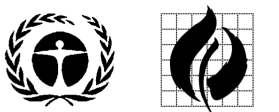
Protecting the future: carbon, forests, protected areas and local livelihoods

Executive Summary

May 2008



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Introduction

The proposals on reducing emissions from deforestation and degradation in developing countries (REDD) being discussed under the UN Framework Convention on Climate Change (UNFCCC) would have significant implications for biodiversity conservation and associated livelihoods. The potential for REDD to deliver multiple benefits for biodiversity conservation, livelihoods and other ecosystem services is well documented, but there are also potential risks for conservation and for the livelihoods of those people dependent on forests or forest conversion. The UNFCCC is concerned with *stabilizing greenhouse gas concentrations* in the atmosphere at a level that prevents dangerous interference with the climate system. Decisions made under UNFCCC can therefore be expected to focus on stabilizing emissions, and not necessarily to make explicit provision for maximizing other benefits of reduced deforestation and forest degradation. The general principle of REDD is that developing countries would receive credits from decreasing emissions from forest degradation and loss in the post-2012 period. Depending upon the exact mechanisms decided upon, protected areas could have a role to play in reducing national-scale deforestation, through strengthening forest protection within existing protected areas, and/or declaring new forest areas. In addition, lessons can be learnt from past experiences with protected area management, regarding successes in reducing deforestation and impacts upon community livelihoods. These findings could inform the development of appropriate mechanisms for REDD.

How successful are protected areas at reducing deforestation?

Successful implementation of REDD is likely to require the reduction of deforestation rates on a national scale. It is therefore useful to know the effects of forest designation and management on deforestation rates, and to consider the design and management related factors that influence protected area effectiveness in reducing deforestation. This report focuses on deforestation, as there is no equivalent literature for an assessment of impacts of protected areas on forest degradation. The evidence suggests that protected areas are an effective tool for reducing deforestation within their boundaries. The extent to which deforestation is merely displaced to surrounding areas is unclear, and is an issue that needs to be addressed, particularly in the context of REDD, where the aim is to reduce total greenhouse gas emissions.

Protected areas designated under the more restrictive IUCN protected area management categories (I-II) seem to be more effective at reducing deforestation than those which include a focus on sustainable use (V-VI). However, there are only a small number of studies on deforestation within category V-VI protected areas. In addition, studies rarely consider the forms of governance within the protected areas, or the level of community involvement. These factors need further investigation if the potential for REDD mechanisms to provide both biodiversity and livelihood benefits is to be assessed. Some insight can be gained through analyses of deforestation rates in indigenous lands and community forestry areas, which have also been shown to be successful at reducing deforestation. The evidence suggests that a protected area network that incorporates all levels of protection, as appropriate for the situation at site level, could be a valuable component of a national REDD strategy.

What are the livelihood impacts of protected areas?

A large number of the rural poor rely on forest resources, and the costs and benefits of protected areas to community livelihoods have been well documented. Costs can range from displacement of local communities to crop damage, and include restricted access to resources

and changes in land tenure. Benefits can include direct revenue from environmental protection, and the maintenance of environmental benefits such as watershed protection. The impact of these costs and benefits upon local communities is largely dependent upon the protected area status and governance. Some protected areas restrict access to resources, whereas others allow sustainable use; and there are varying degrees of community involvement in land tenure arrangements and benefit sharing across the six IUCN management categories.

The *net* livelihood impacts of protected areas are less easy to discern, as standardised assessment methodologies are lacking. However, general patterns can be observed from the literature. The livelihood impacts of protected areas vary with protected area status, management strategies and community involvement in governance. Management can provide direct benefits but can restrict access to resources, alter local power structures, and change social/traditional values and behaviours. Strictly protected areas with top-down management structures (generally associated with IUCN management categories I-II) can result in major livelihood costs and cause conflict between local communities and protected area management. Community management schemes, and protected area management allowing sustainable use of forest resources (generally associated with IUCN management categories V-VI), have been shown to provide tangible benefits. However, significant costs can still be incurred by communities if management and institutional capacity is lacking, and issues of governance and tenure are not resolved. The impact of governance within individual IUCN categories is rarely assessed in the literature, and requires further research; inequitable distribution of livelihood costs and benefits between and within communities and households is an obvious problem that is yet to be adequately addressed.

Lessons for REDD

There is still much uncertainty regarding the factors influencing effectiveness of protected areas in reducing deforestation and impacts on local livelihoods, and a clear need for a detailed assessment of these factors in order to inform climate change policy. Further research is required into the impact of the interrelationship between protected area status, community involvement and governance within protected areas on forest carbon stores and livelihoods. The development of standardised methodologies for assessing livelihoods impacts is a pre-requisite for this research.

An agreement on REDD could create an international market or fund for avoided emissions of greenhouse gases from forest loss or damage. The impact on protected areas and livelihoods will depend upon the national as well as global mechanisms selected. The potential exists for REDD to remove the large scale drivers of deforestation, secure land tenure rights in forest areas, and increase the potential benefits to local communities from conservation through community management regimes. However, an analysis of livelihood costs and benefits in existing forest carbon markets has identified issues similar to those identified for protected area management; including lack of established tenure and the inequitable distribution of resources; particularly for the landless members of society. Increased finance could exacerbate these issues, and protection of carbon areas could intensify livelihood impacts through a strict 'fences and fines' approach. Although strictly protected areas are more effective in some circumstances, it is clear that protected areas allowing some resource extraction can still reduce deforestation whilst imposing fewer livelihood costs. Depending on resources extracted, this may increase or decrease degradation of forest carbon stocks. Careful consideration of the potential impacts of REDD mechanisms based on past experience is therefore required, including an assessment of the management and governance strategies that facilitate provision of livelihood benefits. Involvement of local communities in planning and implementation of REDD, and ensuring sharing of the benefits from REDD finance is likely to result in a more sustainable solution to deforestation and forest degradation.