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“Competition for Resources in a Changing World:
New Drive for Rural Development”

From Natural Resource to Pro-Poor Ecosystem Service Management in the Amazon: How to Make the Right Choices?

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Abstract

The Amazon is the largest among the few tropical ecosystems in the world, where growing human needs for land and development still widely coincide with abundant natural resources and local as well as globally important ecosystem services. Poverty in the Amazon is not as extreme and widespread as in the world's more densely populated rural areas. Yet, rural livelihoods strategies depend much more on what nature has long been providing at relatively low cost. Increasing evidence about environmental impacts of climate change and deforestation indicate that this might not be so forever. If the benefits of the services provided by the Amazon ecosystem are to be sustained for future generations, new and more effective approaches to ecosystem management are needed.

Here we evaluate whether and how an ecosystem services perspective towards natural resource management can offer new responses to upcoming challenges of minimising tradeoffs between development objectives, such as rural welfare and environmental sustainability in the Amazon context.

Policymakers have choices regarding management options (MO) for achieving specific development objectives, but little guidance regarding how to choose between alternatives in different settings, or how their choices should be influenced changes in settings. The fundamental evaluation criteria for choosing between alternative management options should be their expected cost-effectiveness, effects on the poor, and effects on non-targeted ecosystem services. Yet, the serious application of one or more of these criteria in policy decision-making processes is rather the exception of the rule in the tropical world.

Ecosystem service characteristics, e.g. dynamics and uncertainty, are important determinants of these MO evaluation criteria, as are their establishment and operational costs and related information needs. Political, institutional, and economic settings (and changes in them) are equally important determinants of MO performance. Based on these notions the paper critically reviews traditional and innovative environmental management options and highlights what is known in the Amazon region about ecosystem services characteristics, management settings, and the performance of MO. It ends with a discussion of knowledge gaps and how these could best be addressed within the current national and regional research and development agendas.

Keywords: Environment, forest management, poverty, alleviation, ecosystem services, Amazon, environmental protection