



## Delhi

### 9.6.1 Introduction

The geographical area of Delhi is 1,483 sq km which is 0.05% of total geographical area of the country. The river Yamuna, the Aravalli range and the plains in between both of these from alluvium deposits of recent formation dominate the physiography of Delhi. The rainfall of Delhi ranges between 400mm to 600mm. During the summer months of April, May and June, temperatures can rise to 40-45°C while winters are typically cold with temperatures during December and January falling to 4-5°C. It has 9 districts of which none are hill or tribal. The population of Delhi, as per census 2011 is 16.79 million which is 1.38% of the country's population. Delhi has 97.50% of urban and 2.50% rural population. The population density of the state is 11,320 per sq km which makes it the most densely populated state in the country. The livestock population of Delhi is 0.36 million, as per 19<sup>th</sup> Livestock Census (2012).

Table 9.6.1 Land Use Pattern

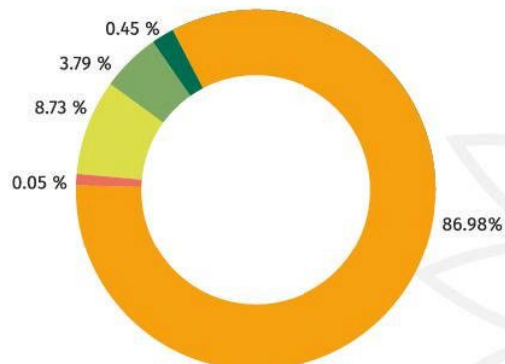
Land Use Types	Area (in 000' ha)	Percentage
Total Geographic Area	148	
Reporting area for land utilization	147.49	100
Forests	1.48	1.00
Land not available for cultivation	93.19	63.18
Permanent pastures and other grazing lands	0.06	0.04
Land under misc. tree crops and groves	1.18	0.80
Culturable wasteland	9.89	6.71
Fallow land other than current fallows	8.06	5.47
Current fallows	11.73	7.96
Net area sown	21.89	14.84

Source: Land Use Statistics, Ministry of Agriculture, GOI, 2013-14.

### 9.6.2

### Forest Cover

Based on interpretation of satellite data pertaining to Oct - Dec 2015, the forest cover in the State is 192.41 sq km which is 12.97% of the State's geographical area. In terms of forest canopy density classes, the state has 6.72 sq km under very dense forest, 56.24 sq km under moderately dense forest and 129.45 sq km under open forest.



**Forest cover  
of Delhi**

Pie Chart  
showing forest  
cover of Delhi

Non Forest   Scrub   Open Forest   Mod. Dense Forest   Very Dense Forest

### 9.6.3

## Forest Cover within and outside Green Wash Area

The State has reported a recorded forest area of 102 sq km which is 6.88% of its geographical area. The Reserved and Protected Forests are 76.48% and 23.52% respectively of the recorded forest area. Due to non-availability of digitized boundary of recorded forest area from the State, the updated green wash area which is 13 sq km has been used and the analysis of forest cover within and outside this area is depicted below.

**Table 9.6.2 Forest Cover within and outside Green Wash Area**

<b>Forest Cover within Green Wash (Area in sq km)</b>	
Very Dense Forest (VDF)	1.40
Moderately Dense Forest (MDF)	6.85
Open Forest (OF)	1.94
<b>Total</b>	<b>10.19</b>
<b>Forest Cover outside Green Wash</b>	
Very Dense Forest	5.32
Moderately Dense Forest	49.39
Open Forest	127.51
<b>Total</b>	<b>182.22</b>
<b>Total Forest Cover</b>	<b>192.41</b>
<b>Tree Cover</b>	<b>113</b>
<b>Total Forest &amp; Tree Cover</b>	<b>305.41</b>
Of State's Geographical Area	20.59%
Of India's Forest & Tree Cover	0.04%
Per capita Forest & Tree Cover	0.002 ha

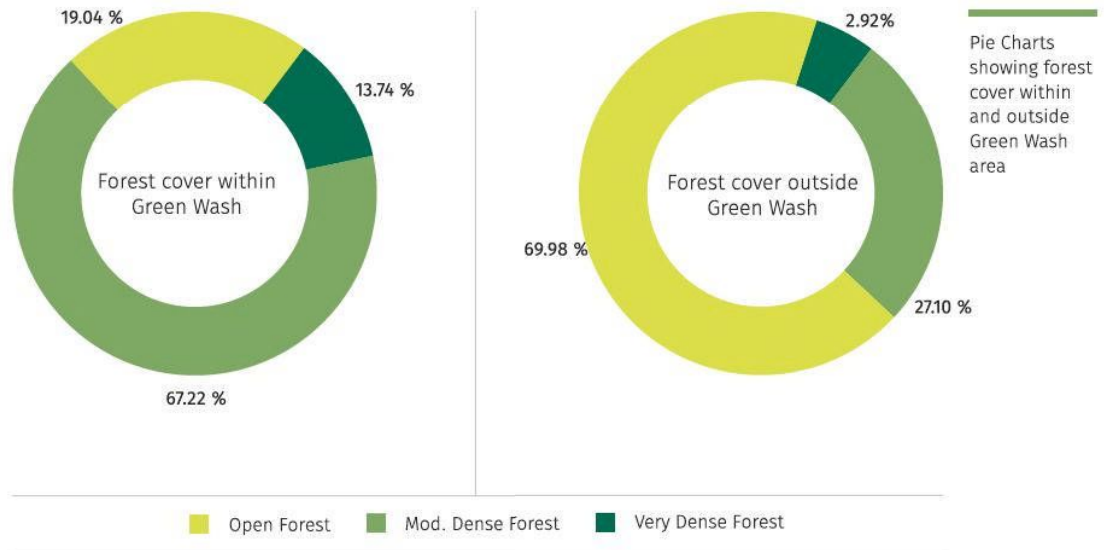


Table 9.6.3 Altitude-wise Forest Cover (Area in sq km)

Altitude Zone (m)	Geographical Area	VDF	MDF	OF	Total Forest
0-500	1,483	6.72	56.24	129.45	192.41
<b>Total</b>	<b>1,483</b>	<b>6.72</b>	<b>56.24</b>	<b>129.45</b>	<b>192.41</b>

(Based on SRTM, Digital Elevation Model)

Table 9.6.4 Forest Cover in different Patch Size Classes

S.No.	Patch Size Range (sq km)	No. of Patches	Area(sq km)	%age
1.	$\geq 0.01 \leq 1.0$	1,081	77.82	40.44
2.	$> 1.0 \leq 10$	15	44.07	22.90
3.	$> 10 \leq 100$	3	70.52	36.66
	<b>Total</b>	<b>1,099</b>	<b>192.41</b>	<b>100</b>



Table 9.6.5 Growing Stock

	Growing Stock	% Contribution to country
Growing Stock in Recorded Forest Area	0.510 m cum	0.01
Growing Stock in TOF	1.274 m cum	0.08
Potential Production of industrial wood from TOF	0.10 m cum	0.13
Bamboo bearing area within forest area of the state	-	-
Total number of culms	-	-
Total green weight equivalent of culms	-	-

#### 9.6.4

### Carbon Stock in forest

The total Carbon stock of forests in the State is 0.948 million tonnes (3.476 million tonnes of CO<sub>2</sub> equivalent) which is 0.01% of total forest carbon of the country.

#### 9.6.5

### Decadal Change in water bodies within Forest

An increase of 0.55 sq km has been observed in the water body coverage within Forests compared to 2005. The graphical and tabular comparison is depicted below.

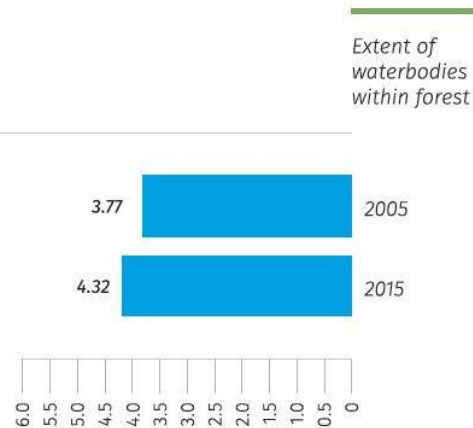


Table 9.6.6 Water bodies within Forest for the years 2005 and 2015

Area/Coverage	2005	2015
Extent of water bodies (sq km) within Forest	3.77	4.32
% of water bodies to Forest Cover	2.13	2.25



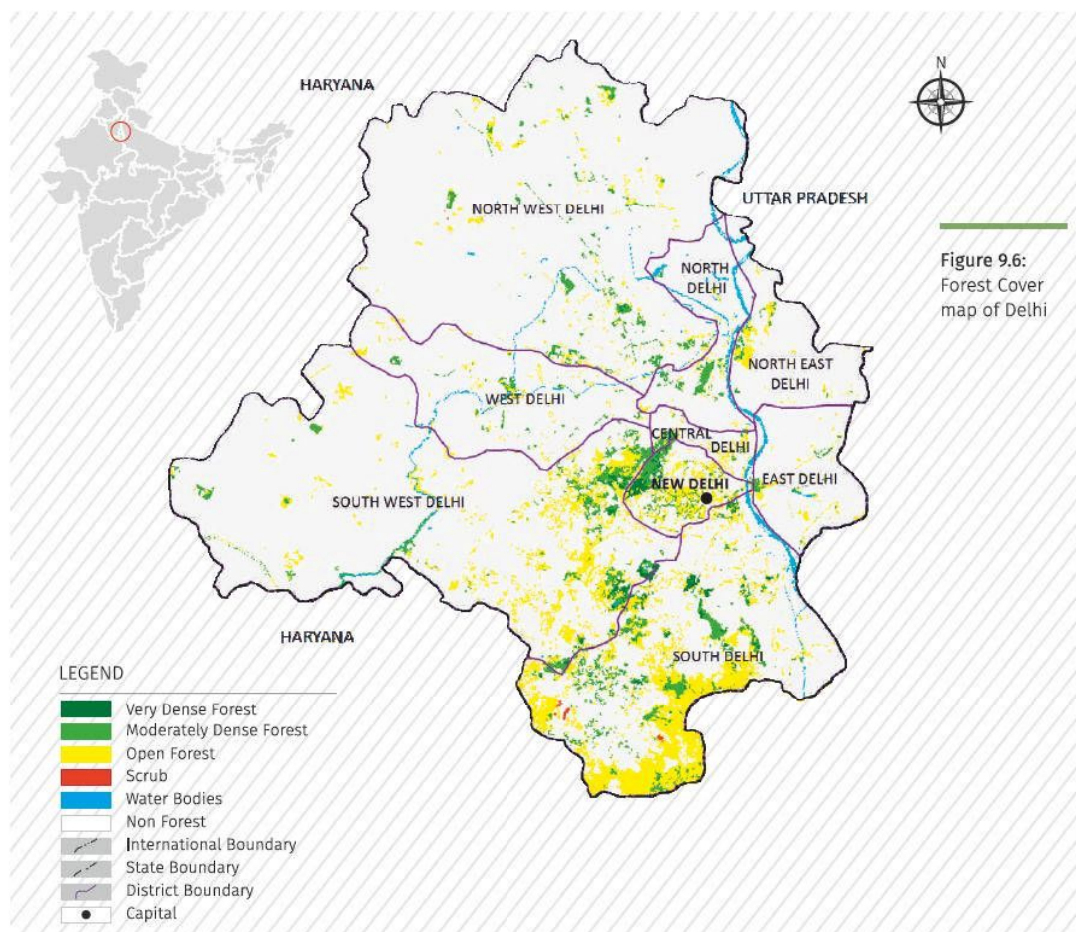


Figure 9.6:  
Forest Cover  
map of Delhi

Table 9.6.7 District- wise Forest Cover							(area in sq km)	
District	Geographical Area	2017 Assessment			% of GA	Change *	Scrub	
		Very Dense Forest	Mod. Dense Forest	Open Forest				
Central Delhi	25	0	2.08	2.86	4.94	19.76	-0.20	0
East Delhi	64	0	1.05	2.65	3.7	5.78	0.42	0
New Delhi	35	1.69	5.47	9.25	16.41	46.89	-0.84	0
North Delhi	59	0	2.83	1.75	4.58	7.76	0.05	0
North-East Delhi	60	0	0.99	2.99	3.98	6.63	0.01	0
North-West Delhi	440	0.09	8.72	8.74	17.55	3.99	0.51	0.06
South Delhi	250	2.59	17.68	63.08	83.35	33.34	1.21	0.56
South-West Delhi	421	2.35	14.86	33.89	51.1	12.14	2.50	0.05
West Delhi	129	0	2.56	4.24	6.8	5.27	-0.02	0
<b>Grand Total</b>	<b>1,483</b>	<b>6.72</b>	<b>56.24</b>	<b>129.45</b>	<b>192.41</b>	<b>12.97</b>	<b>3.64</b>	<b>0.67</b>

\*Change compared to updated 2015 assessment.

Table 9.6.8 Forest Cover Change Matrix						(area in sq km)
Class	2017 Assessment					Total ISFR 2015 updated
	VDF	MDF	OF	Scrub	NF	
Very Dense Forest	6.70	0.00	0.00	0.00	0.24	6.94
Moderately Dense Forest	0.00	53.55	1.90	0.00	1.70	57.15
Open Forest	0.02	2.01	114.13	0.16	8.36	124.68
Scrub	0.00	0.00	0.66	0.45	0.42	1.53
Non Forest	0.00	0.68	12.76	0.06	1,279.20	1,292.70
<b>Total ISFR 2017</b>	<b>6.72</b>	<b>56.24</b>	<b>129.45</b>	<b>0.67</b>	<b>1,289.92</b>	<b>1,483.00</b>
Net Change	-0.22	-0.91	4.77	-0.86	-2.78	

#### 9.6.6

#### *Reasons for change detected in 2017 assessment*

An increase of 3.64 sq km has been observed which can be attributed to plantation activities and conservation whereas the decrease in forest cover at some places is due to developmental activities.

