

Report finds deforestation offers very little money compared to potential financial benefits

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Deforestation in tropical countries is often driven by the perverse economic reality that forests are worth more dead than alive. But a new study by an international consortium of researchers has found that the emerging market for carbon credits has the potential to radically alter that equation.

The study, which was released this week at UNFCCC Conference of Parties (COP-13) in Bali, compared the financial gains generated by deforestation over the last 10 to 20 years in areas of Southeast Asia, Central Africa and the Amazon Basin—most of it driven by a desire for farm land or timber—to the amount carbon that was released by the destruction. That comparison has become critically important because many industries in developed countries are set to spend billions of dollars to meet new requirements for curbing greenhouse gases by purchasing carbon “credits” tied to reductions elsewhere.

The study was conducted by the World Agroforestry Center (ICRAF), the Center for International Forestry Research (CIFOR), the International Center for Tropical Agriculture (CIAT), and the International Institute for Tropical Agriculture (IITA), four of the 15 centers of the Consultative Group on International Agricultural Research (CGIAR), and their national partners

The researchers—who conducted the study under the Partnership for

Tropical Forest Margins (ASB)—found that in most areas studied, the various ventures that prompted deforestation rarely generated more than \$5 for every ton of carbon they released and frequently returned far less than US \$1. Meanwhile, European buyers are currently paying 23 euros—about US \$35—for an offset tied to a one-ton reduction in carbon.

“Deforestation is almost always driven by a rational response to what the market values and for some time now, it has just made more financial sense to many people in forested areas to cut down the trees,” said Brent Swallow, leader of the study and Global Coordinator of the Partnership for Tropical Forest Margins. “What we discovered is that returns for deforestation are generally so paltry that if farmers and other land users were rewarded for the carbon stored in their trees and forests, it is highly likely that a large amount of deforestation and carbon emissions would be prevented.”

Developing new incentives for reducing carbon emissions stemming from deforestation is high on the agenda in Bali. Deforestation is rampant in places like Indonesia, the Amazon and the Congo. Currently, confusion over how to value and monitor the large amounts of carbon stored in tropical forests has prevented the inclusion of forests in the carbon offset market that is mainly dominated by reductions achieved in the industrial sector, even though deforestation is responsible for some 20 percent of the world’s carbon emissions.

“We understand that allowing people in forested regions of developing countries to participate in carbon markets presents major challenges, but it’s naive to think that conservation is going to occur absent a market incentive,” said Meine van Noordwijk, Southeast Asia Regional Coordinator of the World Agroforestry Centre (known by its acronym ICRAF). “Everyone has a stake in finding a way to make it work because it’s hard to see how any global effort to combat climate change

will succeed if it ignores a major source of the problem.”

Van Noordwijk and his colleagues arrived at their conclusions on the economics of deforestation after examining the trade-offs between carbon and financial returns in three areas in Indonesia, and one area each in Peru and Cameroon, all of which have undergone extensive deforestation.

They found that in most instances at the sites in Indonesia, deforestation returned less than \$5 per ton of carbon released and in some areas, less than \$1. For example, in forested areas rich in peat, which is particularly efficient at trapping carbon, the figure was about \$0.10 to \$0.20 per ton.

Meanwhile, an analysis of deforestation in the Amazonian forests of the Ucayali Province of Peru produced similar results. Most of the deforestation, which was mainly driven by a desire for crop land, generated less than US \$5 per ton of carbon released. The Cameroon study sites produced a better return. Deforestation returns about US \$11 per ton of carbon emissions, which is mainly due to an increase in secondary forest and the fact that in Cameroon, cocoa production—which elsewhere has decimated tropical forests—has tended to occur within forests, and resulted in more in forest degradation than outright deforestation.

The report notes that offering economic rewards for carbon storage could be effective not only at encouraging conservation but also at encouraging activities in deforested areas that can recoup at least some of the lost carbon. For example, research shows that agroforestry, which encourages a broader use of trees on farms, can offer a win-win situation of improving smallholder incomes and absorbing carbon.

Dennis Garrity, Director General of the Nairobi, Kenya-based World Agroforestry Centre said that, “Not only does agroforestry have the

potential to store carbon, it also addresses the need for alternative livelihoods amongst populations who currently benefit from deforestation.”

Researchers caution that despite the clear benefits to be derived from assigning carbon credits to conserving forests, implementing a forest-based carbon market will be complicated.

“The challenge will be to ensure that payments for maintaining forests actually reach local people, and do not end up in the wrong pockets,” said Frances Seymour, Director General of the Center for International Forestry Research (CIFOR) based in Indonesia.

“For the system to be effective, we will need new mechanisms for allocating payments that are efficient as well as fair,” Seymour said.

Source: Consultative Group on International Agricultural Research

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