

## 7.19 MIZORAM

### 7.19.1 Introduction

Mizoram is one of the seven sisters of north eastern India. It shares international borders with Bangladesh in the west and Myanmar in the east and south. The geographical area of the State is 21,081 km<sup>2</sup> and lies between latitude 21°56' and 24°31'N and longitude 92°16' and 93°26'E. Mizoram has the most variegated hilly terrain in the eastern part of India with average altitude ranging from 500 to 800 m and maximum reaching 2,157 m in Blue Mountain (Phawngpui). The longest river in Mizoram is Chhimituipui; it is also known as Kaladan.

Mizoram has a mild climate ranging from moist tropical to moist subtropical, not very warm in summer and not very cold in winter. During winter, the temperature varies from 11°C to 24°C and in summer it varies between 18°C to 29°C. The entire area is under the regular influence of monsoons. It rains heavily from May to September and the average annual rainfall ranges from 2,160 mm to 3,500 mm. Winter in Mizoram is normally rain-free.

As per Census 2001, the total population of the State is 0.89 million of which the rural population constitutes 50%. The population density is 42 persons per km<sup>2</sup>. The Scheduled Tribes constitute 94.5% of the population. The projected population of the State is 0.98 million (as projected by the Office of RGI for 2009). The livestock population of the State is 0.28 million

(Livestock Census 2003) which has increased by nearly 150% since the census of 1992.

Land use pattern of the State is given in Table 7.19.1.

### 7.19.2 Recorded Forest Area

The recorded forest area of the State is 16,717 km<sup>2</sup>. Reserved Forests constitute 47.31%, Protected Forests 21.34% and Unclassed Forests 31.35% of the total forest area. About 80% of the State's geographical area is under recorded forests.

### 7.19.3 Protected Areas

Mizoram has 2 National Parks and 8 Wildlife Sanctuaries covering an area of 1241 km<sup>2</sup> which constitutes 5.89% of the State's geographical area. Dampa Tiger Reserve is situated in the State covering 500 km<sup>2</sup>.

### 7.19.4 Joint Forest Management

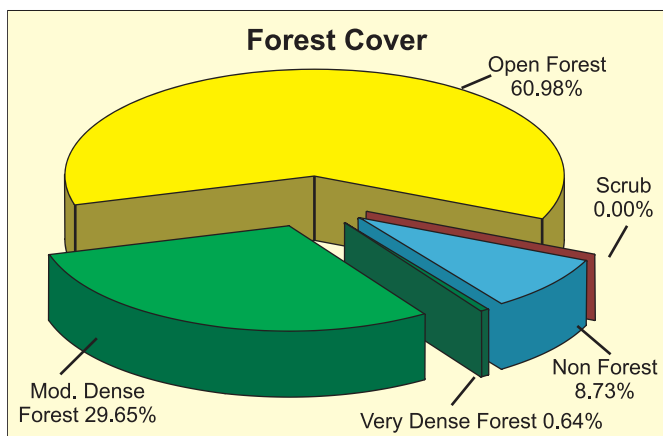
Joint Forest Management began in the State in 1990. There are 270 JFM Committees managing about 20,000 ha of forest area as on Mar 2005. More than 40,000 families are involved in this programme, mostly belonging to the Scheduled Tribes.

Source: MoEF, 2005.

Table 7.19.1: Land use pattern

Land Use	Area in '000 ha	Percentage
Total geographical area	2,108	
Reporting area for land utilization	1,946	100.00
Forests	1,594	81.91
Not available for cultivation	134	6.89
Permanent pastures and other grazing lands	5	0.26
Land under misc. tree crops & groves	10	0.51
Culturable wasteland	5	0.26
Fallow lands other than current fallows	82	4.21
Current fallows	24	1.23
Net area sown	92	4.73

Source: Land Use Statistics, Ministry of Agriculture, GOI, 2005.



### 7.19.5 Forest Cover

The forest cover in the State, based on interpretation of satellite data of Nov 2006 - Jan 2007, is 19,240 km<sup>2</sup>, which is 91.27% of the State's geographical area. In terms of forest canopy density classes, the State has 134 km<sup>2</sup> very dense forest, 6,251 km<sup>2</sup> moderately dense forest and 12,855 km<sup>2</sup> open forest. The distribution

of forest cover of the State is shown in Fig. 7.19.

Comparison of the current forest cover (satellite data of Nov 2006 - Jan 2007) with the previous assessment (satellite data of Nov 2004 & Feb - Mar 2005) shows a gain of 640 km<sup>2</sup> of forest cover.

The change matrix, given in Table 7.19.2, reveals that there has been a decrease of 133 km<sup>2</sup> in the moderately dense forest, whereas an increase of 773 km<sup>2</sup> in open forest.

On the basis of ground truthing by the officials of FSI, main reason for increase of forest cover is re-growth in shifting cultivation areas in all the district of Mizoram and also regeneration of bamboo in bamboo flowering areas.

District wise forest cover in different canopy density classes and scrub along with the changes compared to 2005 assessment is given in the Table 7.19.3.

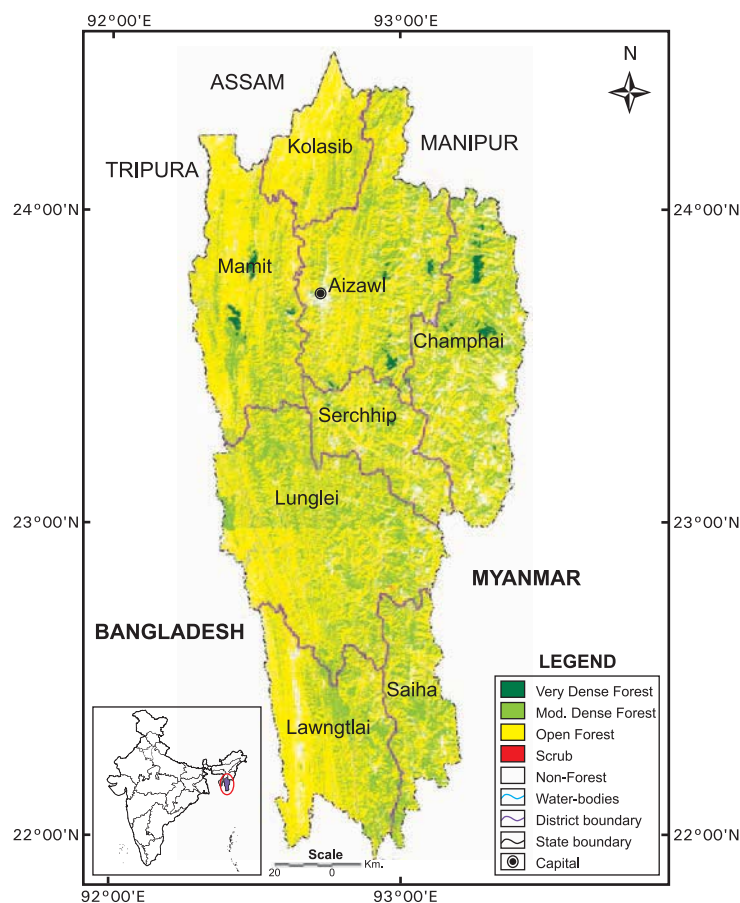


Fig. 7.19 : Forest cover map of Mizoram

## Forest and Tree Resources in States and Union Territories

**Table 7.19.2: Forest cover change matrix**

(area in km<sup>2</sup>)

2005 Assessment (Data of Nov 2004 & Feb - Mar 2005)	2007 (Data of Nov 2006 - Jan 2007)					Total of 2005
	VDF	MDF	OF	Scrub	NF	
Very Dense Forest	133	0	0	0	1	134
Moderately Dense Forest	1	6,089	156	0	138	6,384
Open Forest	0	151	11,395	0	536	12,082
Scrub	0	0	0	1	0	1
Non-Forest	0	11	1,304	0	1,165	2,480
<b>Total of 2007</b>	<b>134</b>	<b>6,251</b>	<b>12,855</b>	<b>1</b>	<b>1,840</b>	<b>21,081</b>
Net Change	0	-133	773	0	-640	

**Table 7.19.3: District-wise forest cover in 2007**

Number of districts: 8

(area in km<sup>2</sup>)

District	Geographical area	Very dense forest	Mod. dense forest	Open forest	Total	% of G.A.	Change*	Scrub
Aizawl <sup>TH</sup>	3,575	32	1,013	2,278	3,323	92.95	196	0
Champhai <sup>TH</sup>	3,185	58	1,180	1,519	2,757	86.56	175	0
Kolasib <sup>TH</sup>	1,382	0	210	1,090	1,300	94.07	32	0
Lawngtlai <sup>TH</sup>	2,557	0	699	1,681	2,380	93.08	53	0
Lunglei <sup>TH</sup>	4,536	0	1,586	2,698	4,284	94.44	38	1
Mamit <sup>TH</sup>	3,025	41	568	2,137	2,746	90.78	105	0
Saiha <sup>TH</sup>	1,400	0	629	703	1,332	95.14	-4	0
Serchhip <sup>TH</sup>	1,421	3	366	749	1,118	78.68	45	0
<b>Total</b>	<b>21,081</b>	<b>134</b>	<b>6,251</b>	<b>12,855</b>	<b>19,240</b>	<b>91.27</b>	<b>640</b>	<b>1</b>

\* Change compared to 2005 assessment (revised).

### 7.19.6 Altitude Zone wise Forest Cover

Forest cover of the State in different altitude zones is given in Table 7.19.4.

**Table 7.19.4: Altitude zone wise forest cover**

(area in km<sup>2</sup>)

Altitude Zone	VDF	MDF	OF	Total
0-500m	1	1,813	6,791	8,605
500-1000m	34	2,921	4,520	7,475
1000-2000m	98	1,516	1,544	3,158
2000-3000m	1	1	0	2
<b>Total</b>	<b>134</b>	<b>6,251</b>	<b>12,855</b>	<b>19,240</b>

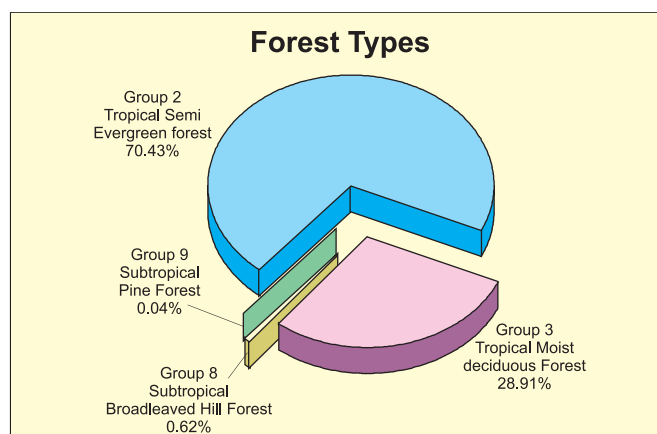
(based on SRTM Digital Elevation Model)

### 7.19.7 Forest Cover in different Forest Types

The State has 6 different forest types as per Champion & Seth's classification system (1968), belonging to 4 type groups viz Tropical Semi Evergreen, Tropical Moist Deciduous, Subtropical Broadleaved Hill and Subtropical Pine Forests. Distribution of forest cover in different forest type groups found in the State is given in the pie diagram.

### 7.19.8 Tree Cover

Tree cover of the State has been estimated using sample data of TOF inventory collected over a period of six years i.e. 2002-08. The estimated tree cover in the State is 172 km<sup>2</sup> which is 0.82% of the geographical area of the State. Two districts of the State



(Aizawl and Saiha) have been inventoried. The forest and tree cover of the State is presented in the Table 7.19.5.

**Table 7.19.5: Forest & tree cover**

(area in km<sup>2</sup>)

Category	Area	% of Geographical area
Tree Cover	172	0.82
Forest Cover	19,240	91.27
<b>Forest &amp; Tree Cover</b>	<b>19,412</b>	<b>92.09</b>