



## **Forest cover estimate based on field data: Forest Survey of India**

24 January 2022

NEW DELHI: Amid criticism from experts of its methodology to map forest cover in the country, the Forest Survey of India (FSI) said the forest cover is estimated from the field inventory data, which corroborate the figures obtained from satellite-based interpretation.

It claimed that the criticism of its findings was based on perception and done more to generate sensation.

Sticking to its assessment, which shows how both forest and tree cover increased in India in the past two years, taking the total green cover to nearly one-fourth of the country's geographical area (GA) in 2021, the FSI on Wednesday elaborated on how it did its biennial survey, based on globally-accepted standards, which was backed by an elaborate ground-truthing exercise. Environment minister Bhupender Yadav had last week released the FSI's 'India State of Forest Report (ISFR), 2021' which shows that 'forests' and 'trees outside recorded forest areas', put together, reported an increase of 2,261 sq km (0.3%) last year compared to the previous assessment in 2019. The increase took the overall green cover to 8,09,537 sq km (24.6% of GA) which includes 7,13,789 sq km of forest cover (21.7% of GA).

Critics, however, questioned the FSI's claim with one of them, M D Madhusudan, ecologist and co-founder of the Nature Conservation Foundation, even highlighting that the purported gains come largely from FSI's "problematic and perverse redefinition of 'forest' to include tea gardens, coconut plantations, urban built-up areas, native grasslands wrecked by invasive trees, and even treeless desert scrub".

In his social media post, he said, "There is little evidence to show that India's natural forest cover has actually increased. In fact, it has very likely declined." Calling such remarks "factually incorrect", the FSI said it carried out an inventory of forest and trees outside forest on adequate sample points spread over the entire country.

"The forest cover is also estimated from the field inventory data, which corroborate the figures of forest cover obtained from satellite-based interpretation. Change polygons are ground-truthed by FSI as well as state governments, then only is the interpretation accepted," it said. The FSI emphasised that it carries out "wall to wall forest cover mapping of the country", using remote sensing based methodology at two year intervals, and noted that the points raised by the critics were their "perception".

On critics' point on counting of tea gardens and coconut plantations as forest, the FSI flagged the definition of 'forest cover', used in the ISFR, where it is defined as "all lands, more than one hectare in area, with a tree canopy density of more than 10% irrespective of ownership and legal status. Such lands may not necessarily be a recorded forest area. It also includes orchards, bamboo, palm etc."

The FSI said, "Those areas of tea gardens, which satisfy the above conditions and are captured by the satellite sensor are treated as forest cover, mainly due to the tree cover existing there. Depending upon the canopy density, they are categorised as 'open forest', 'moderately dense forest' and 'very dense forest'."