# Can green credits benefit India's forests?

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A eucalyptus plantation at near Chinnakkanal in Idukki. | Photo Credit: The Hindu

he Green Credit Programme, announced by the Environment Ministry in October 2023, is a market-based mechanism where individuals and companies can claim incentives called 'green credits' for contributions to environmental and ecological restoration. However, there is criticism that these initiatives may be used to circumvent existing laws, particularly those that deal with forest conservation. Can green credits benefit India's forests? Vaibhav Chaturvedi and Debadityo Sinha discuss this in a conversation moderated by Jacob Koshy. Edited excerpts:

Vaibhav, how do you understand the green credit programme as it stands today?

■ Vaibhav Chaturvedi: The larger point is we have to incentivise green action and sustainable action and create a system where green actions are undertaken by many actors. You could do it in different ways such as having a 'command and control' policy that directs everybody to undertake action at the risk of penalties. But in policymaking, the role of incentives is important. Green credits fit in as an incentive architecture to deliver on, for instance, water conservation and afforestation by involving individuals and corporations.

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Debadityo Sinha: This is a market-based incentive mechanism, and it has six or seven sectors, including forest and waste management. But it matters how you execute it on the ground. Are those implementing it aware of ground-level challenges? What is the expertise of the people implementing it? The scheme is not a bad one, but going by the guidelines alone, it could have been better. It is taking a very narrow view of only planting trees to earn credits. It has missed out on several other aspects of the ecosystem.

The guidelines aim to incentivise the restoration of degraded forest land. A forest can degrade for a variety of reasons, natural and man-made. Afforestation may seem like a positive end in itself, but couldn't there be negative consequences too? Such as monocultures or promoting vegetation that is not suitable for the place?

Vaibhav Chaturvedi: That's a valid concern. But it is not specific to the green credits programme. India has always promoted plantations and it has unfortunately promoted monocultures in several places. It is possible that the green credit programme could have similar fallouts and you have to be careful not to incentivise these monoculture plantations.

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As Debadityo said, this is an incentive scheme in a market-based formulation. For example, the government could also incentivise planters by paying, say, ₹100 per tree. You get capital subsidies for solar plants. Being a market-based incentive approach, there has to be a demand and supply side. In carbon markets, the commodity is carbon crates. Here, it is green credits.

But plantations and monocultures were also driven by incentives. Can you regenerate a forest ecosystem in a market mechanism without compromising on biodiversity?

Debadityo Sinha: There are two aspects to it: the land where you're going to have plantations and how you're going to do the plantations. The guidelines require States to identify degraded forests within their jurisdiction. Now, a forest is not just trees; there can be open patches within it. We have more than 200 types of forests. The forests of the Central Indian landscape, the whole Deccan Peninsula, and Leh-Ladakh are not dominated by trees. There are bushes and many other things. What happens when plantations come up in these areas? There's a huge incentive now; it's not small like the Compensatory Afforestation schemes. Wherever these schemes have promoted plantations, we have seen disaster. We have seen forest departments promoting plantations by clearing existing vegetation, uprooting local trees, planting big ones using JCBs and tractors. Such approaches can impact local biodiversity, soil health... For regeneration, you don't have to do any major intervention, you have to just protect the area from disturbances. And in 10-15 years, we can have a good natural forest supporting biodiversity and benefiting local communities.

Et's say a 1,000 trees are planted. After two years, an independent body will do a verification. And let's say growing 1,000 trees in a particular patch earns you one green credit per tree. Now, the interesting thing is, this could be connected to voluntary carbon markets. In your experience in market-based mechanisms, we are familiar with carbon offsets as they are measurable quantities. Can you actually devise a logical trading system around such a philosophy of green credit and carbon?

♥ Vaibhav Chaturvedi: It is important to look at the larger picture. The larger picture is we want to incentivise biodiversity conservation of endemic forests, promote local species, etc. There will always be measurement problems. Like, how do you measure the biodiversity impact of two trees that are, say, 200 meters apart? Of course, it is going to be very confusing, and that science is evolving. But let us take it that we will never be able to resolve that perfect scientific measure and that is where social science comes in. The social science part is, do we have a reasonable measurement? An imperfect but reasonable measurement only means that a larger set of stakeholders, civil society, and the media are okay with that approach. I think the trap that we often fall into is trying to get to the perfect measure. Ideally, the government can already give money for these kinds of programmes. We know there is a fiscal constraint in a developing economy. So, these kinds of instruments where you are leveraging money from especially the private sector are good.

Et's say you're growing some forests for sequestering carbon. I can understand that. But let's say in a desert or some other ecosystem trees don't work and you need shrubs, for instance. Now, you can set a goal of reviving the ecosystem of this place. Can you say how many units of ecosystem revival is equal to the units of carbon that are captured? And extend that to groundwater recharge and air pollution? Do you think all these criteria are commensurable? Vaibhav Chaturvedi: That's the biggest challenge with this market — fungibility. Let's say in the carbon market, there are many different kinds of projects. There is a solar project, there is a cookstove project, there is a forestation project. Ultimately, whatever they do, they save one unit of carbon and it can be measured. In green credits, one is a biodiversity credit, one is a water conservation credit. How do you, on the same platform, equate a credit of one unit of water conservation with one unit of ecosystem restoration? So yes, fungibility is not there and that is a challenge. The whole idea behind markets is that there are many suppliers and then many people demand the same commodity. That's how you have something that is close to a perfect market. Here, what you will end up having is five projects, which are about water conservation. And then on the demand side also five people who are interested in water conservation. So, they will be backing this trade. So the market will still function. But they are definitely not fungible commodities.

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Debadityo Sinha: One important aspect is how green credits will influence mandatory compliances. For example, in the case of forest clearances, the guidelines say the green credits earned from these conditions can be used while applying for forest clearances. And again, the problem is, can you separate forest, water, biodiversity, and livelihood? Can you make them uniform? Every place is different, unique. So, there is a problem. And I think this is going with the assumption that we are not going to compromise on our industrial growth, economic growth, that is something which is primary. All these things are taken care of, and industry should not be threatened that such a law is there. So basically, it is more of ease of doing business.

Just to build on that, the way this is structured, do you think it clashes with any of our other environmental laws?

Debadityo Sinha: Definitely. At least in this guideline, I can see clearly the clashes with the Forest Conservation Act. First there's no definition of forest, and no definition of degraded forest. So, we end up wrongly categorising open natural ecosystems also as forest. Second, this programme ends up bypassing the whole forest clearance process just to help the industries get green credits. While applying (for forest clearance) they will say, "I have already green credit, you give me the clearance quickly." Normally. you have stage one, stage two – a step by step process — and this is a longer process but ideal. This is because when things are so complicated, we have to take a very nuanced approach and you have to follow all the principles of environmental law, which anyway is compromised in our country. So we should take the steps to strengthen it.

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