

News

Saving forests, cultures and carbon dioxide

'Win-win' conservation should start with indigenous lands and other protected areas.

Anjali Nayar



Conserving trees in indigenous lands could have many benefits. J. Sweeney / Lonely Planet Images

Creating and strengthening protected areas and indigenous lands is one of the most effective ways of reducing greenhouse gas emissions from deforestation, according to a new paper.

The study, a collaboration between forest scientists from 13 universities and research institutions, concludes that bolstering support for indigenous lands and other protected areas (ILPAs) is a "win-win" situation: it could slow forest loss, conserve biodiversity and preserve local cultures.

Support for forest protection programmes was one of the few successes during last December's climate talks in Copenhagen, Denmark, which failed to bring about a legally binding treaty to rein in carbon dioxide emissions.

During the meetings, countries agreed that developed countries would financially support poor nations in protecting their forests through an initiative called REDD-plus — Reducing Emissions from Deforestation and Forest Degradation, with added benefits for local communities and indigenous people.

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But although the Copenhagen meetings called for the "immediate" establishment of a REDD-plus mechanism, no clear targets, strategies or timelines were adopted.

The new article, published online today in *PLoS Biology*¹, suggests that creating new protected areas and strengthening the management of existing protected areas might be the best place to

start.

"This old school conservation strategy is finding new purpose in one of our newest global challenges," says Taylor Ricketts, the director of the World Wildlife Fund's science programme and lead author of the paper.

Reality check

The study points out that, globally, ILPAs contain more than 312 billion tonnes of carbon². Using case studies in the Brazilian Amazon, the researchers show that deforestation in protected areas and indigenous lands is 7–11 times less than in the surrounding areas.

Previous models have shown that protected areas established in the region between 2003 and 2007 could by 2050 prevent around 227,000 square kilometres of deforestation, more than one-third the world's annual greenhouse gas emissions in carbon dioxide equivalent³.

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In Brazil, indigenous lands are particularly important, says Ricketts. "They are about four times the area of national and state protected areas and are often sitting right in the path of deforestation."

The cost of establishing and managing a protected areas network in developing countries is around US\$4 billion per year, four times more than the sum that is spent now⁴. However, per ton of carbon dioxide equivalent, the study points out, this amounts to roughly 9–13 percent of the capital that could be generated by REDD-plus at a conservative price of US\$5 per ton of carbon dioxide equivalent.

ILPAs are so effective in part because they are "ready to go", says Ricketts. Whereas some REDD-plus proposals require the development of substantial infrastructure — which can be costly and time consuming — protected areas "are legally set up, ready to spend money, have clarified tenure issues, have staff and have infrastructure", he says.

"These points are very important to get into the policy discussion right now," says Celia Harvey, the vice president of Global Change & Ecosystem Services at Conservation International, an Arlington, Virginia—based international not-for-profit organization that runs pilot REDD projects in Africa and South America. "Our focus is going to move very quickly from how we design the REDD-plus framework to how we implement it on the ground, and these observations from the field will be key."

Harvey suggests, however, that such programmes shouldn't just focus just on the protected areas but also on the communities at their margins. "For indigenous lands and protected areas to be effective in the long term, it's critical that we work with the communities living around those protected areas and make sure they have sustainable livelihood alternatives," she says.

John Niles, the director of the Tropical Forest Group, a non-governmental organization based in San Diego, California, that focuses on forest policy, warns that funnelling support into existing protected areas through REDD may be tricky because of the ongoing debates about

what constitutes a carbon saving.

Countries are generally rewarded not for the amount of forest they have, but rather the amount of forest carbon they prevent from being deforested and released to the atmosphere — a concept called additionality. So because protected areas are already protected under law, they may not qualify, says Niles. "The legal additionality issue has been a problem in the past," he says. "Why would wealthy governments pay for what the developing countries have already committed to?"

But Niles adds that because REDD-plus does not yet have a governing body or mechanism, there is an opportunity change the rules. "We've learned a lot about additionality and this would be a great time to make additionality tests more relevant to reality," he says.

• **References**

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