

7.16 MAHARASHTRA

7.16.1 Introduction

Maharashtra is in the western part of India with a long coast along Arabian sea; it has an area of 307,713 km² which is 9.36 % of the country's total area. It lies between latitude 15°35' and 22°02' N and longitude 72°36' and 80°54' E. Physiographically, the State can be divided into five distinct regions, namely, Deccan plateau, Central Highlands, Eastern Chhotanagpur Plateau, Eastern Ghats and Coastal Plains. Krishna, Bhima, Godavari, Tapi-Purna and Wardha-Wainganga are important rivers of the State.

The State has a tropical monsoon climate with mean annual temperature ranging between 25°C & 27.5°C and average annual rainfall between 1,600 and 2,000 mm.

As per Census 2001, the total population of the State is 96.87 million of which the rural population constituted 57.6%. The population density is 314 persons per km². The Scheduled Tribes constitute 8.9% of the population. The projected population of the State is 109.55 million (as projected by the Office of RGI for 2009) which constitutes 9.3% of the country's population. 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 7.16.1.

7.16.2 Recorded Forest Area

The recorded forest area of the State is 61,939 km². Reserved Forests constitute 79.47%, Protected Forests 13.23%, and Unclassed Forests 7.30% of the total forest area. About one fifth of the State's geographical area is under recorded forests.

7.16.3 Protected Areas

Maharashtra has 6 National Parks (1,274 km²) and 35 Wildlife Sanctuaries (14,152 km²) covering an area of 15,426 km² which constitutes 5.01% of the State's geographical area. There are 3 Tiger Reserves namely, Melghat, Tadoba-Andhari and Pench covering an area of 1,660 km². Ujni, a wetland of national importance, is located in Sholapur district.

7.16.4 Joint Forest Management

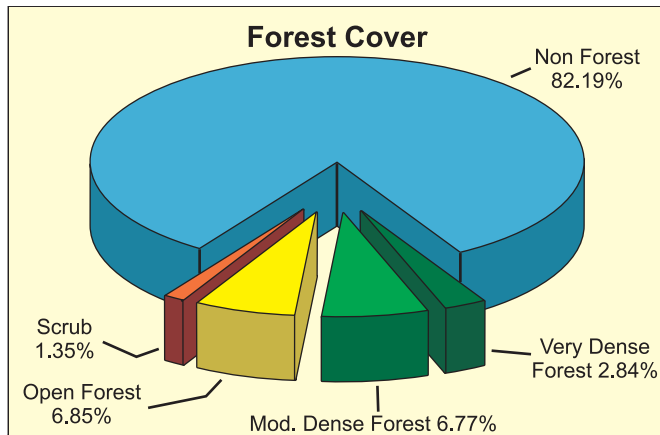
Joint Forest Management started in the State in 1990. With the aid of a World Bank project, it gathered momentum in the year 1996-97. There are 10,242 JFM Committees managing about 2.5 million ha of forest area which is about 40% of the forest area of the State. More than 18 lakh families are involved 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: MoEF, 2005

Table 7.16.1: Land use pattern

Land Use	Area in '000 ha	Percentage
Total geographical area	30,771	
Reporting area for land utilization	30,758	100.00
Forests	5,214	16.95
Not available for cultivation	3,131	10.18
Permanent pastures and other grazing lands	1,252	4.07
Land under misc. tree crops & groves	249	0.81
Culturable wasteland	914	2.97
Fallow lands other than current fallows	1,199	3.90
Current fallows	1,325	4.31
Net area sown	17,475	56.81

Source: Land Use Statistics, Ministry of Agriculture, GOI, 2006.



7.16.5 Forest Cover

The forest cover in the State, based on interpretation of satellite data of Oct - Dec 2006, is 50,650 km², which is 16.46% of the State's geographical

area. In terms of forest canopy density classes, the State has 8,739 km² very dense forest, 20,834 km² moderately dense forest and 21,077 km² open forest. The distribution of forest cover of the State is shown in Fig. 7.16.

Comparison of the current forest cover (satellite data of Oct - Dec 2006) with the previous assessment (satellite data of Oct - Dec 2004) shows a loss of 11 km² of forest cover.

The change matrix, given in Table 7.16.2, reveals that there has been a decrease of 8 km² in the very dense forest, 13 km² in moderately dense forest and an increase of 10 km² in open forest.

The change from forest to non forest has been mainly on account of coupe working in the Chandrapur

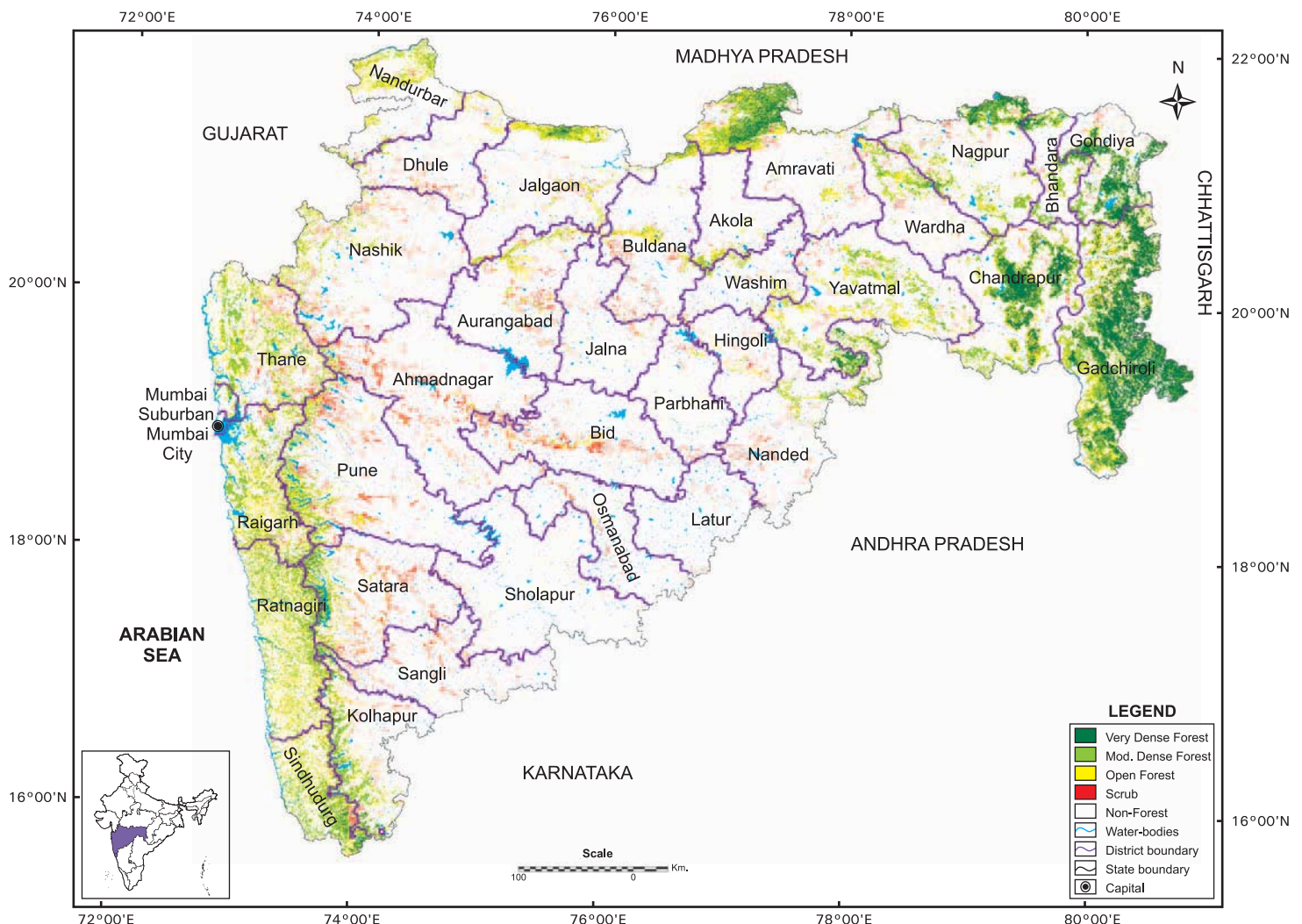


Fig 7.16 : Forest cover map of Maharashtra

Table 7.16.2: Forest cover change matrix

(area in km²)

2005 Assessment (Data of Oct -Dec 2004)	2007 (Data of Oct - Dec 2006)					Total of 2005
	VDF	MDF	OF	Scrub	NF	
Very Dense Forest	8,739	0	2	0	6	8,747
Moderately Dense Forest	0	20,834	5	0	8	20,847
Open Forest	0	0	21,063	0	4	21,067
Scrub	0	0	0	4,157	0	4,157
Non-Forest	0	0	7	0	252,888	252,895
Total of 2007	8,739	20,834	21,077	4,157	252,906	307,713
Net Change	-8	-13	10	0	11	

Table 7.16.3: District-wise forest cover in 2007

Number of districts: 35

(area in km²)

District	Geographical area	Very dense forest	Mod. dense forest	Open forest	Total	% of G.A.	Change*	Scrub
Ahmadnagar ^T	17,048	0	69	217	286	1.68	0	555
Akola	5,390	11	96	215	322	5.97	0	8
Amravati ^T	12,210	655	1,455	1,077	3,187	26.10	0	116
Aurangabad	10,107	19	101	437	557	5.51	0	193
Bhandara	3,588	130	546	215	891	24.83	0	21
Bid	10,693	0	13	162	175	1.64	0	357
Buldana	9,661	23	137	429	589	6.10	0	163
Chandrapur ^T	11,443	1,342	1,592	1,140	4,074	35.60	-9	56
Dhule ^T	7,189	0	70	251	321	4.47	0	103
Gadchiroli ^T	14,412	4,733	3,396	1,966	10,095	70.05	1	20
Gondia	5,733	884	824	303	2,011	35.08	0	37
Hingoli	4,686	0	10	104	114	2.43	0	47
Jalgaon ^T	11,765	52	363	770	1,185	10.07	0	69
Jalna	7,718	1	16	48	65	0.84	0	55
Kolhapur ^H	7,685	65	1,038	672	1,775	23.10	0	88
Latur	7,157	0	0	5	5	0.07	0	25
Mumbai City	157	0	0	2	2	1.27	0	0
Mumbai Suburban	446	0	62	58	120	26.91	0	0
Nagpur ^T	9,892	372	953	698	2,023	20.45	2	77
Nanded	10,528	60	434	420	914	8.68	0	128
Nandurbar	5,961	0	418	796	1,214	20.37	0	30
Nashik TH	15,530	0	351	738	1,089	7.01	0	319
Osmanabad	7,569	0	3	40	43	0.57	0	49
Parbhani	6,355	0	4	46	50	0.79	0	49
Pune TH	15,643	0	757	975	1,732	11.07	0	493
Raigarh ^H	7,152	13	1,248	1,603	2,864	40.04	0	70
Ratnagiri ^H	8,208	33	1,911	2,255	4,199	51.16	-1	2
Sangli	8,572	0	95	49	144	1.68	0	156
Satara ^H	10,480	119	569	588	1,276	12.18	0	365
Sholapur	14,895	0	8	39	47	0.32	0	50
Sindhudurg ^H	5,207	89	1,372	1,112	2,573	49.41	-3	47
Thane ^T	9,558	0	1,281	1,631	2,912	30.47	0	222
Wardha	6,309	10	419	430	859	13.62	-1	62
Washim	5,184	5	113	214	332	6.40	0	28

Forest and Tree Resources in States and Union Territories

District	Geographical area	Very dense forest	Mod. dense forest	Open forest	Total	% of G.A.	Change*	Scrub
Yavatmal [†]	13,582	123	1,110	1,372	2,605	19.18	0	97
Total	307,713	8,739	20,834	21,077	50,650	16.46	-11	4,157

* Change compared to 2005 assessment (revised).

district, the clearance of private forest areas in the Konkan region and increase in the water level of some water bodies. The gain in the forest area has been mainly on account of plantations by the Maharashtra Forest Department and Forest Development Corporation of Maharashtra as also due to raising of private plantations and orchards of cashew, mango etc in the Konkan region.

District wise forest cover in different canopy density classes and scrub along with the changes compared to 2005 assessment are given in the Table 7.16.3.

7.16.6 Altitude Zone wise Forest Cover

Forest cover of the State in different altitude zones is given in Table 7.16.4.

Table 7.16.4: Altitude zone wise forest cover

(area in km²)

Altitude Zone	VDF	MDF	OF	Total
0-500m	7,589	15,914	15,658	39,161
500-1000m	1,109	4,599	5,102	10,810
1000-2000m	41	321	317	679
Total	8,739	20,834	21,077	50,650

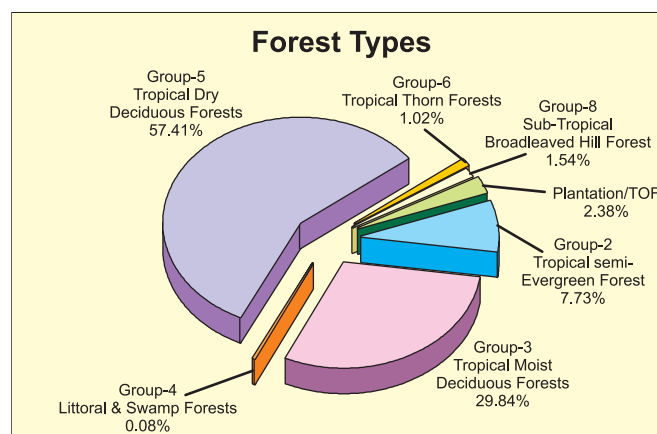
(based on SRTM Digital Elevation Model)

7.16.7 Forest Cover in different Forest Types

As per Champion & Seth Classification, the State has 16 forest types which belong to 6 forest type groups viz Tropical Semi Evergreen, Tropical Moist Deciduous, Littoral & Swamp, Tropical Dry Deciduous, Tropical Thorn and Subtropical Broadleaved Hill Forests. Distribution of forest cover in different forest type groups found in the State is given in the pie diagram.

7.16.8 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 9,466 km² which is 3.08 % of the geographical area of the State. Fourteen districts of the



State (Akola, Aurangabad, Bid, Gondiya, Jalna, Nagpur, Nanded, Nashik, Ratnagiri, Satara, Sindhudurg, Thane, Wardha and Washim) have been inventoried. The forest and tree cover of the State is presented in the Table 7.16.5.

Table 7.16.5: Forest & tree cover

(area in km²)

Category	Area	% of Geographical area
Tree Cover	9,466	3.08
Forest Cover	50,650	16.46
Forest & Tree Cover	60,116	19.54