



LOGGING AND REDD+: ARE THEY COMPATIBLE?

One of the questions at the front of everyone's mind when it comes to REDD+ is whether it will pay. Of course, the whole basis of REDD+ is that it is a mechanism to provide "positive incentives", usually thought of as payments, to stakeholders who reduce emissions of GHG from forests. But since forests can generate revenues in a number of different ways, the question is really whether payments through conserving carbon are going to be more attractive than other revenue generating activities.

An important point that is often overlooked is that this is not an either-or question. There are opportunities to earn carbon revenues while continuing to manage forests for other purposes. Three recent publications have focused on logging in tropical forests, and the impact of logging on forest services such as carbon conservation, biodiversity conservation, and timber supply.

The first of these, by Francis Putz and others, published in [Conservation Letters](#), is the most comprehensive and readable of the three. It reviews over 100 publications reporting studies in all three major tropical regions. They found that, on average, following logging of primary forests, 76% of the carbon was retained in the forest, although there was very high variability due to wide differences in logging intensities, techniques and forest ecology. They also report that carbon recovery rates can be very rapid if logging is performed with care. Biodiversity, for which there are many different measures, can also be conserved quite effectively after logging, but timber yields in subsequent harvesting cycles are significantly reduced – by an average of 46% if different species are harvested in the second cut, and 65% if the same species are harvested. Their conclusion is that greater investments in reduced-impact logging (RIL) and post-logging silviculture, while incurring additional costs, and requiring more effective enforcement of regulations than currently happens, will yield significant long-term benefits in relation to timber yields, carbon stocks, and biodiversity.

These conclusions are reflected in a detailed [study by Scott Miller and others](#) of the impacts of RIL in Brazil. Logging removed 5.0-6.8 tonnes C/ha, and resulted in additional mortality of 13.2-18.2 tonnes C/ha. Thus, the total carbon lost from above ground biomass was 18-25 tonnes/ha, compared with total carbon in above-ground biomass of 186 tonnes in a nearby control plot – a loss of only 10-13%. The post-logging reduction in canopy cover was only 11.5%, compared with 30% for conventional logging. This is important because post-logging net primary productivity is closely correlated with canopy loss, meaning the forest recovers biomass much more quickly with low canopy disturbance. Because the reduction in timber yield was small compared with conventional logging (about 19%), profitability was high, with an internal rate of return of 36%. This demonstrates that RIL can yield both direct benefits from timber and generate carbon revenues.

The final publication, by Plinio Sist and others is a [report of an IUFRO conference on tropical silviculture](#) held in November 2011. The report (not surprisingly) argues for a stronger commitment to the application of silvicultural principles in the management of tropical forests, especially in determining the optimum balance between timber production and ecosystem services, including carbon conservation. But it also serves to remind us that forests are incredibly diverse. One of the problems with forestry in recent decades has been a tendency to view forests as homogeneous. In reality, as the most diverse ecosystems on earth, forests can provide a multitude of benefits simultaneously – timber, carbon and biodiversity conservation – if management regimes were only to be more sophisticated and discerning in recognizing these differences. An important lesson for countries currently developing national REDD+ strategies.

Go-REDD+ is an e-mail listserv managed by the UN-REDD Programme team in Asia-Pacific, based in Bangkok. The main objective of Go-REDD+ is to distribute information, synopses of research results and activities related to REDD+ in Asia-Pacific, to assist countries in their REDD+ readiness efforts. Old messages will be archived on the [Regional Activities pages](#) of the UN-REDD Programme web-site. Discussion forum on Go-REDD+ is available through UN-REDD Programme's online knowledge sharing platform, www.unredd.net. Please note that you must be a member to join the Discussion Forum. To request membership, please contact admin@unredd.net with your name and affiliation. The Go-REDD+ team welcomes feedback, suggestions or inquiries to goredd.th@undp.org.