

## 9.26 TRIPURA

### 9.26.1 Introduction

Tripura, is situated in the north eastern part of the country and shares international border with Bangladesh from three sides. The area of the state is 10,491 km<sup>2</sup> which forms 0.32% of country's geographical area. The state lies between latitude 22°57' N and 24°33' N and longitude 91°10' and 92°20' E in North Eastern Region physiographic zone. The climate ranges from moist to humid. The temperature in the state ranges from 21°C to 38°C in summer and 4°C and 33°C in the winter. The

annual rainfall varies between 2,250 mm to 2,500 mm.

As per *Census 2011*, the population of the state is 3.67 million, which constitutes 0.30% of the country's population. Rural population constituted 73.82% and urban population 26.18%. The population density is 350 persons per km<sup>2</sup>. The livestock population of the state is 1.87 million (*Livestock Census 2007*).

Land use pattern of the state is given in Table 9.26.1.

**Table 9.26.1: Land Use Pattern**

Land Use	Area in '000 ha	Percentage
Total geographical area	1,049	
Reporting area for land utilization	1,049	100.00
Forests	606	57.73
Not available for cultivation	134	12.77
Permanent pastures and other grazing lands	0	0.00
Land under misc. tree crops and groves	27	2.57
Culturable wasteland	1	0.10
Fallow lands other than current fallows	1	0.10
Current fallows	1	0.10
Net area sown	280	26.63

Source: *Land Use Statistics, Ministry of Agriculture, GOI, 2008-09.*

### 9.26.2 Recorded Forest Area

The recorded forest area of the state is 6,294 km<sup>2</sup> which constitutes 60.02% of its geographical area. Reserved Forests constitute 66.33%, Protected Forests 0.03% and Unclassed Forests constitute 33.64%.

### 9.26.3 Protected Areas

Tripura has two National Parks and four Wildlife Sanctuaries covering an area of 603.64 km<sup>2</sup>, constituting 5.75% of the total geographical area of the state.

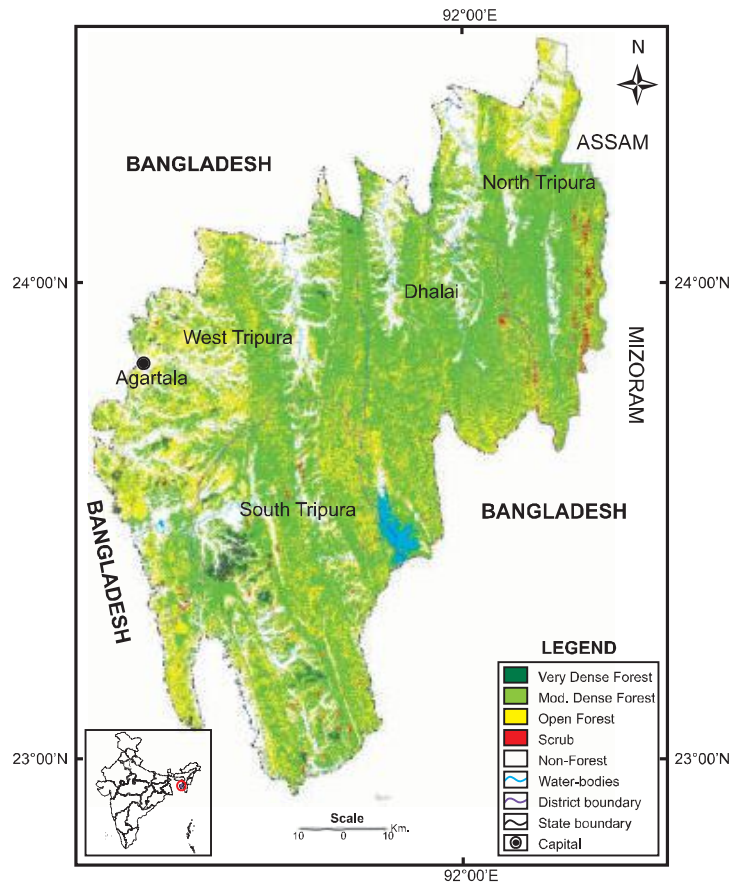
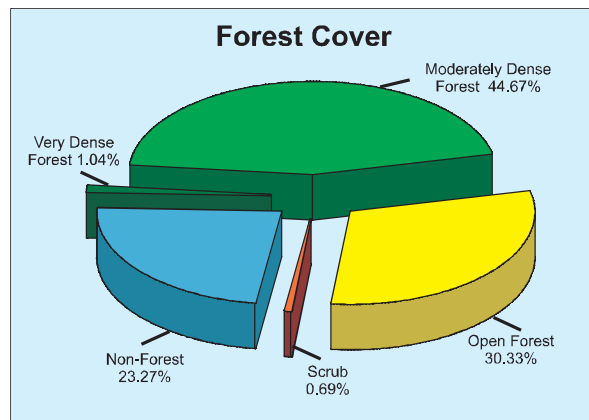


Fig 9.26 Forest cover map of Tripura

**9.26.4 Forest Cover**

The forest cover in the state, based on interpretation of satellite data of January 2009, is 7,977 km<sup>2</sup> which is 76.04% of the state's geographical area. In terms of forest canopy density classes, the state has 109 km<sup>2</sup> area under very dense forests, 4,686 km<sup>2</sup> area under moderately dense forests and 3,182 km<sup>2</sup> area under open forests. The forest cover of the state is shown in Fig. 9.26.



## Forest and Tree Resources in States and Union Territories

District-wise forest cover in different canopy density classes along with the changes

compared to 2009 Assessment and scrub is given in Table 9.26.2.

**Table 9.26.2: District-wise Forest Cover** (Area in km<sup>2</sup>)

District	Geographical Area	2011 Assessment				Percent of GA	Change*	Scrub
		Very Dense Forest	Mod. Dense Forest	Open Forest	Total			
Dhalai <sup>TH</sup>	2,402	3	1,262	647	1,912	79.60	-5	9
North Tripura <sup>TH</sup>	2,039	10	963	541	1,514	74.25	1	36
South Tripura <sup>TH</sup>	3,057	73	1,387	1,013	2,473	80.90	-2	22
West Tripura <sup>TH</sup>	2,993	23	1,074	981	2,078	69.43	-2	5
<b>Total</b>	<b>10,491</b>	<b>109</b>	<b>4,686</b>	<b>3,182</b>	<b>7,977</b>	<b>76.04</b>	<b>-8</b>	<b>72</b>

\* Change figures are based on comparison of 2011 Assessment with that of 2009 after incorporating interpretational changes.

**Table 9.26.3: Forest Cover Change Matrix** (Area in km<sup>2</sup>)

2009 Assessment	2011 Assessment					Total 2009
	VDF	MDF	OF	Scrub	NF	
Very Dense Forest	109	0	0	0	0	<b>109</b>
Moderately Dense Forest	0	4684	8	0	10	<b>4702</b>
Open Forest	0	0	3174	0	0	<b>3174</b>
Scrub	0	2	0	69	0	<b>71</b>
Non Forest	0	0	0	3	2432	<b>2435</b>
<b>Total 2011</b>	<b>109</b>	<b>4686</b>	<b>3182</b>	<b>72</b>	<b>2442</b>	<b>10491</b>
Change	0	-16	8	1	7	

### 9.26.5 Forest Cover Change

Although there is a decrease of 8 km<sup>2</sup> in the forest cover, when combined with interpretational change of 88 km<sup>2</sup> on the negative side, the net decrease in forest cover of the state in comparison to previous assessment (ISFR 2009) works out to 96 km<sup>2</sup>.

### Reasons for Change detected in 2011 Assessment

Reasons for changes in forest cover as detected during interpretation of satellite data as also of points visited in field during ground truthing are enumerated hereunder:

- a. Changes on downward side are mainly due to clearings for rubber plantations and shifting cultivation practices.
- b. Availability of better data and information from collateral sources has helped in correcting previous interpretation leading

to interpretational changes to the extent of 88 km<sup>2</sup>.

### 9.26.6 Altitude Zone-wise Forest Cover

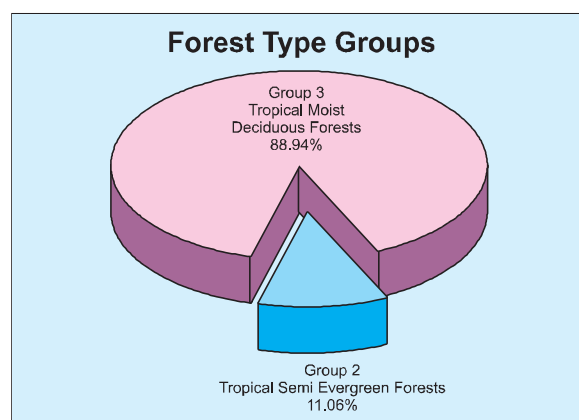
Forest cover of the state in different altitude zones is given in Table 9.26.4.

Table 9.26.4: Altitude Zone-wise Forest Cover				(Area in km <sup>2</sup> )
Altitude Zone	VDF	MDF	OF	Total
0-500m	109	4,645	3,161	<b>7,915</b>
500-1000m	0	41	21	<b>62</b>
<b>Total</b>	<b>109</b>	<b>4,686</b>	<b>3,182</b>	<b>7,977</b>

(Based on SRTM, Digital Elevation Model)

### 9.26.7 Forest Cover in Different Forest Types

Forest type mapping using satellite data was carried out by Forest Survey of India. The state has six forest types as per Champion & Seth Classification system (1968) which belong to two forest type groups, viz. Tropical Semi Evergreen and Tropical Moist Deciduous Forests. Distribution of forest cover in different forest type groups found in the state on the basis of the forest cover is given in the pie diagram.



### 9.26.8 Tree Cover

Tree cover of the state has been estimated using TOF inventory data collected over a period of six years, i.e. 2004-10. The estimated

tree cover in the state is 184 km<sup>2</sup> which is 1.75% of the geographical area of the state. Only one district of the state has been inventoried. The forest and tree cover of the state is presented in Table 9.26.5.

Table 9.26.5: Forest and Tree Cover			(Area in km <sup>2</sup> )
Category	Area	% of Geographical Area	
Tree Cover	184	1.75	
Forest Cover	7,977	76.04	
<b>Forest and Tree Cover</b>	<b>8,161</b>	<b>77.79</b>	

### 9.26.9 Growing Stock

The growing stock in the recorded forest area has been estimated on the basis of current forest cover map, forest type map and forest

inventory data. For trees outside forests (TOF), the same has been estimated using TOF inventory data. It is presented in the Table 9.26.6.

**Table 9.26.6: Growing Stock** (million cum)

Forest	TOF	Total
21.864	7.391	29.255

### 9.26.10 Bamboo

The extent of bamboo bearing area in the forests of the state is 3,246 km<sup>2</sup>. Density-wise

details, number of culms by soundness and equivalent green weight are given in following tables:

**Table 9.26.7: Bamboo bearing area by density in recorded forest area (Area in km<sup>2</sup>)**

Recorded Forest Area	Pure bamboo	Dense bamboo	Scattered bamboo	Clumps hacked	Bamboo regeneration	No bamboo
6,294	67	2,039	1,079	43	18	3,048

**Table 9.26.8: Estimated number of bamboo culms and equivalent green weight**

Number of culms (in millions)				Equivalent Green Weight (in 000' tonnes)		
Green	Dry	Decayed	Total	Green	Dry	Total
735	70	25	830	4198	767	4965