

9.6 DELHI

9.6.1 Introduction

The state of Delhi, comprising National Capital Territory, is located on the bank of river Yamuna. The geographical area of the state is 1,483 km² and lies between 28°22' N - 28°54' N latitude and 76°48' E - 77°23' E longitude. Delhi is divided into two zones, the Yamuna flood plains and Delhi ridge. The annual temperature varies from 3°C to 45°C. The rainfall ranges between 400 mm to 600 mm.

The population of Delhi is 16.75 million (*Census 2011*) which constitutes 1.38% of the country's population. The urban population is 97.50% and rural 2.50%. Delhi has highest population density of 11,297 persons per km² in the country. The livestock population is 0.42 million (*Livestock Census 2007*).

Land use pattern of Delhi is given in Table 9.6.1.

Table 9.6.1: Land Use Pattern

Land Use	Area in '000 ha	Percentage
Total geographical area	148	
Reporting area for land utilization	147	100.00
Forests	1	0.68
Not available for cultivation	92	62.59
Permanent pastures and other grazing lands	0	0.00
Land under misc. tree crops and groves	1	0.68
Culturable wasteland	10	6.80
Fallow lands other than current fallows	8	5.44
Current fallows	12	8.16
Net area sown	23	15.65

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

9.6.2 Recorded Forest Area

The recorded forest area in Delhi is 85 km² which is 5.73% of its geographical area. Reserved and Protected Forests constitute 91.76% and 8.24% of the total forest area respectively.

9.6.3 Protected Areas

The protected area network of Delhi includes 2 Wildlife Sanctuaries covering an area of 19.78 km².

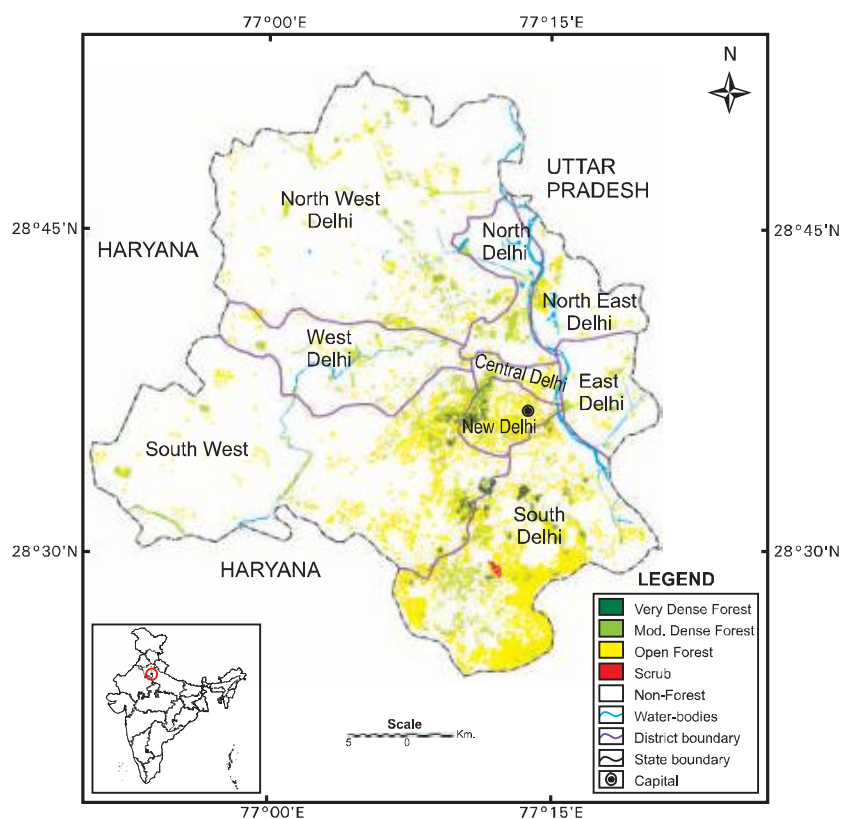
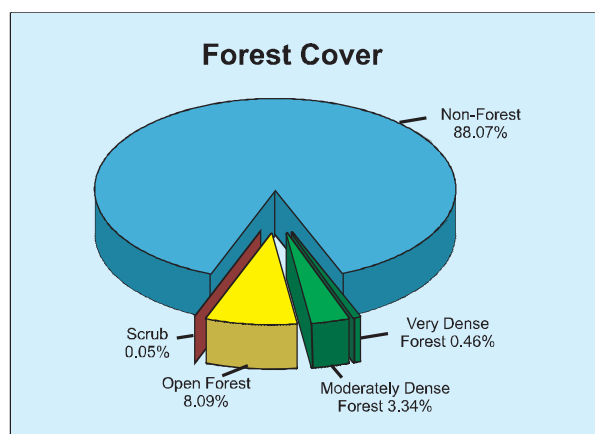


Fig. 9.6 Forest Cover Map of Delhi

9.6.4 Forest Cover

The forest cover in the state, based on interpretation of satellite data of Nov-Dec 2008, is 176.20 km² which is 11.88% of the state's geographical area. In terms of forest

canopy density classes, the state has 6.76 km² area under very dense forest, 49.48 km² area under moderately dense forest and 119.96 km² area under open forest. The forest cover of the state is shown in Fig.9.6.



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District-wise forest cover in different canopy density classes along with the changes compared to 2009 assessment are given in Table 9.6.2.

Table 9.6.2 District-wise Forest Cover (Area in km²)

District	Geographical Area	2011 Assessment				Percent of GA	Change	Scrub
		Very Dense Forest	Mod. Dense Forest	Open Forest	Total			
Central Delhi	25	0	2.23	2.82	5.05	20.20	0	0
East Delhi	64	0	1.14	1.85	2.99	4.67	0	0
North-East Delhi	60	0	1.12	2.98	4.10	6.83	0.51	0
North-West Delhi	440	0.11	7.33	9.05	16.49	3.75	0.08	0
New Delhi	35	1.67	5.53	9.11	16.31	46.60	0	0
North Delhi	59	0	2.99	1.82	4.81	8.15	0	0
South-West Delhi	421	2.37	12.70	26.73	41.80	9.93	-0.65	0
South Delhi	250	2.61	13.62	62.09	78.32	31.33	-0.32	0.70
West Delhi	129	0	2.82	3.51	6.33	4.91	0	0
Grand Total	1,483	6.76	49.48	119.96	176.2	11.88	-0.38	0.70

Comparison of the current forest cover assessment with the previous assessment (satellite data of Oct 2006) shows a loss of 0.38 km² of forest cover. This loss is mainly due to felling of trees for developmental purposes.

The change matrix given in Table 9.6.3 reveals that there has been a decrease of 0.36 km² in the moderately dense forest and 0.02 km² in open forest.

Table 9.6.3: Forest Cover Change Matrix (Area in km²)

2009 Assessment	2011 Assessment					Total 2009
	VDF	MDF	OF	Scrub	NF	
Very Dense Forest	6.76	0	0	0	0	6.76
Moderately Dense Forest	0	49.48	0	0	0.36	49.84
Open Forest	0	0	119.15	0	0.83	119.98
Scrub	0	0	0	0.7	0	0.7
Non-Forest	0	0	0.81	0	1304.92	1305.73
Total 2011	6.76	49.48	119.96	0.7	1306.11	1483.01
Net Change	0	-0.36	-0.02	0	0.38	

9.6.5 Altitude Zone-wise Forest Cover

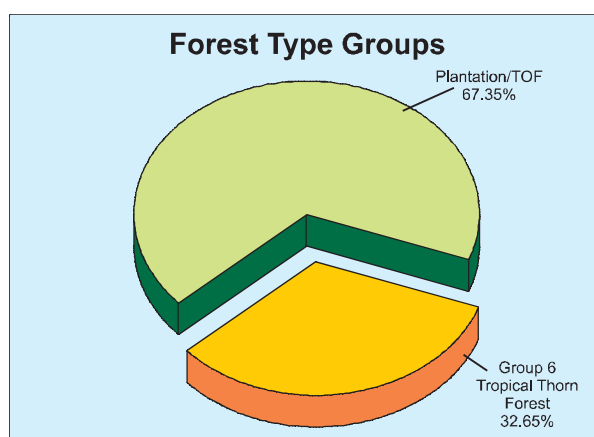
Forest cover of the state in different altitude zones is given in table 9.6.4.

Table 9.6.4: Altitude Zone-wise Forest Cover (Area in km ²)				
Altitude Zone	VDF	MDF	OF	Total
0-500m	6.76	49.48	119.96	176.20
Total	6.76	49.48	119.96	176.20

(Based on SRTM, Digital Elevation Model)

9.6.6 Forest Cover in Different Forest Types

Forest type mapping using satellite data has been undertaken by Forest Survey of India with reference to Champion & Seth Classification. As per this assessment, the state has single forest type belonging to Tropical Thorn Forest Group. Percentage-wise distribution of forest cover of the state in forest type group is given in the pie diagram.



9.6.7 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. During this period one district of the state, viz. South

Delhi has been inventoried. The estimated tree cover in the state is 120 km² which is 8.09% of the geographical area of the state. The forest and tree cover of the state is presented in Table 9.6.5.

Table 9.6.5: Forest and Tree Cover (Area in km ²)		
Category	Area	% of Geographical Area
Tree Cover	120.00	8.09
Forest Cover	176.20	11.88
Forest & Tree Cover	296.20	19.97

9.6.8 Growing Stock

The growing stock in the recorded forest area has been estimated on the basis of the 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 9.6.6.

Table 9.6.6: Growing Stock (million cum)		
Forest	TOF	Total
1.705	1.040	2.745