



## Background

India is one of the few countries of the world to have a robust and scientific system of periodic forest cover assessment and inventory of forest and Tree Outside Forest (TOF). FSI has been carrying out inventory of forest areas since its inception. The forest cover mapping was started in 1987 and since then regular assessment of forest cover is being done by FSI using remote sensing satellite data along with inventory of forest and TOF on a biennial basis. The results of the assessment / inventory are published in “India State of Forest Report (ISFR)”, a biennial report of FSI. The forest cover mapping is a wall to wall exercise using latest remote sensing satellite data whereas the inventory forest and TOF is a sampling based exercise. So far thirteen reports have been published by FSI. The present report *i.e.* ISFR 2015 is 14<sup>th</sup> assessment in this series.

The biennial report contains National, State and district wise information about the forest cover assessment, changes with respect to previous assessment under different canopy classes, estimates of growing stock at national and state level within and outside forests, carbon stock in India's forests etc..

## Salient Findings of ISFR 2015

Based on interpretation of satellite data (October 2013 to February 2014) and the inventory of forests and TOF carried out by FSI during 2008-2014, the key results of India State of Forest Report 2015 are as follows:

### Forest and Tree Resources

- Forest Cover of the country as per this assessment is 701,673 sq. km (70.17 million ha) which is 21.34 percent of the geographical area of the country. The tree cover of the country is estimated to be 92,572 sq km (9.26 million ha) which is 2.82 percent of the geographical area.
- The total Forest and Tree cover of the country as per this assessment is 794,245 sq km (79.42 million ha) which is 24.16 per cent of the geographical area of the country.
- There is an increase of 3,775 sq km in the forest cover of the country as compared to 2013 assessment.

- The forest cover information has been given separately inside and outside the recorded forest area for twelve states. For rest of the states, the information has been given inside and outside the greenwash of Survey of India (SOI) toposheets. As the green wash areas broadly coincide with the 'Forests' of the country, it gives a fair idea about the forest cover inside and outside the forest area.
- In hill and tribal districts of the country, there is a net increase of forest cover of 1,680 sq km and 438 sq km respectively as compared to the previous assessment.
- The North Eastern-states of India account for one-fourth of the country's forest cover. There is a net decline of 628 sq km in forest cover as compared to the previous assessment.
- Mangrove cover has increased by 112 sq km as compared to the previous assessment.
- The total growing stock of India's forest and trees outside forests is estimated as 5,768 million cum which comprises of 4,195 million cum inside the forests and 1,573 million cum outside the forests.
- There is an increase of 110.34 m. cum in total growing stock of the country as compared to last assessments as reported in ISFR 2013. Out of this, the increase inside forest is 21.69 m. cum. and that outside the forest is 88.66 m. cum.
- In the present assessment total carbon stock in forest is estimated to be 7,044 million tonnes. There is an increase of 103 million tonnes in the carbon stock of country as compared to the last assessment.

## Forest Cover in Different Density Classe

**Table 1: Forest and Tree cover of India in 2015**

Class	Area (sq km)	Per cent of Geographical Area
<b>Forest Cover</b>		
Very Dense Forest	85,904	2.61
Moderate Dense Forest	3,15,374	9.59
Open Forest	3,00,395	9.14
<b>Total Forest Cover*</b>	<b>7,01,673</b>	<b>21.34</b>
Tree Cover	92, 572	2.82
<b>Total Forest and Tree Cover</b>	<b>7,94,245</b>	<b>24.16</b>
Scrub	41,362	1.26
Non Forest	25,44,228	77.40
<b>Total Geographical Area</b>	<b>32,87,263</b>	<b>100.00</b>

(\*Includes 4,740 sq km under mangroves)

## New Features of ISFR 2015

The present ISFR contains four new features which are assessment of forest cover within and outside recorded forest area, assessment of forest cover within and outside greenwash area, National & States level forest cover information in different patch size class and important Characteristics of India's Forest in different forest type groups. The new features are briefly described below:

**a. Assessment of forest cover within and outside recorded forest area**

- Twelve states /UTs have provided usable geo-coded boundaries of RFA to FSI which have been used for giving information on forest cover within and outside the recorded forest areas. This will help to understand the change dynamics of forest cover inside and outside the recorded forest area.

**b. Assessment of Forest Cover within and outside Greenwash area**

- Since digital boundaries of Recorded Forest Area (RFA) are not available for all the states/UTs, it is not possible to indicate changes in forest cover within and outside the recorded forest areas. Considering this limitation, FSI has used green wash areas of Survey of India (Sol) toposheets as proxy to the recorded forest areas as it broadly coincides with the recorded forest areas. As per ISFR 2015, the total forest cover inside the greenwash area is 527,640 sq km and that outside the greenwash area is 174,033 sq km.

**c. National and state wise forest cover information in different patch size classes**

- The national and state wise forest cover information in different patch size, no of patches, area and their percentage has been given first time. This information is vital as it tells about the fragmentations status in the forest. As per the report, 9 patches of size more than 10,000 sq km have 39 percent of forest cover.

**d. Important Characteristics of India's Forests in different forest type groups**

- FSI is having information on forest type maps of the country according to Champion and Seth classification and field information on many health parameters of the forests such as soil, regeneration, grazing, fire, biotic pressures etc from National Forest Inventory. Using above two information, it has been attempted to analyse important characteristics of forest in different forest types in the present ISFR. The information has been provided on various characteristics of India's forests in different forest types groups describing forest enabling conditions, forest vegetations and disturbances in forest which gives an account of forest health under different forest types groups.

