



6.6 Financing CFM through REDD

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The Technology and Sustainable Development section of the Clean Technology and Environmental Policy Group, University of Twente, is working on a project financed by Netherlands Development Cooperation entitled “Kyoto: Think Global, Act Local” which will run from 2003 to 2009. The project is investigating the potential for carbon finance to support community forest management.

REDD policy

Reducing emissions from deforestation and degradation (REDD) would provide financial support to countries that are able to bring down their rates of deforestation, in respect to the carbon emissions avoided. REDD also includes reduced degradation; if degradation is ignored, there is a significant risk that countries will stabilise their loss of forest area (deforestation) but switch to unsustainable extraction forest products in the remaining forest, lowering biomass densities and carbon stocks there instead.¹

There are still many uncertainties about what form REDD policy will take, not least whether the funds will be derived from selling credits in a market system (as with today’s CDM) or will be voluntary contributions from the industrialised countries, administered as a multi-lateral fund. A more fundamental issue has not yet been subject to much discussion: whether community forest management (CFM) could be a recipient of any such funds. CFM can reduce emissions from forest degradation in a cost-effective manner, at least in forests which have a relatively low commercial value such as savanna woodlands and temperate mountain forests in the tropics. This being so, then carbon funds should in principle be available, and could provide a valuable support and incentive to such activity in the future.



THE UNDERLYING
GOAL OF THE
PROJECT IS INCOME
GENERATION

AND BROADENED LIVELIHOOD
OPPORTUNITIES FOR PEOPLE WHO
DEPEND ON FORESTS, WHILE
ENCOURAGING SUSTAINABLE FOREST
MANAGEMENT.

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Degradation and carbon emissions

Degradation in rainforests is associated largely with commercial exploitation of timber (selective logging) — legal or otherwise — although it is often followed by deforestation as a result of agriculturalists moving in along timber access roads. It may be partially visible in satellite images and some statistics may be available, at least to the extent that the logging is legal. To reduce degradation requires instruments directed to the relatively small number of actors involved; this includes incentives to the companies for more sustainable logging practices, and better enforcement of regulations. The opportunity costs may be high, however, given the value of the timber.

In savanna forests and the temperate mountain forests of the tropics, on the other hand, degradation is most commonly associated with poverty. It results from the subsistence activities of local populations:

- shifting cultivation in cycles too short to allow the forest to recuperate naturally;
- firewood and charcoal extraction;
- grazing;
- collection of fodder; and
- burning for hunting.

These activities are not concentrated in specific areas and are difficult to detect in satellite images. In addition, they are spread out over large areas and long-time periods, and, being in the informal sector, are not recorded anywhere. Large-scale timber extraction is limited in these ecosystems by the fact that valuable logging species are thinly spread. Generally the opportunity costs in such forests are much lower than in rainforests.



Emissions from degradation of dry forests as a result of these activities have not been included in global estimates of emissions due to deforestation. As noted, this kind of degradation is not easily visible in satellite images; also, very few developing countries have detailed forest inventory data on changing carbon stocks over time (FAO 2006). The degradation losses for seven largely-dry-forest countries in sub-Saharan Africa was roughly estimated, based on observed off-take rates and secondary data on mean annual increments (Skutsch et al. in press). Although CO₂ loss due to this degradation is only 0.9–2.3 tonnes/ha/year, it totals 178 million tonnes for the seven countries, which is more than the official estimate of emissions resulting from

deforestation (154 million tonnes). Although the figures are very approximate, the point is clear: in dry forest areas, degradation may be at least as important as deforestation in carbon terms. Clearly, REDD policy will have to address this problem.

Community forest management

Community forest management (CFM) was introduced in the 1980s in a number of countries (e.g., India, Nepal) and in the 1990s in many others (e.g., Mali, Tanzania) as a means of combating deterioration of state forests by giving the local populations both rights to and responsibilities for their management. In most cases CFM does not involve much silviculture work other than fire control; instead, bylaws limit and ensure fair distribution of off-take of forest products such as firewood and fodder. It has been quite successful in many places, particularly in areas where the timber value of forest is relatively low. In Nepal, for example, it has been much more successful in the hills than in the *terai* (plains), where the potential profits from illegal timber sales make local control difficult. Large areas of dry tropical forest have low opportunity values and are thus good candidates for CFM. In principle it is more suited to combating degradation than deforestation, since returns are relatively low and may not be able to compete with other land uses, such as full-scale clearance for commercial agriculture.

The “Kyoto: Think Global Act Local” project² has investigated the feasibility and cost-effectiveness of training local people already engaged in CFM to map their forests and measure annual carbon stocks. The project encompasses approximately 20 sites in six countries, including mountain forests in India and Nepal and savanna forests in Africa. Annual increases in carbon stocks due to CFM at these sites are in the range of 1–3.5 tonnes/ha for mountain forests and 0.5–1.5 tonnes/ha for savanna forests, equivalent to around 3.5–12.5 and 1.5–5.5 tonnes/ha/year CO₂ respectively. Emissions avoided should also be included (because the forest has not been allowed to degrade) and could conservatively be estimated at 3.5 tonnes CO₂ per ha/year.

It is not yet clear how much this carbon would be worth on the world market (currently CO₂ from CDM projects is valued at €5–20 per tonne), and there would of course be overhead costs involved in independent verification and trading, but costs of the forest inventory as undertaken by local people are estimated to be around only €2–3 per ha/year. Even at the forest-gate price of €2 per tonne CO₂, CFM would make economic sense. It could bring a new source of income to the communities involved and encourage others to start.

Policy requirements

For this kind of finance to become a reality, a number of conditions must be in place:

1. Forest degradation must be explicitly recognised in REDD policy as a major contributor to emissions, and accounted for separately from deforestation. Ground-level measurement of carbon stocks should be a requirement for any claims for avoided degradation.
2. Degradation as well as any increases in carbon stocks that result from improved management of the forest should be credited.
3. The ownership of the carbon credits should be clarified in law and vested in the stakeholders responsible for forest management. Carbon “tenure” must be secure.

4. Communities living in the vicinity of forest areas who do not yet practise CFM should be encouraged to do so; the carbon premium may be used as an incentive. Forest-dependent peoples' access rights to the forest need to be explicitly recognised and protected.
5. If REDD funds will be paid by a central international agency to governments on the basis of average national reductions in emissions from deforestation and degradation, countries must be required to develop transparent systems of monitoring and for administration of payments under REDD to stakeholders such as communities.

These issues need to be taken into account in the ongoing discussions which are taking place in preparation for a decision on REDD at COP 15 in December 2009.

Endnotes

1. Under UNFCCC definitions deforestation occurs only if canopy cover falls below a given cut-off point (e.g., 20%); thus clearance down to 21% would not be included.
2. See www.communitycarbonforestry.org.

References

FAO. 2006. *Global Forest Resources Assessment 2005*. Rome: FAO.

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