

7.27 UTTAR PRADESH

7.27.1 Introduction

Uttar Pradesh, the most populous State of the country, is situated between 23°52' and 30°24' N latitude and 77°05' and 84°38' E longitude. The State shares international border with Nepal and is bounded by the States of Uttarakhand, Himachal Pradesh, Haryana, Delhi, Rajasthan, Madhya Pradesh, Chhattisgarh, Bihar and Jharkhand. Geographical area of the State is 240,928 km² which constitutes 7.3% of the total area of the country. The State can be divided into two physiographic zones namely; the vast Gangetic plains having highly fertile alluvial soil and the smaller Southern Hill Plateau having predominantly rocky strata. The major rivers flowing through the State are Ganga, Yamuna, Ramganga, Gomti and Ghaghra.

The climate of Uttar Pradesh is characterized by temperatures ranging from 5°C during winter to 45°C in summer. Annual rainfall varies from 1,000 mm to 1,200 mm of which about 90% occurs during June to September by the southwest monsoon.

Population of the State is 166.05 million (Census 2001) constituting 16.2% of country's population. Rural and Urban population is 79.22% and 20.78% respectively. Population density is 689 persons per km². The projected population of the State by the Office of RGI, for the year 2009 is 193.76 million. Population of the Scheduled Tribes in the State is negligible and is confined to a few districts. The livestock population of the State is 58.53 million (Livestock Census 2003),

which is the largest in the country and constitutes nearly 12% of the country's total livestock.

Land use pattern of the State is given in Table 7.27.1.

7.27.2 Recorded Forest Area

The recorded forest area of the State is 16,583 km² which is 6.88 % of its geographical area. Reserved Forests constitute 70.31%, Protected Forests 8.56% and Unclassed Forests 21.12% of the total forest area.

7.27.3 Protected Areas

Uttar Pradesh has 1 National Park and 23 Wildlife Sanctuaries covering an area of 5,712 km² which constitutes 2.37% of the State's geographical area. The oldest Wildlife Sanctuary of the country, the Chandraprabha Wildlife Sanctuary is located in Uttar Pradesh. Uttar Pradesh has 1 Tiger Reserve namely, Dudhwa Katarniaghat (extension) which is also famous for swamp deer and rhinoceros.

7.27.4 Joint Forest Management

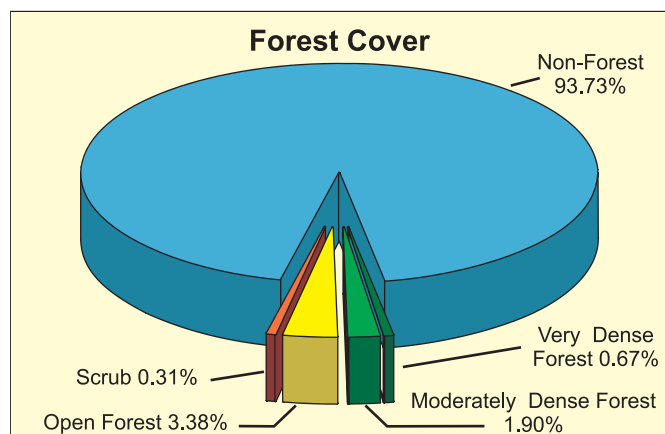
Joint Forest Management started in the State in 1992. There are 1,892 JFM Committees managing about 80,000 ha of forest area. More than 0.8 million families are involved in this programme, of which around 83,000 families belong to the Scheduled Tribes.

Source: MoEF, 2005.

Table 7.27.1: Land use pattern

Land Use	Area in '000 ha	Percentage
Total geographical area	24,093	
Reporting area for land utilization	24,201	100.00
Forests	1,654	6.83
Not available for cultivation	3,215	13.28
Permanent pastures and other grazing lands	65	0.27
Land under misc. tree crops & groves	376	1.55
Culturable wasteland	439	1.81
Fallow lands other than current fallows	550	2.27
Current fallows	1,270	5.25
Net area sown	16,633	68.73

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



7.27.5 Forest Cover

The forest cover in the State, based on interpretation of satellite data of Oct - Dec 2006, is 14,341 km², which is 5.95% of the State's geographical area. In

terms of forest canopy density classes, the State has 1,626 km² very dense forest, 4,563 km² moderately dense forest and 8,152 km² open forest. The distribution of forest cover of the State is shown in Fig. 7.27.

Comparison of the current forest cover (satellite data of Oct - Dec 2006) with the previous assessment (satellite data of Oct - Dec 2004) shows that there is decrease of 5 km² in forest cover.

The change matrix, given in Table 7.27.2, reveals that there has been a decrease of 6 km² in the moderately dense forest and increase of 1 km² in open forest.

District wise forest cover in different canopy density classes and scrub is given in the Table 7.27.3.



Fig. 7.27 : Forest cover map of Uttar Pradesh

Table 7.27.2: 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	1,626	0	0	0	0	1,626
Moderately Dense Forest	0	4,563	2	0	4	4,569
Open Forest	0	0	8,149	0	2	8,151
Scrub	0	0	0	745	5	750
Non-Forest	0	0	1	0	225,831	225,832
Total of 2007	1,626	4,563	8,152	745	225,842	240,928
Net Change	0	-6	1	-5	10	

Table 7.27.3: District-wise forest cover in 2007

Number of districts: 70

(area in km²)

District	Geographical area	Very dense forest	Mod. dense forest	Open forest	Total	% of G.A.	Change*	Scrub
Agra	4,027	0	67	209	276	6.85	1	74
Aligarh	3,650	0	7	59	66	1.81	0	2
Allahabad	5,137	0	27	68	95	1.85	-1	23
Ambedkar Nagar	2,337	0	2	32	34	1.45	0	0
Azamgarh	4,234	0	1	26	27	0.64	-2	0
Bagpat	1,321	0	5	12	17	1.29	1	0
Bahraich & Shravasti	6,878	290	315	243	848	12.33	0	4
Balia	3,349	0	0	25	25	0.75	1	0
Balrampur	2,981	225	188	116	529	17.75	-2	3
Banda	4,532	0	26	77	103	2.27	-1	29
Barabanki	4,402	0	4	79	83	1.89	-2	2
Bareilly	4,120	0	7	37	44	1.07	1	0
Basti	2,688	0	5	13	18	0.67	0	0
Bijnore	4,561	45	238	140	423	9.27	0	3
Badaun	5,168	0	12	30	42	0.81	1	8
Bulandshahar	2,910	0	33	82	115	3.95	-1	0
Chandauli	2,549	6	194	365	565	22.17	0	11
Chitrakoot	3,092	0	358	203	561	18.14	0	15
Deoria	2,538	0	1	14	15	0.59	0	0
Etah	4,446	0	9	90	99	2.23	-1	0
Etawa	2,311	0	44	142	186	8.05	0	42
Faizabad	2,174	0	5	50	55	2.53	0	0
Farrukhabad	2,181	0	13	33	46	2.11	0	0
Fatehpur	4,152	0	7	38	45	1.08	1	14
Firozabad	2,361	0	4	43	47	1.99	3	26
Gautam Buddha Nagar	1,442	0	12	23	35	2.43	0	0
Ghaziabad	2,590	0	18	31	49	1.89	1	0
Ghazipur	3,377	0	1	30	31	0.92	0	0
Gonda	4,003	0	60	47	107	2.67	0	0
Gorakhpur	3,321	0	40	24	64	1.93	0	0
Hamirpur	4,282	0	66	108	174	4.06	-2	39
Hardoi	5,986	0	7	114	121	2.02	1	0
Hathras	1,840	0	1	22	23	1.25	-2	0
Jyotiba Phule Nagar	2,249	0	24	61	85	3.78	2	0
Jalaun	4,565	0	65	179	244	5.35	1	48

continued

Forest and Tree Resources in States and Union Territories

(area in km²)

District	Geographical area	Very dense forest	Mod. dense forest	Open forest	Total	% of G.A.	Change*	Scrub
Jaunpur	4,038	0	11	40	51	1.26	-1	0
Jhansi	5,024	0	33	167	200	3.98	0	121
Kannauj	2,093	0	0	28	28	1.34	0	0
Kanpur Nagar & Dehat	6,176	0	12	97	109	1.76	-1	37
Kaushambi	2,124	0	7	20	27	1.27	-1	0
Kheri ^T	7,680	409	475	436	1,320	17.19	-1	1
Kushinagar	2,906	0	3	32	35	1.20	0	0
Lalitpur	5,039	0	128	442	570	11.31	0	41
Lucknow	2,528	0	116	185	301	11.91	-1	0
Maharajganj	2,952	239	113	109	461	15.62	0	2
Mahoba	2,884	0	22	73	95	3.29	1	96
Mainpuri	2,760	0	1	13	14	0.51	-1	0
Mathura	3,340	0	5	55	60	1.80	-2	6
Mau	1,713	0	0	7	7	0.41	0	0
Meerut	2,590	0	34	32	66	2.55	1	0
Mirzapur	4,521	0	323	543	866	19.16	-1	44
Moradabad	3,718	0	5	21	26	0.70	0	0
Muzaffarnagar	4,008	0	14	27	41	1.02	0	0
Oraiya	2,015	0	8	61	69	3.42	0	11
Pilibhit	3,499	340	158	200	698	19.95	0	0
Pratapgarh	3,717	0	25	68	93	2.50	-1	2
Rai Bareli	4,609	0	5	93	98	2.13	1	1
Rampur	2,367	4	26	47	77	3.25	2	0
Saharanpur	3,689	0	175	200	375	10.17	2	0
Sant Kabir Nagar	1,646	0	0	2	2	0.12	0	0
Sant Ravidas Nagar	1,015	0	0	1	1	0.10	0	0
Shahjahanpur	4,575	23	63	36	122	2.67	1	0
Siddharth Nagar	2,895	0	9	30	39	1.35	0	0
Sitapur	5,743	0	14	199	213	3.71	-2	2
Sonbhadra	6,788	45	870	1,626	2,541	37.43	1	38
Sultanpur	4,436	0	15	162	177	3.99	-1	0
Unnao	4,558	0	26	224	250	5.48	-1	0
Varanasi	1,528	0	1	11	12	0.79	0	0
Total	240,928	1,626	4,563	8,152	14,341	5.95	-5	745

* Change compared to 2005 assessment (revised).

7.27.6 Altitude Zone wise Forest Cover

Forest cover of the State in different altitude zones is given in Table 7.27.4.

Table 7.27.4: Altitude zone wise forest cover

(area in km²)

Altitude Zone	VDF	MDF	OF	Total
0-500m	1,625	4,355	7,948	13,928
500-1000m	1	208	204	413
Total	1,626	4,563	8,152	14,341

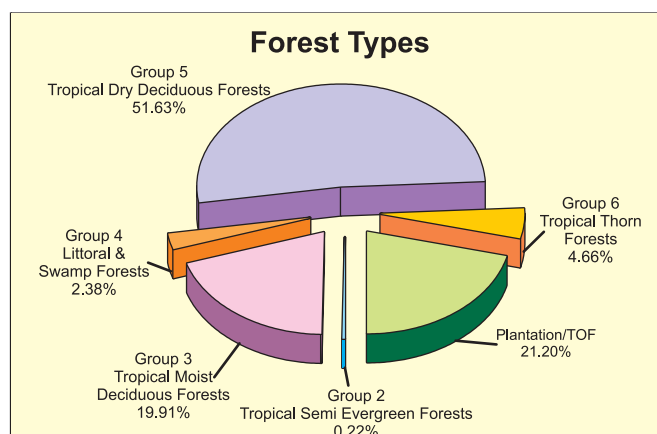
(based on SRTM Digital Elevation Model)

7.27.7 Forest Cover in different Forest Types

As per Champion & Seth Classification System (1968), the State has 27 forest types which belong to 5 forest type groups viz Tropical Semi Evergreen, Tropical Moist Deciduous, Littoral & Swamp, Tropical Dry Deciduous and Tropical Thorn Forests. Distribution of forest cover in different forest type groups found in the State is given in the pie diagram.

7.27.8 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 7,381 km² which is 3.06% of the geographical area of the State. Seventeen districts (Agra, Allahabad, Azamgarh, Bahraich, Balia, Bijnore,



Etah, Gautam Buddh Nagar, Gorakhpur, Jhansi, Kheri, Maharajganj, Mirzapur, Rai Bareli, Rampur, Shahjahanpur and Unnao) of the State have been inventoried. The forest and tree cover of the State is presented in the Table 7.27.5.

Table 7.27.5: Forest & tree cover

(area in km²)

Category	Area	% of Geographical area
Tree Cover	7,381	3.06
Forest Cover	14,341	5.95
Forest & Tree Cover	21,722	9.01