

## India State of Forest Report

### Why in news?

The Union Minister for Environment, Forest and Climate Change recently released the biennial “India State of Forest Report (ISFR)” for 2019.

### What is the ISFR?

- The report is published by the Forest Survey of India (FSI).
- FSI has been mandated to assess the forest and tree resources of the country including wall-to-wall forest cover mapping in a biennial cycle.
- Starting 1987, 16 assessments have been completed so far. ISFR 2019 is the 16th report in the series.

*Forest cover this decade (In sq km)*

Year	2019	2017	2015	2013	2011
Very dense forests (VDFs)	99,278	98,158	85,904	83,502	83,471
Moderately dense forests (MDFs)	308,472	308,318	315,374	318,745	320,736
Open forests (OFs)	304,499	301,797	300,395	295,651	287,820
Total	712,249	708,73	701,673	697,898	692,027

### What are the key findings?

- **Rankings** - Area-wise, Madhya Pradesh has the largest forest cover in the country.
- This is followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.

- In terms of forest cover as percentage of total geographical area, the top 5 States are:
  1. Mizoram (85.41%)
  2. Arunachal Pradesh (79.63%)
  3. Meghalaya (76.33%)
  4. Manipur (75.46%)
  5. Nagaland (731%)
- **Share** - India's forest cover has increased by 3,976 sq km or 0.56% since 2017.
- For the second successive time since 2007, the SFR recorded a gain (an impressive 1,275 sq km) in dense forest.
- This includes Very Dense Forest with a canopy density of over 70%, and Moderately Dense Forest with a canopy density of 40-70%.
- Around 2,140 sq km of dense forests became non-forests since 2017.
- [A dense forest can deteriorate into an open forest (10-40% canopy density) but conversion to non-forest signifies total destruction.]
- Since 2017, plantations with high canopy density have added 2,441 sq km to the dense forest category.
- On the other hand, 1,858 sq km of non-forests have become dense forests.
- These are plantations of fast-growing species since natural forests rarely grow so fast.
- Since 2003, close to 18,000 sq km of dense forests have become non-forests in the country.
- Nearly half of this (8,552 sq km) were in the last 4 years alone.
- While hill forests have gained in quality, large tracts of tropical forests have fallen off the "dense" category since 2017.
- The biggest loss is under the tropical semi-evergreen head in SFR 2019 - close to 23,500 sq km.
- [In India, tropical semi-evergreen forests are found along the western coast, lower slopes of the eastern Himalayas, Odisha and Andamans.]
- Of India's 7.12 lakh sq km forest cover, 52,000 sq km is plantations.
- This means that it cannot substitute natural forests in biodiversity or ecological services.
- Of the nearly 7,28,500 sq km recorded forest area, around 2,15,000 sq km (nearly 30%) recorded no forest cover in SFR 2019.
- In other words, forestland roughly the combined area of Tamil Nadu and West Bengal holds no forests.

## GAINS & LOSSES (in sq km)

2003    2015    Total  
-15    -19    (2003-19)

FORESTLAND LOST			
VDF to NF	545	575	1,120
MDF to NF	8,968	7,977	16,945
<b>Total lost</b>	<b>9,513</b>	<b>8,552</b>	<b>18,065</b>
FORESTLAND GAINED			
NF to VDF	200	233	433
NF to MDF	4,569	5,225	9,794
<b>Total gained</b>	<b>4,769</b>	<b>5,458</b>	<b>10,227</b>

VDF: very dense forest; MDF: mid-dense forest;  
NF: non-forest                      Source: Forest Survey of India

- The total mangrove cover in the country is 4,975 sq km.
- An increase of 54 sq Km in mangrove cover has been observed as compared to the previous assessment of 2017.
- Top three states showing mangrove cover increase are Gujarat (37 sq km) followed by Maharashtra (16 sq km) and Odisha (8 sq km).
- The extent of bamboo bearing area of the country has been estimated 16 million hectare.
- There is an increase of 0.32 million hectare in bamboo bearing area as compared to ISFR 2017.
- Under the current assessment, the total carbon stock in the country's forest is estimated at around 7,100 million tonnes.
- There is an increase of 42.6 million tonnes in the carbon stock of the country as compared to 2017.
- The annual increase in the carbon stock is 21.3 million tonnes, which is 78.2 million tonnes CO2 equivalent.

**Source: Indian Express, PIB**