What is a forest? Environmentalists question India's definition

A tribunal in India is looking at conflicting data over the size of the country's tree cover in a dispute over what counts as a forest.



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India's environmental court is investigating whether the country's natural forests are in steep decline, despite claims from the government that the country's green cover has expanded dramatically over the last two decades.

At stake is progress on India's pledge to drastically increase the size of its forested land to help it achieve net zero emissions by 2070 – and potentially bank on its trees in a future carbon trading market.

The National Green Tribunal (NGT) opened a case in May following reports that India has lost 23,000 square km of tree cover so far this century.

That figure is from the Global Forest Watch (GFW), an independent watchdog that publishes real-time data on the world's forests from satellite images. Recent images

indicate that 95 per cent of the tree cover loss in India occurred within natural forests between 2013 and 2023.

But GFW's research contrasts sharply with official data that show India's forest cover has risen since 1999. The last report from the government showed forest and tree cover increased by 2,261 square km between 2019 and 2021.

India's forests, among the world's most biodiverse habitats, are strained by competing demands. The country continues to legally fell large swathes of forests for infrastructure and mineral resources for its growing population, even as the government has promised to cover a third of its land with forests, from about 25 per cent currently, in a bid to reach net zero emissions and meet its climate targets.

Changing definition

Ecologists who have analysed the government's forest data say the conflicting numbers stem largely from a change made in 2001 in the way India classifies land designated for forests.

"The purported gains come largely from Indian government's problematic and perverse redefinition of 'forest' to include green areas outside of forests," MD Madhusudan, the cofounder of the Nature Conservation Foundation, told Context.

Forests are a sensitive matter to the Indian government. India's climate targets and environmental responsibilities projected globally are deeply

tied up with the success story of its forest.

Kanchi Kohli, law and policy researcher, NALSAR University of Law

GFW's definition of a forest is based on two factors: biophysical, which includes height, canopy cover and the extent of trees; and land use, which requires that land be officially or legally designated for forest use.

India includes all green parcels that meet certain biophysical criteria in its forest numbers, regardless of the land's legal status, ownership or use. These areas include tea gardens, coconut plantations, urban areas, grasslands and even treeless desert scrub, Madhusundan said.

"So long as a mere 10 per cent of a hectare of land had trees, it was forest," he said.

Madhusundan has examined all 17 biennial reports produced by the Forest Survey of India (FSI), a government agency, since 1987, which showed that India's forest cover declined until 1997. Since then, the reports indicate India added 45,000 square km – an area bigger than the size of Denmark – by 2021, according to the last report released.

FSI did not respond to multiple requests by email and phone from Context for comment.

Earlier studies by independent and government scientists have also revealed discrepancies with official estimates of the size of India's forests.

India's forest cover saw a decline of about 4,300 square km between 2000 and 2012, according to a 2013 global study led by Matthew Hansen, a US-based remote-sensing scientist.

Scientists at the state-run National Remote Sensing Centre (NRSC) in 2016 showed that India cumulatively lost about 31,858 square km of forest between 1995 and 2013.

India's government data shows only about 3,000 square km of forest was cut down between 2008 and 2022.

New rules

A flurry of changes to legislation and rules that govern forests has diluted environmental protections over the years, said Kanchi Kohli, an independent law and policy researcher in India.

"Forests are a sensitive matter to the Indian government," she said. "India's climate targets and environmental responsibilities projected globally are deeply tied up with the success story of its forest."

At the heart of the dispute may be conflicting views of the value of trees.

"It becomes clear that currently in India, forests are looked at for their carbon potential and exchange value, rather than biodiversity, livelihood rights or cultural associations," Kohli said.

India is not alone in diverting forests for energy and industry. But governments may also see the potential of forests in the global carbon trade, in which expanding forests could allow countries to offset the emissions of other nations in exchange for money, Madhusudan said.

At the next United Nations climate summit in November, countries are expected to negotiate the details of international trading for carbon offset credits. India and other nations have argued that forests should accrue credits that can then be traded with other countries or the private sector.

The tribunal has asked the FSI and other federal departments to explain how they obtain their forestry figures and respond to allegations that India's forests are shrinking and not growing. The next hearing in the case in on Nov. 18.

GFW's methodology is also likely to come under scrutiny in the case, Kohli said.

Backing up its data will be a critical test of the government's efforts to portray India's success, both at home and abroad, in balancing economic development with climate action.

"It is important for India to present a good story about its forests," Kohli said.

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