IFMR Research | CENTRE FOR DEVELOPMENT FINANCE

Developments: the ESF newsletter

INSIGHT

The REDD Path to Forest Conservation

Forest conservation through REDD projects can achieve a measure of success by giving ownership rights and economic incentives to indigenous communities. A commentary by CDF Researcher Snehashis Sarkar.

Forests deliver a vast array of products and services to society. They are also now widely accepted as a source of ecosystem services that are crucial for human development. The services cut across a broad range: generation of oxygen, conservation of genetic diversity, storage and purification of water, and prevention of soil erosion among others. On a global level, forest ecosystems stabilize climate by regulating carbon and water cycles.

Despite their immense contribution, policy and markets have failed to get these services accounted at the right value when economic decisions are made. As a result of undervaluation of benefits (among other reasons), forest resources have been exploited and depleted at an unsustainable rate in the face of economic development (Millennium Ecosystem Assessment 2005).

According to estimates by the Food and Agriculture Organization (FAO) of the United Nations, the maximum annual net forest loss between 2000 and 2005 occurred in Brazil, Indonesia, Sudan, Myanmar, Zambia, United Republic of Tanzania, Nigeria, Democratic Republic of the Congo, Zimbabwe and Bolivarian Republic of Venezuela (FAO 2005).

Over the past few years, global attention has started zeroing in on another essential ecosystem service that forests provide naturally: carbon sequestration and storage.

Forest biomass (both above and below ground), dead wood, soil and forest litter store an aggregate of 638 Gt (1 Gt = 10^{12} kg) of carbon globally, according to FAO. Deforestation and forest degradation account for 12-17 % of the average annual global carbon dioxide (CO_2) emissions (IPCC 2007; van der Werf, Morton et al. 2009).

For climate experts, looking for viable ways to mitigate climate change, sequestration and long-term storage of carbon by forests seems to offer a cost-effective option. According to them, reducing Emissions from Deforestation and Forest Degradation in Developing Countries, known popularly by the acronym REDD, has the potential to cut down cost of CO_2 abatement by 40% - 50% (Eliasch 2008).

The Push for REDD

REDD was first introduced at the eleventh session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) in Montreal in December 2005. It got the first big push in the climate agenda laid out in Bali Action Plan, which was the outcome of Bali Climate Change Conference (COP13) in December 2007.

REDD along with "conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries"—referred to as *REDD plus* in COP 14 at Poznan in December 2008—gained momentum in the run-up to the much-hyped Copenhagen Conference (COP 15) in December

2009. The conference gave REDD a booster by recognising the importance of reducing emissions from deforestation and forest degradation and the need to enhance removal of greenhouse gas emissions by forests.

Kickstarting the Process

Studies have pointed out that deforestation can be effectively reduced within protected areas, which store 15.2% of the world's terrestrial carbon stock (Clark et al. 2008). These are areas rich in forest wealth and animal biodiversity. Strengthening the management and protection of these areas, as part of any REDD instrument, would thus produce double dividends of carbon benefit and biodiversity conservation (Campbell et al. 2008).

But protected areas are not immune to risks of leakage (displacement of activities causing deforestation to areas around and outside their zones). The impact of this risk would be substantially high as 85 % of the terrestrial carbon stock lies outside protected areas. The threats can be minimized only by taking care of livelihoods and other interests of people dependent on forest resources of protected areas.

But making that work is not an easy task, considering that around 60 million indigenous people are entirely dependent on forests and another 350 million people living in and around forests depend heavily on its resources for self-consumption as well as livelihoods (World Bank 2004). So if any strategy to halt extraction of forest resources through REDD comes with such enormous risk and opportunity cost, what is the way out?

Ownership to Local Communities

Recent research shows that forest commons are likely to produce above average carbon storage and livelihood benefits when local communities have greater autonomy in management and ownership (Chhatre and Agrawal 2009). Other studies show that transfer of ownership rights is likely to encourage them to defer immediate livelihood benefits and conserve forest resources at sustainable levels (Nepstad 2006).

One good way to reinforce this incentive of ownership rights is to give economic compensation to indigenous communities for avoiding extraction of forest resources (Nepstad, Merry et al. 2007; Jack, Kousky et al. 2008). To reduce risks of leakage and stress on forest resources for livelihood in the long term, REDD projects should employ and involve indigenous communities.

Mainstreaming of biodiversity conservation and socio-economic benefits for indigenous and tribal communities into the objective of any *REDD plus* like development has been encouraged by a number of international policy and legislation pieces.

Among them is ILO's Indigenous and Tribal Peoples Convention, 1989, a legally binding treaty ratified by 20 nations. This convention calls for enabling indigenous and tribal peoples' free, prior and informed participation in formulation, implementation and evaluation of all policies and development programmes that affect them directly. Also, the Convention on Biological Diversity (CBD), a legally binding treaty ratified by 193 parties, calls for sustainable use of biodiversity components and fair equitable sharing of the benefits from utilization of genetic resources.

These apart, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), adopted by the UN General Assembly on 13 September 2007, entails UN bodies to promote the interests and welfare of indigenous communities. This extends to any internationally ratified REDD mechanism coming out of negotiations of the COP to UNFCCC.

The Way Ahead

Initiatives like REDD could be a shot in the arm for tropical rainforest countries in Asia, Africa and Latin America, where implementation of sustainable forest management is mired in several challenges.

It can reward a country like India which has conserved its forest resources by implementing one of the

world's most progressive set of policy and legislation, though often at the cost of economic progress around protected areas (which could minimize dependence of communities on forests) and development of indigenous and tribal communities. International compensation for avoided deforestation and sustainable forest management in India can help the country with additional finance for improving people's lives in forested regions and sustaining its conservation efforts in a more inclusive manner.

Once REDD gets activated formally, the bigger challenge for the programme would be to ensure that the funds and capacity support are able to create the incentives for lasting emission reductions from avoided deforestation as well as promote enhanced forest ecosystem services, livelihoods for forest-dependent communities, pro-poor development and conservation of biodiversity.

References

- Campbell A, Miles L, Lysenko I, Hughes A, Gibbs H (2008): "Carbon storage in protected areas: Technical report". UNEP World Conservation Monitoring Centre, Cambridge, U.K
- Chhatre A, Agrawal A (2009): "Trade-offs and synergies between carbon storage and livelihood benefits from forest commons".*Proceedings of the National Academy of Sciences of the United States of America* 106: 17667–17670.
- Clark, S., Bolt, K., Campbell, A. (2008): "Protected areas: an effective tool to reduce emissions from deforestation and forest degradation in developing countries?" Working Paper, UNEP World Conservation Monitoring Centre, Cambridge, U.K
- COP 2009: "Copenhagen Accord". Viewed on 24 March 2010 (http://unfccc.int/files/meetings/cop_15/application/pdf/cop15_cph_auv.pdf)
- Eliasch, John (2008): "Climate change: financing global forests, The Eliasch review". (http://www.occ.gov.uk/activities/eliasch/Full_report_eliasch_review(1).pdf)
- FAO (2006): "Global Forest Resources Assessment 2005: Progress towards sustainable forest management". FAO Forestry Paper 147.
- ILO 1989: "C169 Indigenous and Tribal Peoples Convention, 1989". (http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_100897.pdf)
- ILO 2007: "ILO standards and the UN Declaration on the Rights of Indigenous Peoples - Information note for ILO staff and partners". (http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_100792.pdf)
- Millennium Ecosystem Assessment (2005). Ecosystems and human well-being: Synthesis. Washington, D.C.: WRI (http://e2ma.net/go/.208183546/208183546/212488455//goto:http://www.millenniumassessment.org/documents/document.356.aspx.pdf)
- Nepstad D, et al. (2006): "Inhibition of Amazon deforestation and fire by parks and indigenous lands". *Conservation Biology* 20:65–73
- Nepstad D, Merry F, Rodrigues HO, Schwartzman S, Almeida O (2007): "The Costs and Benefits of Reducing Carbon Emissions from Deforestation and Forest Degradation in the Brazilian Amazon". Woods Hole Research Center, Falmouth, MA
- World Bank (2004): "Sustaining forests: a development strategy". Viewed on 15 March 2010 (http://siteresources.worldbank.org/INTFORESTS/Resources/SustainingForests.pdf)