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How India’s coastal forests could become a goldmine

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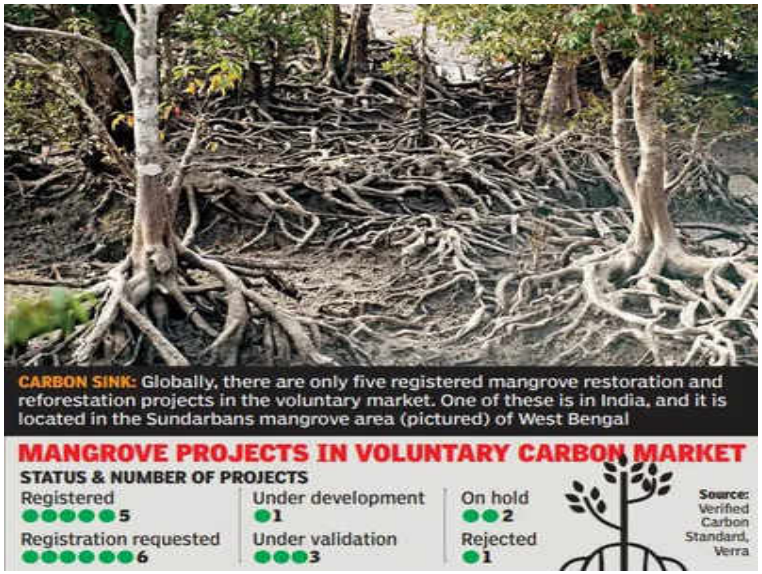

They lack the solemnity of a banyan tree and the stature of a deodar, but mangroves are second to none in the fight against climate change. Be it the Sundarbans in Bengal or the Gulf of Kachchh mangroves in Gujarat, they have been soaking up carbon dioxide with about five times the efficiency of terrestrial trees. That’s because they absorb this greenhouse gas from both the ground and the air with their aerial roots.

Recognising the importance of mangroves, the Centre had announced the Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) scheme in this year’s Budget. Under the scheme, mangroves will be planted along India’s coasts and on salt pan lands. However, experts say the scheme’s success will depend on focused surveys to understand the mangrove ecosystems.

CARBON SINK: Globally, there are only five registered mangrove restoration and reforestation projects in the voluntary market. One of these is in India, and it is located in the Sundarbans mangrove area (pictured) of West Bengal

MANGROVE PROJECTS IN VOLUNTARY CARBON MARKET

STATUS & NUMBER OF PROJECTS

Registered	Under development	On hold
●●●●●5	●1	●●2
Registration requested	**Under validation**	**Rejected**
●●●●●●6	●●●3	●1

Source: Verified Carbon Standard, Verra

Money From Mangroves

Mangroves are good for the environment, and they could bring in dollars too. That's because each tonne of carbon dioxide they suck out of the air earns one 'carbon credit', and these credits sell in the international voluntary market for $5-12 each. In fact, mangroves generate about 50 carbon credits per hectare, far more than the 5-15 credits per hectare from agricultural activity, and 20-30 from terrestrial afforestation. So, increasing India's mangrove cover makes sense.

"Conservation, plantation, and restoration of mangroves need to be sped up," says Kathiresan Kandasamy, former

director and honorary professor of the Department of Marine Science at Annamalai University. “Currently, we have 4,992 sq km of mangrove cover. In the 1960s, we had around 6,000 sq km. If we increase mangrove cover by 200 sq km every year, we can achieve the 6,000 sq km mark. ”
That target sounds ambitious because between 2017 and 2021, India added just 71 sq km of mangrove cover, according to the Forest Survey Report 2021. Kandasamy, however, thinks it is doable. “I worked out the economics – the fishing activities and carbon credit value would amount to Rs 1,080 crore and the cost of restoration is just Rs 200 crore. That’s a fivefold return. ”
The problem is, there isn’t enough data on carbon sequestration by mangroves, so estimating the amount of carbon stored in themis difficult. Himadri Sekhar Debnath, chairman of the West Bengal Biodiversity Board, stresses on the need for these measurements: “Carbon sequestration measurement can help with enumerating carbon credits, which can act as a monetary incentive as well for the local communities. ”

Planting The Right Trees
Couldn’t we earn the same credits through investment in renewables, especially since mangroves grow slowly, taking up to 30 years to mature?

“Harnessing renewable energy is expensive, be it solar, wind or tidal. On the other hand, mangroves are cost-effective – it takes only Rs 5 to plant a mangrove sapling and then nature takes over and maintains the plants, mostly,” says Abhijit Mitra, associate professor in the department of marine science at the University of Calcutta.

But planting mangroves for the sake of it won’t do, says Debnath. Tree species need to be chosen keeping the salinity level in mind. “Which species will thrive in a particular area depends on the salinity of the area. If some Scan this QR code or visit timesspecial. com. Log in to unlock 3 months of free access. How colonialism sparked a modern Tamil encylopaedia(unsuitable) species takes over, it would lead to species degradation. ”

Now that the government is pushing for mangrove plantation in mission mode, the threat of haphazard plantation looks real because companies aiming to acquire carbon credits fast might plant the fastest-growing species, not those that are most suitable in terms of salinity.

Caring For Existing Cover

India’s mangrove cover has degraded due to human activity, so it’s important to involve the local communities in conservation efforts. “An immediate engagement of local communities would be by promoting mangrove nurseries,” says Kanna K Siripurapu, a senior research fellow at the South Asia Consortium for Interdisciplinary Water Resources Studies (SaciWATERs) who is also the regional manager of the Eastern Indian Mangrove Alliance for Climate and Conservation (EIMACC), founded by SaciWATERs.

“In the long term, if the rights of the local communities are recognised by the government, the land ownership would be with them and they can benefit directly from the development or investment that happens in the mangrove ecosystems,” he adds.
Conservationist Soumya Ranjan Biswal recommends setting up a task force for protecting mangroves while raising awareness about them in the local communities, but Siripurapu says, “Let alone a task force, India does not have a body dedicated to the conservation and regulation of mangroves. ”