

## 8.16 MAHARASHTRA

### 8.16.1 Introduction

Maharashtra, the third largest State of the country is located in the western part of India. It has an area of 30.77 million ha which is 9.36 % of the country's total area. It lies between lat 15°35' and 22°02' N and long 72°36' and 80°54' E.

The State has five distinct physiographic regions, namely, Deccan plateau, Central Highlands, Eastern Chhotanagpur Plateau, Eastern Ghats and Coastal Plains. Fluvial action by the Krishna, Bhima, Godavari, Tapi-Purna and Wardha-Wainganga river systems has worked to form broad open river valleys alternating with plateau interfluvies.

The State enjoys a tropical monsoon climate. The annual temperature ranges from 25°C to 27.5°C. The average annual rainfall of the State ranges between 1,600 and 2,000 mm.

The total population of the State is 96.87 million (*Census 2001*), which constitutes 9.4% of the country's population. The rural population is 57.6% and urban 42.4%. The Scheduled Tribes constitute 8.9% of the population. The population density is 314 per km<sup>2</sup>. The State has a livestock population of 36.76 million (*Livestock Census 2003*), which has marginally increased since the census of 1992. Land use pattern of Maharashtra is given in Table 8.16a.

### 8.16.2 Forest Resources

The recorded forest area is 61,939 km<sup>2</sup>, which is 20.13 % of the State's total geographic area. By legal status, Reserved Forests constitute 79.46 %, Protected Forests, 13.23 %, and Unclassed Forests, 7.31 %.

Major forest types occurring in the State are Tropical Semi Evergreen, Tropical Moist Deciduous, Tropical Dry

Deciduous, Tropical Thorn, Subtropical Broadleaved Hill, and Littoral and Swamp Forest.

Among the non-wood forest products, bamboo and Tendu leaves constitute the important resource.

### 8.16.3 Protected Areas

There are 6 National Parks and 35 Wildlife Sanctuaries covering an area of 1.55 million ha, constituting about 5% of total geographic area. There are three Tiger Reserves namely, Melghat, Tadoba-Andhari, and Pench covering an area of 0.26 million ha. A wetland of national importance Ujani, is located in Sholapur district.

### 8.16.4 Joint Forest Management

Joint Forest Management began in the State in 1990, and gathered momentum in the year 1996-97 under the World Bank aided Maharashtra Forestry Project. There are 10,242 JFM Committees managing about 2.5 million ha of forest area as on March 2005, which is about 40% of the forest area of the State. More than 18 lakh families are involved in this programme, of which around 5 lakh families belong to the Scheduled Tribes. Under JFM, communities have 100 percent entitlement to NTFP species excluding Tendu and cashew.

*Source: Proceedings of the National Workshop on JFM, MoEF, 2005.*

### 8.16.5 Forest Cover

The forest cover of the State, based on satellite data of October-December 2004, is 47,476 km<sup>2</sup>, which is 15.43% of

**Table 8.16a: Land use pattern**

Land Use	Area in '000 ha	Percentage
Total geographical area	30,771	
Reporting area for land utilization	30758	100.00
Forests	5926	19.27
Not available for cultivation	2997	9.74
Permanent pastures and other grazing lands	1341	4.36
Land under misc. tree crops & groves	226	0.73
Culturable wasteland	903	2.94
Fallow lands other than current fallows	1171	3.81
Current Fallows	1189	3.87
Net area sown	17636	57.34

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

the geographic area. Very dense forest is 8,191 km<sup>2</sup>, moderately dense forest, 20,193 km<sup>2</sup>, and open forest, 19,092 km<sup>2</sup>. The forest cover of the State is shown in Fig. 8.16.

A decrease of 38 km<sup>2</sup> of forest cover has been assessed in the present assessment as compared to the previous assessment (based on satellite data of October-December 2002).

The change matrix, given in Table 8.16b reveals that there has been decrease of 10 km<sup>2</sup> in very dense forest and 28 km<sup>2</sup> in moderately dense forest. Scrub has increased by 73 km<sup>2</sup>.

The field verification by the Forest Survey of India reveals that the forest cover loss, particularly in the districts of Chandrapur, Bhandara, Gadchiroli, Gondia, and Nagpur is mainly on account of the departmental fellings by the Forest Development Corporation of Maharashtra Ltd.

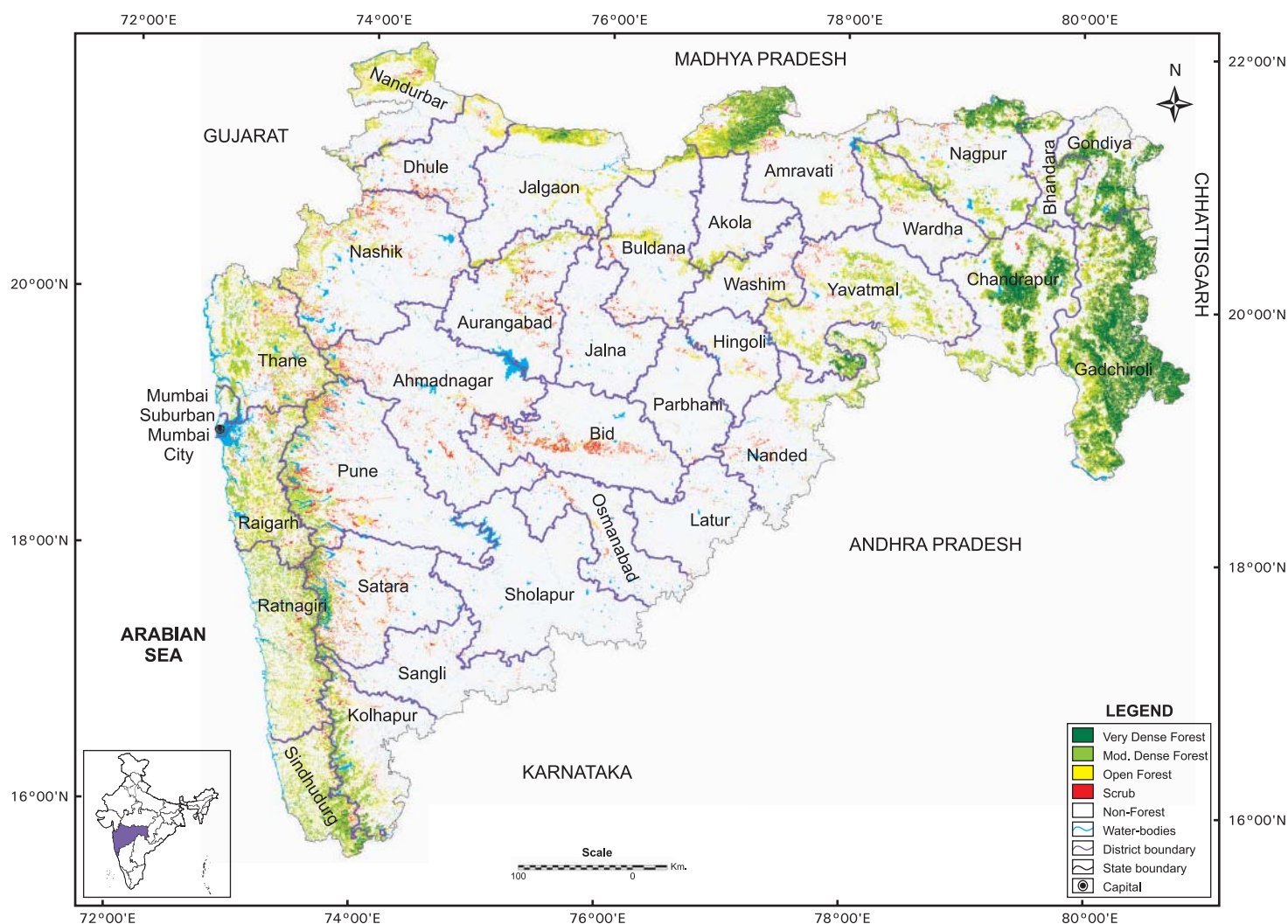
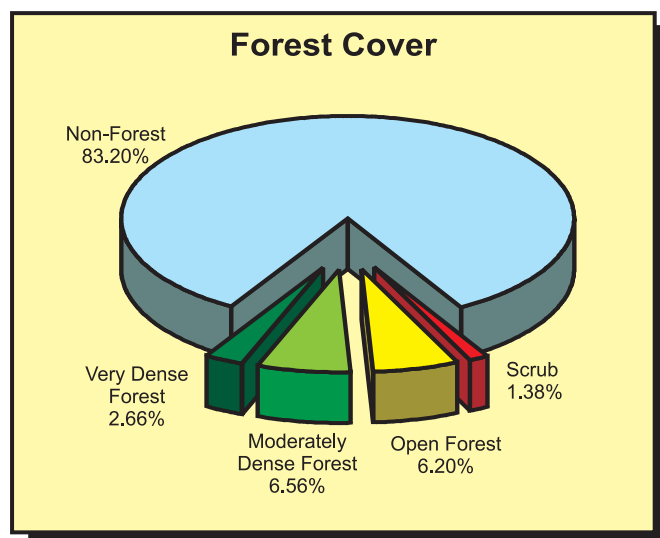


Fig 8.16 : Forest Cover Map of Maharashtra

## State of Forest Report 2005

The district wise details of very dense forest, moderately dense forest, open forest and scrub, along with

the changes compared to 2003 assessment, have been provided in Table 8.16c.

**Table 8.16b: Forest cover change matrix**

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

2003 Assessment(Data of Oct.-Dec. 2002)	2005 Assessment (Data of Oct.-Dec. 2004)					Total 2003
	VDF	MDF	OF	Scrub	NF	
Very Dense Forest	8,191	1	3	0	6	8,201
Moderately Dense Forest	0	20,187	16	0	18	20,221
Open Forest	0	3	19,058	3	28	19,092
Scrub	0	0	2	4,166	7	4,175
Non Forest	0	2	13	79	255,930	256,024
<b>Total 2005</b>	<b>8,191</b>	<b>20,193</b>	<b>19,092</b>	<b>4,248</b>	<b>255,989</b>	<b>307,713</b>
Net Change	-10	-28	0	73	-35	

**Table 8.16c: District-wise forest cover**

Number of Districts: 35

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

District	Geographic area	2005 Assessment				Percent of G.A.	Change	Scrub
		Very dense forest	Mod. dense forest	Open forest	Total			
Ahmadnagar <sup>T</sup>	17,048	0	72	173	245	1.44	1	350
Akola	5,390	16	99	190	305	5.66	-2	9
Amravati <sup>T</sup>	12,210	661	1,384	1,048	3,093	25.33	-2	127
Aurangabad	10,107	25	109	331	465	4.60	1	264
Bhandara	3,588	131	510	217	858	23.91	-1	21
Bid	10,693	0	22	96	118	1.10	2	422
Buldana	9,661	35	156	422	613	6.35	0	87
Chandrapur <sup>T</sup>	11,443	1,256	1,625	1,088	3,969	34.68	-4	56
Dhule <sup>T</sup>	7,189	0	86	382	468	6.51	-1	147
Gadchiroli <sup>T</sup>	14,412	4,242	3,668	2,155	10,065	69.84	-1	23
Gondia	5,733	816	845	460	2,121	37.00	-1	32
Hingoli	4,686	0	16	103	119	2.54	-3	23
Jalgaon <sup>T</sup>	11,765	51	394	837	1,282	10.90	1	35
Jalna	7,718	1	18	46	65	0.84	0	44
Kolhapur <sup>H</sup>	7,685	101	940	616	1,657	21.56	-3	99
Latur	7,157	0	1	7	8	0.11	0	18
Mumbai City	157	0	0	2	2	1.27	0	0
Mumbai Suburban	446	0	58	53	111	24.89	0	0
Nagpur <sup>T</sup>	9,892	365	915	700	1,980	20.02	-2	70
Nanded	10,528	62	424	393	879	8.35	-1	87
Nandurbar	5,961	0	447	804	1,251	20.99	-4	44
Nashik <sup>TH</sup>	15,530	0	342	773	1,115	7.18	0	427
Osmanabad	7,569	0	6	42	48	0.63	-3	48
Parbhani	6,355	0	9	52	61	0.96	-1	16

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

District	Geographic area	2005 Assessment				Percent of G.A.	Change	Scrub
		Very dense forest	Mod. dense forest	Open forest	Total			
Pune <sup>TH</sup>	15,643	0	702	659	1,361	8.70	-1	567
Raigarh <sup>H</sup>	7,152	13	1,186	1,237	2,436	34.06	1	169
Ratnagiri <sup>H</sup>	8,208	37	1,515	1,306	2,858	34.82	-2	122
Sangli	8,572	0	83	40	123	1.43	0	43
Satara <sup>H</sup>	10,480	119	426	306	851	8.12	-1	368
Sholapur	14,895	0	11	36	47	0.32	-2	12
Sindhudurg <sup>H</sup>	5,207	115	1,251	915	2,281	43.81	-2	55
Thane <sup>T</sup>	9,558	0	1,230	1,627	2,857	29.89	-2	239
Wardha	6,309	12	415	428	855	13.55	0	57
Washim	5,184	7	101	221	329	6.35	0	41
Yavatmal <sup>T</sup>	13,582	126	1,127	1,327	2,580	19.00	-5	126
<b>Total</b>	<b>307,713</b>	<b>8,191</b>	<b>20,193</b>	<b>19,092</b>	<b>47,476</b>	<b>15.43</b>	<b>-38</b>	<b>4,248</b>

### 8.16.6 Tree Cover

Tree cover of Maharashtra has been estimated following a sampling based approach. A separate exercise was carried out where high resolution satellite data (5.8m) has been used for identification of tree patches for field inventory.

Field inventory has been carried out on 1,543 sample plots spread over 11 districts of the State between 2002-06 and the estimated tree cover in the State is 8,978 km<sup>2</sup>.

The forest and tree cover of the State is presented in the Table 8.16d.

Table 8.16d: Forest & tree cover

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

Category	Area	% of Geographical Area
Tree Cover	8,978	2.92
Forest Cover	47,476	15.43
<b>Forest &amp; Tree Cover</b>	<b>56,454</b>	<b>18.35</b>