

State Profiles

Andhra Pradesh

Andhra Pradesh, the 8th latest state of the country is situated along the Bay of Bengal on the southeast coast of the country. As per the 2011 Census, Andhra Pradesh has a population of 49.39 million which is 4.08% of the India's population. Physiographically, the State of Andhra Pradesh can be divided into Coastal Andhra and the comparatively drier Rayalaseema regions. The State has varied topography ranging from the hills of Eastern Ghats and Nallamala to the shores of Bay of Bengal supports varied ecosystems.

Andhra Pradesh is one of the pioneer States to adopt Joint Forest Management (JFM) and about one-third of the forest area of the State is under JFM. The State is also ranked 8th in terms of the Recorded Forest Area (RFA) which is 37,258 sq km. Reserved Forest, Protected Forest and Unclassed Forest constitute 31,959 sq km, 5,069 sq km and 230 sq km of the RFA respectively. As per the latest ISFR (2019), Forest Cover in the State is 29,137.40 sq km which is 17.88 % of the State's geographical area. In terms of forest canopy density classes, the State has 1,994.22 sq km under Very Dense Forest (VDF), 13,938.36 sq km under Moderately Dense Forest (MDF) and 13,204.82 sq km under Open Forest (OF).

Class	Area (sq. km)	%area
Very Dense Forest	1,994.22	1.22
Moderately Dense Forest	13,938.36	8.56
Open Forest	13,204.82	8.1
Total	29,137.40	17.88
Scrub	8,254.84	5.07

Overall, forest Cover in the State has increased by 990.40 sq km as compared to the assessment reported in ISFR 2017. The vegetation is largely dry deciduous type with a mixture of Teak, and species of the genera *Terminalia*, *Dalbergia*, *Pterocarpus*, *Anogeissus* etc. Red Sanders (*Pterocarpus santalinus*) is endemic to Andhra Pradesh and is highly valued for its rich red colour and grain pattern. Further, it has been reported that the State of Andhra Pradesh has done plantation of 16912 ha during the FY 2019-20 and the major plantation schemes in the States are:

- CAMPA;
- National Mission for a Green India;
- National Afforestation Program; and
- National Medicinal Plant Board

Chhattisgarh

The State of Chhattisgarh covers an area of 1,35,192 sq km, which is 4.11% of the geographical area of the country. The State is bordered by the Madhya Pradesh in the northwest, Uttar Pradesh in the north, Jharkhand in the northeast, Maharashtra in the southwest, Telangana in the south and Odisha in the southeast. The State falls under East Deccan physiographic zone and can be divided into three agro-climatic zones, viz. the Chhattisgarh Plains, the Northern Hills of Chhattisgarh and the Bastar Plateau. There are 18 districts, out of which more than 50% i.e. 11 are tribal districts. As per the 2011 census, Chhattisgarh has a population of 25.55 million accounting to 2.11% of India's population.

The State is rich in mineral resources like, coal, iron, bauxite, limestone, corundum, tin, etc. which are mainly found in forest areas. About 50% of the villages in the State are located inside five kilometers radius of forests. The inhabitants are mainly tribal, economically backward, non-tribal and landless people who depend significantly on the forests for livelihood and other needs. Thus, the pressure on forests is high in the State. Joint Forest Management (JFM) began in the State in 1991 and as per the latest available report, there are 7,887 JFMCs covering an area of 33,19,000 hectares & involving 11,17,000 families.

Recorded Forest Area (RFA) in the State is 59,772 sq km of which 25,786 sq km is Reserved Forest, 24,034 sq km is Protected Forest and 9,952 sq km is Unclassed Forest. As per the latest ISFR (2019), the Forest Cover in the State is 55,610.57 sq km which is 41.14 % of the State's geographical area. In terms of forest canopy density classes, the State has 7,067.72 sq km under Very Dense Forest (VDF), 32,197.56 sq km under Moderately Dense Forest (MDF) and 16,345.29 sq km under Open Forest (OF).

Forest Cover of Chhattisgarh (ISFR, 2019)		
Class	Area (sq. km)	%area
Very Dense Forest	7,067.72	5.23
Moderately Dense Forest	32,197.56	23.82
Open Forest	16,345.29	12.09
Total	55,610.57	41.14
Scrub	609.52	0.45

Overall, forest cover in the State has increased by 63.57 sq km as compared to the previous assessment reported in ISFR 2017. The State's two main tree species are Sal (*Shorea robusta*) and Teak (*Tectona grandis*). Other major species are Bija (*Pterocarpus marsupium*), Saja (*Terminalia tomentosa*), Dhavdha (*Anogeissus latifolia*), Mahua (*Madhuca indica*), Tendu (*Diospyros melanoxylon*) and bamboo (*Dendrocalamus strictus*) etc. Further, it has been reported that the State of Chhattisgarh has done plantation of 18979.616 sq km during the FY 2019-20 and the major plantation schemes in the States are:

- CAMPA;
- National Mission for a Green India;
- National Afforestation Program;
- MNREGA, etc.

Himachal Pradesh

The State of Himachal Pradesh has a geographical area of 55,673 sq km, which constitutes 1.69% of the geographical area of the country. The State has international border with China in the East. Predominantly a mountainous State in the western Himalayas, the State has three distinct regions viz the Shiwaliks with altitude upto 1,500 m, middle Himalayan region between 1,500 m to 3,000 m and the Himadris higher than 3,000 m. About one third of the area in the State is permanently under snow, glaciers and cold desert. There are three tribal districts. As per the 2011 census, Himachal Pradesh has a population of 6.86 million accounting for 0.57% of India's population.

The forests in the State can be broadly classified into coniferous forests and broad-leaved forests. Distribution of species follows altitudinal zonation. The vegetation varies from dry scrub forests at lower altitudes to alpine

pastures at higher altitudes. In between these two extremes, distinct vegetational zones of Mixed Deciduous Forests, Bamboo, Chir Pine, Oak, Deodar, Kail,

Fir and Spruce are found. The Recorded Forest Area (RFA) in the State is 37,033 sq km of which 1,898 sq km is Reserved Forests, 33,130 sq km is Protected Forests, and 2,005 sq km Unclassed Forests.

Class	Area (sq. km)	%area
Very Dense Forest	3,112.71	5.59
Moderately Dense Forest	7,125.93	12.8
Open Forest	5,194.88	9.33
Total	15,433.52	27.72
Scrub	315.28	0.57

The Forest Cover in the State is 15,433.52 sq km which is 27.72% of the State's geographical area. In terms of forest canopy density classes, the State has 3,112.71 sq km under Very Dense Forest (VDF), 7,125.93 sq km under Moderately Dense Forest (MDF) and 5,194.88 sq km under Open Forest (OF). Forest Cover in the State has increased by 333.52 sq km as compared to the previous assessment reported in ISFR 2017. Further, it has been reported that the State of Himachal Pradesh has done plantation of **18979.616** sq km during the FY 2019-20 and the major plantation schemes/programs in the States are:

- CAMPA;
- National Mission for a Green India;
- National Afforestation Program;
- MNREGA;
- State Plans;
- Plantation of medicinal plants under National Medicinal Plan Board; and
- Other externally aided projects GIZ, World Bank etc.

Jammu & Kashmir and Ladakh

The Government of India vide notification dated 31.10.2019 has carved out two union territories of Jammu & Kashmir and Ladakh from the erstwhile State of Jammu & Kashmir. Situated in the northernmost part of the country, Jammu & Kashmir (UT) and Ladakh (UT), cover an area of 2,22,236 sq km, which is 6.76% of the geographical area of the country. As per census 2011, the combined population of two UT's is 12.54 million accounting to 1.04% of India's population. Recorded Forest Area (RFA) in the two UTs is 20,230 sq km of which 17,643 sq km is Reserved Forests, 2,551 sq km is Protected Forest, and 36 sq km is Unclassed Forests.

The forest in UT of Jammu & Kashmir and UT of Ladakh belong to eight Type Groups which are further divided into 42 Forest Types, the highest in the country. the Forest Cover in the two UTs is 23,611.89 sq km which is 10.63% of the geographical area. In terms of forest canopy density classes, the UTs have 4,280.48 sq km under Very Dense Forest (VDF), 8,612.36 sq km under Moderately Dense Forest (MDF) and 10,719.05 sq km under Open Forest (OF). Forest Cover in the UTs has increased by 370.89 sq km as compared to the previous assessment reported in ISFR 2017. The Forest Department of the two UTs have implemented various schemes focusing on re habilitation of degraded forests, consolidation and demarcation, Eco Task Force, urban forestry, pasture and fodder development, stabilization of strip area on National Highways, development of Conifer Forests. Further, it has been reported that the State of Himachal Pradesh has done plantation of 18979.616 sq km during the FY 2019-20 and the major plantation schemes/programs in both UTs are:

Class	Area (sq. km)	%area
Very Dense Forest	4,280.48	1.93
Moderately Dense Forest	8,612.36	3.88
Open Forest	10,719.05	4.82
Total	23,611.89	10.63
Scrub	547.54	0.25

- CM's Participatory Afforestation Scheme;
- Integrated Forest Protection;
- Participatory grazing land development programme;
- CAMPA;
- National Mission for Green India, etc.

Karnataka

Karnataka, the seventh largest State of the country, with a geographical area of 1,91,791 sq km accounts for 5.83% of the geographical area of the country. The State can be divided into two distinct physiographic regions viz the 'Malnad' or hilly region comprising Western Ghats and 'Maidan' or plain region comprising the inland plateau of varying heights. The State has 30 districts, amongst which 5 are tribal and 6 are hill districts. As per the 2011 census, Karnataka has a population of 61.13 million, which is 5.05% of India's population.

The State is endowed with diverse climate, topography and soils which has resulted in rich biodiversity. The diverse ecological niches support characteristic flora and fauna. The evergreen forests of the Western Ghats, which cover about 60% of forest area of State, is recognized as one of the 35 Biodiversity Hotspots in the World and one of the four Biodiversity Hotspots of the India. As per the Champion & Seth classification of the Forest Types (1968), the forests in Karnataka belong to eight Forest Type Groups, which are further divided into 21 Forest Types.

Recorded Forest Area (RFA) in the state is 38,284 sq km of which 28,690 sq km is Reserved Forest, 3,931 sq km is Protected Forest and 5,663 sq km is Unclassed Forests. the Forest Cover in the State

is 38,575.48 sq km which is 20.11% of the State's geographical area. In terms of forest canopy density classes, the State has 4,501.15 sq km under

Very Dense Forest (VDF), 21,048.09 sq km under Moderately Dense Forest (MDF) and 13,026.24 sq km under Open Forest (OF). Forest Cover in the State has increased by 1,025.48 sq km as compared to the previous assessment reported in ISFR 2017.

The major species found in the forests of the State are *Tectona grandis*, *Santalum album*, *Terminalia spp*, *Dalbergia latifolia*, *Pterocarpus spp*, etc. In the Scrub and Thorny Forests, *Acacia spp*, *Balanites roxburghii*, *Cordia myxa*, *Capparis spp.*, *Prosopis spp.*, etc are found. As per the information received from the state during that last two years 1,07,496 ha of plantations were raised in the State. The major plantation schemes in the state are:

- CAMPA;
- National Mission for a Green India;
- National Afforestation Program;
- Krushi Aranya Protsaha Yojane (KAPY);
- Maguvigonda Mara Salegonda Vana;
- Chinnara Vana Darshana Scheme

Class	Area (sq. km)	%area
Very Dense Forest	4,501.15	2.35
Moderately Dense Forest	21,048.09	10.97
Open Forest	13,026.24	6.79
Total	38,575.48	20.11
Scrub	4,484.07	2.34

Kerala

Kerala is situated along the Arabian Sea in the southern Malabar coast of the country. The geographical area of the State is 38,852 sq km, which is 1.18% of the geographical area of the country. Physiographically, the State can be divided into coastal, midland and highland zones. The State has 14 districts out of which 10 districts are hill and 9 districts are tribal. As per the 2011 census, Kerala has a population of 33.41 million which is 2.7% of India's population.

As per the Champion & Seth Classification of Forest Types (1968), the forests in Kerala are divided into seven Type Groups which are further divided into 16 Forest Types. The wide range of forest types enables the growth of a rich variety of flora, including orchids and medicinal plants. The backwaters form an attractive and economically valuable feature of the State. The rural folk and tribal communities reportedly make use of about 2,000 species of wild plants for various medicinal purposes. Recorded Forest Area (RFA) in the State is 11,309 sq km all of which is Reserved Forest.

Class	Area (sq. km)	%area
Very Dense Forest	1,934.83	4.98
Moderately Dense Forest	9,508.24	24.47
Open Forest	9,701.22	24.97
Total	21,144.29	54.42
Scrub	13.37	0.03

The Forest Cover in the State is 21,144.29 sq km which is 54.42% of the State's geographical area. In terms of forest canopy density classes, the State has 1,934.83 sq km under Very Dense Forest (VDF), 9,508.24 sq km under Moderately Dense Forest (MDF) and 9,701.22 sq km under Open Forest (OF). Forest Cover in the State has increased by 823.29sq km as compared to the previous assessment reported in ISFR 2017. The major plantation schemes in the state are:

- CAMPA;
- National Mission for a Green India;
- National Afforestation Program;
- MNREGA

Madhya Pradesh

Madhya Pradesh is the second largest State covering an area of 3,08,252 sq km which is 9.38% of the geographical area of the country. Physiographically, the State can be divided into four regions, viz the low-lying areas in north and north-west of Gwalior, Malwa Plateau, Satpuda and Vindhyan Ranges. The State has 50 districts, of which 21 are tribal districts. As per the 2011 census, Madhya Pradesh has a population of 72.63 million accounting to 6 percent of India's population.

Madhya Pradesh is a forest rich State and is ranked first among the States in terms of the RFA. The State has a sizeable tribal and rural population which is dependent on the forests for their livelihood and basic needs. As per the Champion & Seth Classification of Forest Types (1968), the forests in Madhya Pradesh belong to five Forest Type Groups, which are further divided into 21 Forest Types. Madhya Pradesh is a pioneering State in the implementation of the Joint Forest Management (JFM) movement in the country. The State has a strong JFM network through 15,228 JFMC/VSS/EDCs covering an area of 66,874 sq km.

Recorded Forest Area (RFA) in the State is 94,689 sq km of which 61,886 sq km is Reserved Forests, 31,098 sq km is Protected Forests and 1,705 sq km is Unclassed Forests. The Forest Cover in the State is 77,482.49 sq km which is 25.14 % of the State's geographical area. In terms of forest canopy density classes, the State has 6,676.02 sq km under Very Dense Forest (VDF), 34,341.40 sq km under Moderately Dense Forest (MDF) and 36,465.07 sq km under Open Forest (OF). Forest Cover in the State has increased by 68.49 sq km as compared to the previous assessment reported in ISFR 2017. As per the information received from the State during that 373491 ha of plantations were raised in the State during the year 2019-20 and The major plantation schemes in the State are:

Class	Area (sq. km)	%area
Very Dense Forest	6,676.02	2.17
Moderately Dense Forest	34,341.40	11.14
Open Forest	36,465.07	11.83
Total	77,482.49	25.14
Scrub	6,001.91	1.95

- CAMPA;
- National Mission for a Green India;
- National Afforestation Program;
- MNREGA;
- State Plans; etc.

Maharashtra

Maharashtra has geographical area of 3,07,713 sq km, which is 9.36% of the geographical area of the country. The State has three physiographic zones namely Deccan Plateau, Western Ghats and West Coast. The State has 35 districts, amongst which 12 are tribal and 7 are hill districts. As per the 2011 census, Maharashtra has a population of 112.37 million accounting to 9.28% of India's population.

Maharashtra, the third largest State in the country is ranked second among the States in terms of the recorded forest area. Western Ghats of the State have very rich biodiversity. As per the Champion & Seth Classification of Forest Types (1968), the forests in Maharashtra belong to six Forest Type Groups which are further divided into 17 Forest Types. Recorded Forest Area (RFA) in the State is

61,579 sq km of which 49,546 sq km is Reserved Forests, 6,733 sq km is Protected Forest and 5,300 sq km is Unclassed Forests. the Forest Cover in the State is 50,777.56

sq km which is 16.50 % of the State's geographical area. In terms of forest canopy density classes, the State has 8,720.53 sq km under Very Dense Forest (VDF), 20,572.35 sq km under Moderately Dense Forest (MDF) and 21,484.68 sq km under Open Forest (OF). Forest Cover in the State has increased by 95.56 sq km as compared to the previous assessment reported in ISFR 2017.

Forest Cover of Maharashtra (ISFR 2019)		
Class	Area (sq. km)	%area
Very Dense Forest	8,720.53	2.83
Moderately Dense Forest	20,572.35	6.69
Open Forest	21,484.68	6.68
Total	50,777.56	16.5
Scrub	4,256.49	1.38

The State of Maharashtra is proactive in environmental conservation, afforestation and mass awareness programs. In a first of its kind, a 24-hour toll free helpline number 1926 called 'Hello Forest' has been set up to provide information regarding plantations, protection and mass awareness. The Forest Department has created a mobile application called 'My Plants' to record details of the plantations such as numbers, species and location into the Forest Department's data base. To encourage public participation, the SFD has initiated the 'Maharashtra *Harit Sena* or Green Army, which is a body of dedicated volunteers to participate in the plantation, protection, and related activities. The major plantation schemes in the State are:

- CAMPA;
- National Mission for a Green India;
- National Bamboo Mission;
- National Afforestation Program;
- MNREGA;
- State Plans; etc.

Manipur

Manipur, a hilly State in northeastern India, covering an area of 22,327 sq km, which constitutes 0.68% of the geographical area of the country. Physiographically, Manipur can be characterized in two distinct physical regions, an outlying area of rugged hills and narrow valleys and the inner area of flat plain, with associated land forms. The state has 9 districts, all of which are hilly as well as tribal. As per the 2011 census, Manipur has a population of 2.86 million of which urban and rural population are 29.20% and 70.80% respectively.

The State of Manipur is endowed with rich biodiversity with many endemic flora and fauna. As per the Champion & Seth Classification of Forests Types (1968), the forests in Manipur belong to five Forest Type Groups which are further divided into 11 Forest Types.

Recorded Forest Area (RFA) in the State is 17,418 sq km of which 1,467 sq km is Reserved Forest, 4,171 sq km is

Class	Area (sq. km)	%area
Very Dense Forest	905.27	4.05
Moderately Dense Forest	6,386.29	28.6
Open Forest	9,555.34	42.81
Total	16,846.90	75.46
Scrub	1,181.47	5.29

Protected Forest and 11,780 sq km is Unclassified Forests. The Forest Cover in the State is 16,846.90 sq km which is 75.46 % of the State's geographical area. In terms of forest canopy density classes, the State has 905.27 sq km under Very Dense Forest (VDF), 6,386.29 sq km under Moderately Dense Forest (MDF) and 9,555.34 sq km under Open Forest (OF).

Out of 126 species of bamboos reported in India, 53 species are found in Manipur. Among the trees, Teak, Pine, Oak, Uningthou (*Phoebe spp.*) Leihao (*Michelia spp.*) are the major species. Forests in Manipur are largely under the community and private ownership. As per the information received from the State during that last two years, 11,346 ha of plantations were raised in the State. The major plantation schemes in the State are:

- CAMPA;
- National Mission for a Green India;
- National Bamboo Mission;
- National Afforestation Program.

Mizoram

Mizoram covers geographical area of 21,081 sq km, which is 0.64% of the geographical area of the country. Physiographically, the State is comprised of rugged, steep hill ranges and interspersed valleys. As per the 2011 census, Mizoram has a population of 1.09 million which is 0.09% of India's population.

The State has rich flora and fauna including many rare and endemic species of plants and animals. Amongst all the States, Mizoram has the highest area under forest cover in terms of percentage of geographical area. The forests of the State are under a three-tier management viz those owned and controlled by the State, district councils and village councils.

As per the Champion & Seth Classification of Forest Types (1968), the forests in Mizoram belong to four Type Groups, which are further divided into six Forest Types. Recorded Forest Area (RFA) in the State is 5,641 sq km of which 4,483 sq km is Reserved Forest and

Forest Cover of Mizoram (ISFR 2019)		
Class	Area (sq. km)	%area
Very Dense Forest	157.05	0.74
Moderately Dense Forest	5,800.75	27.52
Open Forest	12,047.71	57.15
Total	18,005.51	85.41
Scrub	0.90	0

1,158 sq km is Unclassed Forests. The Forest Cover in the State is 18,005.51 sq km which is 85.41% of the State's geographical area. In terms of forest canopy density classes, the State has 157.05 sq km under Very Dense Forest (VDF), 5,800.75 sq km under Moderately Dense Forest (MDF) and 12,047.71 sq km under Open Forest (OF). Forest Cover in the State has decreased by 180.49 sq km as compared to the previous assessment reported in ISFR 2017.

Tropical wet-evergreen forests of the State have valuable species in the top canopy such as *Dipterocarpus turbinatus*, *Artocarpus chaplasha*, *Terminalia myriocarpa*, *Amoora wallichii*, *Michelia champaca*, *Mesua ferrea* etc. Bamboos occur abundantly in the middle and lower stories in the evergreen forest type, Canes are also present in this type of forest. 27 species of bamboo are reported from the State. Further, it has been reported that the State of Mizoram has done plantation of 18979.616 sq km during the FY 2019-20 and The plantation activities under the following schemes are being carried out in the States:

- CAMPA;
- National Mission for a Green India;
- National Bamboo Mission
- National Afforestation Program;
- MNREGA;
- Wetland Management Project
- Finance Commission Grants

Odisha

Odisha covers an area of 1,55,707 sq km which is 4.74% of the geographical area of the country. Physiographically, the State can be divided into four regions, viz, Northern Plateau, Eastern Ghats, Central Tableland and Coastal Plains. The State has 30 districts, among which 12 are tribal districts. The State does not have any hill districts. As per the 2011 census, Odisha has a population of 41.97 million which is 3.47% of India's population.

Odisha's forests are well stocked, diverse, multi-storied and dense. The State is also very rich in mineral resources. As per the Champion & Seth Classification of Forest

Types (1968), the forests in Odisha belong to four Forest Type Groups which are further divided into 19 Forest Types. Recorded Forest Area (RFA) in the State is 61,204 sq km of

Forest Cover of Odisha (ISFR 2019)		
Class	Area (sq. km)	%area
Very Dense Forest	6,969.71	4.48
Moderately Dense Forest	21,551.93	13.84
Open Forest	23,096.87	14.83
Total	51,618.51	33.15
Scrub	4,326.91	2.78

which 36,049 sq km is Reserved Forest, 25,133 sq km is Protected Forest and 22 sq km is Unclassed Forests. The Forest Cover in the State is 51,618.51 sq km which is 33.15 % of the State's geographical area. In terms of forest canopy density classes, the State has 6,969.71 sq km under Very Dense Forest (VDF), 21,551.93 sq km under Moderately Dense Forest (MDF) and 23,096.87 sq km under Open Forest (OF).

The top five tree species in the State are *Shorea robusta*, *Lannea grandis*, *Buchanania latifolia*, *Terminalia tomentosa* and *Cleistanthus collinus*. Further, it has been reported that the State of Odisha has done plantation of 52634 ha during the FY 2019-20 and the plantation activities under the following schemes are being carried out in the States:

- CAMPA;
- National Mission for a Green India;
- National Bamboo Mission;
- National Afforestation Program;
- MNREGA;
- Green Mahanadi Mission;
- Odisha Forestry Sector Development Project JICA;
- Ama Jangala Yojana;
- Bald Hill Plantation Special

Punjab

The State of Punjab has an area of 50,362 sq km, which is 1.53% of the geographical area of the country. The State has 20 districts none of which are hill or tribal district. As per the 2011 census, Punjab has a population of 27.74 million accounting to 2.29% of India's population. The rural and urban population comprise 62.52% and 37.48% respectively.

Punjab is predominantly an agricultural State, with 83% of the total geographical area is under agriculture. As per the Champion & Seth Classification of Forest

types (1968), the forests in Punjab belong to three Forest Type Groups i.e. Tropical Dry Deciduous Forests, Tropical Thorn Forests and Subtropical

Pine Forests which are further divided into seven Forest Types. With major portion of the land under agriculture, there is limited scope to increase the area under forests except by bringing the wastelands and degraded lands. The department encourages farmers to take up agroforestry on their farm lands by providing quality planting material and technical hand holding.

Recorded Forest Area (RFA) in the State is 3,084 sq km of which 44 sq km is Reserved Forest, 1,137 sq km is Protected Forest and 1,903 sq km is Unclassed Forests. The Forest Cover in the State is 1,848.63 sq km which is 3.67% of the State's geographical area. In terms of forest canopy density classes, the State has 8.00 sq km under Very Dense Forest (VDF), 800.97 sq km under Moderately Dense Forest (MDF) and 1,039.66 sq km under Open Forest (OF).

The top five tree species in the State are *Prosopis juliflora*, *Eucalyptus species*, *Butea monosperma*, *Acacia catechu*, *Grewia oppositifolia*. Further, it has been reported that the State of Punjab has done plantation of **18979.616** sq km during the FY 2019-20 and the plantation activities under the following schemes are being carried out in the States:

- CAMPA;
- National Mission for a Green India;
- National Afforestation Program

Class	Area (sq. km)	%area
Very Dense Forest	8.00	0.02
Moderately Dense Forest	800.97	1.59
Open Forest	1,039.66	2.06
Total	1,848.63	3.67
Scrub	32.94	0.07

Sikkim

The State covers an area of 7,096 sq km, which is 0.22% of the geographical area of the country. It is a mountainous State with wide variation in altitudes ranging from 300 m to 8,586 meters. Kangchenjunga, the highest Indian peak and third highest mountain in the world is located in the State. The climate of the State varies from subtropical to tundra. As per the 2011 Census, the population of the State is 0.61 million which is 0.05% of India's population.

Sikkim is a forest rich State and vegetation is marked by clear altitudinal zonation. As per the Champion & Seth Classification of Forest Type (1968), the forests in Sikkim belong to six Forest Type Groups which are further divided into 11 Forest Types. Being a predominantly tribal and hilly State, the lives of the rural people are largely dependent on forests.

Recorded Forest Area (RFA) in the State is 5,841 sq km of which 5,452 sq km is Reserved Forest and 389 sq km is Protected Forest. The Forest Cover in the State is 3,342.49 sq km which is 47.11% of the State's geographical area. In terms of forest canopy density classes, the State has 1,101.96 sq km under Very Dense Forest (VDF), 1,552.31 sq km under Moderately Dense Forest (MDF) and 688.22 sq km under Open Forest (OF).

Class	Area (sq. km)	%area
Very Dense Forest	1,101.96	15.33
Moderately Dense Forest	1,552.31	21.88
Open Forest	688.22	9.7
Total	3,342.49	47.11
Scrub	306.65	4.32

The State of Sikkim with only 0.22% of the geographical area of the country harbors around one third of the flowering plants of India. More than 4,500 flowering plants with 550 species of orchids and 36 species of rhododendron are reported from the State. The top five tree species in the state are *Castanopsis species*, *Smylocos theaeifolia*, *Viburnum species*, *Shorea robusta* and *Eurya japonica*. Further, it has been reported that the State of Sikkim has done plantation of **18979.616 sq km** during the FY 2019-20 and the plantation activities under the following schemes are being carried out in the States:

- CAMPA;
- National Mission for a Green India;
- National Afforestation Program

Uttarakhand

The predominantly mountainous State of Uttarakhand covers an area of 53,483 sq km, which is 1.63% of the geographical area of the country. The State has 13 districts; all of them are hill districts. The State does not have any tribal districts. As per the 2011 census, Uttarakhand has a population of 10.09 million, which is 0.83% of India's population.

Uttarakhand is rich in forest resources. As per the Champion & Seth Classification of Forest Types (1968), the forests in Uttarakhand belong to nine Forest Type Groups, which are further divided into 43 Forest Types.

Physiographically, the State can be divided into

three zones namely, the Himalayas, the Shiwalik and the Terai region. Recorded Forest Area (RFA) in the State is 38,000 sq km of which 26,547 sq km is Reserved Forest, 9,885 sq km is Protected Forest and 1,568 sq km is Unclassed Forests. the Forest Cover in the State is 24,303.04 sq km which is 45.44 % of the State's geographical area. In terms of forest canopy density classes, the State has 5,046.76 sq km under Very Dense Forest (VDF), 12,805.24 sq km under Moderately Dense Forest (MDF) and 6,451.04 sq km under Open Forest (OF).

Class	Area (sq. km)	%area
Very Dense Forest	5,046.76	9.44
Moderately Dense Forest	12,805.24	23.94
Open Forest	6,451.04	12.06
Total	24,303.04	45.44
Scrub	383.17	0.72

Van Panchayats in Uttarakhand are unique institutions of community forest management which came into existence in 1921. At present there are 12,167 *Van Panchayats* in the State which manage an area of 7,32,688 hectares of forest. The top five tree species in the State *Shorea robusta*, *Pinus roxburghii*, *Quercus leucotrichophora*, *Mallotus philippinensis* and *Rhododendron arboretum*. Further, it has been reported that the State of Uttarakhand has done plantation of 9866.3 ha during the FY 2019-20 and the plantation activities under the following schemes are being carried out in the States:

- CAMPA;
- National Mission for a Green India;
- National Bamboo Mission
- National Afforestation Program;
- MNREGA

West Bengal

The State of West Bengal, has a geographical area of 88,752 sq km, which is 2.70% of the geographical area of the country. The State has two natural divisions viz the North Himalayan and the south Alluvial Gangetic Plains. As per the 2011 census, the population of West Bengal is 91.28 million, which is 7.54% of India's population. The rural and urban population constitute 68.13% and 31.87% respectively. The Tribal population is 5.80%.

The distribution of vegetation in northern West Bengal varies with elevation and precipitation, the foothills of the Himalayas are thickly wooded with Sal and other tropical evergreen trees. The forest becomes predominantly subtropical above 1,000 meters and above 1,500 meters temperate forest trees like Oaks, Conifers and Rhododendrons predominate. As per the Champion & Seth Classification of Forest Types (1968), the forests in West Bengal belong to eight Forest Type Groups, which are further divided into 30 Forest Types. The State has taken initiative for raising plantations in and around industrial areas. West Bengal is one the pioneering States in implementing Joint Forest Management.

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Class	Area (sq. km)	%area
Very Dense Forest	5,046.76	9.44
Moderately Dense Forest	12,805.24	23.94
Open Forest	6,451.04	12.06
Total	24,303.04	45.44
Scrub	383.17	0.72

Recorded Forest Area (RFA) in the State is 11,879 sq km of which 7,054 sq km is Reserved Forest, 3,772 sq km is Protected Forest and 1,053 sq km is Unclassed Forests. The Forest Cover in the State is 16,901.51 sq km. which is 19.04% of the State's geographical area. In terms of forest canopy density classes, the State has 3,018.52 sq km under Very Dense Forest (VDF), 4,160.26 sq km under Moderately Dense Forest (MDF) and 9,722.73 sq km under Open Forest (OF). Further, it has been reported that the State of West Bengal has done plantation of **18979.616 sq km** during the FY 2019-20 and the plantation activities under the following schemes are being carried out in the States:

- CAMPA;
- National Mission for a Green India;
- National Bamboo Mission
- National Afforestation Program;
- MNREGA