

Carbon Markets for Climate Change, Conservation and Poverty Reduction: Opportunities and Challenges of Reducing Emissions from Deforestation and Degradation (REDD)

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Deforestation and ecosystem degradation make a substantial contribution to human-caused greenhouse gas emissions. The majority of the world's tropical forests, vast reservoirs of global carbon, are located in developing countries where deforestation rates are the highest. However, to date, the potential role of forests and developing countries in the mitigation of global climate change has been limited within international policies such as the Kyoto Protocol.

A recent policy proposal—Reducing Emissions from Deforestation and Forest Degradation (REDD)—is currently under negotiation within the UN Framework Convention on Climate Change (UNFCCC) and could provide incentives to avoid future forest loss in developing countries. The prospects for jointly achieving climate, conservation and poverty reduction objectives through (REDD) has attracted significant interest internationally.

Key facts related to forests, climate change, conservation and poverty:

- Forests store a significant amount of global carbon: In 2005, the total carbon content of forests was estimated at 638 Gt, which is greater than the amount of carbon in the entire atmosphere.
- Most of the earth's terrestrial carbon is stored in boreal and tropical forests. Carbon in tropical forests is stored in the above-ground vegetation while most of the carbon in boreal forests is stored below ground in soils.
- Carbon dioxide is released into the atmosphere upon deforestation. Deforestation and similar types of land degradation are estimated to account for 20-25% of global greenhouse gas emissions.
- Deforestation rates are highest in tropical, developing countries.
- Tropical forests are one of the most biologically rich ecosystems on the planet, harboring high numbers of animal and plant species.
- Over 1 billion people who live in extreme poverty depend on tropical forests for fuelwood, construction materials, food, medicine and land for agriculture. Forests also provide critical services such as regulating water supply, stabilizing soils and climate regulation.
- Common drivers of tropical deforestation include logging, agricultural expansion (including biofuels), mining, development and use for subsistence purposes.

Additional information is available at:

http://assets.panda.org/downloads/intro_factsheet_27nov07_lr.pdf

http://cmsdata.iucn.org/downloads/climate_change_forest.pdf

http://unfccc.int/files/press/backgrounders/application/pdf/fact_sheet_reducing_emissions_from_deforestation.pdf