoki, Chhingchhip, Tuirini. These units are expected to be ready in the next one year. Each is being set up at an investment of Rs 1 crore. Each chipping unit is expected to provide direct and indirect employment to about 300-500 persons. Bamboo chips are expected to be supplied to Cachar Paper Mill in Assam.

- **Other diversified bamboo products:** Other products like handicrafts, furniture, toothpicks, chopsticks are also manufactured in cottage industry units. In addition, construction materials like Bamboo Mat, Board, Mat Ply, Bamboo Scantling etc. are also manufactured in small scale in Lunglei, Thingdawl, Bualpui and Kolasib.

Market potential of bamboo based products

The market for bamboo-related applications worldwide is estimated at approximately USD 12 billion and is increasing at a healthy rate. National Mission on Bamboo Technology and Trade Development envisages expansion of the India’s bamboo market to USD 5.5 billion by 2015. United Nations Industrial Development Organisation (UNIDO) projects the bamboo business in the North Eastern Region to be worth Rs 5,000 crore in the next few years.

7.2 (a) Skill mapping and gap analysis: Bamboo sector

Entity	Role	Expected competencies	Skill gaps
Self Help Groups and artisans	Manufacturing of bamboo <i>agarbatti</i> sticks	<ul style="list-style-type: none"> • Cutting of bamboo poles into cylinders of 8 or 9 inches, using a saw • Splitting of cylinders into slats of one inch each, using <i>Dao</i> (locally manufactured big knife) • Reduction of slats into three to five slivers using the locally manufactured splitting machine • Using the locally manufactured disintegrating machine to make the final sticks • Sun drying and bundling of the sticks 	<ul style="list-style-type: none"> ▪ Most of the artisans are provided training by the local entrepreneur who arrange inputs and output linkages ▪ Skill gap exist in manufacturing of the finished product, which includes rolling of paste on the <i>agarbatti</i> stick and perfuming it for sale

Source: IMaCS Survey and Analysis

Entity	Role	Expected competencies	Skill gaps
Self Help Groups and artisans	Manufacturing of bamboo <i>agarbatti</i> sticks	<ul style="list-style-type: none"> Agarbatti paste making, using the Bangalore based technology in which <i>Jakit</i> powder is mixed with Charcoal and water to make a thick paste Rolling of paste on bamboo sticks and then sun drying of the coated sticks Scenting of sun dried sticks using a combination of different perfumes and aromatic ingredients Packaging of scented sticks in packages of different shapes and volumes 	<ul style="list-style-type: none"> Most of the artisans are provided training by the local entrepreneur who arrange inputs and output linkages Skill gap exist in manufacturing of the finished product, which includes rolling of paste on the <i>agarbatti</i> stick and perfuming it for sale

Entity	Role	Expected competencies	Skill gaps
Self Help Groups and artisans	Manufacturing bamboo chips and other bamboo diversified products	<ul style="list-style-type: none"> Cutting of bamboo into poles of six feet long and transporting it to the chipping unit Cutting of poles into square bamboo chips using the Bamboo Chipping Machines For other diversified products, main competency requirement is for bamboo slicing, followed by using of bamboo for making various products like tooth picks, handicrafts, chop sticks etc. Entrepreneurial and soft skills for starting a business in bamboo diversified products 	<ul style="list-style-type: none"> Lack of skill for bamboo slicing Lack of skills for making bamboo diversified products Lack of entrepreneurial and soft skills

7.3 Handloom and Handicraft

In the past, Mizo women spent their leisure time spinning on loin looms. However, due to insurgency from 1966 to 1986, the traditional Mizo loom gradually disappeared. In the 1970s, Indian Fly Shuttle was introduced in the State, followed by Zo Loom (Burmese) in 1980s. Primary societies are Mizoram Apex

Handloom and Handicrafts Cooperative Society (MAHCO), which ensure input and output linkages for its members. Mizo handicraft products, mainly made of bamboo and cane are also in demand. They are sold locally, in Assam and Bangalore.

Mizo handloom and handicrafts have a market locally as well as in neighbouring states of Manipur, Meghalaya and Assam. The handloom industry manufactures shawls, bags, ties, stoles etc, while the handicraft industry uses locally available raw materials like bamboo, cane and wood.

There are several handloom and handicraft clusters in the state. The notable ones are in Aizawl and Thenzawl (Serchhip district). As of 2008-09, there were 750 handloom units, providing employment to about 4,327 persons. The number of registered handloom societies was 172. About 78 per cent of these societies were in Aizawl alone. The Government has also opened three handloom training centres and eight handicraft training centres in the state.

The Industrial Policies of Mizoram of 1989 and 2000 lay special emphasis on the development of this sector by providing subsidies and grants.

Mulberry is the predominant sericulture product of Mizoram.

- In Mizoram, all variety of silks such as Mulberry, Eri, Muga and Tasar are commercially exploited of which, Mulberry is predominant. In 2008-09, 55 MT of Mulberry, 4.6 MT of Eri and 3.4 MT of Raw Silk was produced.
- In 2009-10, 175 villages were engaged in Sericulture, providing income to 7,293 families. Area under cultivation was 5,100 hectares. There were 17 sericulture farms and only one reeling unit (in Aizawl).
- Maximum number of families in sericulture at 1,900 was engaged in Aizawl, followed by 1,600 in Champhai.
- The growth of the industry has been at a very slow pace due to lack of infrastructural facilities, paucity of funds and inadequate personnel.

TABLE 43: HANDLOOM AND WEAVING CO-OPERATIVE SOCIETIES IN MIZORAM

District	Number of Handloom and weaving cooperative societies, In 2007-08	Membership of the cooperative society, In 2007-08
Aizawl	143	3,721
Lunglei	13	237
Saiha	7	132
Champhai	7	162
Kolasib	3	65
Serchhip	9	158

Source: Statistical Abstract 2009, Economic Survey 2010-11, Handbook of Statistics 2010

TABLE 44: HANDLOOM AND HANDICRAFT TRAINING CENTRES IN MIZORAM

District	No. of Handloom training centres	No. of trainees in handloom training centre	No. of handicraft training centres	No. of trainees in handicraft training centre
Aizawl	1	29	1	34
Champhai	0	0	1	30
Lunglei	1	20	3	33
Saiha	1	6	3	33
Total	3	55	8	130

Source: Statistical Abstract 2009, Economic Survey 2010-11, Handbook of Statistics 2010

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

Entity	Role	Expected competencies	Skill gaps
Handloom worker	Produce quality handloom products	<ul style="list-style-type: none"> • Knowledge of new loom technology (Zo loom in present scenario) • Understanding of market developments • Understanding of customer preferences • Ability to create new designs • Ability to create new product differentiation • Ability to manufacture consistent quality products • Understanding of dyeing technology • Ability to reduce lead-time • Ability to market products • Create market oriented products 	<ul style="list-style-type: none"> • Lack of understanding of emerging designs and customer preferences • Lack of innovation • No understanding of emerging technology e.g Zo Loom has been introduced in Mizoram, which is three times faster than the Fly Shuttle. There is a need to train them on the use of Zo Loom

Entity	Role	Expected competencies	Skill gaps
Handicraft craftsperson	Manufacture handicrafts using cane, bamboo and wood	<ul style="list-style-type: none"> • Knowledge about use of tools and materials • Ability to perform intricate work / finishing • Hand control to preserve intricate designs • Knowledge and skills for design • Ability to transfer skills to inexperienced craftsman • Ability to conceptualise and create new designs • Ability to market products and create market oriented products 	<ul style="list-style-type: none"> • Inability to conceptualise and create new designs • Inadequate ability to undertake quality control • Inadequate ability to undertake design and development as per market requirements

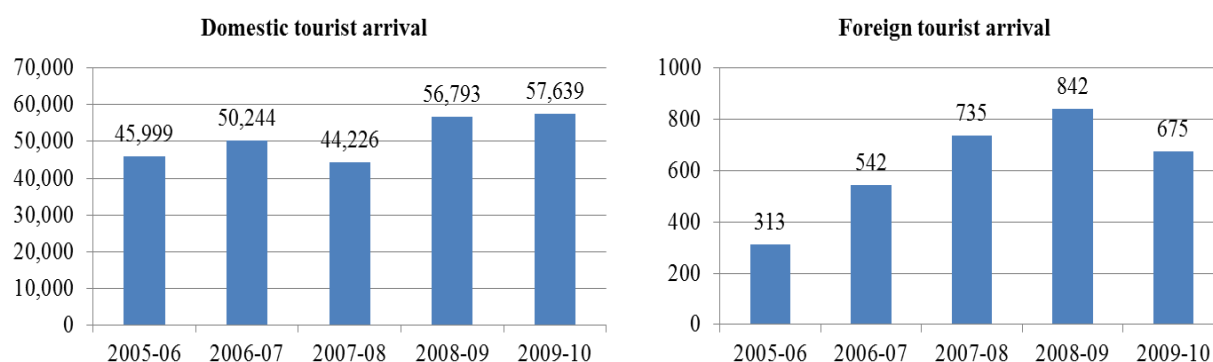
7.4 Tourism and hospitality

In 2009-10, the State was visited by 57,539 domestic tourists and 675 foreign tourists. In last five years, number of domestic tourists increased 6 per cent, while number of foreign tourists has increased by 21 per cent. Foreign tourists constitute 1.2 per cent of total tourists.

The Mizoram Government is preparing new tourism policy to provide thrust to tourism in the State. Currently, the State Government runs 41 tourist spots, 36 tourist lodges totalling to 739 beds. During the 11th Five Year Plan, the State Government developed three tourist circuits and destinations: Southern Tourist Circuit Phase II, Destinations: Sakawrdai and Kanhum funded by the Ministry of Tourism.

The Tourism Department of the Mizoram Government is also planning to set up infrastructure for aero-sports such as paragliding, power hang glider and hot air balloon at Tuirial. Key tourism destinations in the State include Blue Mountain, Murlen National Park, Lengteng Wildlife Sanctuary, Pukzing Cave, Vantawng Waterfalls, and Hmifang Peak.

FIGURE 24: YEAR-WISE NUMBER OF TOURIST ARRIVALS IN THE STATE



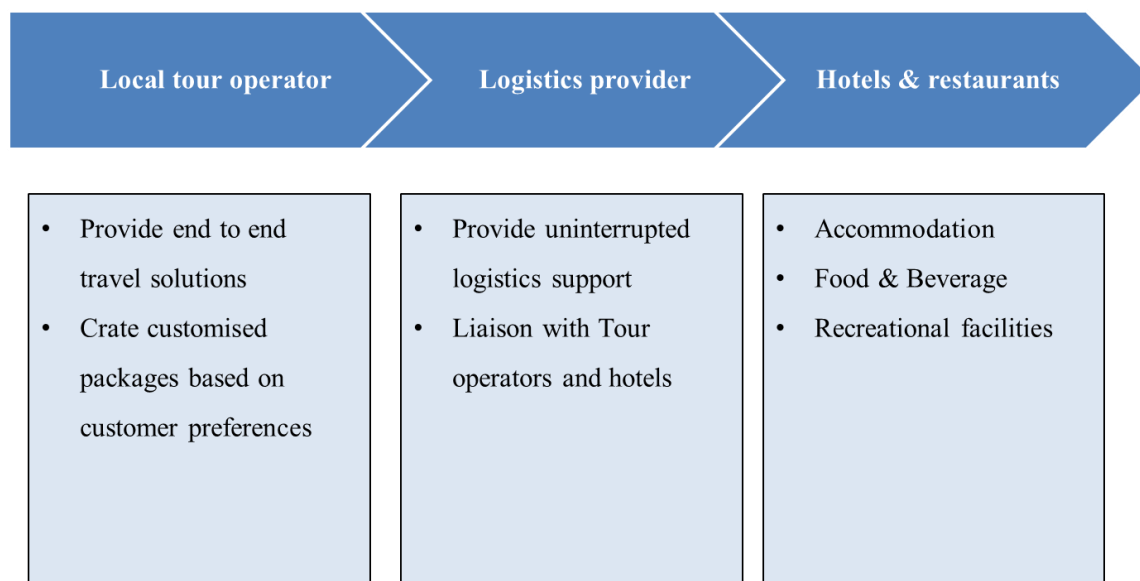
Sources: Economic Survey Mizoram 2010-11, Handbook of Statistics 2010, IMACS Analysis

Mizoram has potential for high growth in tourism

- With its scenic beauty and a soothing climate, Mizoram has vast potential for developing tourism and hospitality related industry.

- Key tourism destinations include Aizawl, Tamdil lake, Champhai, Blue Mountain at Phawngpui, Palak Lake, Reiek Hills, Murlen National Park, Lengteng Wildlife Sanctuary, Pukzing Cave, Vantawng Waterfalls, Hmifang Peak, Dampa Sanctuary (tiger reserve) etc.
- It is also famous for its traditional sports, cultural dances and festivals.
- There are only three tour operators in the state viz. Serow Tours & Travels, Three Dimension and City Tours & Travels to develop tourism in the state.
- The state lacks basic tourism infrastructure such as good private hotels, tour operators, English speaking tourist guides, etc.
- Thus, there are development avenues for developing the industry in the state. It includes:
 - Hotels and lodges
 - Travel agencies, tour operators, and tourist transport services
 - Creation of facilities for cultural, adventure and wildlife, eco-tourism etc.
 - Scenic spots
 - Amusement parks, other leisure & entertainment units
 - Health farms
 - Infrastructure for adventure sports etc.

Value chain in tourism and hospitality industry



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

Entity	Role	Expected competencies	Skill gaps
Tour operators / travel guides	<ul style="list-style-type: none"> Ability to create attractive local tourist package Ability to network with outside (both domestic and abroad) tour operators 	<ul style="list-style-type: none"> Market understanding Ability to brand Event management Route planning and optimisation Excellent sales and marketing Ability to develop attractive pricing strategy Ability to liaison with airline, hotels and local community Ability to manage tourist expectations Man management skills Customer Relationship Management Computer skills 	<ul style="list-style-type: none"> In the past, tourism has not been given much attention in the state. Thus, there are hardly any tour operators. The sector is going to get a thrust with the introduction of the new tourism policy by the end of this year. Based on that, skill training will be required in all the mentioned areas.

Entity	Role	Expected competencies	Skill gaps
Logistics providers	<ul style="list-style-type: none"> Ability to provide uninterrupted logistics support Ability to relate with domestic and foreign tourists 	<ul style="list-style-type: none"> Understanding of local and English speaking skills Time management Route planning and optimization Customer relationship management Excellent trouble shooting skills Ability to follow standard operating procedure Ability to maintain business etiquette 	<ul style="list-style-type: none"> In the past, tourism has not been given much attention in the state. Thus, there are very few logistic providers. The sector is going to get a thrust with the introduction of the new tourism policy by the end of this year. Based on that, skill training will be required in all the mentioned areas.

Entity	Role	Expected competencies	Skill gaps
Hotels	<ul style="list-style-type: none"> Ability to provide customer service Ability to perform multi-functions 	<ul style="list-style-type: none"> Understanding of local language and English speaking skills Customer relationship management Excellent trouble shooting skills Understanding of cultural differences Understanding of hotel functions, including procurement of raw material, cooking etc. Computer skills Ability to maintain financial records Ability to maintain business etiquette 	<ul style="list-style-type: none"> Due to lack of development of the sector, there are negligible private hotels in the state. Most of the staff is untrained and lack all basic skills for hospitality. Hotels are run by untrained people who have minimal English speaking skills, lack cultural sensitivity, lack understanding of hotel functions, and have no linkage with other channel partners

Source: IMaCS Survey and Analysis

7.5 Construction

Large scale construction activities are on-going in Mizoram. These mainly include construction of hydro power plants, road construction, sports infrastructure and construction at the oil and gas field. Oil and gas well is being drilled by ONGC in the Kolasib district.

There is human resource requirement of masons, contractors, engineers, fitters, welders, blasters, daily labourers, etc. Locals have high education levels and are not keen on entry level unskilled or semi-skilled jobs. Most construction workers are imported from other states, mainly, Assam (Silchar) and Bihar.

TABLE 45: UPCOMING HYDRO POWER PLANTS IN MIZORAM

Name of the project	District	Installed capacity (MW)	State share of power	Expected date of commissioning
Serlui 'B' SHP	Kolsaib	12	100%	2011
Tuirial HEP	Kolasib	60	100%	2013-14
Tlawva SHP	Champhai	5	100%	2015-16
Tuivai SHP	Champhai	210	100%	2018-19
Kolodyne-II SHP	Saiha	460	13% + yet to decide	2018-19
Bairabi Dam Project	Kolasib	80	13% + yet to decide	2016-17
Tuirini HEP	Aizawl	38	13% + yet to decide	2016-17
Tuivawl	Aizawl	42	13% + yet to decide	2016-17

Source: State Planning Board of Mizoram; IMaCS Analysis

TABLE 46: ON-GOING AND UP-COMING ROAD PROJECTS IN MIZORAM

On-going road projects

Funding agency	Length, km	Sanctioned amount, Rs Lakh
National Highway	242	135,500
State road	16	1,106
NLCPR	36	2,513
ISC	21	1,005
PMGSY	20	729

Up-coming road projects

Funding agency	Length, km	Sanctioned amount, Rs Lakh
National Highway	189	10,251
ISC	18	1,526
PMGSY	97	7,133
CRF	11	399
NEC	204	28,023

NLCPR - Non Lapsable Central Pool of Resources, ISC - Inter State Connectivity, PMGSY - Pradhan Mantri Gram Sadak Yojana, CRF - Central Road Fund, NEC – North Eastern Council

Source: State Planning Board of Mizoram

TABLE 47: ON-GOING AND UP-COMING BRIDGE PROJECTS IN MIZORAM

On-going bridge projects

Funding agency	Span, m	Sanctioned amount, Rs Lakh
National Highway	206	2,110
State Road	20	276
NLCPR	198	909

Up-coming bridge projects

Funding agency	Span, m	Sanctioned amount, Rs Lakh
National Highway	110	684

NLCPR - Non Lapsable Central Pool of Resources, Source: State Planning Board of Mizoram

7.5(a) Skill mapping and gap analysis in construction

Entity	Role	Expected competencies	Skill gaps
Skilled workmen	Follow standard operating procedure to achieve required productivity	<ul style="list-style-type: none"> • Ability to coordinate with unskilled workmen • Ability to operate key equipment such as cranes, and also mechanisms for loading and unloading of cranes • Ability to deliver quality output • Need to be adept in their own trades – e.g. masonry, plastering, painting, plumbing, etc. • Need to understand machine operations and basic machine troubleshooting • Ability to comply with safety and quality measures • Need to have basic knowledge of construction • Engineering 	<ul style="list-style-type: none"> • Less interest in locals to undertake manual work as they aspire to find high end jobs due to their high literacy levels • No past practical experience in construction works and thus no skills for the same

Entity	Role	Expected competencies	Skill gaps
Unskilled workmen	Follow standard operating procedure to achieve required productivity	<ul style="list-style-type: none"> • Ability to perform the operations of excavation, carrying, cutting, helping of mason, mixing, spreading of stones, packing • Ability to be involved in and perform manual labour intensive work – thus need to be medically fit • Need to have an orientation towards safety requirements and basic workplace practices • Need to be able to move material as required – using carts / manually, and thus also need to be physically strong • Ability to take instructions from skilled workmen / supervisors / engineers and execute them appropriately • Material preparation / Concrete mixing 	<ul style="list-style-type: none"> • Less interest in locals to undertake manual work as they aspire to find high end jobs due to their high literacy levels • No past practical experience in construction works and thus no skills for the same

Source: IMaCS Survey and Analysis

7.6 Beauty Culture

- Mizos are very beauty conscious. Most of the population is Christian and is highly westernised in their dressing and styling.
- There is high demand for beauty services among both Mizo men and women.
- Mizo women are also in demand in beauty salons and spas outside Mizoram as well. They find job opportunities in states such as Kolkata, Delhi and Bangalore.
- They are fast learners. Advanced beauty, hair and skin care training is provided at the beauty salons in the cities where they find jobs.

7.6(a) Skill mapping and gap analysis in beauty culture

Entity	Expected competencies	Skill gaps
Hair stylist	<ul style="list-style-type: none"> • Ability to keep the work place clean and sanitise tools, such as scissors and combs • Ability to suggest hair styles • Ability to shampoo, rinse, condition and dry hair • Ability to undertake a range of basic hair styles for both, men and women, using clippers, scissors, etc. • Ability to use trimmers and razors without injuring the client's face • Ability to undertake hair massage • Ability to bleach, dye, or tint hair using applicator or brush • Ability to change the structure of hair to gain alternative look, such as perming, straightening, etc. • Knowledge of chemicals used and their effects • Knowledge of trends and fashion • Adequate communication skills to understand customer requirements and discuss options with the client 	<ul style="list-style-type: none"> • Inadequate ability to use advance gadgets • Insufficient knowledge on latest techniques and styles • Inadequate creativity • Insufficient knowledge of safety methods and procedures • Inadequate ability to analyse and help the customer in selecting suitable hair style • Inadequate communication skills

Entity	Expected competencies	Skill gaps
Beautician	<ul style="list-style-type: none"> • Ability to be well-groomed and have a sense of hygiene and cleanliness • Ability to undertake eyelash and eyebrow colouring and shaping (threading) • Ability to undertake manicure and pedicure, without hurting the hands and legs • Ability to undertake cosmetic make-up including tanning treatments, face and body painting, ‘mehandhi’ / ‘henna’ skin decoration • Ability to undertake temporary hair removal by waxing face, legs, arms, etc. • Ability to undertake facials involving cleansing, massaging, black/white head removal and toning the skin • Knowledge of and ability to undertake first aid, if required 	<ul style="list-style-type: none"> • Inadequate communication skills • Insufficient analytical skills to understand the skin type and giving suggestions accordingly • Inadequate ability to undertake different types of makeup – e.g. natural makeup, evening makeup, bridal makeup etc. • Inadequate ability to understand the chemical combinations that are being used and its reactions

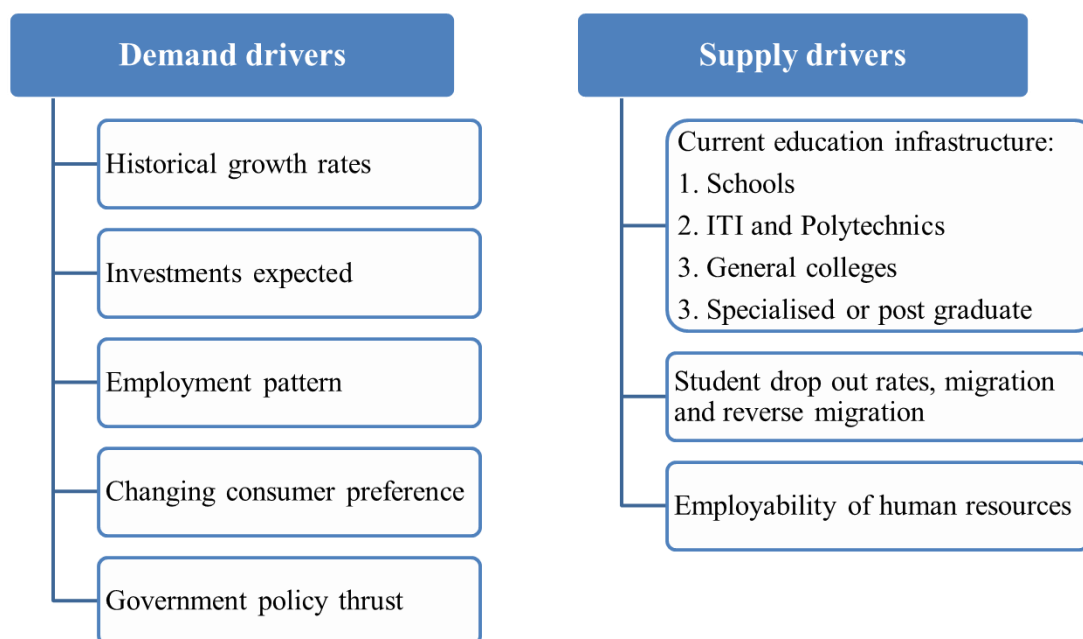
Source: IMaCS Survey and Analysis

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.

FIGURE 25: HUMAN RESOURCES FORECASTING MODEL



Source: IMaCS Analysis

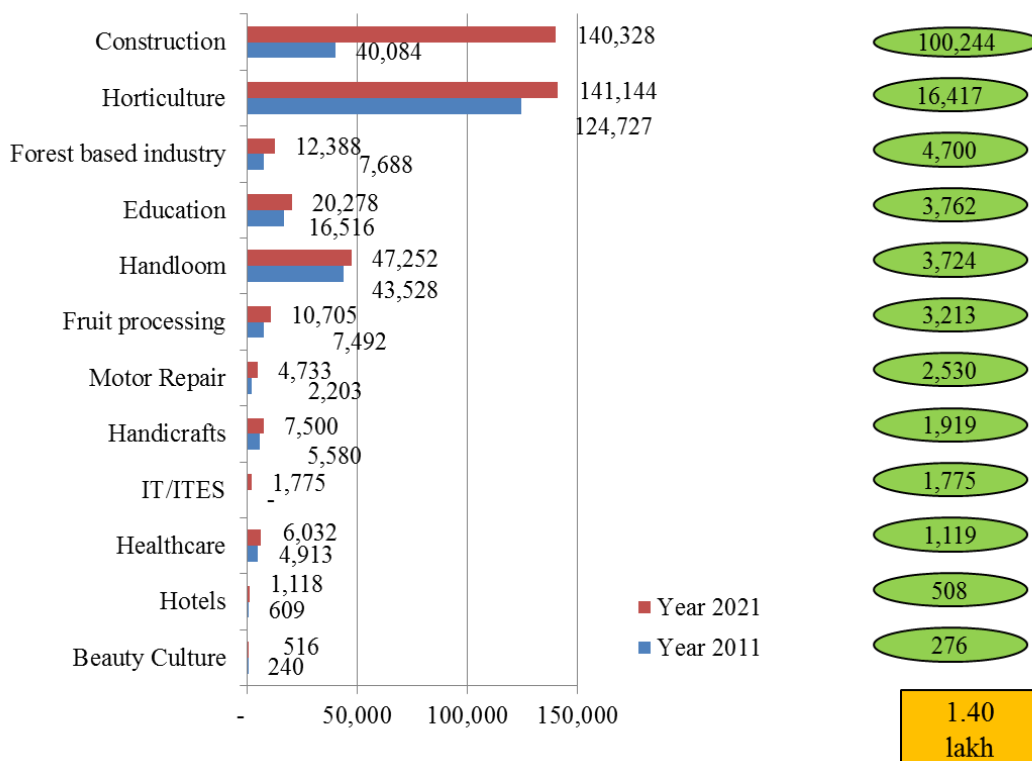
8.2 Incremental demand of human resources in Mizoram

According to our estimates, Mizoram is estimated to have an incremental human resources demand of around 1.40 lakh persons between 2011 and 2021. Most of this demand will come from the construction sector, followed by horticulture and forest based industry. In addition, retirement of persons in the 50-60 year age group, may generate additional 10 per cent vacancies in the demand sectors, although not all of it may be available for employment.

FIGURE 26: HUMAN RESOURCES REQUIREMENT IN MIZORAM

Human Resource Requirement in Mizoram, Nos.

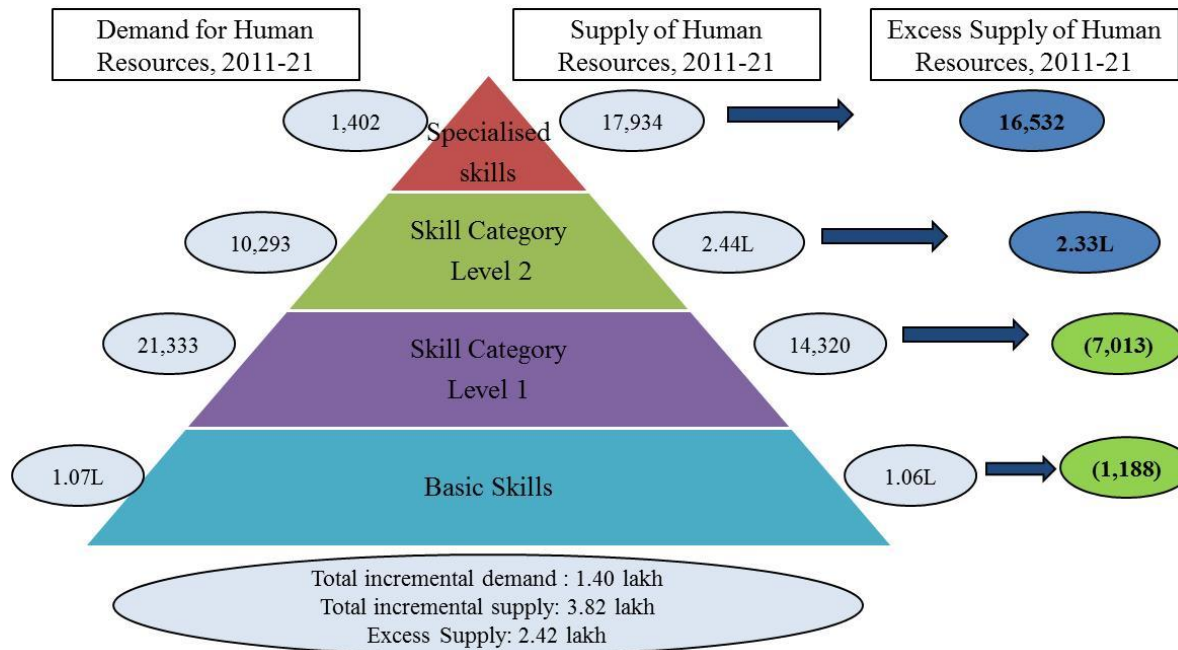
Incremental demand, 2011-21



Source: IMAcS Analysis

The demand is expected to fall short of supply, leaving an excess supply of human resources of 2.42 lakh. The IMaCS skill pyramid analysis indicates that there will be excess supply at the top two tiers of the pyramids, there will be a small excess demand at the bottom two tiers of the pyramid.

FIGURE 27: DEMAND AND SUPPLY OF HUMAN RESOURCES IN MIZORAM



Specialised skills include: master weavers, food technologist, PhDs, Designers, etc.

Source: IMaCS Analysis

8.3 District-wise human resource requirement in Mizoram – 2011-21

At the district level, maximum human resource demand is expected to come from Aizawl, followed by Lunglei district -between 2011 and 2021.

TABLE 48: DISTRICT WISE INCREMENTAL HUMAN RESOURCES REQUIREMENT IN MIZORAM BETWEEN 2011 AND 2021

Districts / sectors	Human Resource Requirement between 2011 and 2021												
	Hand-loom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Health-care	Education	Motor Repair	Forest based industry	Beauty Culture	Construction	State
Aizawl	3,096	1,596	3,532	2,104	159	1,775	544	1,169	2,072	2,000	115	44,261	62,423
Champhai	135	69	3,066	89	69	-	115	390	19	-	57	8,987	12,997
Kolasib	54	28	1,345	73	63	-	84	252	35	1,000	11	6,787	9,732
Lawngtlai	-	-	1,497	36	28	-	39	504	16	-	11	6,963	9,095
Lunglei	197	102	2,772	630	85	-	152	616	293	100	57	13,769	18,774
Mamit	-	-	1,654	62	51	-	64	304	3	1,500	11	6,861	10,511
Saiha	110	57	1,119	135	30	-	53	299	89	100	6	6,160	8,158
Serchhip	131	68	1,433	83	22	-	68	228	3	-	6	6,456	8,498
Mizoram	3,724	1,919	16,417	3,213	508	1,775	1,119	3,762	2,530	4,700	276	100,244	140,188

Source: IMaCS Analysis

8.4 Stakeholder feedback

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

TABLE 49: STAKEHOLDER FEEDBACK

Stakeholder	Key findings
Industry specific feedback	
Handloom and Handicrafts	<ul style="list-style-type: none"> Market linkage and value addition are concern areas Younger generation not interested in working in traditional sectors
Horticulture and fruit processing	<ul style="list-style-type: none"> Lack of cold storage facilities Interest in investors to explore area like floriculture, specially for anthuriums. These flowers are also getting exported to other states and outside India Market linkage missing for most horticulture products
Hotels	<ul style="list-style-type: none"> Infrastructure issues deterring investments in areas remote locations which have high tourism potential Poor customer experience
IT / ITES	<ul style="list-style-type: none"> Lack of human resources with computer efficiency for IT / ITES
Forestry / Bamboo based industry	<ul style="list-style-type: none"> Skilling required for value addition to the products. E.g. rolling paste and scenting the <i>agarbatti</i> sticks
Beauty Culture	<ul style="list-style-type: none"> Most of the population westernised and beauty conscious, presenting decent opportunities locally Opportunities outside the State can be tapped if skilling is provided
Construction	<ul style="list-style-type: none"> Construction activity undergoing in areas like roads, bridges, hydro power, building construction Locals not interested in working in construction jobs as they consider it inferior
Stakeholder	Key findings
Others	<ul style="list-style-type: none"> There is shortage of skilled human resources in healthcare, trainers and motor mechanics
Industry feedback (overall)	<ul style="list-style-type: none"> Need to create infrastructure (like roads, electricity, telecom) to attract skilled employees Locals are not willing to work in blue collared jobs as they have a preference for government jobs only Educational institutions and industry need to work more closely to industry specific sets and courses to meet industry demand Absenteeism in the workforce

Source: IMaCS Survey and Analysis

Stakeholder	Key findings
Government feedback	<ul style="list-style-type: none"> • Focus on factor endowments and resident skills • Strengthening of existing infrastructure facilities • Formed a Youth Commission, which wants to collaborate with private institutions for providing training to people
Educational Institutions feedback	<ul style="list-style-type: none"> • Facilitate employment market information of other states • Focus on providing good quality training • Lack of trainers, thus focus on ‘training the trainers’ • Need for better infrastructure
Students / Unemployed youths feedback	<ul style="list-style-type: none"> • Open to explore opportunities outside the State, as locally opportunities are scarce • After getting exposure outside, willingness to come back if opportunities are presented • Preference for Government jobs • Lack of industrial exposure

Source: IMaCS Survey and Analysis

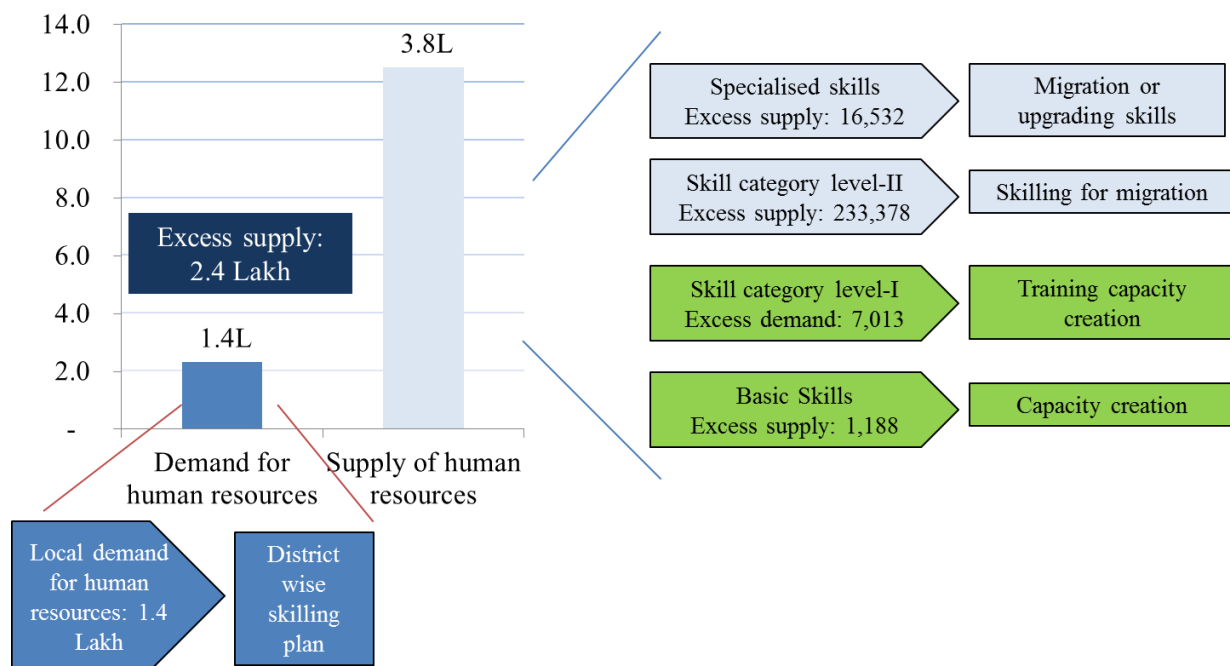
PART – III: Recommendations

9.1 Interventions for human resource Demand-Supply gap management

The total domestic supply of human resources for the next ten years in Mizoram is estimated to be 3.8 lakh as against the total demand of 1.4 lakh. The actual human resource requirement may be slightly higher as people in the age group of 50-60 who are currently working, are expected to retire during this period, leaving unoccupied vacancies. Overall, however, an excess human resource supply of 2.4 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 28: HUMAN RESOURCES DEMAND-SUPPLY SCENARIO FOR NEW SKILLING IN MIZORAM

(2011-2021)



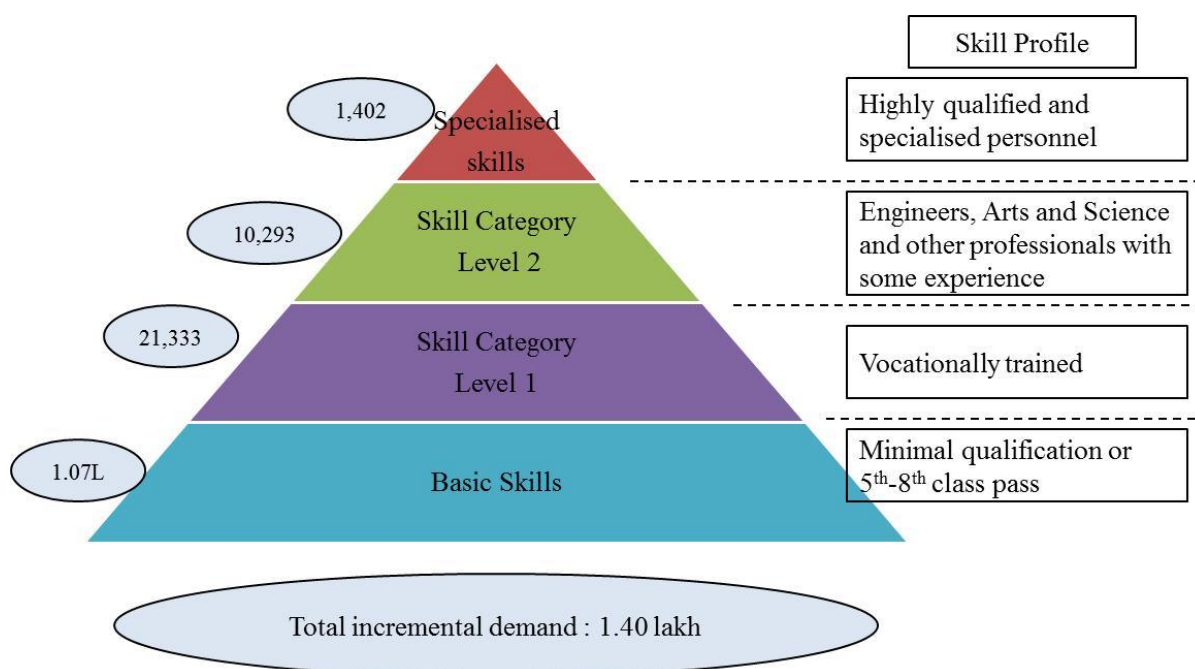
Source: IMaCS Analysis

The demand at skill category level 1 and basic skills level outstrips the supply which indicates a need for capacity creation at the bottom two levels of skill pyramid. For the other levels of skill pyramid i.e. Skills category level 2 and specialised skills, the total supply exceeds the total domestic demand which indicates

a need for imparting skills to people enabling them to migrate and hunt for better job opportunities outside the State.

9.2 Areas for skilling within state – 2011-21

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



Specialised skills include: master weavers, food technologist, PhDs, Designers, etc.

Source: IMaCS Analysis

The local demand for 1.4 lakh persons would be generated by the handloom, handicraft, horticulture, fruit processing, hospitality, IT/ITeS, Healthcare, Education, Motor Repair, Beauty Culture, Construction, and Forest based industry.

FIGURE 29: AREAS FOR SKILLING FOR DEMAND SECTORS IDENTIFIED WITHIN MIZORAM

Human resource pool required for demand sectors identified within Mizoram				1.4 lakh
Sector	Minimal Education: 1.07 L	Skill Category Level-II: 21,333	Skill Category Level-I: 10,293	Specialised Skill: 1,402
Handloom	Basic weavers working with looms	Weaver with some experience deciding patterns, colours and designs	Entrepreneur managing working capital, overseeing the weaving process, and establishing market linkages	Master weaver, Designer
Handicraft	Basket maker, furniture maker, person making different crafts using bamboo, cane and wood	Craftsman with some experience in intricate and complex designs	Entrepreneur managing working capital, overseeing the crafting process, and establishing market linkages	Master craftsman
Horticulture	Fruit, flower and spices grower	Farm extension services provider, Packager	Grower co-operative manager	Marketing manager
Fruit Processing	Person involved in drying and processing of food and fruits into jams, jelly, juice, pickles etc.	Distributor, Packager	SHG lead executive, Entrepreneur, Agent	Food technologist, Management
Hospitality	Housekeeping person cleaning rooms and furnishings	Chefs, Attendants, Computer Operator	Hotel Manager, Entrepreneur	Tourism package development planner
Sector	Minimal Education: 1.07 L	Skill Category Level-II: 21,333	Skill Category Level-I: 10,293	Specialised Skill: 1,402
IT / ITES	-	Data entry personnel in hotels, hospitals and offices (govt. and private), Call centre: customer service and helpline	IT entrepreneur, hardware maintenance	IT system specialist
Healthcare	Helpers and cleaners in hospitals and clinics	Paramedics	Nurses and Doctors	Specialists
Education	-	-	Teachers, Principals	Researcher, Trainer
Motor Repair	Mechanics attending basic issues	Mechanics attending complex repair issues	Entrepreneurs running the repair shop	
Beauty Culture	Helper, cleaners in beauty salons	Hair cutting and styling, dress styling, spa services	Salon / Spa manager	Hair and skin specialists
Construction	Construction labourer	Mason, Welder, Machine operator, Electric Works	Agent, Contractor	Project Manager
Forest based / Bamboo	Grower, cutter, collector	Craftsman, <i>agarbatti</i> maker, packager	Entrepreneurs, Agent	Master Craftsman

In addition to the areas identified above, there will also be continued demand in livelihood activities like agriculture, fishery and animal husbandry.

FIGURE 30: LIVELIHOOD ACTIVITIES IN MIZORAM FOR SKILL UP-GRADATION

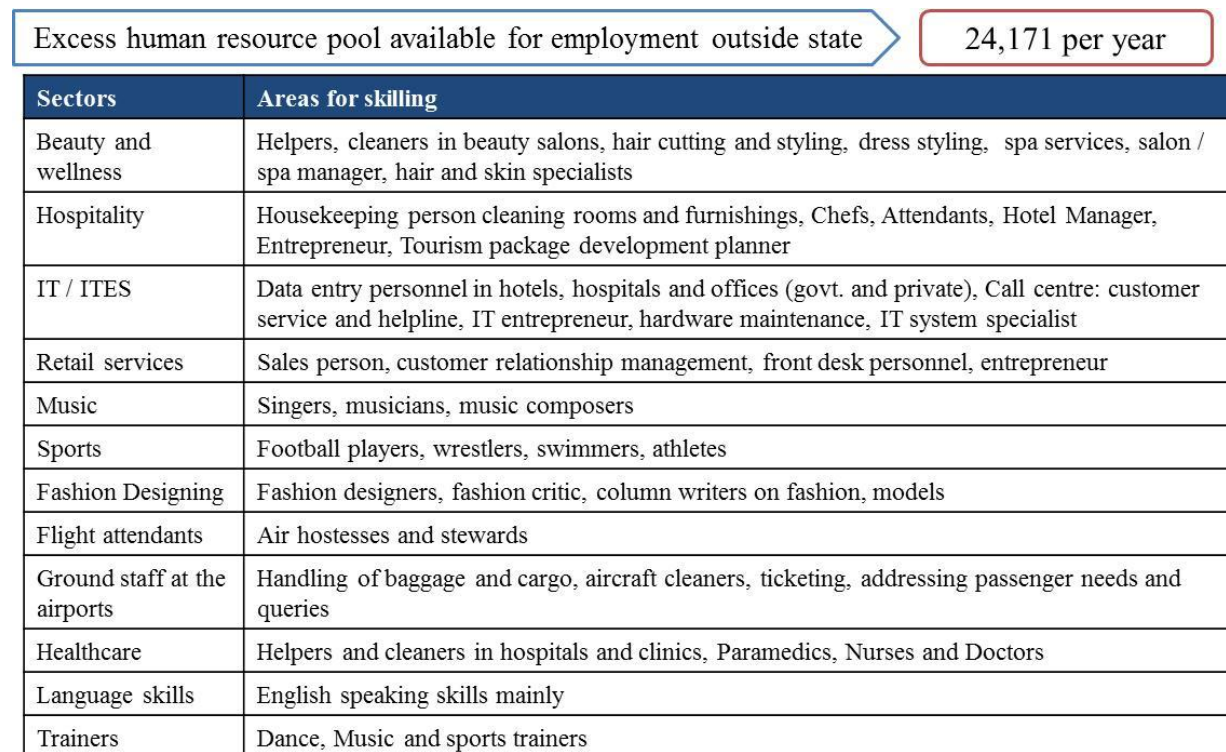
Activity	Description	Skill level	2011 employment
Agriculture (Cultivation)	About 60% of the workers in Mizoram are dependent on agriculture. The State is deficient in food grain production. 'Jhum' cultivation is practiced widely.	Mostly, unscientific methods of cultivation used.	256,332
Fishery	The State has potential for development of fisheries and becoming a major source of livelihood.	Outdated fish farming techniques used. Modern techniques slowly becoming popular.	145
Animal Husbandry	Animal husbandry plays a major role in the economy of the State. Amongst livestock, majority of the production comes from cattle, pig and poultry.	Household activity with primitive rearing, feeding and processing skills.	13,278

Additional work force that may be available for skill up-gradation in livelihood activities: 2.69 lakh

9.3 Skilling for migration

An estimated pool of 25,442 persons is expected to be available per year for migration outside the State.

FIGURE 31: AREAS OF SKILLING FOR MIGRATION TO OTHER STATES OR OVERSEAS

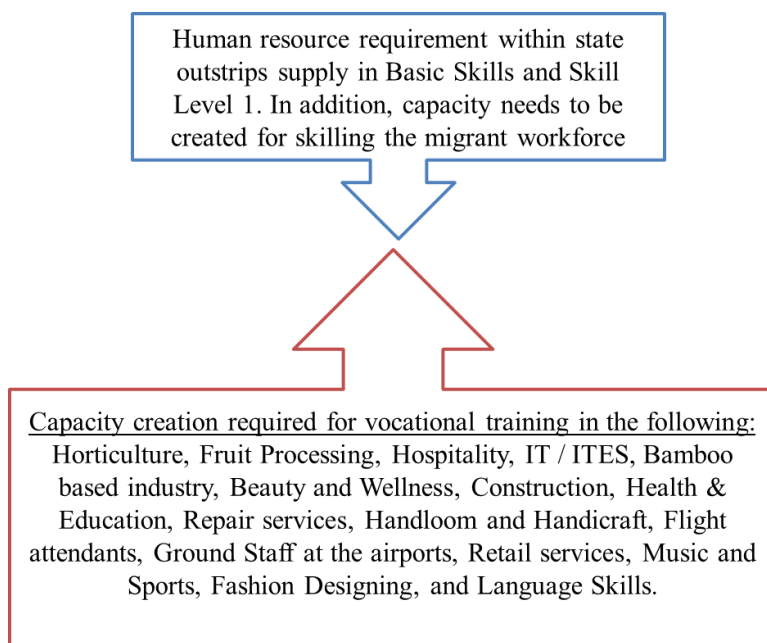


Source: IMaCS Analysis

9.4 Capacity creation within State

The human resource needs to be skilled across the sectors which present employment opportunities and the capacity needs to be created to achieve the same.

FIGURE 32: INTERVENTION FOR CAPACITY CREATION



Source: IMaCS Analysis

9.5 Private sector skill development opportunities at district level

9.5.1 Aizawl – skilling interventions

Handloom

- Basic skills like spinning, weaving and dyeing
- Knowledge of new technology (Zo loom currently)
- Building market linkage
- Specialised skills like designing for contemporary designs either taught or with support from agencies such as NIFT

Handicrafts

- Design and development of new tools and designs
- Marketing strategy (specially export market)
- Introduction to new technology
- Knowledge of intricate work and providing finishing to the products

Fruit processing

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

Horticulture

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

Hospitality

- Technical skills like housekeeping, front office management, cooking Mizo cuisine
- 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

Forest / bamboo based

- Cutting, drying and bundling of bamboo sticks
- Agarbatti paste making (*Jakit* powder is mixed with charcoal and water to make thick paste)
- Rolling of paste on bamboo sticks and drying
- Scenting and packaging
- Bamboo chipping units
- Bamboo diversified products like bamboo mat, bamboo ply, scantling etc.

Beauty Culture

- Hair styling both for men and women
- Hair and skin care
- Bleaching and dyeing
- Knowledge of new trends and fashions
- Communication skills
- Customer relationship skills

TABLE 50: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN AIZAWL

Incremental 2011-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	2614	1347	2827	1776	135	1310	265	0	1648	1600	85	34565
Skill Category Level 2	326	168	518	222	19	281	168	0	323	293	18	7144
Skill Category Level 1	126	65	152	85	4	167	106	1157	80	86	11	2110
Specialised skills	31	16	35	21	2	18	5	12	21	20	1	443

Incremental Phase-I: 2011-2016

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	624	1370	809	56	578	132	-	668	800	34	12039
Skill Category Level 2	-	78	251	101	8	124	84	-	131	147	7	2488
Skill Category Level 1	-	30	74	39	2	74	53	579	33	43	4	735
Specialised skills	-	7	17	10	1	8	3	6	8	10	0	154

Incremental Phase-II: 2017-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	2614	723	1457	967	79	732	132	0	980	800	50	22526
Skill Category Level 2	326	90	267	121	11	157	84	0	192	147	11	4656
Skill Category Level 1	126	35	79	46	2	93	53	579	48	43	6	1375
Specialised skills	31	9	18	11	1	10	3	6	12	10	1	288

Some figures might not add up, due to rounding off of the decimal points.

Source: IMACS Analysis

9.5.2 Champhai – skilling interventions

Horticulture

- Awareness of latest farming techniques
- Building market linkages
- Capacity building through setting up of focussed co-operatives in areas like passion fruits, and flowers like roses (*Champhai is also known as the rose bowl of Mizoram*)
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

Handloom

- Knowledge of new technology (Zo loom currently)
- Building market linkage
- Basic skills like spinning, weaving, colouring and dyeing
- Specialised skills like designing for contemporary designs either taught or with support from agencies such as NIFT

Fruit Processing

- Grape cultivation of the wine variety grape, called ‘Bangalore Blue’.
- Wine brewing
- Packaging and marketing of wine
- Building market linkage

Hospitality

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

TABLE 51: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN CHAMPHAI

Incremental 2011-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	114	59	2454	75	59	-	56	-	15	-	42	7018
Skill Category Level 2	14	7	450	9	8	-	35	-	3	-	9	1451
Skill Category Level 1	5	3	132	4	2	-	22	386	1	-	5	428
Specialised skills	1	1	31	1	1	-	1	4	0	-	1	90

Incremental Phase-I: 2011-2016

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	27	1,189	34	24	-	28	-	6	-	17	2,445
Skill Category Level 2	-	3	218	4	3	-	18	-	1	-	4	505
Skill Category Level 1	-	1	64	2	1	-	11	193	0	-	2	149
Specialised skills	-	0	15	0	0	-	1	2	0	-	0	31

Incremental Phase-II: 2017-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	114	31	1,265	41	34	-	28	-	9	-	25	4,574
Skill Category Level 2	14	4	232	5	5	-	18	-	2	-	5	945
Skill Category Level 1	5	2	68	2	1	-	11	193	0	-	3	279
Specialised skills	1	0	16	0	0	-	1	2	0	-	0	59

9.5.3 Kolasib – skilling interventions

Horticulture

- Awareness of latest farming techniques
- Building linkages to markets in neighbouring states and bordering countries
- Capacity building through setting up of focussed co-operatives in areas like bird eye chilly and aromatic and medicinal plants
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops

Forest / bamboo based

- Cutting, drying and bundling of bamboo sticks
- Agarbatti paste making (*Jakit* powder is mixed with charcoal and water to make thick paste)
- Rolling of paste on bamboo sticks and drying
- Scenting and packaging
- Bamboo chipping units
- Bamboo diversified products like bamboo mat, bamboo ply, scantling etc.

TABLE 52: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN KOLASIB

Incremental 2011-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	46	24	1,076	62	54	-	41	-	28	800	8	5,300
Skill Category Level 2	6	3	197	8	7	-	26	-	5	147	2	1,095
Skill Category Level 1	2	1	58	3	1	-	16	249	1	43	1	323
Specialised skills	1	0	13	1	1	-	1	3	0	10	0	68

Incremental Phase-I: 2011-2016

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	11	521	28	22	-	20	-	11	400	3	1,846
Skill Category Level 2	-	1	96	3	3	-	13	-	2	73	1	382
Skill Category Level 1	-	1	28	1	1	-	8	125	1	22	0	113
Specialised skills	-	0	7	0	0	-	0	1	0	5	0	24

Incremental Phase-II: 2017-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	46	13	555	34	31	-	20	-	17	400	5	3,454
Skill Category Level 2	6	2	102	4	4	-	13	-	3	73	1	714
Skill Category Level 1	2	1	30	2	1	-	8	125	1	22	1	211
Specialised skills	1	0	7	0	0	-	0	1	0	5	0	44

9.5.4 Lawngtlai - skilling interventions

Horticulture

- Awareness of latest farming techniques
- Building linkages to markets in neighbouring states and bordering countries
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

TABLE 53: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN LAWNGTLAI

Incremental 2011-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	-	1,198	31	24	-	19	-	13	-	8	5,438
Skill Category Level 2	-	-	219	4	3	-	12	-	2	-	2	1,124
Skill Category Level 1	-	-	65	1	1	-	8	499	1	-	1	332
Specialised skills	-	-	15	0	0	-	0	5	0	-	0	70

Incremental Phase-I: 2011-2016

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	-	580	14	10	-	10	-	5	-	3	1,894
Skill Category Level 2	-	-	106	2	1	-	6	-	1	-	1	391
Skill Category Level 1	-	-	31	1	0	-	4	249	0	-	0	116
Specialised skills	-	-	7	0	0	-	0	3	0	-	0	24

Incremental Phase-II: 2017-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	-	617	17	14	-	10	-	8	-	5	3,544
Skill Category Level 2	-	-	113	2	2	-	6	-	1	-	1	732
Skill Category Level 1	-	-	33	1	0	-	4	249	0	-	1	216
Specialised skills	-	-	8	0	0	-	0	3	0	-	0	45

9.5.5 Lunglei - skilling interventions

Horticulture

- Awareness of latest farming techniques
- Building linkages to markets in neighbouring states and bordering countries
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

Hospitality

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

Fruit Processing

- Making jams, jelly, pickles, juices etc.
- Drying, grading, sorting and packaging
- Building market linkage
- Creating facilities for juice and jam making co-operatives societies and units

TABLE 54: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN LUNGLEI

Incremental 2011-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	40	1,075	242	30	-	37	-	94	40	17	3,745
Skill Category Level 2	-	5	197	30	4	-	23	-	18	7	4	774
Skill Category Level 1	-	2	58	12	1	-	15	305	5	2	2	229
Specialised skills	-	0	13	3	0	-	1	3	1	1	0	48

Incremental Phase-I: 2011-2016

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	40	1,075	242	30	-	37	-	94	40	17	3,745
Skill Category Level 2	-	5	197	30	4	-	23	-	18	7	4	774
Skill Category Level 1	-	2	58	12	1	-	15	305	5	2	2	229
Specialised skills	-	0	13	3	0	-	1	3	1	1	0	48

Incremental Phase-II: 2017-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	166	46	1,143	290	43	-	37	-	138	40	25	7,008
Skill Category Level 2	21	6	209	36	6	-	23	-	27	7	5	1,448
Skill Category Level 1	8	2	62	14	1	-	15	305	7	2	3	428
Specialised skills	2	1	14	3	1	-	1	3	2	1	0	90

9.5.6 Mamit- skilling interventions

Horticulture

- Awareness of latest farming techniques
- Building linkages to markets in neighbouring states and bordering countries
- Capacity building through setting up of focussed co-operatives in area like mandarin oranges, turmeric, flowers like anthuriums and roses, and medicinal plants
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

Fruit Processing

- Processing of medicinal plants like aloe vera
- Building market linkages
- Co-operation between sellers in the State with buyers outside the State

Forest / bamboo based

- Cutting, drying and bundling of bamboo sticks
- *Agarbatti* paste making (*Jakit* powder is mixed with charcoal and water to make thick paste)
- Rolling of paste on bamboo sticks and drying
- Scenting and packaging
- Bamboo chipping units
- Bamboo diversified products like bamboo mat, bamboo ply, scantling etc.

TABLE 55: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN MAMIT

Incremental 2011-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	-	1,324	53	43	-	31	-	3	1,200	8	5,358
Skill Category Level 2	-	-	243	7	6	-	20	-	0	220	2	1,107
Skill Category Level 1	-	-	71	3	1	-	13	301	0	65	1	327
Specialised skills	-	-	17	1	1	-	1	3	0	15	0	69

Incremental Phase-I: 2011-2016

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	-	641	24	18	-	16	-	1	600	3	1,866
Skill Category Level 2	-	-	118	3	2	-	10	-	0	110	1	386
Skill Category Level 1	-	-	35	1	0	-	6	150	0	32	0	114
Specialised skills	-	-	8	0	0	-	0	2	0	8	0	24

Incremental Phase-II: 2017-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	-	682	29	25	-	16	-	2	600	5	3,492
Skill Category Level 2	-	-	125	4	3	-	10	-	0	110	1	722
Skill Category Level 1	-	-	37	1	1	-	6	150	0	32	1	213
Specialised skills	-	-	9	0	0	-	0	2	0	8	0	45

9.5.7 Saiha - skilling interventions

Horticulture

- Awareness of latest farming techniques
- Building linkages to markets in neighbouring states and bordering countries
- Agri-entrepreneurial skills
- Educating farmers on export potential of horticulture crops such as fruits, vegetables, flowers, medicinal and aromatic plants

TABLE 56: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN SAIHA

Incremental 2011-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	93	48	895	114	26	-	26	-	71	80	4	4,810
Skill Category Level 2	12	6	164	14	3	-	17	-	14	15	1	994
Skill Category Level 1	4	2	48	5	1	-	10	296	3	4	1	294
Specialised skills	1	1	11	1	0	-	1	3	1	1	0	62

Incremental Phase-I: 2011-2016

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	22	434	52	11	-	13	-	29	40	2	1,675
Skill Category Level 2	-	3	79	6	1	-	8	-	6	7	0	346
Skill Category Level 1	-	1	23	3	0	-	5	148	1	2	0	102
Specialised skills	-	0	5	1	0	-	0	1	0	1	0	21

Incremental Phase-II: 2017-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	93	26	461	62	15	-	13	-	42	40	3	3,135
Skill Category Level 2	12	3	85	8	2	-	8	-	8	7	1	648
Skill Category Level 1	4	1	25	3	0	-	5	148	2	2	0	191
Specialised skills	1	0	6	1	0	-	0	1	1	1	0	40

9.5.8 Serchhip - skilling interventions

Horticulture

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

Handloom

- Knowledge of new technology (Zo loom currently)
- Building market linkage
- Basic skills like spinning, weaving, colouring and dyeing
- Specialised skills like designing for contemporary designs either taught or with support from agencies such as NIFT

TABLE 57: SKILL LEVEL WISE HUMAN RESOURCE REQUIREMENT IN SERCHHIP

Incremental 2011-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	111	57	1,147	70	19	-	33	-	3	-	4	5,041
Skill Category Level 2	14	7	210	9	3	-	21	-	0	-	1	1,042
Skill Category Level 1	5	3	62	3	1	-	13	226	0	-	1	308
Specialised skills	1	1	14	1	0	-	1	2	0	-	0	65

Incremental Phase-I: 2011-2016

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	-	26	556	32	8	-	16	-	1	-	2	1,756
Skill Category Level 2	-	3	102	4	1	-	10	-	0	-	0	363
Skill Category Level 1	-	1	30	2	0	-	7	113	0	-	0	107
Specialised skills	-	0	7	0	0	-	0	1	0	-	0	22

Incremental Phase-II: 2017-2021

Sectors	Handloom	Handicrafts	Horticulture	Fruit processing	Hospitality	IT/ITES	Healthcare	Education	Motor Repair	Forest based industry	Beauty Culture	Construction
Minimal education	111	31	591	38	11	-	16	-	2	-	3	3,285
Skill Category Level 2	14	4	108	5	2	-	10	-	0	-	1	679
Skill Category Level 1	5	1	32	2	0	-	7	113	0	-	0	201
Specialised skills	1	0	7	0	0	-	0	1	0	-	0	42

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

Motor repair

- Knowledge of various electrical and mechanical components of a car.
- Diagnostic abilities.
- Awareness of new technology in motor repair like computerised wheel balancing and alignment.
- Soft Skills

9.5 Key interventions for Mizoram

- Areas of capacity creation for vocational training include weavers, master weavers, designers, crafts-persons, food processing workers, distributors, packagers, marketing managers, housekeeping personnel, chefs, tour operators, data entry personnel, hardware mechanics, call centre employees, IT system specialists, paramedics, nurses, health assistants, motor mechanics, beauticians, hair and skin specialists, fashion designers, masons, welders, electricians, bamboo *agarbatti* makers etc.
- Combining skill training with entrepreneurial skills depending on the level of training.
- Specialist skill development institutes for sports (mainly football) and music would help use the traditional skills of local youth.
- Between 2011 and 2021, over 24,171 persons per annum will be available, who will not get absorbed in the State and can be migrated for opportunities outside the State.. Key opportunities include beauty and wellness (including spas), fashion designers, musicians, retail, call centre operator and nursing.

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	
BRO	Border Roads Organisation
BSNL	Bharat Sanchar Nigam Limited
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
HEP	Hydro-electric Power
HRD	Human Resource Development
IT	Information Technology
ITI	Industrial Training Institute
mn	Million
MU	Million Units
NEC	North Eastern Council
NEDFi	North Eastern Development Finance Corporation Limited
NER	North Eastern Region
NES	North Eastern States
NGO	Non-Governmental Organisation
NIT	National Institute of Technology
No.	Number
NSDC	National Skill Development Corporation
O&M	Operation and Maintenance
PPP	Public Private Partnership
PWD	Public Works Department
SHG	Self Help Group
SIDO	Small Industries Development Organisation

3. List of people met in Mizoram

Name	Designation	Department	Organisation type	District
Lalmalsawma	Secretary	Finance, Home, & Planning	State Government	State
Lal Thanhawla	Chairman	State Planning Board	State Government	State
Yograj Chhetri	Principal Adviser cum additional secretary	Planning and Programme Implementation	State Government	State
Lalthangpuia Sailo, MCS	Director	Department of Labor, Employment and Industrial Training	State Government	State
Ngunlal Chinzah	Director	Department of Economics and Statistics	State Government	State
Ms Renu Sharma	Special Secretary	General Administration Department	State Government	State
Shurbir Singh	Deputy Commissioner	Aizawl District	State Government	Aizawl
Niharika Rai	Deputy Commissioner	Kolasib District	State Government	Kolasib
Mr. V. Sapchhunga	Deputy Commissioner	Lunglei District	State Government	Lunglei
P. Lalchuanga	Deputy Commissioner	Serchhip District	State Government	Serchhip
Dr. H.L. Malsawma	Director	Higher and Technical Education	State Government	State
Vabeiha Hlychho	Director	Directorate of Tourism	State Government	State
Tinkhandala	Chief Executive Officer	Mizoram KVIB	State Government	State
Dr. E. Saipari	Joint Director	Department of Horticulture	State Government	State
Mr. K.Lalhmingthanga	President	Mizoram Chambers of Industry (MCI)	Private	State
V.S. Chhawna	Vice President	Mizoram Chambers of Industry (MCI)	Private	State
Mr. K.Lalhmingthanga	Owner	Sena Cold Retreads, Sena Construction and Structures (manufacturers of Bio Gas Plants), Sena Bamboo Chipping Mills, Sena Bamboo Industry (producer of Agarbatti sticks)	Private	Aizawl
Dr. Zohmangaiha	Chairman	Mizoram Apex Handloom & Handicraft Cooperative Society Limited (MAHCO)	Co-operative Society	Aizawl
Dr. Zohmangaiha	Owner	Chhinga Veng Handloom & Handicraft Cooperative Society	Co-operative Society	Aizawl
Lalrinmawii	Secretary	Thenzawl Handloom Weavers Association	Association	Serchhip
Lallura Pachuau	Owner	L.Z. Bamboo Industry	Private	Aizawl
Michael L.T. Maiwa	General Secretary	Mizoram Chambers of Industry (MCI)	Private	Aizawl
Michael L.T. Maiwa	Owner	Daffodils (electronics distributor) and L.T. Steel Works	Private	Aizawl
R. Lalbiabliama	Owner	Modern Steel Fabrication	Private	Aizawl
Rohmingliana Pachuau	Owner	Buangtea Bamboo Industry	Private	Aizawl
J.T. Vanlalnggheta	Secretary	Mizoram Youth Commission	State Government	State

Name	Designation	Department	Organisation type	District
Lalchungnunga	President	Young Mizo Association	NGO	State
Mr. Mallika Arjun Kumar	General Manager	Zopar Exports Pvt Ltd	Private	Bangalore based working in Mizoram
Mr. Atul Gupta	Deputy General Manager	ONGC	PSU	Kolasib
Gurpreet Singh Sethi	Director	Mehar Agencies Pvt Ltd	Private	State
Ms. Puii	Owner	Hnam Chhantu	Self Help Group	Aizawl
Pu Lal Biakthanga	Additional Deputy Commissioner	Aizawl District	State Government	Aizawl
H.B. Lalremmawia	Senior Technician	Directorate of Industries	State Government	Aizawl
C. Lianluaia	Assistant District Horticulture Officer	Horticulture Division of Kolasib District	District Department	Kolasib
James V.L. Ruata	Owner	James Bakery, Kolasib District	Private	Kolasib
Lalramhlun	Owner	Rengte Ready Garments, Kolasib District	Private	Kolasib
Ms. P. Lal Rodengi	Additional Director	Directorate of Industries	State Government	Aizawl
Ricky Lalsangzuaza	Associate Professor	Govt Serchhip College	District Department	Serchhip
T. Rosiama	President	Mizoram Industries Association and Mizoram Chambers of Commerce, Serchhip district	District Department	Serchhip
Rohnuni Colney (Maro)	Assistant Project Officer	District Rural Development Agency, Serchhip district	District Department	Serchhip
Lalhmangaiha	District Horticulture Officer	Horticulture Division of Serchhip District	District Department	Serchhip
P.C. Lalvuana	Executive Officer	Industries Department, Kolasib District	District Department	Kolasib
V. Laldinsanga	Sub Deputy Commissioner	Kolasib District	District Department	Kolasib
C.T. Rosiana	SDIO	Industries Department, Kolasib District	District Department	Kolasib
R. Lalramghata	Director	State Institute of Rural Development (SIRD)	District Department	Kolasib
Zairemawia	Additional Deputy Commissioner	Kolasib District	District Department	Kolasib
D Lalhmingthanga	Deputy Commissioner, Lawngtlai	Lawngtlai District	State Government	Lawngtlai
Kunal	Deputy Commissioner, Saiha	Saiha District	State Government	Saiha
Rodney	Deputy Commissioner, Mamit	Mamit District	State Government	Mamit

4. Training Capacity of Vocational Education in Mizoram

Type of institution	No. of institutions	Seating capacity	District
ITI	1	484	Aizawl
ITI	1	84	Lunglei
ITI	1	96	Saiha
Polytechnic	1	120	Aizawl
Polytechnic	1	110	Lunglei
College of Teacher's Education	1	82	Aizawl
Mizoram Hindi Training College	1	89	Aizawl
DIET	1	251	Aizawl
Regional Institute of Paramedical and Nursing Sciences (RIPANS)	1	134	Aizawl
Mizoram College of Nursing (CHA)	1	130	Aizawl
Engineering College	1	210	Aizawl

5. Mizoram – List of Handicrafts Clusters

Location	District	Product	Details
Aizawl, Bethlehem, Chaltlang, Veng	Aizawl	Cane and Bamboo craft	Basket, Hukka, pipes, Mizo house, chairs, tables, bamboo screens and cages, umbrella handles, knitting needles and hats
Khathla		Cane and Bamboo craft	Basket, Hukka, pipes, Mizo house, chairs, tables, bamboo screens and cages, umbrella handles, knitting needles and hats
Lunangmual		Cane and Bamboo craft	Basket, Hukka, pipes, Mizo house, chairs, tables, bamboo screens and cages, umbrella handles, knitting needles and hats
Chite Veng		Cane & Bamboo Craft	

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 40 countries 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 2005¹, when it was de-merged from ICRA and became a standalone company in its present form.

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- Knowledge of key factors of success in different projects and program.
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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