

# Forest and Tree cover of India in 2019

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## Highlights

- India is **among the top ten nations** in the world in terms of the Forest area.
- The countries are: Russia, Brazil, Canada, US, China, Australia, Congo, Argentina, Indonesia, India.

## Findings of the report:

- The total forest and tree cover of the country is 80.73 million hectare which is **56 percent** of the geographical area of the country.
- Compared to the assessment of 2017, **there is an increase of 5,188 sq. km (0.65%)** in the total forest and tree cover of the country (Increase in the forest cover – 3,976 sq.km and that in tree cover – 1,212 sq. km).
- Range increase in forest cover has been observed in **open forest followed by very dense forest and moderately dense forest.**

## Top 5 states having highest forest cover area-wise:

1. Madhya Pradesh
2. Arunachal Pradesh
3. Chhattisgarh
4. Odisha
5. Maharashtra

## Top 5 states having highest forest cover as a percentage of total geographical area:

1. Mizoram (85.41%)
2. Arunachal Pradesh (79.63%)
3. Meghalaya (76.33%)

4. Manipur (75.46%)
5. Nagaland (75.31%)

**The top three states showing an increase in forest cover are:**

1. Karnataka (1,025 sq. km)
2. Andhra Pradesh (990 sq. km)
3. Kerala (823 sq. km)

- The increasing trend of forest and tree cover is largely due to the various **national policies** aimed at conservation and sustainable management of our forests like:
  - Green India Mission
  - National Agroforestry policy (NAP)
  - REDD plus policy
  - Joint Forest Management (JFM)
  - National Afforestation Programme
  - Funds under Compensatory Afforestation to States (CAMPA)
- There has been a **decrease of forest cover to the extent of 765 sq km (0.45%)** in the North-east region. Except Assam and Tripura, all the States in the region have shown a decrease in forest cover. **Sharpest declines are in Arunachal Pradesh, Manipur and Mizoram,**

**Reason for decline in tree cover inside forests:**

- Due to tribal populations getting “land titles” (patta)
- Rise in trees outside the forest area as due to an increase in tree plantation and afforestation activities.
- **Trees outside forests** comprise nearly 36.4% of the total tree and forest cover in the country. **Maharashtra** had the largest extent of such tree outside forest.
- **Mangrove cover** has been separately reported in the ISFR 2019 and the **total mangrove cover in the country is 4,975 sq. km.** An **increase of 54 sq. km (about 1%)** in

mangrove cover has been observed.

### **Top three states showing mangrove cover increase are:**

1. Gujarat (37 sq. km)
2. Maharashtra (16 sq. km)
3. Odisha (8 sq. km)

### **Biodiversity:**

- **Species Richness of top five States for plant**

### **Forest Fires F0**

- **40% of the forest cover of the country is highly to extremely fire-prone.**
- **Map showing forest areas under different fire-prone classes:**

### **ES, 2018**

- Recognizing the need to revamp forest fire management in the country, the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India has come up with the **National Action Plan on Forest Fires, 2018.**
- One of the main objectives of the action plan is to reduce the incidences of fires by informing, enabling and empowering forest fringe communities and incentivizing them to work in tandem with the State Forest Departments (SFDs).
- The plan also aims to reduce the vulnerability of forests against fire hazards across the diverse forest ecosystems in the country, enhancing the capabilities of institutions in fighting fires, and accelerating the recovery after a fire incidence.
- The plan proposes nine strategies to address the issue, including establishment of a “Centre of Excellence on Forest Fire Management” at FSI.
- The National Action Plan also acknowledges the role of FSI in providing timely forest fire alerts to the SFDs

and Communities.

## **Bamboo**

- **Top ten States in terms of bamboo bearing area (%)**
- **The total bamboo bearing area has increased by 3,229 sq. km.**

## **Carbon Stock**

- **The total carbon stock of the country has seen an increase of 42.6 million tons from the last assessment. The annual increase in the carbon stock is 21.3 million tons, which is 78.2 million tons CO<sub>2</sub>**

## **Wetlands**

- **There are 62,466 wetlands covering 3.8% of the area in the country. Amongst the States, Gujarat has the largest area of wetlands within Recorded Forest Area (RFA) in the country followed by West Bengal.**
- **Dependence of fuel wood on forests is the highest in Maharashtra, whereas, for fodder, small timber and bamboo, dependence is highest in Madhya Pradesh.**

## **Technology used:**

- **The biennial assessment of forest cover of the country using mid-resolution Satellite data is based on interpretation of LISS-III data from Indian Remote Sensing satellite data (Resourcesat-II).**
- **For the first time, Ortho-rectified satellite data has been used for forest cover mapping due to its better positional accuracy as it removes effects of image perspective (tilt) and relief (terrain) and scale distortions in the image.**