Carbon payments payments could protect orangutans, pygmy elephants in Borneo

June 4 2009

A new report published today provides compelling evidence that paying to conserve billions of tons of carbon stored in tropical forests could also protect orangutans, pygmy elephants, and other wildlife at risk of extinction. The study, published in the peer-reviewed journal *Conservation Letters*, is one of the first to offer quantitative evidence linking the drive to reduce carbon emissions from forests with the push to preserve threatened mammal biodiversity.

"Our study clearly demonstrates that payments made to reduce carbon emissions from forests could also be an efficient and effective way to protect biodiversity," said Oscar Venter, a biologist at the University of Queensland in Australia and the study's lead author. "We now need to see policy discussions catch up with the science, because at the moment the potential co-benefits of linking forest protection to biodiversity are not getting the attention they deserve."

Researchers from the Center for International Forestry Research (CIFOR), one of 15 centers supported by the Consultative Group on International Agricultural Research (CGIAR), together with scientists from the University of Queensland, The Nature Conservancy and the Great Ape Trust of Iowa, examined the potential role of carbon payments in protecting 3.3 million hectares of tropical forest land in Kalimantan (Indonesian Borneo).

The report, "Carbon Payments as a Safeguard for Threatened Tropical Mammals," considered the emissions that would be released into the

atmosphere as carbon dioxide (CO2) if the forest was cleared for development. Based on prices now being paid for CO2 credits on global markets, they compared the revenues that could be derived from protecting the forest and thus avoiding a large amount of carbon emissions, to the revenue that would be derived from converting the forest to oil palm plantations.

They found that if CO2 credits could be sold for US $10 to $33 per tonne, conserving the forest would be more profitable than clearing the land for oil palm. In addition, forest conservation would prevent 2.1 billion tonnes of carbon from entering the atmosphere and preserve the habitat of some of the world's most threatened mammal species living in these forests.

The study determined that 40 of Kalimantan's 46 threatened mammals occur within areas slated for oil palm development. Further, planned oil palm plantations in peat forest areas, where carbon is most abundant (and therefore cheapest) contain almost twice the mammal species density as more expensive areas. In other words, there is a synergy between areas with high levels of biodiversity and areas with an abundance of forest carbon.

Proposals to use carbon payments to conserve forests will be a major topic at the United Nations Climate Change Conference scheduled for December in Copenhagen. Among other issues, negotiators will be discussing the creation of a global framework to Reduce Emissions from Deforestation and forest Degradation (REDD). Under a REDD scheme, countries that reduce their deforestation rates could gain credits for reduced emissions, which would be sold on an international carbon market or compensated through an international fund. Advocates of this approach hope that the co-benefits of these kinds of mechanisms, such as saving endangered species, could boost their appeal.

"REDD offers important win-win opportunities for climate and biodiversity protection," said Frances Seymour, Director General of CIFOR. "Ultimately our goal is to help fashion an agreement in Copenhagen that will allow tropical forests to become a part of a more comprehensive climate agreement--one that will reduce emissions, as well as produce co-benefits. There is already a good case to be made for ending the exclusion of existing forests in the next climate pact. This new evidence shows just one of the many benefits that a REDD accord could have."

Deforestation and forest degradation account for 20 percent of annual greenhouse gas emissions - more than the emissions from the world's entire transport sector. Forested peat lands are particularly rich with carbon and the region studied in the report, Kalimantan, has nearly 6 million hectares of peat forest land.

The study focused on Kalimantan because of its significance to Indonesia's oil palm industry, its biological diversity, and its wealth of carbon-rich peat lands. Recently, Indonesia has overtaken Malaysia as the world's biggest producer of palm oil and Kalimantan is the current frontier for oil palm development, according to the authors of the study.

The authors noted that overall, for the forest areas studied, carbon credits could be made competitive with oil palm if they could be sold on the carbon markets that emerged as part of efforts to comply with emissions targets tied to the 1992 Kyoto Protocol. This agreement expires in 2012. Kyoto compliance markets allow countries and industrial polluters to meet government-mandated limits on carbon emissions by purchasing credits tied to reductions achieved elsewhere. These credits fluctuate in value but currently sell for around $20 per tonne of CO2, or around $73 per tonne of carbon. However, carbon stored in existing forests is not currently traded on the Kyoto markets.

Forest-based carbon credits can be sold today on what are known as voluntary carbon markets, where governments and private companies can voluntarily offset their emissions through the purchase of credits. The price on these markets also varies but is currently between $1 to $2 per tonne of CO_2. Even at this low price, there is so much carbon per hectare in the carbon rich peat forest of Kalimantan, that it would be worth more preserved than developed for oil palm, said Douglas Sheil, a co-author and former CIFOR scientist, who is currently serving as director of the Institute of Tropical Forest Conservation in Uganda.

"This tells us that even a REDD mechanism that sells carbon at a relatively low price could carry benefits for both climate change and biodiversity in some very important areas,' said Sheil. 'Now we need to see if these opportunities exist in other regions."

Source: Burness Communications