Rewards for Environmental Services and Collective Land Tenure: Lessons from Ecuador and Indonesia

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Abstract
Programmes that provide direct rewards in exchange for environmental services offer theoretical advantages over other conservation mechanisms, but also pose a number of challenges, including determining who should benefit and how incentives should be structured when the environmental services are tied to state or community owned land. Case

studies from Ecuador and Indonesia highlight key land tenure issues and lessons for those planning Rewards for Environmental Services (RES) projects.

Introduction

The objective of RES schemes is to provide sufficient rewards to local owners or stewards so that they supply specified environmental outcomes. Typically, this increased supply is linked to a change in the environmental manager's land-use practices. The design of a RES programme therefore requires careful consideration as to who owns and manages the land.

Approximately 80% of the world's forests are state-owned according to national law (White and Martin 2002). However, in many of these forests indigenous and other community groups are actively managing the resource (Agrawal et al. 2008). Decentralisation is rapidly increasing the management responsibilities granted to these community groups. Some nations are taking more proactive steps, reforming land laws to recognise private community-based property rights. Often such reform is largely on paper or responsibility is shifted without transferral of rights. Thus, many globally significant environmental services come from forested land managed and/or customarily owned by local communities, but in most of these places informal or weak property rights are the norm. In this paper, we discuss RES projects occurring in two such areas.

Ecuador

In northwestern Ecuador, the Gran Reserva Chachi (Figure 1) — established through direct economic incentives for biodiversity conservation — comprises a 7200 hectare community-managed protected reserve and an 11,500 hectare multiple-use area. The reserve lies in the Tumbes-Chocó-Magdalena Biodiversity Hotspot, and faces pressures from timber companies and the expansion of oil palm plantations. Heavy extraction threatens biodiversity and provides little economic benefit to the local communities.

In 2004, in an effort to provide communities with alternative livelihood options and to maintain the integrity of the environmental services, GTZ[1] and Conservation International approached three communities, comprising approximately 300 households, to discuss creating a biodiversity reserve. The idea was to provide economic incentives for biodiversity conservation that were competitive with other land use alternatives. After a year of consultation and participatory planning with local communities, a contract was agreed that established a biodiversity reserve in exchange for payments of US $5 per hectare per year.

Historically, the Chachi people have suffered territorial displacement and had only recently acquired formal communal land titles via a lengthy and sometimes contentious effort funded by USAID/Ecuador (Project SUBIR[2]). SUBIR was critical in providing the financial and technical resources necessary to clarify and title land (Morales Feijóo 2002). This RES project could not have been implemented if community land titles had not been issued, since a number of overlapping land claims existed in the region. Thus, clarification of land boundaries through formal titling helped legitimise the establishment of the biodiversity reserve. Major steps taken by SUBIR to clarify land tenure included community consultations, capacity building, and boundary mapping using geographical positioning systems. This was done in collaboration with the state land-titling agency.

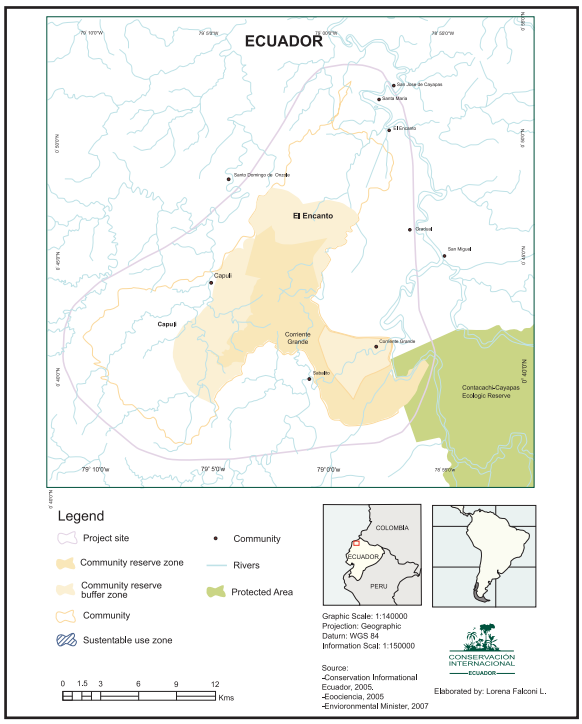

Figure 1: Gran Reserva Chachi, Ecuador

However, formal land titles alone were insufficient. Training community members in land rights and enforcement was necessary to increase their ability to enforce property rights and exclude encroachers. Since the establishment of the reserve, illegal takings by logging companies and their intermediaries have declined. Yet, as in many remote forested regions, the reach of the state is limited, and even formally titled land is vulnerable to incursions. Thus, when contesting land claims arise, the legal apparatus to deal with them is missing or inadequate.

This gap in enforcement has been a critical issue in the Gran Reserva Chachi where external threats can be violent. The Chachi Federation of Esmeraldas, GTZ and Conservation International are therefore working together to support legal actions when land encroachment occurs. This has been a costly process and will likely continue to be a necessary investment. As a more permanent solution, the partners in this RES project are strengthening relationships with legal agencies in the area to facilitate the resolution of these types of land tenure conflict.

The Gran Reserva Chachi case study reveals that RES can be implemented in marginalised communal lands, provided investments are made in titling land, in granting legal support to defend communal titles, and building local capacity to negotiate and monitor outcomes. While the impacts of this programme on environmental outcomes or welfare have not been fully evaluated, a notable sign of success is that one of the participating communities recently petitioned to expand the amount of protected forest in order to gain more income for local education. In addition, adjacent communities have requested similar RES projects in their areas. Based on this pilot experience, in September 2008 Ecuador's Ministry of Environment launched a nation-

[1] German Technical Corporation
[2] Sustainable Uses for Biological Resources

wide RES programme under the name "Socio Bosque" to protect forests. It has announced that the Gran Reserva Chachi is a high priority for this programme, which means that incentives are likely to increase substantially, as are contract periods within the reserve.

Indonesia

The Sumberjaya watershed in northern Lampung Province (Figure 2) is a rural, hilly area with approximately 90,000 inhabitants, more than half of whom transmigrated from other parts of the country. The watershed provides relatively fertile soils for coffee and rice cultivation and important watershed services such as sediment regulation, which ensures the functionality of a downstream hydroelectric plant. In 1990, the government designated one-third of the watershed as protected forest, leading to the current land mosaic of national park, protected forest, and privately owned land.

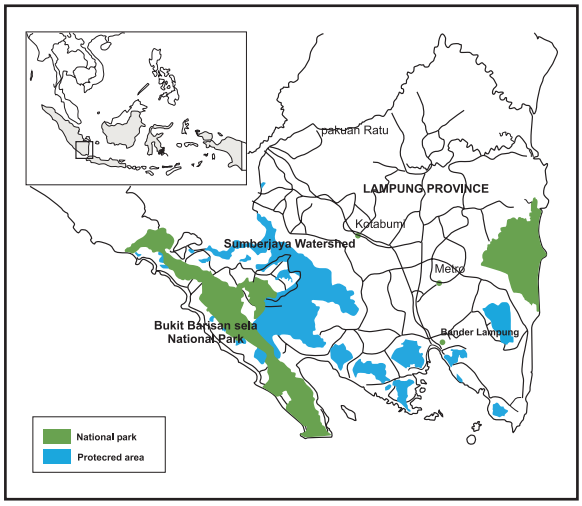

Figure 2: Northern Lampung, Indonesia

Subsequent conflicts between migrants farming in the watershed and the Forestry Service eventually led to a series of evictions. Beginning in 1998, political reformation in Indonesia resulted in reassessment of these types of evictions and the creation of a social forestry scheme — Hutan Kemasyarakatan. Under Hutan Kemasyarakatan, groups of farmers can apply to the Forestry Service for a five year permit to manage land inside protected forests. To receive a permit in the Sumberjaya watershed, farmer groups must commit to plant trees in their coffee agroforestry plots and to stop deforestation of existing forests. After the initial five years, a farmer group can apply to extend their permit for an additional 35 years.

As of 2004, only five farmer groups had obtained Hutan Kemasyarakatan permits in Sumberjaya. The process of obtaining and managing permits has proven slow and costly — taking up to four years to obtain the permit and costing as much as US $55 per household, which is about half the average annual income for farm households (Arifin 2005). This cost includes time spent coordinating with other farmers, developing the management plan, applying to the Forestry Service, and monitoring and enforcement activities.

The Rewarding Upland People for Environmental Services (RUPES) project in Sumberjaya started in 2004 and has helped an additional 18 farmer groups obtain their Hutan Kemasyarakatan permits. Each group has about 40 farmers. RUPES aids farmer groups in participatory mapping, developing forest management plans, and establishing tree nurseries. Conditional permits now account for about 70% of the protected forest. RUPES offers an example where granting conditional land permits can act as the "reward" for forest management and protection in the watershed. In essence, this project allows the state to maintain permanent ownership of the land while granting farmer groups temporary but secure use rights for land management.

The uncertain tenure situation in Sumberjaya is similar to many other areas where people have migrated to forests for political, economic or environmental reasons. Obtaining even temporary permits represents a major milestone for the farmers in Sumberjaya, since they have no customary claims to land and had recently faced eviction from these areas. An evaluation of the impacts on farmer groups found that incomes had increased by almost 30%, mostly because farmers no longer have to pay bribes to prevent eviction (Pender et al. 2008). Moreover, deforestation rates have slowed within the protected forests where farmer groups have Hutan Kemasyarakatan permits (Ekadinata et al. 2007). Thus, the Sumberjaya project shows that conditional land tenure can be used as a reward for improved environmental service management, while simultaneously improving the livelihoods of people who lack legal claims to land.

Discussion

Communities provide environmental services under a variety of tenure systems, thereby creating a number of contexts under which a RES programme might need to operate. The case studies above illustrate two common collective tenure arrangements in developing countries: formal ownership titles without strong legal institutions and no formal ownership or user rights. A third context would be where formal user rights exist without ownership, for example the *ejido* system in Mexico. In the case from Ecuador, conflicts over land tenure are a serious obstacle to achieving RES outcomes. These conflicts are partly due to the fact that RES adds value to land, thus heightening the costs to property owners of land encroachment. In Indonesia the RES concept is serving to alleviate land contestations by establishing contracts between resource owners (the State) and resource users (local communities). Both cases serve to illustrate that the success of a RES project depends on correctly defining the environmental service provider — physically as well as legally — and bestowing rights accordingly.

Conclusion

Indigenous groups and communities inhabit the majority of remaining forests most important for environmental services, and many manage that land as common property. This is especially true in remote biodiverse forests. Our review of the RES projects in Ecuador and Indonesia highlights the following key lessons for designing and implementing RES in collective land tenure regimes:

- Clarification of land ownership is critical to RES projects since RES may increase the value of land and therefore heighten conflict.
- RES must work with national and local governments to legally recognise and support customary land claims so that local communities are not alienated through these projects.

- Where customary land claims do not exist, RES projects must find creative solutions to avoid excluding resident communities. Access to temporary tenure arrangement and management contracts are possible.
- Incursions and illicit activities may persist regardless of whether land boundaries have been clarified or formal land titles exist. Thus, RES schemes should budget for institutional strengthening as well as long-term legal support of the rights of communities to manage and protect their forests.

Link to the full article here: www.nelson.wisc.edu/ltc_orig/publications/!ltcbrief9-res_and_land_tenure.pdf

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