
Socio-Economic Factors in the Management of Tropical Forests for Carbon

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Abstract

Tropical forest management responses options to global warming include sustained harvest of native forest timber, extraction of non-wood forest products, silvicultural plantations, agriforestry, secondary succession and forest loss avoidance (including, but not limited to, reserve protection). "Green money" for carbon offsets can have a significant influence on the direction of development. The way that the carbon and economic benefits of options are assessed, and the weight given to socio-economic impacts, can have a great effect on the priority given to different options when resources for combatting global warming are allocated. Important factors include the time-preference weighting (as by discounting), assumptions regarding sustainability, growth rates, initial carbon stocks, the spatial scale of the economic and carbon accounting, and the types of costs used as criteria for ranking options.

A major question is the sustainability of tropical timber management, especially when considered in the socio-economic context of the countries involved. "Sustainable logging" is virtually nonexistent, despite the insistence of several countries that all of their logging is sustainable today. Worse, the economic logic underlying major national and international programs to promote sustainable timber management is flawed and instead acts to facilitate forest destruction. Different socio economic factors

apply to the different actors involved, such as large companies, governments, and small farmers. The existence of corruption and local political influences can undo the most logical management scheme and must not be ignored in assessing the expected carbon benefits of proposed response options.

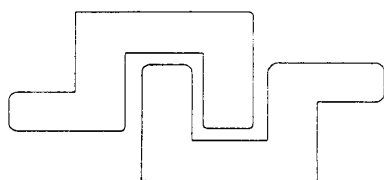
Silvicultural plantations can displace large numbers of people, and can compete with agricultural uses that support population both on the site and elsewhere. Plantations on the scales needed to make a significant contribution to averting global warming can cause a variety of economic distortions, some of which reduce capacity to support human population. Plantations can also function as causes of deforestation, with its attendant social and environmental impacts.

Maintenance of standing forest is a form of management with significant carbon benefits, as well as other environmental and social advantages. Capturing the value of environmental services of tropical forest is a potential means of both sustaining the local population and of implementing effective mechanisms to prevent forest loss. Unfortunately, viable proposals in this area are as yet undeveloped, but should receive the highest priority. Prerequisites include better quantification of the costs and benefits of forest maintenance and a sound understanding of the causes of deforestation.

NATO Advanced Research Workshop:
Banff, Alberta, 12-16 September, 1994.

**The Role of Global Forest Ecosystems
and
Forest Management in the Global Carbon Cycle**

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