



India's 'carbon sink' target

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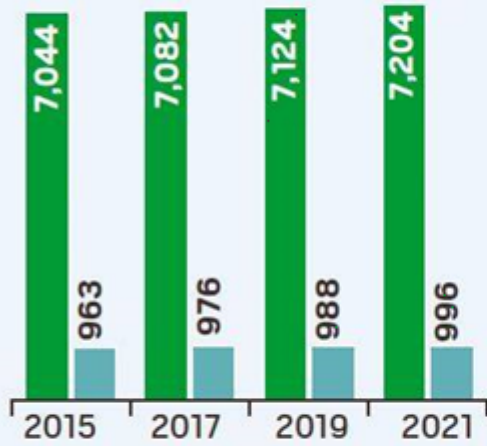
Why is in news? India is committed to increasing its carbon sink by 2.5-3 billion tonnes of CO₂ equivalent by 2030. In the last one year for this would be

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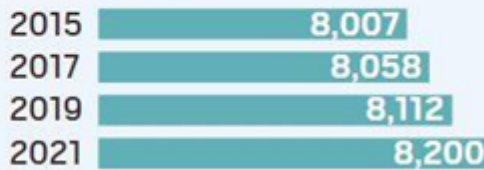
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TAKING STOCK

■ Carbon Stock in Forests
■ Carbon Stock in tree cover
(as per ISFR, in million tonnes)



TOTAL CARBON STOCK (in million tonnes)



TOTAL CARBON SINK IN CO₂ EQUIVALENT (in billion tonnes)



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When India updated its international climate commitments first made in 2015 in the run-up to the Paris climate conference in August last year, it enhanced two of the three original targets it had promised to achieve by 2030.

It said it would reduce the emissions intensity of its economy, emissions per unit of GDP by 45 per cent from 2005 levels instead of the 33 to 35 per cent promised earlier.

And that it would ensure that renewables formed at least 50 per cent up from the original 40 per cent of its total installed electricity generation capacity.

The third target, a commitment to increase its carbon sink by 2.5 to 3 billion tonnes of carbon dioxide equivalent by 2030 through the creation of additional forest and tree cover was left untouched.

A year earlier too, when Prime Ministerspoke about India’s five-point “Panchamrit” action plan at the Glasgow climate meeting in 2021, there had been no mention of this third commitment.

Status of Carbon Sink target

The climate targets had been announced in a hurry ahead of the 2015 climate change conference because these were considered crucial to the finalisation of the Paris Agreement.

The carbon sink target had not been defined precisely in 2015. India had committed “to create an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through additional forest and tree cover by 2030”, but it had made no mention of the baseline year.

That is, it did not say which year this additional 2.5 to 3 billion tonnes CO2 equivalent of carbon sink would be measured against.

By contrast, India’s target on emissions intensity specified 2005 as the baseline year. And the commitment on renewable capacity did not require a baseline because it was an absolute target.

India’s original targets on emissions intensity and renewable capacity were quite modest, and thus easy to define precisely. But the carbon sink target required a detailed study, which could not have happened in a short time.

FSI report

There was another apparent ambiguity other than the absence of the baseline year as well. In an analysis published in 2019, the Dehradun-based Forest Survey of India (FSI) pointed out that even the word “additional” in the Indian commitment could be interpreted in different ways

So, “additional carbon sink” could mean (i) over and above the carbon sink that existed in the baseline year, or (ii) over and above what it would be in the target year of 2030 in the business-as-usual scenario.

India’s forests and tree cover had a carbon sink of 29.38 billion tonnes of CO2 equivalent in 2015, and this was projected to increase in a business-as-usual scenariothat is, without the intervention of any fresh effortto 31.87 billion tonnes in 2030

The first interpretation of “additional” (over and above the baseline year) would mean India’s target would be met if the carbon sink in 2030 was in the range of 31.88 to 32.38 billion tonnes of CO2 equivalent.

In the second interpretation (over and above the target year), the target would be between 34.37 and 34.87 billion tonnes of CO2 equivalent.

Persisting ambiguity over baseline year

Last year, the government appeared to remove the ambiguity regarding the baseline year for the carbon sink target by committing itself to the baseline of 2005

India had already achieved 1.97 billion tonnes of additional carbon sink as compared to the base year of 2005

The remaining target can be achieved by increasing forest and tree cover of the country through implementation of various central and state sponsored schemes

This announcement of 2005 as the baseline suddenly brought the carbon sink target within easy reach. India was well within its right to select 2005 as the baseline year. Under the Paris Agreement, countries themselves are supposed to set their climate targets, and this includes the choice of baseline year.

India's emissions intensity target also has 2005 as the base year. Several other countries, including the United States, use 2005 as the baseline year for their commitments

The Way Ahead

Internationally, India can only be held accountable to what is contained in its official submission to the secretariat of the UN Framework Convention on Climate Change

The promised addition to carbon sink would have to be measured against what existed in the baseline year (2005) and not what it was projected to be in the target year (2030) in the business-as-usual scenario.