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Land Tenure Center

LESSONS ABOUT LAND TENURE, FOREST GOVERNANCE AND REDD+

Case Studies from Africa, Asia and Latin America

Editors: Lisa Naughton-Treves and Cathy Day

contributors

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LESSONS ABOUT LAND TENURE, FOREST GOVERNANCE AND REDD+

Case Studies from Africa, Asia and Latin America

January, 2012

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Preface

This volume of case studies comprises one of two main publications resulting from the Oct. 21-22, 2011 **Land Tenure and Forest Carbon Management Workshop** hosted by the University of Wisconsin/Madison's Land Tenure Center (LTC), Nelson Institute for Environmental Studies, and Geography Dept. (www.rmportal.net/landtenureforestsworkshop). Contributed by an impressive array of researchers, NGOs, and other development partners, these cases are intended to complement a set of research papers being prepared simultaneously for a forthcoming special issue of ***World Development***.

USAID's Office of Natural Resources Management (USAID/EGAT/NRM) is pleased to have supported the workshop and the publication of this volume, through the ***Promoting Transformations by Linking Nature, Wealth and Power*** program (aka *TransLinks*) implemented by the Wildlife Conservation Society, Forest Trends, EnterpriseWorks/Vita, University of Wisconsin/Madison's Land Tenure Center, and Columbia University's Earth Institute.

USAID support was also involved in the development of about a third of the REDD projects presented here. USAID's Asia/Near East Bureau and Cambodia Mission supported the development of the Odder Meanchey, Cambodia REDD project. *TransLinks* provided support for feasibility studies and project development document (PDD) preparation for the Dolakha, Nepal and Mondulkiri, Cambodia cases (as well as in Surui, Brazil; Peten, Guatemala; and Takamanda-Mone, Cameroon). USAID support was also critical for clarifying land tenure before direct incentive forest conservation work began in the case at Gran Reserva Chachi, Ecuador. The Tanzania and Mtozambique case analyses were prepared under the *Property Rights and Resource Governance* program's "Carbon Rights Study," presented in Washington, DC, just the day before the LTC Workshop. Many more REDD projects are now under development by USAID bureaus and country Missions, utilizing "fast-start financing" mobilized to assist developing countries after the UN Climate Convention's Copenhagen Conference of Parties in 2009.

It is important to remember that all of the REDD projects reported herein on are essentially pilots, and still in very early stages. Nonetheless, it is becoming increasingly evident that implementation of REDD is likely to be more complex than the optimistic early estimates suggested. It has become a standard operating assumption that clear land tenure is a prerequisite for participation in REDD projects, to reduce risks to permanence of the carbon storage. But for better or worse, most tropical forests are considered property of the state rather than of the individuals or communities living in them, and there are often competing/overlapping claims on forest resources, such as logging and mining concessions. For REDD to reach its potential for carbon sequestration, it will require very substantial investments in clarifying and strengthening the land, tree, and carbon rights/tenure of poor and indigenous forest dwellers in developing countries – in other words, these tenure improvements need to be viewed as a part of the *cost* of doing REDD.

It is also assumed/advocated by many (USAID included) that for REDD to succeed, forest dwellers and managers must receive an equitable share of the benefits, to at least compensate them for the opportunity costs of foregone income from conventional land management options. Governments will have opportunity costs as well, such as reductions in stumpage fees on logging concessions or taxes on biofuel plantations, in addition to the extra costs of tenure reform and carbon accounting/control. It simply will not work for the lion's share of the benefits to go to any one group of stakeholders, whether governments, absentee landlords, corporate forestry enterprises, NGOs, or forest residents.

On the other hand, because securing tenure alone will have some value for the residents, regardless of eventual carbon payments, development of more secure tenure regimes itself needs to be considered as a significant part of the actual "payment" (aka incentive, compensation, reward) for participation in REDD by forest-dwellers. *Tenure is thus not just a prerequisite or a cost, it is part of the benefit too.* Tenure does not necessarily have to be secure before REDD, but it almost certainly needs to be so as a **result** of REDD. This challenge surfaced frequently during workshop discussions, particularly in the context of Africa, where in some countries, the act of planting trees can strengthen tenure, or even lead to the transfer of tenure – causing new incentives as well as perceived threats. Just as it was problematic in the past for countries to award tenure based on "improving" land by deforesting it, the property implications of incentives to "re-improve" land via reforestation can be complex.

Emerging from these case studies and workshop discussion is the theme that REDD revenues should be devoted to a carefully measured combination of income sharing with land managers/communities, and actual investments by governments in tenure reform programs for those residents. REDD practitioners and donors must recognize that these programs tend to be costly and slow. In the end, expectations of large financial surpluses from REDD for forest dwellers, governments, corporations, or traders should be dampened, because all those revenues will likely be needed to reform tenure and conserve the forests. The world does not need the next global economic disruption to be a carbon bubble made up of more "hot air." The hope, however, is that REDD mechanisms will be able to generate an efficient allocation of resources and distribution of a broad array of benefits to residents, governments, and global society as a whole, to be worthwhile for all.

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1

Introduction

Lessons from Early Efforts to Secure Land Tenure within Forest Carbon Management Projects

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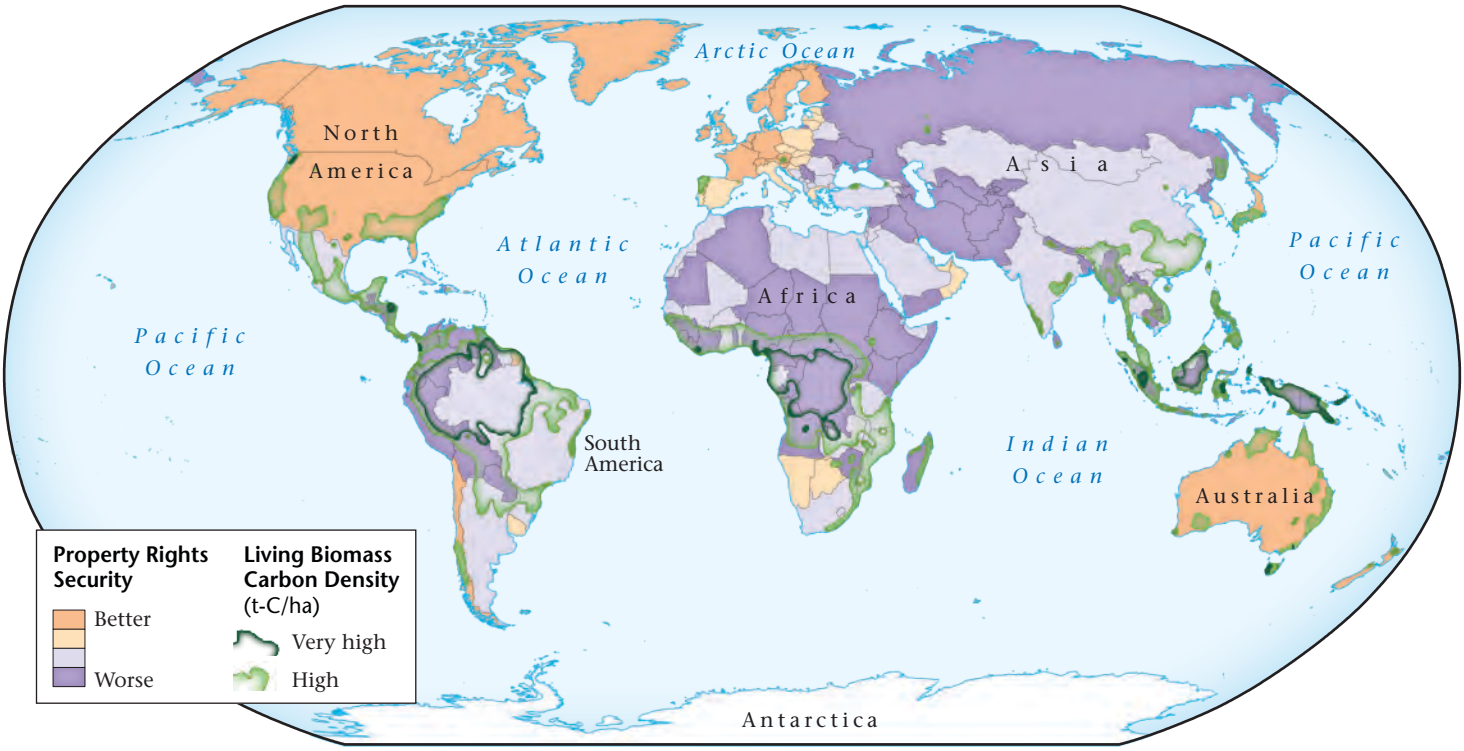
Land tenure and forest property rights are critical issues for the new wave of incentive-based policy instruments that aim to safeguard public goods found in tropical forests (such as carbon, water, and biodiversity) by valuing the goods and the services they provide, and paying people to protect them (Bruce et al. 2010). The most recent and highest profile of these instruments, REDD+ (Reducing Emissions from Deforestation and Degradation[1]) is attracting significant international investment. In these programs, property rights tied to tracts of land directly determine who is eligible to receive incentives, so clear and secure land tenure is critical to ensure both an efficient REDD+ program and an equitable distribution of benefits (Bruce et al. 2010). Yet the world's most carbon-rich and biodiverse forests are often found in regions where ownership is ill-defined,

[1] REDD "is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. 'REDD+' goes beyond deforestation and forest degradation and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks." (UN REDD, 2009).

Figure 1: Property Rights Security versus Living Biomass Carbon Density



Data Sources: Worldwide Governance Indicators and H. Gibbs http://cdiac.ornl.gov/epubs/ndp/global_carbon/carbon_documentation.html
Map produced by: University of Wisconsin Cartography Lab

contested or insecure (Fig. 1). For this reason, policy makers see land tenure as one of the key issues shaping the social and environmental impact of REDD+ and related programs (Unruh 2008, Sunderlin et al. 2009, Sikor et al. 2010). Yet there are few guiding principles regarding when and how forest programs ought to invest in clarifying tenure, and when, in fact, such interventions might act against forests and/or the local poor. Attention to the rights of local forest-dependent communities is of fundamental importance. Given that anthropogenic greenhouse gas emissions from tropical deforestation are far exceeded by other sources (e.g. fossil fuel use in other regions) (Le Quéré et al 2009), REDD+ must not unfairly burden forest-dependent communities.

This collection of case studies offers examples of innovative attempts to address land tenure within REDD+ programs. These case studies were presented in a workshop on Land Tenure and Forest Carbon Management held in Madison, Wisconsin, October 21-22, 2011, funded by the USAID TransLinks Program. The collection represents ground-breaking experiences from a range of countries prioritized for REDD+. The case study authors also put forth policy guidelines for improving the equity and efficacy of REDD+ and similar initiatives. In order to ensure a shared vocabulary in our discussion of land tenure, rights and security, we first outline definitions of terms and key ideas before synthesizing the case studies and their lessons.

Key Definitions and Concepts

As per Bruce et al. 2010, here we define land tenure as the set of institutions and policies that determine locally how the land and its resources are accessed; who can hold and use these resources; and for how long and under what conditions they may be used.
The form of land tenure refers to the rules and norms associated with any number of entities,

such as an individual, a public institution (e.g. the national park service), a private company, a group of individuals acting as a collective, a communal or common-property arrangement or an indigenous group. Public and communal tenure are prominent in the tropical forest management literature given that they often constitute large land areas (e.g. tens of thousands of hectares). Such scale is important for REDD+ initiatives to lower transaction costs of implementation and maintain ecosystem functions. Public and communal landholdings are generally nontransferable, which also has significance for REDD+ as carbon contracts are designed to be long-term.

Although land tenure can take on a number of forms, security in land tenure is the assurance that land-based property rights will be upheld by society. Security does not refer to the duration, marketability or the breadth of rights over a piece of land; these are all components of a particular form of tenure (Sjaastad et al. 2000, van den Brink et al. 2006, Robinson et al. 2011). Nor is land tenure security the same as land title. Formal or legal tenure is not always sufficient to impact landholders' decision-making, rather, it is how individuals perceive tenure security that matters (Broegaard 2005).

Tenure security, in turn, influences residents' forest use. Secure tenure appears to help prevent some deforestation, but hardly assures that landholders will preserve forests (Robinson et al. 2011). Indeed, when there are strong benefits to clearing forest, a landholder with secure rights will need significant external incentives to maintain forest on her or his land.

The broader literature also indicates that "clarifying tenure" is rarely a simple administrative or technical challenge, rather it is highly political and warrants a cautious approach. Over past decades, land titling programs have had varied success in improving the benefits landholders derive from their land (Deininger et al. 2009). In several cases, efforts to clarify tenure actually heightened conflicts (Wainwright and Bryan 2009, Peters and Kambewa 2007).

Under REDD+, the relationship between land tenure and forest use is further complicated by carbon rights and the uncertainty related to these rights. Carbon rights may be assigned independently of land rights, leading to confusion in land law and sometimes frustrating efforts to ensure that benefits from protecting carbon are granted to those impacting its management (Takacs 2009). Further, assigning carbon rights in one area may lead to leakage, as harvesters of forest products shift their consumption from protected to unprotected carbon areas. Such shifts could limit the carbon benefits gained from protected forests. Both leakage and the clear and fair assignment of carbon rights may influence the extent to which REDD+ provides global carbon sequestration benefits.

The authors of the following case studies are each grappling with varying issues of security, tenure and rights, but all share an urgent sense that clarification of tenure and of carbon rights will be necessary for effective REDD+ implementation. More fundamentally, the form and strength of land tenure will significantly shape the flow of benefits from and feasibility for any forest conservation initiative.

Overview of the case studies

The following set of nine case studies falls loosely into two groups:

The first group empirically examines national laws on lands, forestry and decentralization; their implications for resolution of land tenure issues; and their impact on REDD+ benefit sharing mechanisms. These studies, led by Peter Veit (Chapter 2), Darryl Vhugen (Chapter 3) and Bryan Bushley (Chapter 4) center on two sub-Saharan African nations and on Nepal, but their

core lesson applies to many nations likely to participate in REDD+ programs. They demonstrate that contradictory laws will need to be resolved and land and forestry regulations clarified to ensure that carbon-related benefits accrue to those who depend most on forest cover. Without these reforms, there is significant risk that REDD+ projects will cause local residents to lose rights to more powerful interests.

The second group draws on field experiences to reveal how tenure shapes REDD+ implementation (and vice versa) and how in some cases it might actually bolster local tenure. Bradley (Chapter 6), Evans (Chapter 7) and Moore et al. (Chapter 8) focus on pilot projects in Southeast Asia. All three find that collective or communal titling can be an effective and important means to ensure that rural villagers have control over the carbon rights to their local forests. Similarly, Poffenberger (Chapter 5), with a project in northeast India, finds that use of communal land, in this case with traditional governance systems, improves the likelihood that investments in improved forest management and poverty reduction will yield higher returns. In Ecuador, Schloegel (Chapter 9) and Lastaria-Cornhiel et al. (Chapter 10) observe that communal tenure appears to be a means through which REDD+ or related direct incentive projects can be effectively arranged. Schloegel points out however, that favoring communal over individual landholdings may lead programs to ignore some lands of ecological importance simply because they are under low priority or non-qualified tenure forms. All the group 2 case studies indicate that legalizing communal or other customary tenure is a relatively costly and time-consuming process although not an insurmountable challenge.

Case Study Highlights

National-level studies

Veit, Vhugen and Miner's study of "Threats to Village Land in Tanzania" underlines the risk of ambiguous or contradictory laws and the necessity for legal conflict resolution. The country's Land Act and Village Land Act describe General Land quite differently. The Village Land Act does not include "unoccupied or unused village land" in its definition, while the Land Act does. Under the former, then, villagers could lose rights to REDD+ benefits on substantial portions of their communities' lands. Further, recognition of Village Land by government is inadequate, making it harder for villagers to define their claims. Government often creates parallel institutions to those governing villages, generating confusion in village governance issues. In addition, super-local levels of government allow for transfers of Village Land to land categories which can be obtained by foreign investors with little or no say by village leadership. While communities create participatory forest management schemes, none has yet obtained full government recognition, again decreasing villagers' control over their natural resources. Veit et al. recommend clarification of the conflictual definitions in the law, REDD+ project "recognition and engagement in village government," limitations on land transfers from villages, and increased recognition of participatory forest management schemes.

As in Tanzania, Mozambique has legal inconsistencies in its laws governing land. The country's Land Law grants communities rights to the natural resources on their land, but the Forestry Law gives the state control over resources. Authors Vhugen and Miner believe Mozambique's Forestry and Wildlife Law "should be amended to give land rights holders the right to benefit from non-extractive forest products (such as carbon) on their land without a license." The authors recommend using REDD+ as an incentive for resolving land law conflicts. As such conflicts are resolved, it is important to note lessons learned from a REDD+ pilot project in Mozambique. Project results indicate that administering a carbon payment program that deals with individual small holders is too cumbersome and expensive. The

program is shifting its focus to dealing with communities instead, and only on those with at least 100,000 hectares of land. A national level program sharing timber taxes and forest royalties also offers lessons to REDD+. The program succeeded in increasing women's involvement through their participation in village-level institutions. Drawbacks in the national program highlight the need to arrange institutions so as to avoid elite capture of benefits. In short, methods should be put in place to ensure that benefits go to the community or individual who "is in a position to protect the forest."

In Nepal, a significant trend toward decentralized, communal forests has not been supported by national law, as described by Bushley and Khamal. As in cases like Mozambique, Nepal does not permit local communities to sell timber. Moreover, district forest offices' intensive control over community forests often discourages community forest user groups from investing in large-scale income generating activities for fear of being accused of violating forest law and losing their forest rights. Forest certification systems in Nepal provide insights on potential risks of REDD+ on community forests. Certification, by prioritizing products that may require certain forest conditions, can limit the access of some marginalized user groups to areas of the forest that they previously used. The authors speculate that REDD+ could have similar impacts by encouraging the protection of specified forest areas. REDD+ could also favor strict conservation of forests over the "emerging paradigm of active utilization" and may create risks for marginalized groups who depend heavily on forests. The only groups that have participated in "REDD readiness activities" in Nepal are community forest user groups, and the authors stress that other forest users should be included. Increased education on forest rights is also needed among forest users. Bushley and Khamal advocate clarifying carbon rights and national laws on forestry, as well as a national governance framework "to guide projects... and ensure that communities who manage and protect forests receive a majority of benefits."

Field-oriented analyses

Bradley's case study of community forestry in Cambodia underscores the advantages of granting benefits to an entire community that controls local forest resources, while acknowledging the flaws in such systems. Local groups in a REDD+ pilot project there have been able to undergo processes of consultation and informed consent despite their low levels of education and financial resources. Communication among participants has been relatively smooth because of local understanding and influence over processes of forest management. Community cohesion has helped to minimize corruption and address abuses. Limitations of the community forestry system in Cambodia have included inadequate participation of groups like women, the elderly and youth; unclear forest boundaries on the ground and some inability to control incursions of outsiders into community forests. The author recommends the provision of outside funds to move such groups forward until carbon credit sales begin. Further, the groups need basic education on REDD+ and climate change and support systems for community forest governance.

Evans et al. focus on decentralization in Cambodia and how it is being reinforced by REDD+ pilot work and the progress toward official recognition of communal land titles in the area of Seima. Residents see titling as advantageous to discourage forest use by outsiders and to solidify their status under otherwise weak governance. Villages in the REDD+ pilot project will sign agreements clarifying carbon ownership. They will then create land-use and livelihood plans that will assist in decreasing deforestation. The agreements are already helping to block agri-industrial concessions in the area, thereby granting area residents more resource security. Project leaders emphasize these indirect benefits in their outreach with local par-

ticipants. The authors suggest that global support for community forestry, including the presence of NGOs working with REDD+ pilot projects, as well as Cambodian forestry restructuring are helping to encourage the Cambodian government's move toward more community forestry.

In Laos, Moore et al. note, communal land titles are now permitted under the law, but encompass limited rights over forest resources. A REDD+ pilot project in the country is helping by creating a participatory land-use planning process, but communal forest rights are still restricted. The pilot project, however, is providing additional assistance in the form of agricultural extension to minimize the expansion of agricultural land, as well as conservation agreements allowing villages to be paid for reducing deforestation. Villagers also receive training to increase their understanding of their resource rights. The authors call for the UNFCCC and other key REDD+ organizations to include safeguards to ensure "consideration of forest dependent communities" and for Laos to enable better collective titling. In tandem with collective titling is needed a clarification of carbon rights to ensure that they reside with local communities. Finally, a conflict resolution process external to government would help ensure that villages' disputes with government agencies are resolved by a neutral party.

A project with the Khasi people of northeast India, described by Poffenberger, has been using community cooperation to implement a payment for ecosystem services (PES) project since 2005. Among the lessons the project has to offer to REDD+ projects are its incorporation of already existing indigenous rules and institutions. While the rules are sometimes outdated, REDD+ can provide circumstances favorable to revisiting and revising the rules. Since funds for the project have been channeled through new and existing indigenous groups, the funds are helping to create poverty alleviation opportunities for groups like women, e.g. through funding of micro-enterprises. Community Forestry International, the NGO involved in the project, is assisting the local institutions in gaining government recognition. Such recognition helps to ensure the longer-term effectiveness of a project that has thus far successfully established better forest management in its watershed through controls on fire, grazing, illegal logging and stone quarrying.

Schloegel's case study of *mestizo* landholders in Ecuador provides a contrast to other projects focusing on communal tenure and indigenous communities. The author centers on the disenfranchisement of individual landholders from Ecuador's Socio Bosque program. Their marginalization from the system results from land titling processes in the Paute region that are not recognized by the Socio Bosque system, despite being otherwise recognized by the government of Ecuador. The study highlights the challenge of implementing REDD+ across multiple forms of land title as well as the difficulty of coordinating REDD+ benefit processes with large numbers of individual landowners, as was also seen in the case of the REDD+ pilot project in Mozambique. The author recommends that the national REDD+ program "should assess institutional readiness" of courts and other land titling systems to better allow for the participation of landowners whose land titles do not currently fit the Socio Bosque requirements.

Describing a program in northern Ecuador, Lastaria-Cornhiel et al. examine the lessons to be drawn from a program that trained indigenous Chachi people as paralegals. Paralegals' equal status to other community leaders and ability to communicate in the Chachi language made them valuable in the process of formalizing communal titles and resolving disputes with nearby Afro-Ecuadorian communities. Paralegals were trained in objective conflict resolution, and took on forest monitoring tasks when a direct incentive

program was implemented in their communities. The direct incentive forest conservation program was made feasible because land titling had already taken place. The paralegal program resulted in formal maps with government-recognized communal land titles at a cost of about US$5 per hectare.

Conclusions and Future Steps

Throughout the October 2011 workshop, participants repeatedly remarked on the need to understand the variety of tenure regimes in different countries. They emphasized the need to allow REDD+ to be flexible enough to accommodate the tenure arrangements developing both in law and on the ground while also incorporating guidelines to ensure that forest users not lose their rights. These papers underscore a key message from the broader literature on forest governance: whether or not REDD+ is funded, clarifying land tenure and strengthening local governance will improve chances of equitable forest stewardship. Projects aimed at improving tenure security should proceed cautiously and recognize that tenure problems are not resolved in a one-shot intervention. Fair and enduring negotiations with local actors take time, as does the process of building local capacity to enforce land rights and forest access rules. Land ownership and forest governance problems often also require attention at the national level, particularly if there are contradictory laws regarding land and forest rights. Such attention helps bolster donor or investor confidence in those managing REDD+ projects. Whether proposals focus on a national or a more local implementation scheme, national laws must clearly permit those with the most impact on forest resources to control those resources and to gain benefits from their protection. Moreover, local governance groups must be supported with training on negotiating their rights to the land and resources they use and on taking effective advantage of the currently available benefits from REDD+ projects in their country. The complexity of resolving tenure security calls for donor/investor backing of the training and legal conflict resolution that will facilitate better decision-making.

Producing better decisions will require a number of careful judgments with substantial political and ecological implications, as the case studies emphasize. For example, planners must determine whether to include individual landholders in REDD+ plans, or to focus instead on larger-scale communal landholdings. Another major point of discussion at the conference was the role of NGOs in REDD+ projects. The cases described here point to the necessity of such outside entities to provide training, assist with government liaison and to provide an understanding of the international community's expectations. Whether a continued presence will be necessary to maintain credible local governance remains to be seen, and the effective phase-out of such assistance ought to be worked out in long-term planning processes. Debate regarding the role of state agencies in REDD+ was also prominent. On one hand, as per Phelps et al. (2010), some workshop participants expressed concerns that REDD+ will recentralize forest management and allow national government to marginalize local forest-dependent communities. On the other, unless the state derives some benefit from REDD+, it is unlikely that state agencies will promote forest conservation over more-profitable commodity production.

Related to institutional roles in REDD+ are questions of cost. It is yet unclear whether a scaling up of the pilot projects could result in an economy of scale. The extent of outsider involvement in REDD+ projects at larger scales, as well as the willingness of governing entities to incorporate REDD+ goals into their existing structures, may determine whether costs will come down as payments for reduced deforestation become more common. Should clarifying land tenure and strengthening forest governance count as REDD-

readiness investments or instead be factored directly into the price of forest carbon? No matter where these costs appear on the tally sheet, they must be recognized if REDD+ or similar initiatives are to have enduring impact.

The case studies also remind us that land is far more than an input to agricultural or forest productivity. Land has social, cultural and political value, and is particularly central to indigenous rights movements (Platteau 2000). Thus land tenure and rights are at the core of the most strident debate over REDD+. Yet addressing tenure security is pivotal if payments for ecosystem services (PES) or REDD+ programs are to be pro-poor. Landholders need to have the power to make land use decisions and to defend land against potential outside claimants (or other agents of land use change). These case studies underline that for landholders' power to be meaningful in the REDD+ context, their carbon rights must be clarified, whether such rights are integrated with land rights or defined independently.
The case studies presented here substantially advance our understanding of the potential of REDD+ projects, but certain issues require further study, particularly costs of tenure work, institutional responsibility and definition of carbon rights, as described above. In addition, to fully assess the benefits and drawbacks of REDD+ projects, policy makers need more information on the potential for leakage of deforestation beyond local buffers provided in pilot projects. Thus, while considerable progress has been made in knowledge of the potential and impacts of REDD+ projects, additional study will help ensure that those who influence forest cover receive the benefits of forest protection.

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Threats to Village Land in Tanzania

Implications for REDD+ Benefit-Sharing Arrangements

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Abstract

REDD+ presents an important opportunity for Tanzania to leverage its forest resources to bring in new capital flows, promote forest management and provide benefits to communities. With a legal framework designed to promote decentralization and more than a decade of experience with Participatory Forest Management, the country appears ready to capitalize on REDD+. On closer examination, however, villagers face multiple obstacles in securing rights over land and realizing forest benefits. This paper examines five challenges—classification of General Land; recognition of Village Land; recognition of village government; transfer of Village Land to General or Reserved Land; and Participatory Forest Management procedures. Legal ambiguities and contradictions coupled with inconsistent implementation and governance structures pose unique threats to the success of

REDD+ in Tanzania. With REDD+ infrastructure yet to be developed, however, opportunities exist for these challenges to be addressed. The current legal and institutional framework needs clarification and strengthening to make REDD+ a success for all Tanzanians.

Introduction

The government of Tanzania appears ready to capitalize on REDD+[1] and villagers appear well positioned to capture REDD+ benefits. Tanzania was one of the first countries in the world to begin preparing a National REDD Strategy, and, in 2008, the government of Norway approved US $100 million to support forest conservation in Tanzania, including nine pilot REDD+ projects (RNE, 2009; GOT, 2009a).[2]

Tanzania's Local Government (District Authorities) Act of 1982, Village Land Act of 1999 and Forest Act of 2002 provide the legal basis for villagers to manage and benefit from forests and forest resources. When enacted, these laws were widely hailed by scholars and advocates for their attention to rural needs (Alden Wily, 1997; 2000a; 2000b, 2003; Alden Wily et. al., 2000; Alden Wily and Dewees, 2001; Alden Wily and Mbaya, 2001).

Tanzania also has more than a decade of experience with Participatory Forest Management including Community-Based Forest Management (communities manage forests on Village Land) and Joint Forest Management (communities enter into management agreements with government regarding the use of state forests). The government promised and many practitioners believed that Participatory Forest Management would support conservation and promote local development (GOT, 2006).

While the government has not established REDD+ benefit sharing arrangements, actors with secure property rights to land, forests and forest products will likely be better positioned to capture benefits than those without rights or with insecure rights. Tanzania's laws are silent on property rights to carbon, and the Forest Act (69(1)) provides only that "(a)ll biological resources and their intangible products, whether naturally occurring or naturalised within forests including genetic resources belongs to the government…" As a result, REDD+ advocates have focused their efforts on securing land rights and advancing Participatory Forest Management.

On closer examination of Tanzania's laws and practices, villagers face significant obstacles in securing rights over land and forests, and in realizing forest benefits. This paper reviews a number of pressing hurdles and discusses their implications for Tanzania's REDD+ efforts.

This paper is based on research conducted by the authors as part of USAID's Property Rights and Resource Governance Program.[3] The study involved desk research and a field visit to Tanzania in May 2011 to assess the extent to which national laws establish secure rights to benefits from land-use based emission reductions or storage of carbon, and how Tanzania's REDD+ preparedness efforts fit within the existing legal framework. Interviews were conducted with government officials, civil society leaders and other key informants in Dar es Salaam, Arusha and Kiteto. The research team also visited the Enduimet Wildlife

[1] According to the United Nations, REDD "is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. 'REDD+' goes beyond deforestation and forest degradation , and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks." (UN REDD, 2009).

[2] The pilot projects have not sold any carbon on the international market.

[3] WRI has worked in Tanzania for more than two decades on a range of environment and development issues, including land tenure and natural resource property rights.

Management Area in Longido District (Arusha Region) and the SULDO Community Forest in Kiteto District (Manyara Region) to interview community leaders and villagers.

Challenges

REDD+ presents opportunities and risks to communities in Tanzania. If villagers gain secure rights over their land and forests, they would be well-positioned to participate in REDD+ projects and capture REDD+ benefits. If, however, local land and forests come under the control of government or elites, community-based forest management would be undermined and forest benefits siphoned from villagers. A review of the relevant laws in Tanzania and of recent interpretation and implementation experiences highlight challenges to rural people. Five of the most significant challenges are discussed below.

Challenge 1: Classification of General Land

The Land Act of 1999 and the Village Land Act of 1999 provide different definitions of General Land which has potentially significant adverse implications for villagers and their ability to capture REDD+ benefits, and for the management of forests in Tanzania.

The Land Act provides that the President holds all land as a trustee for the people. The Act establishes three categories of land—Reserved Land, Village Land and General Land—and governs Reserved Land and General Land (the Village Land Act governs Village Land).

- Reserved Land includes statutorily protected or designated land such as national parks and wildlife reserves, land for public utilities, and land classified as "hazardous" (e.g., river banks, mangrove swamps and other lands whose development would pose a hazard to the environment).
- Village Land includes registered Village Land, land demarcated and agreed to as Village Land by relevant village government, and land (other than Reserved Land) that villagers have occupied and used as Village Land for 12 or more years under customary law.
- General Land includes "all land which is not reserved land or village land and includes any unoccupied or unused village land" (Land Act, Art. 4(a)-(c); emphasis added).

The Village Land Act, however, defines General Land as "all public land which is not reserved land or village land" (Art. 1(2)). General Land is a residual category of land and does not include "unoccupied or unused village land." The Village Land Act also recognizes several uses of Village Land, including: 1) occupied land for individual use and settlement, such as farming and housing; 2) land for communal use, such as pasture and forests; and 3) land set aside for future use (Village Land Act, Art. 12-13). Village Land for future use includes "land which may be made available for communal or individual occupation and use through allocation by the village-council" (Village Land Act, Art. 12(1)(c)). Most forest on Village Land is likely on land for communal use or on land set aside for future use. Under the Village Land Act, land for future use may be unoccupied or unused Village Land.

The amount of forest on General Land is disputed. According to the draft National REDD strategy, about 17 million hectares of forests are on General Land and under the control of the Commissioner of Lands (GOT, 2011). This is consistent with Forest and Beekeeping Division (Ministry of Natural Resources and Tourism) figures—about 54 percent of forests is on General Land, 37 percent is on Reserved Land and 9 percent is private and village forests (GOT, 2006; 2009a; 2009b; 2010; Abdallah and Monela, 2007; Mongabay, 2010; USAID, 2010; WRI and Landesa, 2010).

According to the Ministry of Lands and Human Settlement Development, however, 70 percent of

Tanzania's land area is Village Land, 28 percent is Reserve Land and 2 percent is General Land (GOT, 2011b). If only 2 percent of the land area is General Land, it is mathematically impossible for there to be 17 million hectares of forests on General Land. Based on the Ministry of Lands figures and maps, most forests in Tanzania are on Village Land under the control of village government. This conclusion is supported by a recent national forest inventory during which surveyors found that there is virtually no General Land in Tanzania (Malimbwi, 2011).

Central and local government is responsible for managing forests on General Land, including issuing concessions. With limited capacity, however, local enforcement of forests rules is often weak. Forests on General Land are often treated as open-access resources and over-exploited. When compared with forests managed by communities or in protected areas (on Reserved Land), forests on recognized General Land tend to have lower biodiversity, and show more signs of degradation and deforestation (Alden Wily and Mbaya, 2001; Abdallah and Monela, 2007; USAID, 2010).

It is not clear whether the Land Act or the Village Land Act controls matters in the event of a dispute over a parcel of "unoccupied or unused village land." The current legal ambiguities, however, provide opportunities for the government to claim General Land, and create uncertainty and insecurity of tenure for villagers. For example, by claiming that 17 million hectares of forests are on General Land, the draft National REDD+ Strategy must use the Land Act definition of General Land. If the final strategy retains this language, many communities could lose control of large tracts of their land, threatening their opportunities to capture REDD+ benefits. As has happened with biofuel investments (REDD-net, 2009), such forestlands could be made available to investors for generating REDD+ benefits, with little or no compensation to affected villagers.

The government has recently signaled that it intends to reform the land laws although it has not provided any details. The official website of the Parliament of Tanzania now omits page 25 of the Land Act with the definition of General Land[4], although it presents the complete Village Land Act, including page 14 with the definition of General Land.[5] Villagers are more likely to conserve forests when they benefit from their actions. Accepting the definition of General Land in the Village Land Act will ensure that forests on Village Land remain under local control (Campese, 2011).

Challenge 2: Recognition of Village Lands

Many government offices and REDD+ documents do not recognize Village Land, creating insecurity for villagers and threatening local capture of potential REDD+ benefits.

The Land Act (Art. 4(3)) recognizes customary rights of occupancy even if the land is not registered and the landholder has no certificate for the land—"Every person lawfully occupying land, whether under a right of occupancy wherever that right of occupancy was granted or deemed to have been granted, or under customary tenure, deemed to occupy and has always occupied that land, the occupation of such land shall be deemed to be property..." While the Land Act recognizes undocumented customary tenure as equal to statutory tenure, the Village Land Act provides ways for villagers to locally register their rights and obtain certificates as evidence of that ownership (at the village and household level) (Alden Wily, 2003).

Despite the law, government officials do not always recognize Village Land, especially Village

[4] Available online: http://www.parliament.go.tz/Polis/PAMS/Docs/4-1999.pdf.
[5] Available online: http://www.parliament.go.tz/Polis/PAMS/Docs/5-1999.pdf.

Land that has not been demarcated or for which there is no land use plan. For example, Tanzania's REDD Framework document states that "most of the villages are not yet registered and their lands may be categorized as General Lands" (GOT, 2009b).

A significant amount of Village Land has not been registered and many villagers do not hold certificates (TFWG, 2009; Malimbwi, 2011). The Village Land Act and accompanying Village Land Regulations of 2001 establish complicated and costly processes to register Village Land which villagers have difficulty completing. For example, the Regulations provide for 50 different written forms for administering Village Land (Alden Wily, 2003; Sundet, 2005). Surveying the land, a required step in the registration process, is expensive and out of the reach of most villagers.

Even when villagers manage to navigate through the regulatory steps, the approval of land-use plans, another required step, is often delayed or denied by District Councils (Mustalahti and Lundat, 2010). District officials argue that the review process must be thorough and that they lack the capacity to process all plans in a timely manner, but advocates argue that the approvals are often purposely delayed to limit the amount of registered and therefore formally recognized Village Land (Nshala, 2011).

Village Land will likely feature prominently in Tanzania's REDD+ efforts, and communities will need security in their land to invest in forest management and capture REDD+ benefits. Government officials must recognize that land held under customary tenure arrangements is Village Land, even if the land is not registered and the villagers do not hold certificates. District Councils must also speed the process of reviewing and approving land-use plans to facilitate the registration of Village Land. Secure rights over Village Land, especially forested Village Land, will incentivize villagers to invest in forest management and increase the likelihood that they will capture REDD+ benefits.

Challenge 3. Recognition of Village Government

The Local Government Act establishes villages as corporate entities, creates Village Assemblies (VAs) and Village Councils (VCs), and makes them responsible for increasing the welfare of villagers. Other legislation, however, does not recognize the authority of village government, creating conflict and confusion.

Tanzania has more than 11,000 legally-constituted villages, each with a VA and VC. The VA consists of all village residents over the age of 18. The VA "is the supreme authority on all matters of general policy-making in relation to the affairs of the village" and "responsible for the election of the village council" (Local Government Act, Art. 141). The VC is a 25-member body headed by a Village Chairman; by law, one quarter of its members must be women. The VC is vested with "all executive power in respect of all the affairs and business of a village" (Local Government Act, Art. 142(1)). It also has legislative powers, although all village bye-laws must be approved by the District Council (Local Government Act, Art. 163-164). The government does not provide financial resources to the VC, and VC members are not paid for their services.

Consistent with the Local Government Act, the Village Land Act empowers the VC to manage and administer Village Land for the benefit of all residents (Village Land Act, Article 8(1)), but recognizes that the VC is accountable to the VA. The Act provides that "(a) village council shall not allocate land or grant a customary right of occupancy without a prior approval of the village assembly" (Village Land Act, Art. 8(5)).

Some laws, however, contradict the Local Government Act and Village Land Act by establishing parallel institutions with roles that are the respon-

Box 1: Transferring Village Land to Reserved Land in Tanzania

The Wildlife Conservation Act of 2009 prohibits all livestock grazing and cultivation in Game Control Areas and provides that the Minister "shall ensure that no land falling under the village land is included in the game controlled areas" within one year of the Act coming into force (Wildlife Conservation Act, Art. 16 (5)). To implement this provision, the government is considering transferring large tracts of Village Land to Reserved Land. Game Control Areas cover approximately 10 percent of the land area of mainland Tanzania, much of it on Village Land. The government issues licenses to trophy hunting operators[6] who are authorized to enter onto Village Land to exercise their consumptive wildlife rights.[7] Under the new Wildlife Conservation Act, the government is considering turning many Game Control Areas into Game Reserves which are Reserved Land. In some cases, the government is providing communities the option to establish a Wildlife Management Area over the Game Control Areas. Few Wildlife Management Areas have achieved their dual objectives of community development and wildlife management (Institute of Resource Assessment, 2008; Wilfred, 2010; Sulle et al., 2011), but if villagers do not agree to establish a Wildlife Management Area, they risk losing their land.

sibilities of the VC or VA. Such laws create confusion and conflict, and have lead to poor land and natural resource management. For example, the Wildlife Conservation Act of 2009 and the Wildlife Conservation (Wildlife Management Areas) Regulations of 2002 require villagers to establish an "Authorizing Authority" to manage wildlife in a Wildlife Management Area (a portion of Village Land managed for wildlife). By law, the Authorizing Authority is composed of VC members, is accountable to the VC and must have VA authorization to allocate revenues (Wildlife Management Area Regulations, Art. 22). The VC is tasked with monitoring Authorizing Authority activities and reporting to the VA and District Council (Wildlife Management Area Regulations, Art. 21). Since all established Wildlife Management Areas involve multiple villages, all Authorizing Authorities are inter-village institutions, not VC sub-committees. In practice, the lines of accountability from the Authorizing Authority to the VC are not clear, more so in regards to each constituent VA of the Wildlife Management Area (Sulle, 2010).[8]

For communities to capture REDD+ benefits, government agencies must recognize and engage village government bodies that have the legal authorities needed to execute REDD projects. Government and development assistance organizations can help strengthen village government in order to meet their roles.[9] Many village governments need skills in negotiating with government and outsider agencies, in managing and allocating benefits received, and in monitoring implementation and evaluating performance.

Challenge 4. Transfer of Village Land to General or Reserved Land

The Village Land Act authorizes the govern-

[6] The government has promised that in the future villagers will be allowed to engage operators for trophy hunting on Village Land. By law, wildlife in Tanzania is the property of the state.

[7] This contrasts sharply with the Forest Act which calls for the establishment of Village Natural Resource Committees as VC sub-committees to manage village forests. When several villages come together to establish a community forest, the Forest Act provides that the inter-village institution must be limited to a coordinating body (Forest Act, Art. 4(c) iii). In law and practice, VCs have more control over forests than over wildlife (via Wildlife Management Areas).

[8] Many VCs are heavily influenced by national and district government, and are not always responsive to the needs and interests of villagers.

[9] Some VC members have been accused by villagers of corruption and making decisions for personal gains leading to elite capture.

Box 2: Procedure to Transfer Village Land to General or Reserved Land in Tanzania

The Village Land Act provides five principal steps to transfer Village Land to General or Reserved Land.

1. The President directs the Minister of Land to publish a notice in the Gazette which specifies the location of the targeted land, the extent and boundaries of this land, and the reasons for the transfer. A copy of the Gazette must be sent to the VC of the affected village and the VC must be given at least 90 days before the transfer takes place.
2. The VC informs affected villagers of the transfer.[10] The villagers can make representations to the VC or the Land Commissioner, who must take these representations "into account in any decisions or recommendations they may make on the proposed transfer" (Village Land Act, Article 4(5)).
3. The VA prepares and passes recommendations to the Minister of Lands through the VC or District Council. The Land Commissioner or representative and the investor of the transferred land may attend VA meetings to answer questions on the transfer. An area of less than 250 hectares cannot be transferred without VA approval. If the land is more than 250 hectares, the Minister makes the final decisions and the VA can only provide recommendations.
4. Village Land cannot be transferred "until the type, amount, method and timing of the payment of compensation has been agreed upon between … the village council and the Commissioner…" (Village Land Act, Article 4(8)). Compensation for individual land is provided to villagers and for communal land to the VC. If an agreement cannot be reached, the matter is referred to the High Court for determination.
5. When compensation matters are clarified, the land transfer is gazetted in a government notice and becomes effective within 30 days. Thereafter, the government or investor[11] is required to pay compensation.

The Village Land Regulations provide additional steps to the transfer process, including mandating initial village meetings, demarcation of the land before the initial government notice, and a detailed survey for the compensation. Compensation must be paid for the land and "unexhausted improvements," such as crops and planted trees. Additional compensation may include resettlement fees, transport and disturbance allowances, and loss of profits. The valuation must be based on current market value and prepared by a qualified valuer, and the villagers are entitled to assistance with the compensation procedure by an authorized officer. The compensation package must be verified by the Chief Valuer, a Ministry of Land officer. Further, the Presidential Order of 2007 provides that Village Land cannot be transferred unless a land use plan exists. This requirement is designed to ensure that there is sufficient land for the current and future needs of the villagers.

ment to transfer Village Land to General Land or Reserved Land. As a result, the government could transfer Village Land to General Land for foreign REDD+ investors or to Reserved Land to establish "carbon" parks under government control.

The Village Land Act provides the President with the authority to transfer Village Land to General Land or Reserved Land for public interest purposes.[12] The government is currently exercising this authority to establish new protected areas (Box 1). Such transfers shift the control of land from village government to the government, reduce the amount of Village Land available to villagers, and limit their participation in and benefit from REDD+ projects.

[10] This includes villagers with customary rights or derivative rights to the land.
[11] An investor who has been granted a right of occupancy to the transferred land can be directed by the Minister to pay the compensation.
[12] The Act also empowers the President to transfer Reserve Land or General Land to Village Land for public interest purposes.

In contrast to the cumbersome procedures villagers must follow to register Village Land (see above) or establish a Participatory Forest Management initiative (see below), the transfer of Village Land to General Land or Reserved Land is a simple five-step process (Box 2). Three issues regarding such transfers are of particular concern—the definition of "public interest," the transfer procedure, and the compensation for transferred Village Land. The Village Land Act provides the President with the authority to make the determination of public interest, but establishes that public interest includes "investments of national interest" (Village Land Act, Art. 4). It is unclear which types of investments are in the "national interest," but new public revenues from REDD+ projects would likely qualify (Nshala, 2011; Sulle, 2011).

Some aspects of the transfer process are also problematic. The process involves village government and requires VA approval of transfers involving less than 250 hectares. Transfers of more than 250 hectares, however, are the decision of the Minister of Lands and Human Settlement Development (the VA only provides recommendations). The Presidential Order of 2007 provides some safeguards for villagers by requiring a village land-use plan before Village Land can be transferred, but this and other measures have not sufficiently protected rural property rights.

Finally, the Village Land Act stipulates that transfers cannot be completed until compensation terms have been agreed upon between the government and VC. What losses are eligible for compensation, how compensation is calculated and who makes the calculations, however, are established in law and not open to negotiation. Moreover, experience shows that simply agreeing to terms does not guarantee that compensation payments will be provided (Veit et al., 2008).

To protect Village Land and provide villagers with opportunities to participate in REDD+ projects, the authority to transfer Village Land to General Land or Reserved Land should be limited. Various measures can provide limits. For example, the determination of public interest could be passed to the Parliament or public interest could be defined in law. All transfers of Village Land could be contingent on VA approval, and the government could be obligated to pay full compensation before the land is transferred (Veit et al., 2008).

Challenge 5. Participatory Forest Management Procedures

The legal procedure for villagers to formally establish a community forest, engage in Participatory Forest Management, and capture a range of forest benefits is complex and expensive. Despite more than a decade of implementation, few communities have completed the process. As a result, few communities have the right to capture important forest benefits.

By law, villagers have the right to use forest products for subsistence purposes, but they can only sell their forest products if the forest is "declared" by the District Council and is an official Participatory Forest Management scheme. The Village Land Act, Local Government Act and Forest Act provide the legal basis for villagers to establish Participatory Forest Management schemes. The guidance provided by the Forest Act on Joint Forest Management is not as precise as that for Community-Based Forest Management, but the steps to establish these schemes are similar (Box 3). As with the process to register Village Land (see above), the procedure to formally establish a Participatory Forest Management scheme is complex, cumbersome, expensive and time-consuming.[13] Many communities have had difficulty completing the steps, especially developing a

[13] The 12-step procedure for villagers to establish a Wildlife Management Area is considered by many analysts to be "long and cumbersome," and more complex than the process to establish a Participatory Forest Management scheme (Nelson, 2007; Blomley and Iddi, 2009; Sulle et al., 2011)

Box 3: Procedure to Establish a Village Land Forest Reserve in Tanzania

The legal steps to establish a Village Land Forest Reserve (VLFR), the most common form of Community-Based Forest Management, include:

1. The land must be classified as Village Land by the Ministry of Lands and Human Settlement Development. There are various ways to achieve this, including obtaining a Certificate of Village Land.
2. The VLFR boundaries must be detailed and described.
3. A management plan for the VLFR must be prepared. The plan must describe how the forest is currently used, managed and protected, how much timber and other forest products can be harvested, and from which forest areas the products can be harvested. It must contain a forest inventory and an "official map, or other documentary evidence sufficiently clear to identify" the Village Land, VLFR and adjacent villages. The plan must be sent to the District Council for review and the Director of Forestry for "comments and consideration" (Forest Act, Art. 14). The final plan must be approved by the VA.
4. A Village Forest Management Committee or Village Natural Resources Committee must be established as a VC sub-committee and charged with managing the VLFR.
5. Village bye-laws must be prepared and approved by the VA to support the management plan.
6. The management plan, bye-laws and Village Natural Resources Committee details must be ratified and recorded by the District Council. Thereafter, the VLFR is "declared," authorizing the village to sell forest produce to outsiders and retain 100 percent of the revenue.

If villagers have managed their forest in accordance with the management plan for three years, they may request the Director of Forestry for formal "gazettement" of a village forest reserve. Formal gazettement—a separate legal entity—is optional (TFWG, 2009). In theory, gazettement provides more secure rights because the forest is recognized by the national government. Some villages have opted to have their VLFR gazette to help protect their land from outsiders (Sulle, 2011).

forest management plan and securing an "official map" (Nshala, 2011).

Moreover, as with government approval of land-use plans (see above), the District Councils have been a bottleneck—hundreds of completed applications for Participatory Forest Management schemes await their review. Some communities have waited for many years for their applications to be ratified. As a result, few community forests have been officially "declared" by District Councils. Commercial timber was harvested from a community forest for the first time in late 2009 (TNRF, 2010).[14] No communities engaged in Joint Forest Management on mainland Tanzania have completed the process.[15] As a result, few communities are capturing the full range of benefits from their forests. Some advocates have argued that the long wait is not due to any genuine concern over forest management, but rather reluctance on the part of government to provide opportunities for villagers to profit from their forests (Nshala, 2011).

14 SULEDO, recognized by many analysts as one of the best Participatory Forest Management schemes, was granted timber harvesting rights last year, more than 10 years after formally launching the scheme. The first year of harvesting, proved challenging and yielded few financial benefits for the 10 villages involved.

15 On Zanzibar, several Joint Forest Management schemes have evolved and provide communities with financial and other benefits, such as Jozani National Park.

Still, in 2006, the Forestry and Beekeeping Division claimed that almost 3.7 million hectares of forest were under Participatory Forest Management arrangements, involving 1,821 villages (1,102 villages in CBFM and 719 villages in JFM) (GOT, 2006). In May 2011, Sokoine University claimed that over 4 million hectares were under Participatory Forest Management (12 percent of mainland Tanzania's 33 million hectares of forest and about 21 percent of the unreserved forest area[16]) (Kajembe, 2011).

REDD+ benefit-sharing arrangements have yet to be established in Tanzania, but for communities to participate in REDD+ projects, their forests will likely need to be formally recognized or registered by the government. Experience with registering Village Land and ratifying Participatory Forest Management schemes (and establishing Wildlife Management Areas), suggests that villagers may experience long delays before being eligible to participate in and benefit from REDD+ projects. Many advocates are calling for a streamlined process that minimizes transaction costs and allows communities to have direct access to international carbon markets (Nshala, 2011; Sulle, 2011).

Conclusions

REDD+ presents an important opportunity for Tanzania to leverage its forest resources to bring in new capital flows and provide benefits to forest communities. The current legal and institutional framework, however, needs clarification and strengthening to make REDD+ a success for all Tanzanians.

Successful REDD+ schemes require secure property rights to land, both for investor confidence and forest protection. Without secure tenure, it is unlikely that villagers will invest in improving and managing their land and forests. The legal ambiguities and contradictions, coupled with inconsistent implementation and governance structures highlighted in this paper pose unique threats to the success of REDD+ in Tanzania.

With REDD+ infrastructure yet to be developed, opportunities exist for these challenges to be addressed. With growing interest in land, especially for new agricultural investments (e.g., food, biofuels) and conservation, the government has announced its intention to reform legislation that currently impacts Village Land, including the land and wildlife laws. The outcome of these reforms could also have profound effects on community participation in REDD+ projects. Advancing the recommendations provided in this paper will go a long way to securing tenure and local involvement in REDD+ projects.

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16 Tanzania has 12 million hectares in reserved forest and 2 million hectares of forest in parks.

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3

Carbon Rights in Mozambique:

Harmonizing Land and Forest Laws to Conform with REDD+

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Abstract

This study explores whether the laws of Mozambique establish a secure right to benefit from forest carbon. Local communities probably have the right to benefit from stored carbon under the Land Law but that right may be undermined by the Forest law as well as regulations that appear to preclude unlicensed receipt of commercial benefits from forest resources. Communities are also likely to have difficulty resisting the issuance of forestland concessions to carbon project investors. Despite this lack of legal clarity, carbon benefits are being distributed to 3,000 households and 20 communities in Mozambique in the Nhambita Community Carbon Project. This project shows that high transaction costs and low institutional capacity may make it difficult to implement a system where smallholders receive direct benefits.

Applicable provisions of the Forestry Law and regulations should be amended to give land rights holders the right to benefit from non-

extractive forest products (such as carbon) on their land without a license. The pace of community land delimitations under the Land Law should be accelerated and communities should be helped to better negotiate with prospective investors. Finally, a Nhambita-style benefit-sharing scheme may work in Mozambique if transaction costs can be substantially decreased.

Introduction

Sequestered carbon represents a new and poorly-defined commodity with unclear ownership rights in most countries. Very few countries have developed new carbon laws. Those without such laws will have to apply existing laws to determine rights to benefit from carbon to receive benefits from REDD+ and other carbon sequestration schemes.

This case study is part of a larger study for USAID assessing experience with defining rights to receive forest carbon benefits under REDD+. The study examined five developing countries, including Mozambique. The objective of each case study was to assess the extent to which national laws establish for communities and others a secure right to benefit from forest-based emission reductions or stored carbon. In Mozambique, the authors interviewed government officials, project developers, community members, representatives of NGOs and donors and others.

Background

Forests cover approximately 50 percent of Mozambique's land area—about 40 million hectares. About two-thirds of the forestland is miombo woodland—containing up to 300 species of trees of up to 65 feet in height over shrubs and grasslands--found mostly in the central and northern parts of the country. There are also significant mopane woodlands and large mangrove forests.[1]

Mozambique had an annual deforestation rate of 0.58 percent from 1990-2005. The major drivers of deforestation are shifting agriculture, fuelwood consumption, permanent agriculture and clearing for mining activities. Forest degradation is caused mostly by illegal logging and frequent and intensive human-caused fire, mostly to clear land for agricultural production. Between 40 and 70 percent of Mozambique's surface area can burn every year.[2] Such fires cause tons of carbon to be emitted annually.[3]

Protected areas, including national parks and reserves, cover 16 percent of the country.[4] Prominent protected areas include the Niassa Reserve in northern Mozambique and Gorongosa National Park in central Mozambique. Some communities living in protected areas are participating in co-management arrangements, mostly to attract visitors wishing to view or hunt animals.[5]

Most Mozambicans live in rural areas and depend largely on forest resources for their livelihoods. Mozambique's forest sector, comprised of both formal forest enterprises and informal or subsistence users, includes the production of timber products, non-timber forest products (NTFPs) and the provision of forest services such as eco-tourism. Enterprises in the formal forest sector primarily produce timber although there are some producing NTFPs and others focused on ecotourism and carbon sequestration operations. Informal enterprises are involved primarily in small-scale timber and NTFP operations.[6]

1 Wertz-Kanounnikoff, et al, at 1; USAID 2010; Nhantumbo and Izidine at 9.
2 USAID 2010 at 15; Interview with Mikael Rein, Community Based Natural Resource Management Expert, National Directorate of Lands and Forests.
3 Nhantumbo and Izidine at 2-3; Nhancale, et al; Interview of Alima Issufo Taquidir, Head of Department, Mozambique National Directorate of Lands and Forests.
4 Nhancale, et al, at 13.
5 De Wit and Norfolk.
6 Nhancale, et al, at 4-6.

Box 1: Types of DUATS *(Direito de Uso e Aproveitamento dos Terras)*

Traditional and Good Faith Occupancy	Proof of 10-year Occupancy	Renewable 50-year
• Available to individuals and communities • Provide perpetual use rights • Delimination and registration not required	• Available to individuals and communities • Provide perpetual use rights • Delimination and registration not required	• Intended for investors • Mandatory consultation/ agreement with community (but often this does not occur)

The law

A. Land Laws

Under Mozambique's 2004 Constitution the state owns all land. All Mozambicans are entitled to use and enjoy the land although they may not sell or mortgage the land they use.[7]

The 1997 Land Law permits individuals, communities and entities to obtain long-term or perpetual land use rights known as a DUAT (*direito de uso e aproveitamento dos terras*). DUAT's can be obtained through (a) traditional and good faith land occupancy; (b) proof of occupancy for 10 years; and (c) a renewable, 50-year grant from the state (see Box 1). The first two categories of DUAT, available to individuals or communities, provide perpetual use rights and do not require delimitation or registration. Thus, rights holders have DUATs by operation of law without the issuance of any certificate or official registration whatsoever.[8]

An important objective of the Land Law is to support and protect land rights of communities, women and smallholder farmers while also encouraging investment. By affording perpetual use rights based on traditional occupancy, it explicitly recognizes the customary rights of communities to their traditional territories.

Community DUATs recognize communal use rights to land traditionally occupied by the community. Individual members of the community can obtain individual DUATs for community land with the agreement of the community. Women and men have equal rights to hold land.

An investor must prepare a state-approved land exploitation plan in order to obtain a state-issued DUAT. The process includes mandatory consultation with the community if the desired land is community-held. In theory, the community has the right to veto the proposed development and thus prevent issuance of the DUAT. In reality, however, the consultation requirement has often not been enforced and communities appear to have no meaningful recourse in those circumstances. When consultations have taken place they have tended to be rather cursory and hampered by community lack of knowledge of their rights and negotiating savvy and minimal participation by women and marginalized members of the community.[9] The law does not require delimitation and registration of land rights obtained by occupancy. Probably less than 10 percent of communities have undertaken the rather complex and expensive process, despite the fact that it would strengthen their ability to prevent their land from being allocated to third parties and invoke

7 GOM Constitution, Article 109; USAID 2010 at 7.
8 USAID 2010 at 6-7.
9 USAID 2010 at 8.

the requirements of mandatory consultation by proposed investors and community consent. The delimitation and registration process involves (1) imparting information and local organizing; (2) participatory rural appraisal and mapping; (3) cross-referencing and confirming the map results in the community and with neighbors; and (4) cadastral processing. While costs vary widely, one expert puts average costs for 1,000-20,000 hectare delimitations at between US$2,000-8,000.[10] The size of registered land areas to date ranges from less than 10 hectares to as much as 500,000 hectares, covering less than 10 percent of national territory. The larger parcels tend to be in forested areas.[11]

Efforts to increase community land delimitation and registration have met with mixed success. It has never been a high priority for the government so such efforts have been largely driven by NGOs. Community members and many NGOs have only limited capacity to engage in the implementation process due to lack of knowledge of the law and process and limited negotiating skills. Moreover, there are reports that the government has been delimiting only the areas used by communities for subsistence purposes to make more land available to investors, thus excluding broader areas, including forests.[12]

The Land Law is generally interpreted as giving the land rights holder the right to use the land and the resources on the land for subsistence or commercial purposes subject to restrictions on the extraction of resources found in the forest laws. This flows from the law's treatment of customary rights as formal legal rights and from the requirement that investors obtain the consent of the community or individual rights holder to engage in any activities on the land.[13]

B. Forest Laws

All forest land and forest resources belong to the state. Generally, local communities can use forest resources for personal consumption needs—i.e., without profit making purposes--without obtaining a license. All other uses of forest resources require a license.[14]

The Forestry Law establishes three categories of forests: (1) conservation forests located in protection zones; (2) productive forests, which are areas with high-value timber and usually made available for timber concessions; and (3) multiple use forests, less productive forests in which most of the people live and on which they depend for subsistence.[15]

Protected areas are defined and regulated by the Forestry and Wildlife laws. Many people live in Mozambique's protected areas and use resources located therein for subsistence purposes. It is not clear whether these settlements and resource uses are legal but the law is generally interpreted as allowing them.[16]

Other than subsistence use, "exploitation" of forest resources requires any user—including local communities and individuals—to obtain either a simple license or forest concession. "Exploitation" is defined as the "extraction" of forest products.[17]

Simple licenses, good for one-year, may be obtained by domestic companies or local communities to extract small quantities of specified forest resources for commercial purposes. Because acquiring a simple license is

[10] DeWit at 6-9, 11-12.
[11] Id. at 9-11.
[12] Id.; interview of Chris Tanner, FAO.
[13] Salomao interview; interview of Sean Nazerali, WWF Mozambique, Quirimbas Support; De Wit at 1.
[14] GOM Forestry Law 1999, Article 1(9); USAID 2010 at 17.
[15] Forestry Law, Article 5; USAID 2010 at 17; Nhantumbo and Izidine at 19.
[16] De Wit at 28.
[17] Forestry Regulation Article 9.

relatively easy and inexpensive, it is the preferred license for most small Mozambican businesses. Many others choose to operate informally.[18]

Forest concession contracts are issued for 50-year terms for large scale timber and NTFP production. The process is far more expensive and complex than for obtaining a simple license. Most are issued to large companies with the capacity to manage areas of 100,000 hectares or more.[19]

The Forestry Law requires companies seeking to exploit forest resources on community land to consult with the communities as a condition of obtaining either a simple license or forest concession. The simple license process requires the applicant to obtain the consent of the land rights holder, which, under the Land Law, will often be the local community.[20] However, while requiring consultation, the law does not explicitly require local community consent to forest concessions. Thus, communities do not have a clear right to decline the larger investments such contracts entail.[21] Practically speaking, communities are unable to block an investor who wants to obtain the rights to forest resources and has effectively obtained government approval.[22]

In sum, unlicensed forest resource use rights of individuals and local communities in Mozambique are limited to subsistence uses. The state recognizes no other customary or inherent rights to the resources, in contrast to the Land Law's treatment of land use rights.[23]

REDD+ development in mozambique

Mozambique participates in the World Bank's Forest Carbon Partnership Facility and receives support from Brazil under the "South-South REDD: A Brazil-Mozambique Initiative." REDD+ policy development is led by the Ministry for the Coordination of Environmental Affairs (MICOA) and the National Directorate of Land and Forestry (DNTF).[24]

Mozambique has yet to finalize its REDD+ strategy. On the advice of the World Bank, work on a draft strategy will slow while the Readiness Preparation Proposal is drafted. Mozambique now aims to adopt its REDD+ strategy by August 2012.[25]

There are two functioning REDD+ pilot projects in Mozambique, both operated by Envirotrade. In addition, the Society for the Management of Niassa Reserve and Fauna and Flora International are planning a project in the Niassa National Reserve.[26] WWF is exploring possible REDD+ projects in Quirimbas National Park and in the mangrove forests of the Zambezi Delta[27] and Green Resources, Inc. is developing a project in Niassa Province.[28]

Mozambique has not determined how it will define or assign carbon rights. Its draft strategy includes these objectives:

- Approve an instrument that makes explicit the property for environmental services, particularly the carbon rights.

18 Nhancale, et al, at 23-24; USAID 2010 at 17.
19 Nhancale at v; USAID 2010 at 17.
20 Forestry Regulation Article 21(3).
21 Forestry Regulation Articles 26(e) requires local authorities to declare that local communities have a "favourable opinion" of the application. Article 36(3) states that required consultation with the community must result in "decisions by consensus of the community members present…." Article 17 of the Forestry Law requires only a "hearing or renegotiation with the local communities."
22 USAID 2010 at 17; interview with Alda Salomao, Director General, Centro Terra Viva.
23 De Wit at 1.
24 Wertz-Kanounnikoff, et al, at 4-5.
25 Taquidir interview.
26 Interview with Madya Couto, Society for the Management of Niassa Reserve.
27 Nazerali interview.
28 See http://www.greenresources.no/Portals/0/Carbon/Sanga.pdf.

- Strengthen the right of land use and environmental services for rural communities.[29]

Despite these stated objectives, some observers believe that the Mozambique government will do its best to keep forest land out of the hands of local communities.[30] How this will play out remains to be seen.

REDD+ benefit distribution

Mozambique has not settled on its REDD+ benefit-sharing mechanism. Whatever mechanism is adopted, REDD+ benefits are likely to flow first through a yet-to-be-defined national institution. The system probably will not be strictly performance-based; benefits will likely be shared in some way with communities that do not have forests on their lands but which are located near other communities that do control such lands. The government is concerned about directing all benefits to forest communities, thereby excluding non-forest communities. This reflects a desire to provide incentives to the non-forest communities so that they do not undermine their neighbors' efforts to protect nearby forests.[31] Providing benefits to non-forest communities may create challenges: will forest and non-forest communities be rewarded at the same level? If so, will this reduce the extent to which forest communities will engage in lower-emitting activities? It is not clear that the government is addressing these questions.

The percentage of REDD+ revenues to be allocated to local communities has not been determined. The draft REDD+ strategy states that communities should receive 80 percent of REDD+ benefits.[32] According to one source, the government, international NGOs and others have been discussing allocating 60 percent of REDD+ benefits to the communities.[33] Key participants in the negotiations include MICOA, DNTF, the Government of Norway, Centro Terra Viva and IIED.

A. 20% Revenue Share Model

Mozambique may model its system on its current law that distributes to local communities 20 percent of timber taxes and royalties collected from park entry fees, hunting fees and forest concessions on timber harvested from community lands. The central government collects the revenues, then pays a portion to the provincial governments which in turn are supposed to make payments to local communities. This program has been implemented slowly as communities have found it difficult to participate, in part because they must form a new institution and obtain a bank account. Many communities are still owed substantial amounts of money under the program.[34]

For those communities that have received payments, questions have arisen concerning the expenditure of those funds. In some cases, funds have not been invested well because communities lack knowledge and experience in managing money-based projects. There are reports of money being misappropriated by local elites.[35]

Another significant difficulty arises in making payments to communities for timber harvested from community land that has not been delimited. "The payment to communities…

29 GOM draft REDD strategy at 49.
30 Tanner interview.
31 Interview with Paula Panguene, Deputy Director for Environment, Mozambique Ministry for the Coordination of Environmental Affairs.
32 Interview of Dr. Sheila Wertz-Kanounnikoff, Senior Associate, Forests and Governance Program, CIFOR.
33 Interview with Robert Layng, Tourism and Biodiversity Manager and Mission Environment Officer, USAID Mozambique.
34 Mozambique Regulation to the Forestry and Wildlife Law 2002; Wertz-Kanounnikoff, et al, at 5; Taquidir and Layng interviews; De Wit at 26-27.
35 Wertz-Kanounnikoff, et al, at 5; Rein interview.

depends upon also having a clear spatial definition of the area over which a community can legitimately claim underlying resource rights."[36] This problem will present itself if Mozambique attempts to distribute REDD+ benefits linked to specific amounts of carbon sequestered in community lands as it will be essential to clearly demarcate the boundaries of those lands.

B. Nhambita

Another potential model for Mozambique is represented by Envirotrade's Nhambita Community Carbon Project, located in central Mozambique. This project has made payments to about 3,000 individual households and 20 communities that have taken actions resulting in measurable added carbon sequestration on their land either through planting trees on smallholdings or protecting forests on large community lands. Certified under the Plan Vivo standard, the Nhambita project and its more recently established sister project in the Zambezi Delta appear to be the only REDD projects in Mozambique that are providing tangible benefits to participants both in the form of carbon payments and livelihoods training.[37]

In the Nhambita project, Envirotrade helped communities to delimit and register their land. The company relied on the communities to verify the boundaries of plots held by individuals. Smallholders receive seedlings and technical assistance on how to improve the productivity of their farmland while reducing emissions and increasing stored carbon. A farmer who complies with an agreed land use plan receives a share of revenues paid to Envirotrade for sale of carbon offsets based on the predicted amount of carbon to be stored on the farmer's plot. About 30 percent of the individual contractors are women. The company monitors the amount of additional carbon stored on each plot.[38]

Revenues are supposed to be divided evenly between the land rights holder (either community or individual farmer), Envirotrade's operating costs and Envirotrade's marketing costs. However, in the case of individual farmers, revenues have not been sufficient to cover marketing costs so the farmers have received 50 percent of total revenues.[39]

Despite good performance by individual households, Envirotrade has determined that it is too expensive to administer 3,000 contracts with smallholders. Therefore, the company has decided to limit its future contracts to communities with at least 100,000 hectares of forestland.[40] This experience may lead the government to reject a system requiring payments to individual or small community rights holders due to the high transaction costs that such a mechanism will entail.

Carbon rights under mozambique law

Mozambique's draft REDD strategy's call for "an instrument" determining rights to carbon is important because current law does not even implicitly establish those rights or otherwise determine with any level of certainty who has a right to receive REDD+ benefits. As explained above, the Land Law appears to give communities rights to natural resources on their land subject to forest law restrictions preventing extraction of forest products. Under the Forestry Law, however, forest products remain the property of the state, which does not relinquish any right to use these products to anyone, except for subsistence use by local community members,

36 De Wit at 28.
37 Interview of Alastair MacCrimmon, Sofala Project Manager, Envirotrade; Nazerali interview.
38 MacCrimmon interview.
39 MacCrimmon interview.
40 MacCrimmon interview.

unless a user obtains a simple license or forest concession contract.[41]

"Exploitation" is defined as the "extraction" of forest products. Read alone, this definition suggests that someone holding rights to land with forests on it would not need a license or contract to receive carbon benefits as preserving or enhancing stored tree carbon requires no "extraction" of a forest product. If the Land Law controls, local communities probably have the right to benefit from stored carbon. However, the fact that the forest laws are generally interpreted to preclude communities from profit-making activities involving forest resources,[42] suggests that local communities may not have a legal right to receive such benefits under the forest laws.

Even if the law is interpreted as giving the carbon right to communities, those rights may be lost because communities cannot derail forest concession contracts. If the government interprets stored carbon as a forest product, an interpretation that would be inconsistent with the definition of the term, investors may well seek concession contracts for huge swathes of forest in order to reap REDD+ benefits.

In sum, the Land Law suggests that holders of land use rights own the right to benefit from carbon stored on the land. The Forestry Law and regulations suggest otherwise. That is, the laws are inconsistent in the context of carbon benefits. They must be harmonized to support realization of the necessary level of rights clarity.

Suggested changes in law and practice

If Mozambique applies existing law to determine the holder of carbon rights, the best way to protect local communities is to anchor such rights to the Land Law.[43] It may be possible to do this by amending applicable provisions of the Forestry Law and regulations to make clear that land rights holders own the right to benefit from forest products on their land where the receipt of such benefits does not require the extraction of such products. A new carbon rights law could achieve the same objective. In the absence of an entirely new carbon rights law, failing to clearly embed carbon rights in the Land Law will make it more likely that REDD+ in Mozambique will lead to a concentration of forest land use rights in the hands of the government or investors.

If communities are to receive benefits tied to their carbon sequestration performance, it will be important to improve the quality and accelerate the pace of community land delimitations, especially for community lands with large forests. No doubt this will be difficult as this has not been a high priority for the government. However, it is an essential step in order to improve implementation of the Land Law, facilitate an effective REDD+ benefit sharing process and to more effectively administer the 20 percent revenue sharing mechanism under the Forestry Regulations. Donors, project developers and the government alike should consider whether REDD+ readiness funds should be used to support community land delimitation by improving the capacity of local governments and communities. This assistance could include substantial training and support to improve communities' ability to negotiate with prospective investors seeking to obtain rights to use community land in order to pursue REDD+ benefits. The possibility that more community delimitation will place too much power in traditional authorities, harm the position of women or create conflicts with neighboring communities over jointly used resources such as water must continue to receive consideration as noted by many observers.[44]

41 De Wit at 1.
42 De Wit at 1.
43 McQueen interview.
44 See, e.g., De Wit at 21-23.

In light of the difficulties it has faced in implementing the 20 percent revenue sharing program, Mozambique should give serious consideration to utilizing a different benefit-sharing mechanism. This mechanism is far too complex and makes it too difficult for communities to receive payments.[45] It also seems likely that a 20 percent share of REDD+ benefits will be too little to incentivize communities to engage in the desired land use behavior. Some version of the Nhambita model should be considered, although doing so will require reducing the costs of monitoring performance and making payments at the individual household level. It would be worth exploring ways to enlist and train local communities to serve as intermediaries between smallholders and project developers to determine whether this can be done more cost-effectively.

If Mozambique wants its REDD+ system to succeed it must share benefits in a way that incentivizes individuals and communities to stop burning 70 percent of the country's surface each year. The 20 percent revenue sharing model is unlikely to help achieve that goal, unless communities receive a higher percentage share.

The potential impact on women of REDD+ implementation has yet to be addressed in any significant way.[46] By law, women have equal rights to land and resources in Mozambique. However, women's access to land and security of tenure is largely governed by traditional practices and customary law. The result is that women rarely have land titled in their name and often have little input into local decision-making.[47] Women sometimes are able to participate in the community institutions established to receive and invest the funds received under the 20 percent revenue-share program. If these institutions are used in the nation's REDD+ benefit-sharing mechanism, this could be an opportunity to encourage further participation by women.

Lessons for other countries

Mozambique's preliminary experience offers a number of lessons for other countries:

- Use implementation of REDD+ as an opportunity to resolve inconsistencies in land and forest laws or to harmonize them. This can be achieved with or without a new, stand-alone carbon rights law.
- Make clear that activities producing benefits from sequestered carbon are not subject to the same licensing and other restrictions imposed on harvesting timber or NTFPs.
- As in the Nhambita project, ensure that a significant percentage of REDD+ benefits go to the community or individual who is in a position to protect the forest.
- Carefully consider transaction costs and institutional capacity that may make it difficult to implement a system where large numbers of smallholders receive direct payments or benefits.

Conclusion

Mozambique's Land Law provides an appealing model for ensuring that communities living in and around forests have enforceable forest resource rights based upon which they can derive significant benefits from REDD+. However, to achieve this result and the objectives set forth in its draft REDD+ strategy, Mozambique should harmonize the relevant provisions of the Land Law and Forest and Wildlife Law and adopt a benefit-sharing mechanism that provides a significant portion of REDD+ benefits to those communities. Whether the country will take these necessary steps remains to be seen.

44 See, e.g., De Wit at 21-23.
45 Nhantumbo, et al, at 45.
46 Interview with Oystein Botillen, First Secretary, Royal Norwegian Embassy, Maputo.See, e.g., De Wit at 21-23.
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4

Selling the Carbon Commons

Decentralization, Commercialization, Forest Tenure and Carbon Trading in Nepal's Community Forestry

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Abstract

Nepal's forestry sector has witnessed two major trends in recent decades—decentralization toward community-managed forests and the increasing commercialization of forest products. Decentralization has resulted in an internationally recognized system of "community forestry", whereby local communities hold collective legal rights to manage and use forest resources. However, government directives, overlapping policies and forestry officials repeatedly challenge community rights and decision-making autonomy. Commercialization has also reached an uncertain crossroads, where nascent carbon-trading initiatives could compete with the development of high-value forest products for global markets. The ultimate implications of decentralization and commercialization for tenure security among forest-dependent communities in Nepal remain uncertain.

This case study reveals how communities' access to forests and their benefits are heavily constrained by unclear and incomplete forest land tenure laws; ambiguous and discretionary national policies, regulations and administrative procedures; inadequate experience and linkages with broader markets for forest products and services; and inequities

in the mobilization and marketing of forest resources and financing among communities, government and the private sector. These realities form a barrier to the effective, cost-efficient and equitable implementation of market-based conservation schemes, including forest carbon trading mechanisms such as reducing emissions from deforestation and forest degradation in developing countries (REDD).

Introduction

Global Trends in Forest Decentralization, Tenure and Commercialization

Forests are increasingly central to international markets and policies for environmental conservation and climate change mitigation. As a result, forest governance and tenure systems are evolving rapidly, with significant, yet unpredictable, implications for forest-dependent communities. Agrawal et al. (2008) note three global trends in the governance of forests: (1) decentralization of forest management, often in forests of low commercial value managed primarily by communities for livelihood needs; (2) increased corporate logging concessions, usually in tropical forests; and (3) a rise in market-oriented certification efforts, primarily in temperate forests in the developed countries.

Nepal exemplifies the first trend, decentralization, and is recognized as a global leader in community-based forest management. Corporate logging concessions have been limited, due to conservation-oriented policies and opposition from proponents of community forestry. Nepal has seen some advances in the third trend, including an innovative sustainable forest management (SFM) certification pilot project involving community forestry institutions, discussed in section 3 below.
Dahal and Adhikari (2008: 19) note a disparity between principles and practice in decentralization and community tenure: "Despite growing recognition of community rights by the state in many countries in Asia, the community-based tenure model is facing a major challenge due to inconsistent government policy and lack of institutional capacity." Thus, tenure is closely related to, yet distinct from devolution, and is often closely associated with property rights. Ribot and Peluso (2003: 153) distinguish "access" (a bundle of powers), from "property" (a bundle of rights): "This formulation includes a wider range of social relationships that constrain or enable benefits from a resource than property relations alone." They define access as the ability to benefit from a forest and its resources (ibid). Adopting this conceptualization, we can identify diverse ways in which power is exercised by, for and against local communities, irrespective of formal property rights.

Drawing on the authors' extensive experience working with community forestry and related tenure issues in Nepal, and their recent involvement in piloting and policy processes related to REDD, this case study explores tensions and synergies among decentralization, commercialization and tenure security in the context of Nepal's community forestry program and emerging carbon trading regimes by addressing the following questions:

- How are tenure security, decentralization and commercialization related?
- How could market-based mechanisms like carbon trading and REDD impact decentralization and tenure security?
- Are effective and equitable carbon-trading regimes possible without clear legal definition and designation of rights to land and carbon?

History and Status of Decentralization, Tenure and Commercialization in Nepal's Forest Sector

Nepal encompasses three major geographical regions with distinct demographic and

biophysical characteristics (Figure 1). The southern, lowland Terai region, an extension of India's Gangetic plain, incorporates over half of Nepal's population, most of its food production, and the economically and ecologically rich Sal (*Shorea robusta*) forests, threatened by uncontrolled logging and agricultural expansion (R-PP 2009). The Middle Hills region was once more populated, until environmental degradation and government resettlement campaigns, beginning in the 1960s, induced massive out-migration. Varying in elevation, Middle Hill forests contain both sub-tropical and temperate species. The northern Mountain region contains alpine forests and shrublands, and a low population density. Community forestry programs began reviving degraded Middle Hill forests in the late 1980s (GTZ 2004) and were expanded to the Terai and Mountain regions,

Inset Map

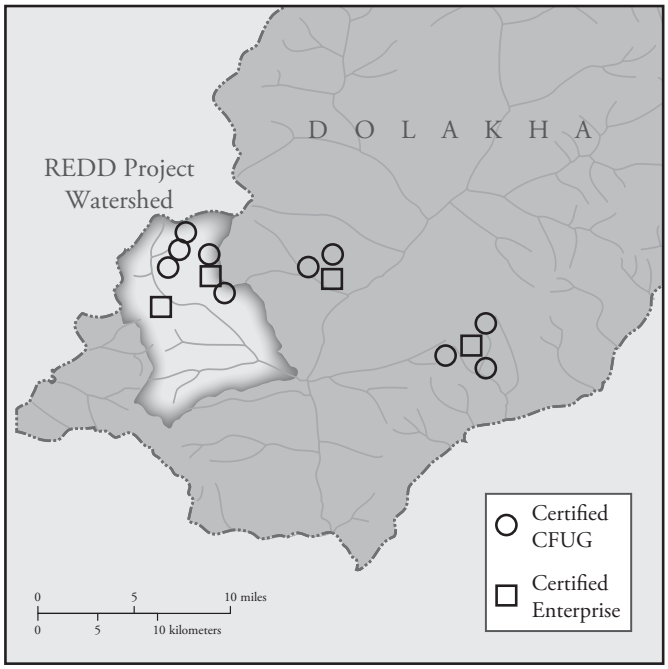
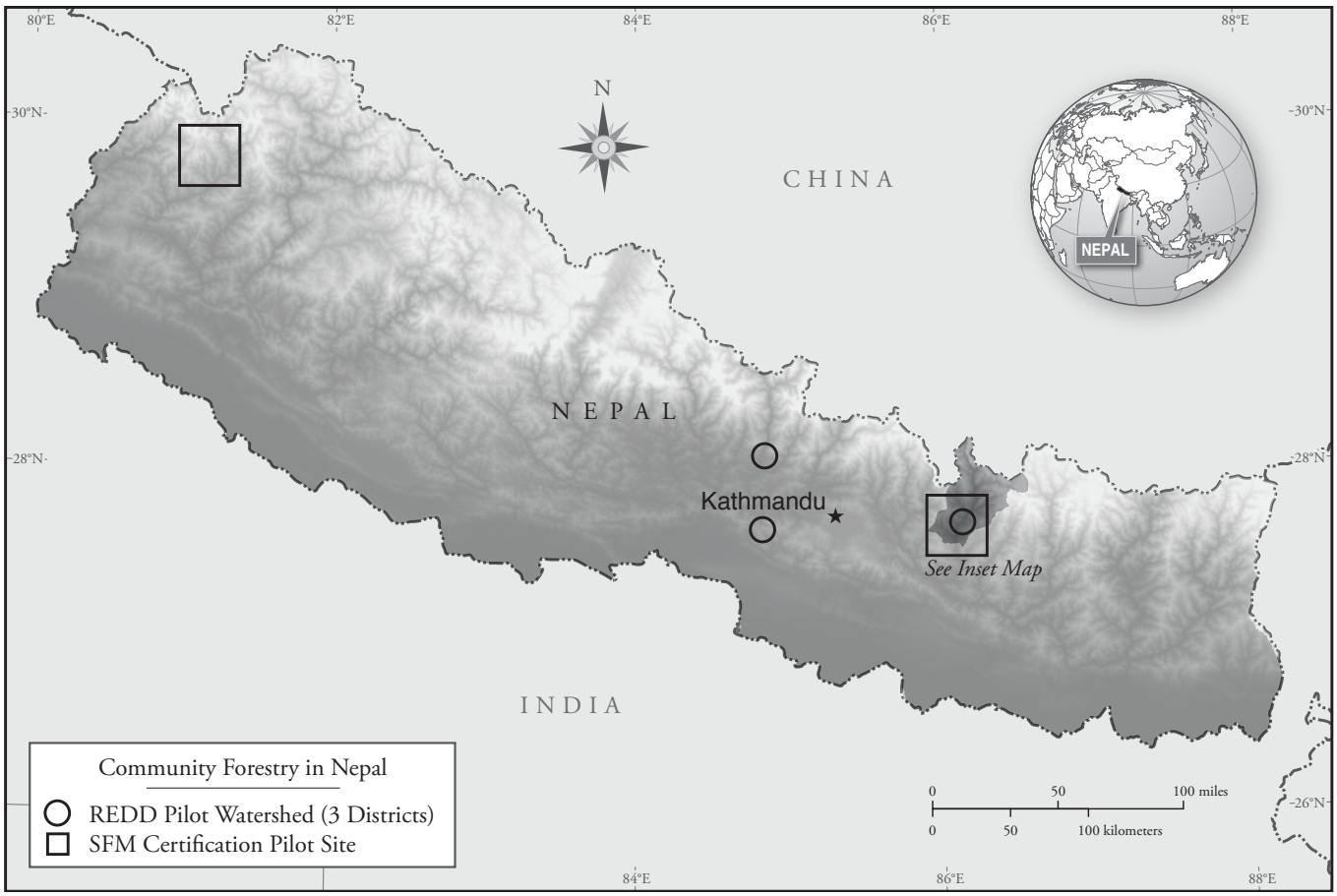


Figure 1: Map of Nepal with REDD+ and SFM Certification Project Sites



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where their impact has been more mixed, after the mid-1990s. Communities nationwide maintain a heavy reliance on forest resources (see Table 1).

Forest governance in Nepal has undergone gradual decentralization since the formation of *Panchayat* Village Forests in the late 1970s, which provided limited community autonomy over forest resources. From the 1980s, a number of projects supported by multilateral and bilateral donors (e.g., the World Bank and the governments of the UK, Australia, and Switzerland) promoted community forestry in different Middle Hills districts. Decentralized forestry policies, like the Master Plan for the Forestry Sector (1989-2010), the Forest Act of 1993, and the subsequent Forest Regulations 1995, helped formalize a national 'community forestry' system whereby community forest user groups (CFUGs) were formed and given access to national forest lands, along with specific rights and responsibilities for their management and use. Today community forestry incorporates over 17,000 CFUGs managing about a third of the country's forest area (DoF 2011). Since the mid-1990s, civil society organizations, particularly the Federation of Community Forestry Users Nepal (FECOFUN), have played a vital role in advocating for the forest management rights and autonomy of community groups. Other types of participatory forest governance have also emerged—including leasehold forestry, collaborative forest management, religious forests and buffer-zone community forests—to fulfill various cultural, spiritual, subsistence and commercial purposes (Table 2).

Table 1: Dependence on forests for livelihoods and extent of community forest in Nepal

Description	Figure (and Data Source)
Households relying on forests as a primary fuel source	84% of total population (CBS 2004) (22.36 of 26.62 million people– Nepal National Population Census 2011, http://census.gov.np)
Households directly benefitting from community forestry	2.18 million households (DoF, 2011) (Out of 5.66 million HH total = about 39% of Nepal's population)
Community forest user groups (CFUGs)	17,685 (in 75 districts, comprising 1.45 million households – DoF 2011)
Landless households	450,000 (About 30% of the number of households involved in community forestry–Wily et. al. 2008) 23% are Dalit or low-caste households
Community forest area	1,652,654 hectares (34% of total forest area – DoF 2011)

Table 2: Management, harvesting, sale and land tenure rights under different forest governance regimes in Nepal

Management regime	Approximate area	Forest management	Harvesting of forest products	Sale of forest products	Land tenure
1) Community forestry	1,219,272 hectares (25% of forest area)	CFUGs	CFUGs	CFUGs w/ government permission	Government
2a) Conservation Areas	24% of total land area in Nepal	Community	Community	Community	Government
2b) National Parks & Wildlife Reserves		Government	Not Allowed	Not Allowed	Government
3) Buffer-zone Community Forestry (BZCF)	23,235 hectares	BZCF Council	Community w/ permission of park warden	Sale only among groups members (no sale outside buffer zone)	Government
4) Leasehold Forestry	19,978 hectares	Leasehold Forest User Groups (LFUGs)	LFUGs	Government: Trees planted before handover LFUGs: Trees planted after handover/NTFPs	Government
5) Collaborative Forest Management	8,675 hectares	Community (CFMUG) w/ support of DFO and local gov.	CFMUG & DFO	DFO: Timber Community: Other products	Government
5) Private Forests	Unknown	Private households	Private households	Private households with gov. permission	Private households

Despite decentralization of forest management in Nepal over the past couple of decades in both law and practice, rights have not extended to full community ownership of forests. In 1957, the government nationalized all forestlands. This disenfranchised many communities that had established arrangements with aristocratic landowners, and their own customary forest management systems. Under the *Panchayat* Village Forests, limited autonomy was vested in local village *Panchayats*,[1] though major management decisions were made by forest bureaucrats. Financial and political support for community forestry grew during the 1980s, but not until the passage of forest deregulation policies in the 1990s were communities granted statutory rights to forests. Today, communities' legal rights remain restricted to management and use of forest resources for a term of 5-10 years, subject to renewal by the District Forest Offices (DFOs). Furthermore, DFOs repeatedly challenge community rights to harvest, market and sell these resources. Nepal's forestry bureaucracy exhibits a lack of political will to formalize and expand community-based forest land tenure arrangements, exacerbated by significant costs to various stakeholders of doing so (Annex 1).

In Nepal, lack of secure forest tenure is also closely tied to broader issues of landlessness, land redistribution and land tenure reform. The government has formed high-level commissions and committees to address these issues. However, due to frequent political transitions, weak political will, and a scarcity of non-forest land for redistribution or resettlement, these bodies have frequently advocated settling landless people in national forests. These decisions are usually guided more by political interests than those of the poor and landless. Consequently, conflicts have arisen between landless people, forest communities and forest administrators, particularly in the Terai. Policies enable encroachment and illegal harvesting of forest products in both community-managed and national forests. However, the recently formed High-level Scientific Land Reform Commission has recommended that the government avoid designating forestland for other purposes, including resettlement (HLSLRC 2010).

Timber has always been an important forest product in Nepal, but the government repeatedly suppresses the rights and capacity of local communities to harvest and sell it through various policies, taxes and directives. Since timber production has strong revenue-generating potential, it invites corruption among government bureaucrats and private entities, creating disincentives for supporting community-based management and marketing of valuable forest products. At first, CFUGs' involvement in markets was restricted to selling low-value, non-timber forest products (NTFPs). It has since expanded to include international certification of sustainably managed forest products and enterprises, and other local and regional market-based mechanisms for protecting valuable environmental services—such as water supply for agriculture, municipal use and hydropower generation—despite a lack of supportive national policies and legislation (Upadhyaya 2003). Emerging market-based schemes, including REDD piloting activities now underway in three districts, promise financial rewards for local communities, provided they meet certain forest conservation objectives.

Linking Decentralization, Commercialization and Tenure Security in Nepal's Forestry Sector

Decentralization and commercialization have strong implications for forest tenure security in Nepal. However, the precise relationships among these variables are unclear. This section scrutinizes these relationships by addressing the following questions:

[1] *Panchayats* were local councils under a partyless political system imposed by the Monarchy from 1960 to 1990.

- Has decentralization of forest governance facilitated commercialization among community forestry groups?
- Has decentralization increased tenure security for forest-dependent communities?
- What impact has commercialization had on tenure security?

Decentralization and Commercialization

Decentralization and commercialization have evolved simultaneously in community forestry. Decentralization has facilitated commercialization by building awareness and capacity among communities to engage in income-generating opportunities. It has also garnered training and financial support for the production and marketing of valuable forest products by CFUGs and cooperative enterprises. Legal provisions provide rights to establish local enterprises and CFUGs have created over 85 community cooperatives, about 25 community-based enterprises, and many cottage industries, producing wild fruit juices, handmade paper, essential oils and other NTFPs. Through these local enterprises, CFUGs have mobilized their income and employed some poor people to collect and process raw materials. In this way, decentralization policies have supported forest product commercialization and, to a lesser extent, poverty alleviation.

However, decentralization has prioritized political autonomy over economic autonomy. The government promotes small-scale development of low-value, conservation-oriented forest products above large-scale commercialization of valuable products, like timber. Regulations and practices requiring CFUGs and community enterprises to obtain permission from forestry administrators, meet bureaucratic environmental standards and registration procedures, and pay multiple taxes and fees to harvest, transport and sell valuable forest products reinforce this trend (MEDEP 2010). Thus, political decentralization is a necessary, yet insufficient, condition for expanding commercial activities among Nepal's forest-dependent communities.

Decentralization and Tenure Security

As noted above, decentralization in Nepal's forestry sector has not embraced devolution of land ownership to local communities. By law, all forests are state property, except fragmented patches on private agroforestry land. Though communities have rights to manage, use and sell forest resources, these rights are constrained by their tenuous and temporary nature and biased regulations. Since the late 1990s, CFUGs have repeatedly demanded expansion of forest tenure rights with little response from government. Many argue that, unless decentralization incorporates significant, long-term devolution of land tenure to community-based forest-management institutions, local political, economic and livelihood rights will remain at risk (Agrawal and Ostrom 2001).

Commercialization and Tenure Security

The net impacts of commercialization on tenure security remain unclear. On the one hand, commercialization gives communities incentive to manage and develop forest resources, and protect them from animal grazing or illegal harvesting. This has resulted in the strengthening of local norms, rules and practices for managing, harvesting and monitoring forest resources; and in conflict resolution mechanisms/sanctions for those who don't follow these rules. Thus, in many instances, customary tenure has been strengthened. However, this has not necessarily led to increased recognition of community resource and land tenure rights by government and other external actors. Moreover, the government has reacted to commercialization efforts by restricting both the sale of forest resources, and their local management and use. CFUGs can legally sell forest products both within and outside their group, and many manage their forest intensively for this purpose. However,

due to insecure land tenure and the resulting ability of DFOs to arbitrarily reclaim community forests from CFUGs for ostensibly violating forest law (several community forests have been arbitrarily withdrawn by DFOs and these actions have been challenged in court by FECOFUN), CFUGs have little incentive to develop forests to their full economic potential by making investments in large-scale income-generating activities requiring significant expenditures and labor. Thus, realizing secure, comprehensive forest tenure in both law and practice is essential for effective commercialization (DoF 2009).

Implications of Market-Based Mechanisms and Carbon Trading for Decentralization and Tenure Security

Emerging market-based mechanisms present important opportunities for communities to participate in global markets for forest products and services. To better understand how such mechanisms could affect decentralization of forest governance and tenure security, we can examine existing schemes, like sustainable forest management (SFM) certification.

Dolakha District, approximately 120km east of Kathmandu, has received steady support for community forestry since the early 1990s when the Swiss Development Corporation began facilitating the handover of forest management authority to communities. Today, community forestry is thriving in Dolakha, as evidenced by thickly (re-)forested hills, the proliferation of user groups, and their increasing involvement in managing and marketing diverse forest products. In 2005, Dolakha was one of two districts in Nepal to implement an innovative community-based SFM certification pilot project through the Forest Stewardship Council, an international certifying body. In Dolakha, this initiative supports 10 CFUGs and several local cooperative industries to grow, process and sell high-value, internationally certified NTFPs, like essential oils from wintergreen and other herbs and handmade paper from *argeli* and *lokhta* (local plant species that are processed into hand-made paper, packaging and handicrafts, which are purchased by companies in distant countries like the USA and Japan). In return, they must adhere to strict SFM guidelines, and monitor social, economic and ecological indicators.

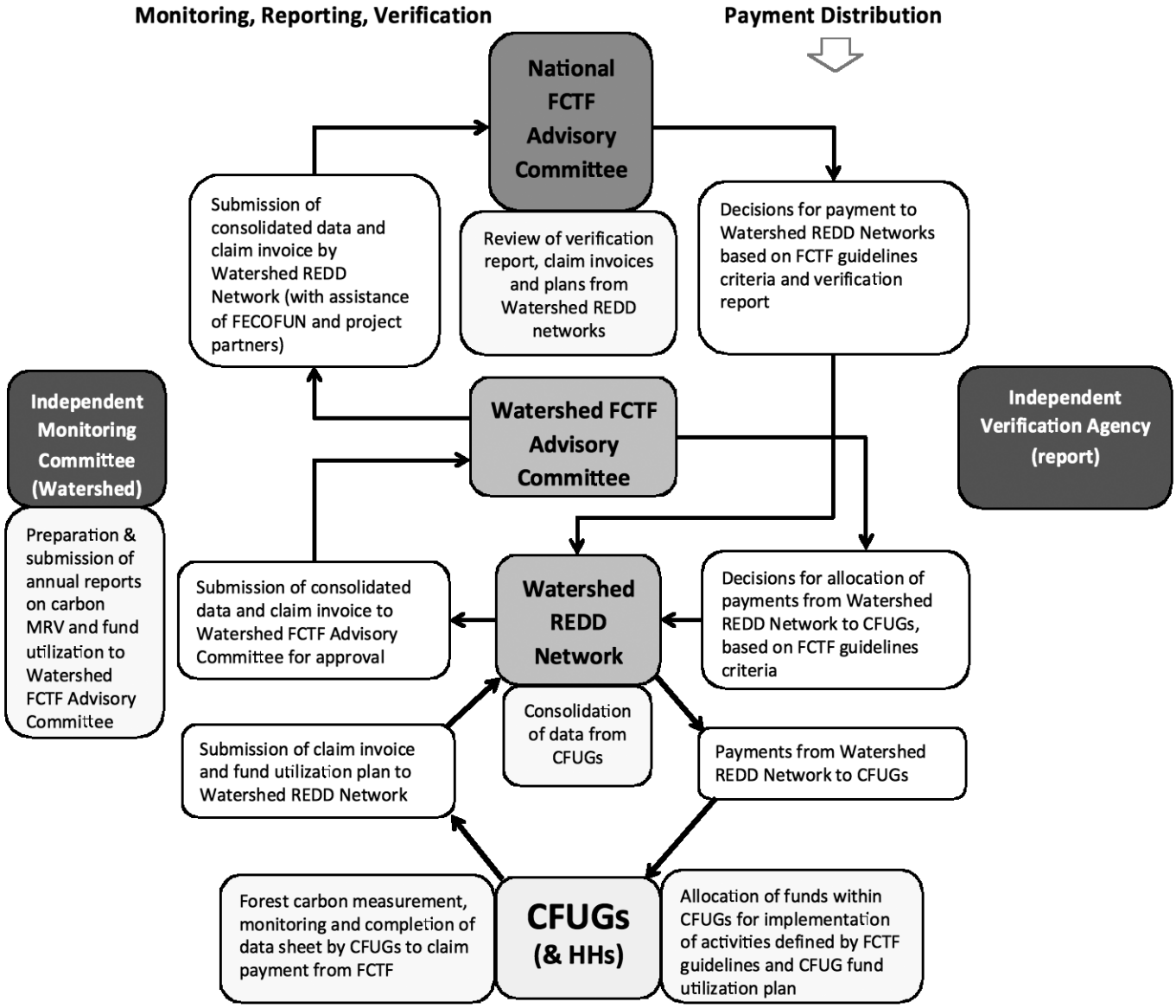
SFM certification aims to go beyond the political autonomy granted through existing legislation to enhance the economic autonomy of local communities and disenfranchised groups, and thereby rectify one of the biggest shortcomings of community forestry in Nepal, its inability to provide significant income-generating opportunities. However, benefits from certification are not very substantial either, since market linkages for certified forest products are weak and sales remain low (Acharya 2007; personal communication with CFUGs 2009). In Dolakha, certified CFUGs sell sustainably produced forest products to the same (certified) enterprises as non-certified CFUGs, but don't typically receive higher prices for them, although they must pay the additional monitoring costs of certification. Furthermore, due to these costs, monitoring of the socioeconomic and environmental safeguards (indicators) of certification, and the chain of custody, which tracks certified materials through production and marketing, is not being conducted in a very comprehensive way. This has strong implications for the ability of local institutions to monitor social and environmental safeguards for REDD on an ongoing basis.

Another important question is whether communities involved in SFM certification have greater autonomy over management of their forests and forest products. In Dolakha, there is sparse evidence for this. All CFUGs are subject to similar forest management regulations. However, CFUGs involved in certification have received additional support from government, donors and NGOs for producing NTFPs, and may enjoy *de facto* freedoms in their management and sale compared to non-certified CFUGs. Nonetheless,

production and pricing of secondary forest products is controlled by a few local enterprises, and by national-level companies that support them. In this sense, CFUGs don't exert much influence over which products they produce or where they are sold.

Certification also has uncertain implications for local resource access. Though it aims to increase CFUGs' ability to market forest products, certification may prioritize certain products and management practices over others, thus limiting access to specific products, areas and users. For instance, if production of a valuable NTFP requires dense or relatively undisturbed forest, community leaders may restrict access to such areas, though some users might rely heavily on them for fuelwood, fodder and other valuable subsistence resources. In Dolakha, CFUGs engaged in certification designate areas for

Figure 2: Proposed REDD Monitoring, Reporting, Verification & Payment System under Forest Carbon Trust Fund Mechanism



Source: Adapted from ICIMOD/FECOFUN/ANSAB, 2011, Operating Guideline of pilot Forest Carbon Trust Fund (FCTF), developed under project on "Design and setting up of a governance and payment system for Nepal's Community Forest Management under REDD", Kathmandu, Nepal.

socioeconomically marginalized groups to grow NTFPs. While this provides marginalized groups with some autonomy, it may also limit their access to other areas, as witnessed in recent restrictions on access for traditional grazing systems in community forests in Dolakha. Thus, involvement in SFM certification could adversely affect customary access rules. There is significant risk that this might also occur with REDD, since there would be greater emphasis on forest protection due to the impetus to maximize carbon gains.

Lessons from existing market-based mechanisms in Nepal, such as SFM certification in Dolakha, can provide insights into outcomes of carbon trading and REDD. In some respects, such mechanisms represent a reversal of the emerging paradigm of active utilization of forests toward the older state-led paradigm of strict conservation. Until recently, proponents of community forestry told CFUGs they could benefit by harvesting and selling more forest products; now they are being told they can reap substantial rewards by reducing their harvesting and conserving forests through payments for environmental services schemes like REDD. However, now the explicit imperative for conservation is provided by markets, not government regulations.

Effective linkages with broader markets for environmental services scarcely exist in Nepal. Despite current pilot projects striving to demonstrate the technical, financial and institutional viability of carbon trading, none have yet engaged with existing global markets. Instead, Nepal anticipates a fund-based REDD mechanism based largely on donor contributions and a detailed national MRV and payment system (Figure 2). Thus, communities face a steep learning curve to effectively participate in, and benefit financially from, international carbon markets. Furthermore, although conservation and the sustainable production and marketing of forest products are not mutually exclusive goals, renewed emphasis on conservation could trump efforts for cultivation, collection and commercialization of some products, and restrict access to certain forest products and areas, particularly for marginalized groups who rely heavily on forests. These risks must be considered when designing and implementing forest carbon trading schemes like REDD.

Tenure security and REDD: Challenges, Lessons and Implications

There is considerable debate about whether REDD represents an opportunity or challenge for effective and equitable forest governance, rights and tenure security. Some feel REDD threatens to recentralize forest governance and disenfranchise local communities (Phelps et al. 2010). Others see it as a catalyst to further decentralize governance and promote tenure reform (Wollenberg and Springate-Baginski 2010). This section examines this debate from the perspective of existing imperatives and risks in Nepal's REDD readiness process, and their implications for implementing carbon trading schemes.

Community Ownership of Land and Carbon Rights

Delineation of carbon rights is key for effective carbon trading. While the government should receive some benefits from carbon trading, if it monopolizes carbon rights there is significant risk that communities will not reap adequate financial rewards, stifling incentives for community members and external investors to support conservation efforts. The government has stated that it will define carbon rights during the development of the REDD strategy and, according to Nepal's RPP, various safeguards will also stipulate the protection of carbon rights of concerned stakeholders. However, given the absence of secure community land tenure, there is no legal precedence for communities to obtain carbon rights. Thus, carbon rights must be integrated into basic resource and land rights, including customary rights, which in turn must be clarified, strengthened and effectively enforced.

In addition, carbon rights must be harmonized with existing laws, in order to remove subsidies and prevent perverse incentives.

Consensus on a Fund-Based vs. a Market-Based Approach

Whether Nepal adopts a fund-based or market-based approach to REDD has strong repercussions for tenure security. A fund-based approach means carbon payments derive from donor contributions to a national fund. Payments are based on the amount of carbon saved or sequestered in forests, and could also include social and ecological considerations such as benefits to marginalized groups and biodiversity conservation (Nepal recently piloted a Forest Carbon Trust Fund with such criteria—see Figure 2 and Box 1). In a market-based approach, payments originate from buyers through voluntary/regulatory markets and are based more strictly on carbon stocks, though they can also include social and environmental criteria. Each approach has advantages and disadvantages. A fund-based approach requires strong host-government involvement in carbon accounting and benefit-sharing, and relies on unpredictable donor financing flows. A market-based approach allows more flexibility in the role of government vis-à-vis other actors and engagement with regulatory and/or voluntary markets, but less opportunity to account for Nepal's unique and diverse institutional, socioeconomic and biophysical characteristics. It also depends on potentially volatile global markets. Both approaches require unambiguous tenure and carbon rights, and in a market-based approach they must also be clearly defined for potential international investors. The role of the private sector in carbon trading also depends on which approach is adopted. Under a market-based approach, national/international private sector entities could serve as investors or facilitators of carbon projects. Under a fund-based approach, the private sector is limited to implementing reforestation and alternative-energy initiatives. In both cases, clear delineation of tenure rights is imperative for assuring private sector actors that their investments are secure.

Inclusion of More Stakeholders and Rights-Holders

So far, Nepal's REDD readiness activities have involved only CFUGs. While these community-based institutions may represent a comparative advantage for Nepal, involving them alone excludes many other important forest managers and users from benefits, including government, other local user groups, private landowners, and other individuals, like landless people. This has serious implications for whether Nepal can benefit from either a fund-based approach or regulatory market for REDD, which both require comprehensive national carbon-monitoring systems incorporating all stakeholders that contribute to deforestation and forest degradation. Although access and tenure rights vary among these stakeholders, appropriate tenure arrangements and carbon rights must be secured for all, so they have adequate incentives to conserve forests.

Increased Awareness Among Indigenous and Local Communities and Adherence to FPIC/SES

Indigenous peoples and local communities have their own community-based forest management systems based on local knowledge. However, they are not fully aware of their forest rights under national and international laws. Civil society organizations, such as FECOFUN and NEFIN (Nepal Federation of Indigenous Nationalities) play active roles in awareness-raising. However, Nepal lacks a national legal/policy framework and consultation process to ensure compliance with international agreements and protocols such as Free Prior and Informed Consent (FPIC) and Social and Environmental safeguards (SES) assessments. Consequently, there is widespread dissatisfaction with government decisions to lease forests to corporations for forest-product harvesting and infrastructure development, or

Box 1: Piloting REDD and Payments to Local Communities

In 2009, the Charnawati watershed in Dolakha District was selected as one of three sites to implement Nepal's first comprehensive REDD pilot project. The other two sites are the Khairkhola watershed in Chitwan District, and the Ludikhola watershed in Gorkha District. Together they incorporate about 10,000 hectares of forest and about 18,000 households in over 100 community forest user groups (CFUGs). This project, funded by the Norwegian Agency for Development Cooperation (NORAD), is being implemented by three organizations: the International Center for Integrated Mountain Development (ICIMOD), a regional research-oriented NGO that focuses on environment and development issues in the Himalaya-Hindu Kush region; the Federation of Community Forest Users Nepal (FECOFUN), a national federation of community forestry groups; and the Asian Network for Sustainable Agriculture and Biodiversity (ANSAB), an NGO that promotes market-based solutions for conservation and community development in Nepal.

Although other carbon measurement piloting projects have already been implemented during the past decade in Nepal's eastern/central Middle Hills and in the (western) Terai Arc Landscape—by the "Kyoto Protocol: Think Global, Act Local" project and WWF/Winrock International, respectively—this is the first project encompassing both of Nepal's major forested geographical zones (the Terai and Middle Hills), focused exclusively on REDD, and integrating its technical, social and financial aspects. According to a recent ICIMOD publication (2011), "It is one of the world's first carbon offset projects involving local communities in monitoring the carbon in their forests, providing the necessary training for them to do so, and giving them the opportunity to claim [a] reward for their enhancement of carbon."

The REDD pilot project includes development of a Forest Carbon Trust Fund, through which nearly USD $100,000 was distributed among CFUGs in July-August 2011, incorporating over 18,000 households and based on six criteria (and associated weights): (1) the initial carbon stock (24%); (2) the amount of carbon added above the established baseline (16%); (3) the proportion of poor households (20%); (4) the proportion of indigenous households (15%) and (5) Dalit* households (15%); and (6) the ratio of women to men (10%) (ibid). It is too early to tell whether these payments will provide sufficient incentives to halt more intensive and destructive activities that contribute to deforestation and forest degradation, or whether they will be distributed equitably among and within communities in the longer term.

The Charnawati watershed is of particular interest because it includes CFUGs involved in both the forest certification and REDD piloting initiatives. Thus, the authors' ongoing engagement and research in this area could help inform the governance prerequisites and outcomes for certification (including tenure issues) and their implications for the implementation of REDD.

*Note: Dalit means 'untouchable' and refers to members of the lowest strata in the Hindu caste system, which are often socioeconomically marginalized and discriminated against in Nepal.

Sources:

ICIMOD/FECOFUN/ANSAB, 2011. Operating Guideline of pilot Forest Carbon Trust Fund (FCTF), developed under project on "Design and setting up of a governance and payment system for Nepal's Community Forest Management under REDD", Kathmandu. International Center for Integrated Mountain Development.

ICIMOD 2011. Pilot forest carbon trust fund: Rewarding local communities for forest conservation. Kathmandu. Integrated Center for Integrated Mountain Development (June 2011).

to designate new protected areas, without public consultation. Increasing awareness and adherence to these international requirements would help ensure that community resource rights and tenure are respected and strengthened.

Besides these unmet imperatives in Nepal's REDD readiness process, there are risks of advancing with carbon trading without clearly defined and enforceable forest/carbon tenure regimes. First, this could reward encroachers who occupy forests illegally and displace legitimate communities or landholders. Second, there is high potential for restricting access of marginalized groups, who rely heavily on forests, and excluding them from carbon-trading benefits. Third, higher investment risks from a lack of clear, integrated forest/carbon tenure systems could diminish international investors' willingness to support REDD projects, and lower the value of Nepal's carbon in global markets. Fourth, limited capacity and political will to carry out comprehensive tenure reform impedes realization of equitable benefits for all relevant stakeholders.

In line with Ribot and Peluso's (2003) assertion above regarding socially and politically mediated resource access, this analysis of decentralization, commercialization, forest tenure and carbon trading in Nepal reveals how communities' ability to access and benefit from forests is heavily constrained by unclear and incomplete tenure laws; ambiguous and discretionary national policies, regulations and administrative procedures; inadequate experience and linkages with broader markets for forest products and services; and disparities in the marketing and mobilization of forest resources and financing among communities, government and the private sector. Concrete measures are needed to enhance the ability of Nepal and its communities to engage in carbon trading:

- A clear, mutually acceptable, legally defensible basis (i.e., carbon rights) and corresponding rules for equitable distribution of benefits from carbon trading among all relevant stakeholders;
- Harmonization and integration of existing national laws/policies related to forestry, land reform, and other land-use sectors with an emerging legal framework for carbon trading;
- Expanded scope and channels for constructive participation of the private sector in financing and facilitating forest carbon projects;
- A democratic national governance (institutional) framework to guide projects, guard against abuses, and ensure that communities and individuals who manage and protect forests receive a majority of benefits; and
- Flexibility at the project level to account for different sub-national circumstances, and ensure equitable benefits, based on the recognition and reinforcement of existing tenure regimes and resource rights.

These measures cannot be merely an afterthought to REDD. Without them REDD, carbon trading and other market-based forest conservation mechanisms cannot provide adequate rewards to encourage Nepal's forest communities to conserve their forests for themselves, their country, humanity and the biosphere.

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The Land Tenure Center
http://nelson.wisc.edu/ltc/publications.php

Annex 1: Estimated costs of securing forest resource and land tenure in Nepal

(An example of community forestry based on existing forest policies and practices, and a community forest with an area of 100 hectares and shared by 200 households, costs in Nepalese Rupees (NPR))

A. Transaction costs

#	Basic Steps or Actions	Types of expenses	Payer	Cost (NPR)
	Costs of securing/maintaining resource tenure rights		*Sub-total = NPR 262,000 [1]*	
1	Identification and empowerment of HHs	Communication, transportation, meeting	DFO or projects	10,000
2	Preliminary meeting of HH to form ad hoc committee of CFUG	Communication, transportation, meeting	HHs	5,000
3	Technical consultation with DFO and facilitator	Consulting fees, communication, transportation	HHs or projects	2,000
4	Community discussion and analysis to draft CFUG constitution and CF operational plan (OP)	Communication, transportation, meeting, document preparation, surveying and mapping	HHs or projects	25,000
5	Registration of CFUG and handover of forest	Communication, transportation, meeting	HHs	5,000
6	Implementation of OP by CFUG	Awareness, training, planning, meetings, monitoring, reporting	CFUGs	50,000 (Annually)
7	Forest management and law enforcement	Control of forest fire, illegal activities in CF, forest guards	CFUG and DFO	60,000 (Annually)
8	Policy reform/coordination with various agencies and stakeholders	Communication, Lawyer's fee, transportation, meetings, mass meeting, rally	CFUG	15,000 (Annually)
9	Review of CFUG OP and approval by DFO	Meeting, review of OP and preparation of EIA/IEE if necessary	CFUG	50,000 (Every 5 years)
10	General administration	Office management, committee meetings, general assembly meeting, documentation, staff salaries, audit	CFUG	40,000 (Annually)
11	Legal fees associated with forest land tenure and reform	Legal counsel monthly fee NPR (15,000/month x 12 months)	FECOFUN	180,000 [2] (Annually)
12	Land title registration costs			No fee for CF registration
	Sub-total (A)			***442,000***

Annex 1: (continued)

B. Opportunity costs (trade-offs involved in designating CF) [3]		
#	Opportunity cost	Average annual cost/loss (NPR)
1	Loss of grazing areas for livestock in CF (NPR 5,000 x 200) (e.g., goats, cows, yaks, buffaloes)	1,000,000
2	Restrictions on collection of non-timber forest products by poor households (NPR 3,000 x 200)	600,000
3	Loss of access to land for agricultural production (NPR 30,000 x 200)	6,000,000
4	Time allocation for CFUG meetings (NPR 5,000 x 200)	1,000,000
5	Foregone government revenue from cessation of timber production (under assumption of optimal SFM conditions, i.e. sustained yield)	10,252,800
	Sub-total (B):	18,852,800
	Total (A & B):	**19,294,800 [5]**

Notes:

One US Dollar = 73.7 Nepalese Rupees (2011 average, through November 20).

[1] The cost of securing resource tenure rights (i.e., CF formation and administration) will not be the same for each CFUG. The cost may be higher or lower based on the number of households, the size of the forest area and the distance from the office of service providers, such as the DFO or facilitating NGOs.

[2] Legal fee estimate reflects average monthly cost of retaining counsel for legal proceedings, based on FECOFUN's experience. There is no way of knowing how many months would be needed, but based on past legal proceedings concerning forest tenure issues, it would likely take over a year.

[3] Costs born to various stakeholders, including CFUGs, households, poor, government, etc.

[4] Estimated benefit of 142,400 per hectare annually minus 15% royalty (NPR 21,360) and 13% VAT (NPR 18,512) currently paid by CFUGs to government (= NPR 102,528) x 100 hectares; based on the assumption of optimal, sustainable forest management conditions.

[5] Expenditures are both one-time (start-up) costs and annual costs, so the "TOTAL" reflects the cumulative costs after first year of CFUG/CF formation and securing land tenure, plus associated opportunity cost.

Source: Information on 'basic steps' from Community Forestry Development Program Guidelines (2009) and Community Forestry Inventory Guidelines (2004); cost estimates for each step from consultation with members of FECOFUN National Executive Committee, based on their experience working with CFUGs.

5

Land Tenure and Forest Carbon in India

A Khasi Approach to REDD+ Project Development

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Abstract

This paper examines the experiences of indigenous Khasi communities in Meghalaya, one of the seven states of northeast India, who have been participating in a Payment for Environmental Services (PES) pilot project since 2005. The success of early ecorestoration experiences of two villages in *hima* (kingdom) Mawphlang suggest how payments for environmental services (PES) can create incentives for improved forest management among community members, motivating them to pass conservation resolutions, update use rules, and improve fire control systems The emerging REDD project is further facilitating community forest boundary mapping, the formulation of long term conservation and management plans, and the initiation of forest restoration activities.

Attracted by the success of the initial PES pilot project, 62 neighboring Khasi communities in nine *hima* have formed a federation in order to develop a sub-watershed management institution that will unite forest-dependent communities at the landscape level, building the capacity of their traditional governance bodies to conserve sacred forests and restore degraded community forest lands. Grant financing supports the design and early implementation of the project, however, it is uncertain whether the

Khasi federation will succeed in establishing a long term income stream through carbon credit sales in private voluntary markets.

Introduction

In 2005, Community Forestry International (CFI) began working with indigenous communities to establish a payment for environmental services (PES) pilot project in two villages in Mawphlang *hima* (see Figure 1). In 2011, this project was expanded to bring together nine indigenous Khasi tribal *himas* who possess legal tenure over their 17,000 hectares of communal forests and private farmland (see Figure 2) and include 64 villages and hamlets. The traditional *hima* governments have formed a sub-watershed federation (*Synjuk*) that will manage one of India's first community-based REDD+ projects as part of a larger PES initiative.

The project is located in the Umiam Sub-watershed in the Khasi Hills District of Meghalaya which boasts one of the highest annual rainfall averages in the world (450 inches), yet is experiencing increasing dry-season droughts due to accelerated forest loss that has exceeded 5.6% per year between 2000 and 2006. Climate change is an underlying

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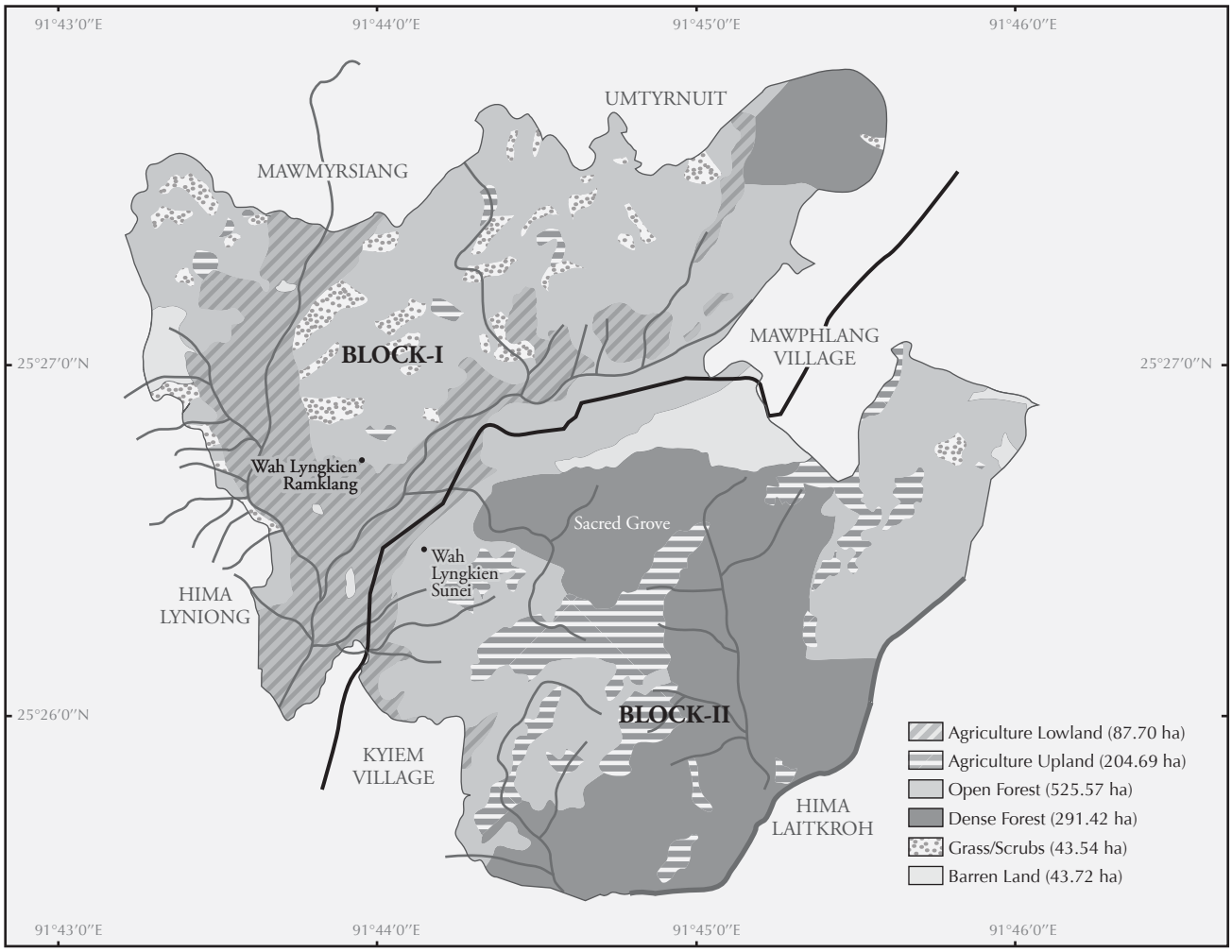
Figure 1: Map of Mawphlang PES Pilot Project, 2005-2009



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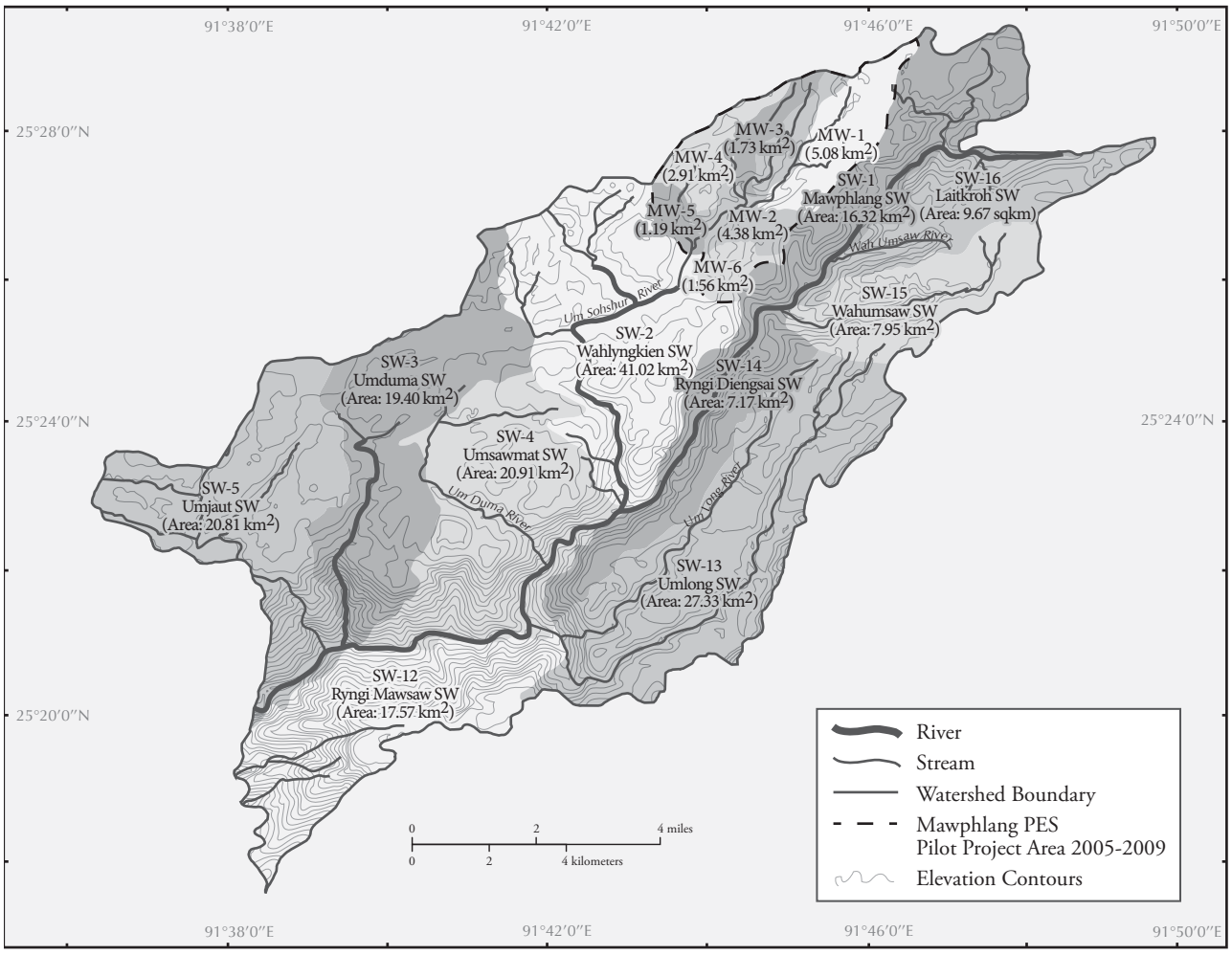
force exacerbating key drivers of deforestation and forest degradation in the Eastern Himalayas by increasing the intensity and extent of dry-season ground fires, reducing soil moisture and rainfall, and contributing to a historic pattern of aridization and biomass loss. The resulting reduction of dense forest habitat has placed pressure on the region's water resources, farming systems, and biodiversity.

The CFI project is helping to build the resource management capacity of the Federation to demonstrate how indigenous governance institutions can implement REDD+ initiatives in order to control drivers of deforestation and restore forest cover and hydrological function. The project has been approved by the Khasi Hills Autonomous District Council, with support from the Chief Secretary of the State of Meghalaya.

The Federation plans to implement a thirty-year forest management strategy for the 16 micro-watersheds. CFI, an international non-profit organization, is providing technical and financial support to the Federation supporting training in resource management and REDD+ project development including designing, certifying and marketing carbon credits for sale on private voluntary markets. Initial estimates indicate that this system may generate 10,000 to 20,000 tons of CO2 credits each year through community-based mitigation activities at an estimated price of $6

Figure 2: Map of Umiam Sub-Watershed REDD Project for 2010-2039



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to $10 per ton. Carbon revenues would be used to finance the *Synjuk* management institution and the mitigation activities implemented by the participating communities, as well as to capitalize women's micro-finance institutions that support small enterprise activities.

The REDD project process was designed with four phases: 1) site identification, 2) REDD design and certification, 3) early implementation and monitoring, and 4) implementation, verification, and carbon marketing. In CFI's experience, Phases 1 through 3 require grant support to position forest dependent communities to sell their carbon and other environmental services. While early financing may be generated through pre-sales of project carbon on the voluntary market, sales of carbon credits that are anticipated to be generated by the project in the future (ex-ante sales), rather than sold after the credits have been created and verified (ex-post sales), will likely be sold at considerable discount. Low-income forest-dependent communities require financial and technical support from donors and government to develop their institutional capacity to implement REDD+ projects including the establishment of the required carbon and socio-economic baselines, the implementation of REDD+ project design and certification protocols, and the operationalization of REDD+ mitigation activities. Without such support, they are

faced with securing capital from the private, voluntary markets where they have limited linkages and experience.

CFI is committed to assisting communities during the first three phases of development, a process that may take three to five years (2010-2014). During this process CFI is strengthening community institutions and local NGOs to take over responsibility for the project in Phase 4. This includes ensuring that the project is certified under internationally accepted carbon and socio-economic development standards and, wherever possible, assisting with the establishment of some early forest carbon sales to finance the project in Phase 4. CFI conducted a pilot PES project in the Umiam Sub-watershed from 2005 to 2009, providing an opportunity to field test different mitigation and livelihood activities in the area. The current REDD+ project represents an expansion of the original project from approximately 1,500 hectares to 17,000 hectares.

The Umian Sub-watershed project is in the process of being certified under Plan Vivo standards, a U.K.-based carbon registry, requiring a performance-based approach to project design and implementation. Key variables being monitored include carbon stocks, forest condition, as well as other environmental indicators including changes in biodiversity and hydrology. Socio-economic performance indicators are also monitored by the community including tracking changes in household income, micro-finance account balances and repayment rates, participation in alternative income-generating activities, energy use, and adoption of sustainable farming practices. The project is significant as it is one of the first REDD+ initiatives in Asia to be developed by indigenous tribal governments on communal and clan land. If successful, the project has potential for broad-based replication in many sites in northeast India.

Early Learning from Pilot Project Experiences (2005-2010)

Prior to the design of this REDD+ project, CFI initiated a PES strategy with the indigenous government of Mawphlang (*Hima* Mawphlang), one of nine *hima* that later joined the Umiam Sub-watershed REDD project from 2005-09. This early experience involving two Khasi hamlets provided useful lessons regarding the effectiveness of socio-economic, technical, and institution-building interventions that strengthened the capacity of indigenous governments to participate in the program.

At the beginning of the project, CFI was invited by the *hima* to improve traditional community forest management systems. Discussions with community members and leaders, as well as the executive committee of the larger *hima*, identified a number of resource management problems including stone quarrying, uncontrolled grazing, forest fires, illegal logging, and unsustainable fuelwood collection. These activities were widely recognized drivers of deforestation and forest degradation. Dry season ground fires, open grazing by low-value goats and cattle, and continuous hacking and felling of young trees and shrubs was suppressing natural forest regeneration and supporting a gradual loss of biomass. The participating communities agreed to pass conservation resolutions signed by all members to control fires, grazing and illegal logging, while the *hima* cancelled all stone quarrying leases in the project area. Since that time, the quarries have been closed with soil and watershed restoration work undertaken, while incidence of forest fires has been dramatically reduced, with no outbreak in the project area that has not been quickly controlled by the community. Fuel-efficient stoves adopted by village families reduced fuel consumption by approximately 30 to 50 percent, while lowering smoke levels in homes through the

introduction of piped outlets. Open grazing has been halted by transitioning animal husbandry systems to stall feeding and fuelwood is now collected on a rotation basis allowing harvest sites time to recover. As a result of community actions to control ground fires and reduce pressures from grazing and fuelwood gathering forests have begun regenerating rapidly, while loss of the dense forest has slowed. Both of these trends are creating forest carbon assets in terms of sequestration as well as improved storage, and can be certified under emerging REDD+ protocols.

In the past, many Khasi communities have been reluctant to map their community forests for fear that their forest lands may be encroached upon by the state forest department. A process of consultation by the project team has reassured the communities that they can map the forests themselves and control their own maps. Based on these agreements, the project area was surveyed by community youth teams using GPS units under the guidance of the local project support team. The mapping process not only identified boundaries of forest areas, but also the tenure status (community, clan, private, etc) and bio-physical condition of each forest block. Using the maps, the communities and *hima* leadership worked with the project team to develop a micro-watershed management plan that identified priority areas for restoration and conservation. Management plan maps were printed on large format plastic sheets and distributed to the participating communities and *hima* government. Micro-watershed maps reflecting longer term management plans and goals are utilized as a focal point for community discussions in planning management activities including ANR work, fireline maintenance, biodiversity conservation, and watershed restoration.
Project funds support two related strategies: assisted natural regeneration (ANR) and payment for environmental services (PES). ANR funding is channeled through the village local working committee (LWC) and covers the costs of fireline creation, forest watchers, silivcultural operations, and forest monitoring. These activities target degraded forests and have been shown to be extremely effective in stimulating rapid natural restoration of forest cover as well as improving stream flows and the presence of biodiversity. This component also supports the conservation and protection of old growth forests and facilitates the linking of dense forest fragments with regenerating forest patches to create wildlife corridors. To create incentives for successful implementation of new forest management activities, PES are given to the LWC and Self Help Groups (SHGs) at the end of each monsoon season. Criteria for evaluating performance include the effectiveness of fire and grazing controls, successful conservation of old growth areas, and the observable re-growth of degraded forests. During the early demonstration period, forest monitoring was largely done through annual photos of a small number of forest plots and watershed landscapes, walkthrough at the end of the fire season, and post monsoon assessments of regrowth. While these activities indicated rapid regrowth, the changes in forest stock were difficult to quantify. In 2011, 40 forest inventory plots measuring 20x20 meters were established to monitor forest conditions and carbon stocks during the REDD+ project. Spot and Landsat satellite images are also being used to assess historic trends in forest cover (1990-2010) as well as to provide a baseline moving forward.

Indigenous institutions in northeast India have been largely by-passed by state and national governments, both disempowering them and marginalizing them from government programs and projects. To address this, CFI sponsored a series of workshops for indigenous institutions and state technical agencies to review emerging forest management plans and how existing government projects can

be linked. CFI has worked with indigenous leaders to seek formal recognition of the project from the Khasi Hills Autonomous District Council as well as from the Meghalaya State Government and the Government of India. In 2011, nine indigenous govenments (*hima*) formed a community forestry federation (*Synjuk*) to manage the Umiam Sub-watershed and implement the REDD+ project. The federation registered as a non-profit organization under the Government of India Societies Act. Sixteen Local Working Committees (LWCs), each responsible for one micro-watershed, including planning and implementing forest conservation and restoration activities, have also recently been formed under the guidance of their respective *hima* and the umbrella Federation. This positions the indigenous governments and their new technical support organizations (LWCs and SHGs) to seek government of India funding as well as donor support. The project design also anticipates that these new legally registered community institutions will also receive funds from the sale of carbon credits or environmental services once CFI withdraws from the project in 2014.

In addition to using funds for the protection and restoration of local forests and watersheds, the communities are utilizing project financing to capitalize women-administered micro-finance institutions (SHGs) to provide funds for small enterprise projects. Project funds were also provided to communities' families to build pens for pig and chicken raising, allowing them to shift away from low-grade grazing animals such as cattle and goats. This has increased family income from animal husbandry activities while reducing grazing pressures on the watershed.

At the present time, the original pilot project strategy is being replicated in nine indigenous Khasi kingdoms (*hima*) covering 70 local communities. These indigenous institutions, under the oversight of the Khasi Hills Autonomous District Council, possess legal authority for all the Umiam sub-watershed forests. This expansion was a response to requests from neighboring hamlets and kingdoms to support forest conservation initiatives in their areas. One goal of the expansion phase of the pilot project is to demonstrate how indigenous institutions, coordinated by their own Federation, can implement REDD+ initiatives and finance forest restoration and alternative income-generating activities through sales of carbon credits. Agreements to limit mining and quarrying leases by the Federation are helping to ensure that the impact of these drivers is reduced. The Federation is well-positioned to work with the Khasi Hills Autonomous District Council and Meghalaya State Government to coordinate development planning in the forest areas of the sub-watershed. Important challenges include building linkages with international certification and verification agencies and negotiating carbon contracts with buyers.

Establishing REDD+ at a Landscape Level (2011-2014)

PES projects, like sub-national REDD+ are novel initiatives, largely in a nascent stage of development. Monetizing and marketing environmental services present a range of problems as well as opportunities that must be addressed on an operational level by project implementers. REDD+ is just one component of the broader ecosystems payment plans like PES and presents its own set of issues, some of which are highlighted below.

Securing Tenure

A major requirement for REDD+ project certification is demonstrating secure tenure arrangements. Throughout northeast India, while community institutions continue to

play a vital role in managing village society and natural resources, these institutions typically receive limited or no recognition or support from federal or state agencies. While Government of India legislation supports the land and forest tenure rights of indigenous communities in six schedule areas of the northeast hills, there is little formal acknowledgements of these rights or any supportive effort to document community forest lands. Communities frequently have weak linkages with government and line departments and agencies, in part due to their diversity, complexity, and varied constitutions, composition, and functions. State Forest Departments in northeast India usually categorize community, clan, and private forests as "unclassed" forests. This status implies that they may be eligible to be reclassified as reserved forests or protected forests at some point in the future. Some Khasi communities have expressed anxiety over potential encroachment by government, particularly state forest departments, and have often rejected overtures by this agency to participate in national forestry schemes such as Joint Forest Management. This alienation is exacerbated by a tendency of the Indian Forest Service to appoint outsiders to senior positions in the Forest Department who possess limited understanding of the Khasi language and culture.

Formalizing Rules & Regulations

While indigenous community institutions have rules and regulations governing resource use, they are often unwritten, and may not reflect the growing pressures on forests, land, and water. Typically, such traditional forest-use regulations were established generations ago and continue to be accepted social norms that guide behavior. Nonetheless, as demands on the forest have grown through population growth and market expansion, and as outside cultural communities have moved into the area, systems for monitoring and enforcing these regulations have lacked technical and financial support necessary to allow them to operate effectively.

Updated rules that respond to growing resource pressures are required, together with adequate resources to allow communities to put them into operation. For example, given unsustainable fuelwood extraction levels, establishing a system of rotational harvesting, that allows one forest block to recover while another is harvested, can increase the sustainable yield of fuelwood. Imposing harvest quotas can also help ensure all families receive an equitable share of available fire wood. Rules governing traditional resource management that were adequate in guiding lower pressure, extensive use levels in the past are now burdened with much higher, intensive use levels as the region's population has increased ten fold over the past century. REDD+ projects create opportunities to revisit traditional resource management systems and update them to respond to contemporary needs and pressures.

Financing REDD+

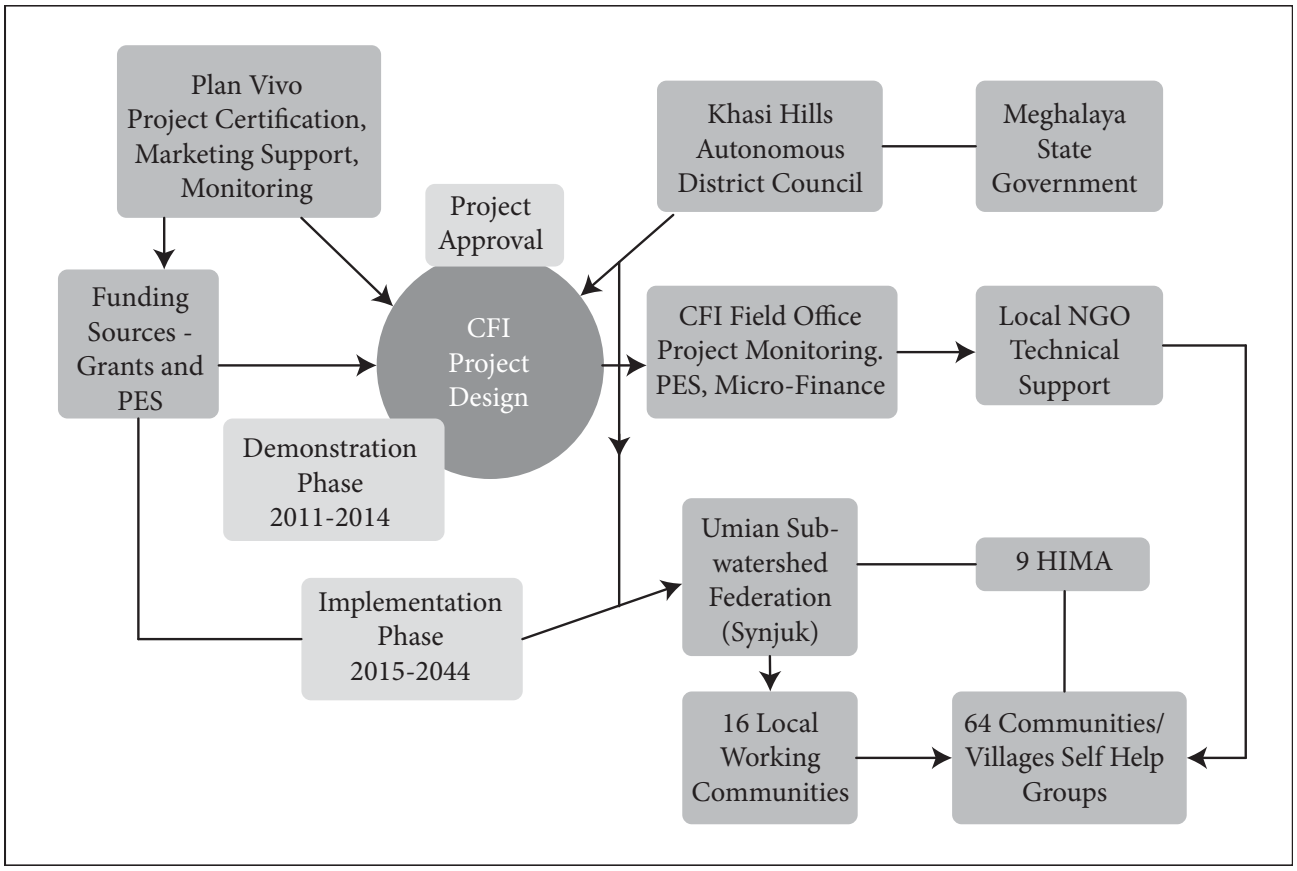
Financing early REDD+ project design and implementation has been a problem for CFI. CFI experiences in the Umiam Sub-watershed indicate that projects require funding for institution-building activities, participatory mapping, resource management planning, forest protection and restoration, and alternative income generation. In addition, the process of REDD+ project design incurs costs for designing and implementing monitoring, reporting and verification systems as well as for certification. In CFI's experience, while many bi-lateral and multi-lateral organizations and private Foundations have provided funds for REDD+ workshops and research, there are few sources of financing for small, community-oriented field-based projects. CFI's project in Northeast India, as well as an earlier REDD+ project in Oddar Meanchey Province in

Cambodia have suffered from inadequate and erratic financial support. Nonetheless, CFI has been able to fulfill all PES contracts with participating communities.

During the pilot project, some of these payments were performance-based, while others took the form of upfront funding to support capacity building of indigenous resource management systems and institutions. Funding for training, mapping, and meetings was administered through the CFI project office and through contracts with local NGOs, while funding for forest management and restoration and livelihood development was administered through local community institutions. Performance award payments were given at the end of each monsoon season after a joint review of implementation outcomes with $3000 per year awarded to the LWCs (see Figure 3).

Combining ex-ante and ex-post payments allowed initial start-up capital to flow into the community institutions, while performance-based payments created incentives that supported a results-driven project. For example, up-front payments funded the community to create over 7,200 meters of firelines and hire four village youth as fire watchers. Through these actions they were able to greatly reduce the incidence of ground fires over the past five years, which in the past burned 20 to 30 percent of the forest annually. The elimination of fire has resulted in rapid regeneration of seedlings and saplings and the return of important flora and fauna species. At the end of the fire season and after rapid regrowth during the monsoon season, CFI made award payments to the local working committees. Funds were provided by grants from private foundations. As the project transitions to financing through the sale of

Figure 3. Diagram of Funding Flows and Institutional Linkages



carbon credits, uncertainties over carbon markets and pricing levels pose questions regarding future budget availability.

Poverty Alleviation and Gender Equity

Poverty is hard to alleviate, in part due to the persistent dearth of capital confronted by poor communities. PES provides a potential mechanism to channel capital into low-income, rural communities that are well-positioned to protect and restore critical ecosystems. REDD+ is one of the first PES strategies to be widely discussed and could establish capital flows into the Khasi Hills where financial capital is badly needed.

One of the project's poverty alleviation strategies supports the establishment of 32 Self-Help Groups (SHGs) comprised of 10 to 15 members that can act as micro-finance institutions within their villages. The SHGs are organized and led by women providing an opportunity to empower women and link them to resource management by building their role in supporting micro-enterprises. SHGs are also contracted to implement assisted natural regeneration activities. Forest restoration contracts directly capitalizes SHGs which, in turn, use the capital to provide revolving loans for micro-enterprise development.

The project intends to establish a series of capitalization targets to serve as periodic benchmarks towards long term financing goals, as well as prioritizing the participation of low-income households. Creating community micro-finance institutions, including training, registration with banks and government, periodic auditing and networking through apex institutions establishes new institutions within the village that are also linked to Government of India rural banking schemes, as well as other, non-project, employment generation projects. Creating a diversified source of income for local working committees and self-help groups helps offset financial uncertainties created by unpredictable carbon markets.

CFI's experience developing the REDD+ project in Meghalaya indicates that a substantial period of grant support is required to allow communities to gain capacity, strengthen local management institutions, resolve tenure issues, and design and develop a project strategy. While it appears that improved resource management can be facilitated through creating financial incentives, the complexity of REDD+ project requirements and the accessibility of buyers and markets for environmental services, including carbon, poses serious questions for the viability of REDD projects in remote areas like northeast India. Nonetheless, focus group discussions and interviews with participating communities indicate that as a result of the pilot project, participants increasingly perceive the value of their forest conservation and restoration activities in terms of improved environmental services.

Rapid deforestation in recent decades has had significant local consequences in terms of deteriorating stream flows and reduced fuelwood availability. Dramatic declines in forest cover and quality are creating strong incentives for community action to improve local resource management systems. After CFI supported the communities to strengthen resource management systems from 2005 to 2009, PES payments ended in 2010. Still, participating communities continued to implement management activities drawing on their local working committee corpus fund, while exploring other sources of funding through government programs.

Summary

CFI's experience in the Umiam Sub-watershed over the past five years indicates that PES activities motivated communities to mobilize

their indigenous governments and leadership, pass conservation resolutions, update resource rules and regulations, and implement a range of forest restoration and protection efforts. In contrast to typical government Joint Forest Management schemes that usually by-pass indigenous governments, the PES project empowered the participatory court (*durbar*) and *hima* to play a lead role in the design and implementation of the project. Designed through extensive community discussions, and guided by local knowledge of key problems and cost effective mitigation strategies, the resulting project possesses broad-based community support, as well as accurate targeting of high potential eco-restoration strategies and livelihood activities. While this approach does not guarantee success, it improves the likelihood that investments in improved forest management and poverty reduction will yield higher returns.

In the new REDD+ project, the creation of the sub-watershed Federation has strengthened partnerships between indigenous governments, improving their position in discussions with state government agencies. For example, there are emerging opportunities for the Umiam Sub-watershed Federation to contract with the Shillong Municipality water authority to receive payments for managing and maintaining the sub-watershed. The project is currently in dialogue with the Meghalaya Ministry of Rural Development and the Ministry of Environment to incorporate the REDD+ project into the larger basin development plan allowing it to access funds and create a bottom-up channel of communication to feed Federation ideas into the larger master plan for the watershed. Participatory mapping has brought new attention to forest management problems and opportunities, allowing the identification of sites for forest restoration, as well as high-priority conservation and ecotourism areas. While financial incentives for forest restoration contributed to motivating communities to take action, other components of the project strategy including awareness raising and institutional development were equally important in catalyzing community forest management actions.

Ultimately, the success of any community-based resource management system depends on the interest of the communities and their commitment to sustaining the land, forest and water they rely upon. The nine Kingdoms in the Umiam Sub-Watershed have federated to protect and restore their forests primarily due to their own sense of an urgent need to halt deforestation and restore important ecosystems that are central to their history and culture. REDD+, PES, or any other project mechanism will facilitate this process, but it is simply a means, not an end. What is perhaps more significant is that important socio-cultural institutions in Khasi society, that have been largely by-passed by national and state government, are now emerging as key elements in a grassroots attempt to protect and restore local forests that possess valuable biological and cultural diversity. Communal governance structures like the *durbar* and *hima* that rely on democratic processes to enable consensus-based decision making are being re-empowered through this project. This process strengthens traditional land tenure rights by focusing attention on the authority of indigenous institutions and the value of communal forest resources whose management has been neglected in recent decades.

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6

Does Community Forestry Provide a Suitable Platform for REDD?

A Case Study from Oddar Meanchey, Cambodia

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Abstract

Drawing lessons from the Community Forestry REDD project in Oddar Meanchey Province, Cambodia, this case study looks at the potential for community forestry (CF) to address some of the key concerns related to REDD implementation. These include local stakeholder engagement, equitable benefit sharing, effectiveness in controlling deforestation, tenure and carbon rights, and cost effectiveness. The experience indicates that REDD project development and community forestry may be mutually reinforcing in terms of stakeholder engagement and wide local participation as CF leadership is strengthened and utilized. CF management structures facilitate communication for REDD project consultations in a challenging environment of uncertainty, low education levels and potential exclusion of vulnerable groups. They also provide a foundation for sound distribution of benefits as long as tenure and rights to benefits are guaranteed. Further, while higher level governance issues remain, there are indications that REDD revenues can help ensure the effectiveness of local CF enforcement efforts. Vast financial resources for national-level REDD investments are

contrasted with meager support for the cost effective and result-oriented strategies of community forestry and REDD pilot project development.

Introduction

This case study examines the strengths and limitations of a community forestry (CF) platform for Reduced Emissions from Deforestation and Degradation (REDD) by exploring a range of implementation challenges observed through startup of the Oddar Meanchey Community Forestry REDD project in Cambodia. Though the project has yet to generate carbon revenues, four years of field experience in Cambodia are the basis for analyzing lessons learned and drawing conclusions on the implications for REDD policy.

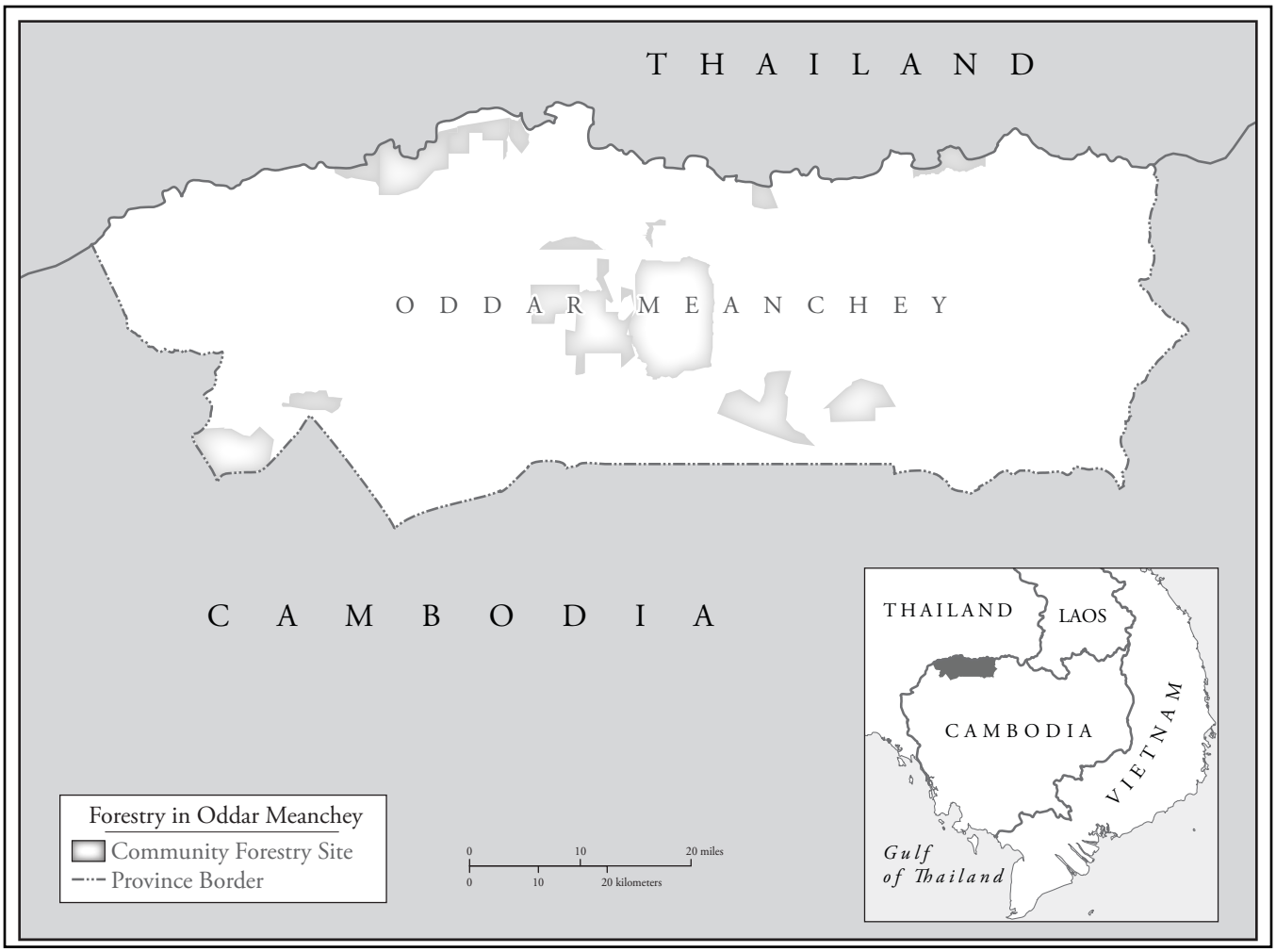
The Oddar Meanchey Community Forestry REDD Project was initiated in January 2008, and is the first REDD project in Cambodia. Under a "bundled approach,"[1] thirteen CF groups in Oddar Meanchey province in the country's northwest protect a group of forests covering 64,318 hectares, or approximately 31 percent of the province's total forest cover. The Cambodian Forestry Administration acts as the seller of carbon on behalf of the Royal Government of Cambodia (RGC) and the participating communities. The project's aim is to secure sustainable financing for forest protection and to improve livelihoods among the poor in participating villages. An international NGO, Pact, and local NGOs, Children's Development Association and Monks' Community Forestry, facilitate project preparation and implementation in partnership with the Forestry Administration as part of a national Project Team. Terra Global Capital, LLC, based in the United States, developed the project methodology and brokers the sale of carbon credits for the RGC on the voluntary market.

Community Forestry Participation and Stakeholder Engagement in REDD as Mutually Reinforcing

Community forestry is compatible with the REDD imperative for local engagement because it relies on the participation of local people in forest management. To legally establish a CF in Cambodia at least 60 percent of the households or residents in the area must join the scheme. The average proportion of membership at CF sites in Oddar Meanchey is 88 percent. Participation levels depend on several factors, including active recruitment by CF leaders, community cohesion, understanding of benefits, and the level of trust in CF committee members. Of relevance to the REDD project, community trust in local management structures, specifically the elected CF Membership Committees (MC), increased once CF sites were legalized, leading to higher levels of participation. The committees gained legitimacy once villagers recognized that committee members work on behalf of the CF – as demonstrated by the community securing CF tenure – and not for personal gain. As the REDD project comes online and REDD proceeds crystallize, the legitimacy of the MC will have a direct influence on community participation levels in the REDD project, demonstrating a mutually reinforcing relationship between REDD and existing CF structures.

For example, under REDD, informal communication systems between MC members and the community may be harnessed to improve forest monitoring, complementing the formal monitoring systems required by REDD certifying bodies. It is anticipated that REDD will further build legitimacy in the CF leadership structure in Oddar Meanchey by making these informal communications networks operate more efficiently. Leaders will be responsible for synthesizing information and either acting on that information or passing it along to relevant institutions. CF leaders will gain specialized knowledge, skills, and responsibil-

[1] This term refers to the grouping of geographically non-contiguous sites in order to achieve project scale.



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ity, increasing the respect from constituents and authorities.

In the ideal vision of community forestry, all strata in the community participate. However, educated men dominate decision-making in Oddar Meanchey CF groups. In exceptional cases, women are CF leaders and some are quite outspoken. However, most women in the villages claim they are too busy with household duties and often shy away from taking on leadership roles. On the other hand, communities seek women to fill financial management roles, consistent with cultural norms where women are perceived as more trustworthy and financially wise. In Oddar Meanchey, 19 women have been elected to serve on the MCs, representing 22 percent of committee leaders. Six of these women serve as CF accountants. Local women will have a more important role to play once REDD revenues begin to flow to the community level.

Other disadvantaged groups such as the elderly and youth have limited roles in current CF activities in Oddar Meanchey. However, with more targeted and deliberate engagement strategies, the REDD project will provide these groups with important roles. For example, youth who traditionally take on the responsibility of grazing cattle away from their home or village will assist the CF with fire patrols[2] as they go about these daily activities. The elderly may be engaged to share

[2] Controlling fires will be a major challenge. Patrolling, awareness raising, firebreaks, and prescribed burns are some of the strategies being considered.

traditional forest management practices with the community, such as sustainable resin collection techniques.

Overall, experience in Oddar Meanchey indicates that CFs provide a sound framework for engaging stakeholders at the local level and encouraging participation. CF membership and tenure requirements, the promise of future benefits, the engagement of respected local leaders, and formal and informal communications enhance participation, and may be utilized for REDD project development. Particular attention should be paid to how support from REDD can be utilized to ensure that all members of the community are engaged in a full and equitable way.

The CF Management Structure Has Potential to be Used Effectively for Project Consultations

Organizing REDD project consultations and gaining informed consent from local people for a REDD project is a practical challenge with few precedents. In Oddar Meanchey, education levels are low, with poor science instruction in the primary grades (WFP 2004).[3] Most residents of Oddar Meanchey are subsistence farmers (Cambodian National Census 2008) and thus many recognize changing weather patterns; however, few have heard of the term "climate change" *(ka plah pdou akasatiet)*. When introducing the project, the concept of REDD was completely new to everyone encountered. This was and is a major challenge.

Nevertheless, community forestry management structures have enhanced and enabled broad community consultations on the REDD project despite limited financial resources for broad dissemination. The Project Team aimed to satisfy the requirements of free, prior and informed consent (FPIC) by working through these existing CF structures. The groups pass information efficiently and cost-effectively across communities through MC members and leaders of household groupings in each CF. Their information also passes up to a provincial-level CF Federation with representatives from all CFs.

Community consultations, including village workshops and an official provincial meeting in November 2009, revealed local concerns[4] over sufficient support for forest protection, a desire for transparent benefit-sharing systems that improve livelihoods, and apprehension about potential land use conflicts within the CF area and the leakage belt[5]. Participants were encouraged to share discussion topics with their community members upon return to their villages and to inform the facilitators if any concerns arose. According to one MC leader, "Consultations were very important. After the workshop we went to all four villages to share the information over four days. Villagers had the right to speak up, and we took minutes on their comments. They said the forest was very important – it was their life, and they expect some benefit [from REDD]" (Bradley 2011).

Communities may be at risk of reduced benefits due to poor knowledge of the market and a limited role in decision-making about carbon credit transactions. CF structures, however, can mitigate these risks by enabling effective and efficient communication with a large segment of the target population. This in turn allows the Project Team to better understand the needs for further education and awareness, to collect critical information and feedback from community representatives about project designs, and to facilitate consensus building on project development.

[3] In 2004, only 53% of the population over 15 years was literate.

[4] The community representatives did not consider any of these issues as serious enough to withhold overall consent to move forward.

[5] The leakage belt refers to a zone approximately 5 kilometers beyond the project boundaries which is monitored to ensure that deforestation activities are not displaced to nearby forests outside the project area. Leakage can negate some or all of the carbon benefits generated by a project.

Laying the Groundwork for Equitable Benefit Sharing

REDD stakeholders in Cambodia have a keen interest in the precedent Oddar Meanchey will set for equitable and transparent benefit-sharing, and adequate and fair compensation for local communities. However, the Oddar Meanchey project has yet to receive REDD revenues, so consideration of benefits is based on projections of an estimated carbon price and related revenues. According to an agreement between the RGC and Terra Global Capital, at least 50 percent of the net income (i.e. after project costs are covered, which include daily forest patrols, salaries for community monitors, and boundary poles, among other community investments) will be directed to the communities for local development projects. The projected potential investment in these projects is approximately $10 million or more over 30 years. The level of net income will depend on carbon prices and the degree to which the forest is well-protected. Projections are based on assumptions that the project will reduce emissions of approximately 8.3 million metric tons of carbon dioxide over 30 years and will earn $7 per ton. That is considered a premium price in current markets but justifiable because of social and biodiversity benefits along with high-quality carbon accounting under the Verified Carbon Standard.

It has been a challenge to effectively communicate the unknowns and risks intrinsic in a REDD project that will enter an unstable voluntary market.

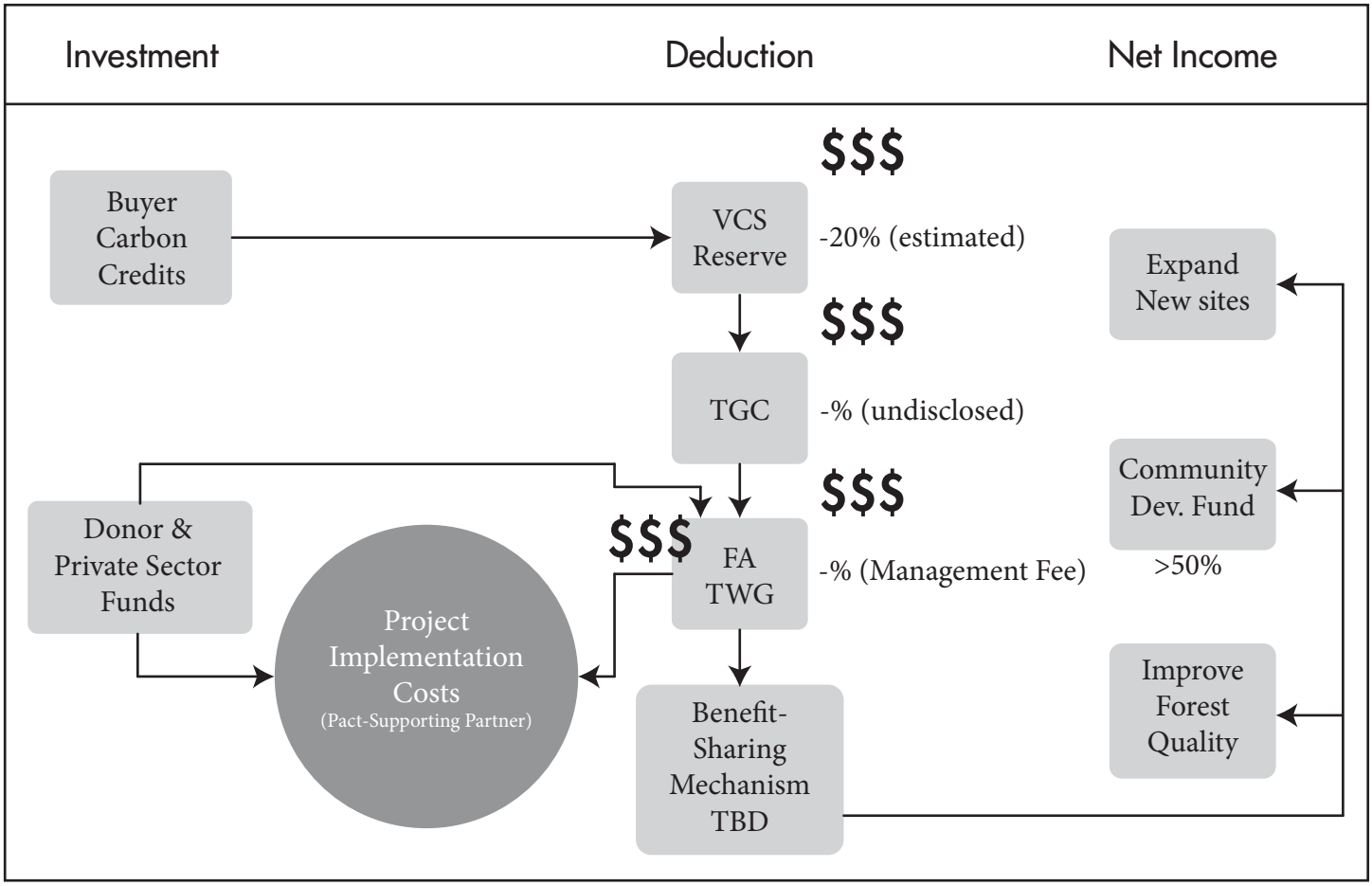

Figure 1: Fund Flow Diagram. This diagram shows how revenues will flow to the Oddar Meanchey CF REDD project and be divided among stakeholders. There are deductions for the Verified Carbon Standard (VCS) reserve, the carbon developer Terra Global Capital (TGC), and the Forestry Administration/Technical Working Group. The net income after project costs is divided between improving forest quality, the communities (at least 50 percent), and new REDD sites. Details are currently under discussion.

To avoid raising false expectations among community members, project managers have avoided discussing the specific amount of potential revenues to the project. However, validators advised the project team to develop clearer messaging on benefits as well as communication protocols to diminish the chances of unmet expectations, which could lead to disappointment.

Some CF leaders have very specific ideas of how much REDD revenue should flow to communities. They are beginning to realize that the work that they do on the ground to protect the forests has a global impact, and thus a real value. The communities who recognize this feel empowered by this sense of value. They see the human and financial limitations of the local forestry officials and feel proud that they can protect the forest effectively. "When we have the revenues we will set up a meeting to discuss how to use it so that we avoid conflicts," said a Chhouk Meas MC member (Bradley 2011). Another added, "If we have enough money and materials we can protect the forest completely" (Bradley 2011).

When asked about expectations for REDD revenues, all community leaders prioritize funds to support forest patrolling, which they intend to organize on a rotation basis. Following that, they also hope for new infrastructure and services. Project managers endorse these desires but they have emphasized that revenues will depend on the uncertain factors of price and performance. With limited resources flowing to the project prior to carbon credit transactions, it is difficult for managers to gauge how well these messages have been absorbed and understood by community members.

Community forestry has provided financial management experience to the communities in Oddar Meanchey, preparing them for handling REDD revenues. The MC receives donations from visitors, dues from members, and occasionally small grants or contracts from NGOs. NGOs have provided training in bookkeeping and financial management to all of the MCs and most groups have transparent systems of accounting. Although funds have been modest, these accumulated skills will be useful once REDD revenues flow. The Project Team plans to further strengthen reporting systems and conduct regular coaching and audit visits at the local level once revenues begin to flow.

The flow of revenues has already been proposed and nominally agreed upon (See Figure 1); but, the process of monitoring financial flows is still undefined. However, in a multi-stakeholder project such as this one, systems of checks and balances are more likely to be effective. Within the community, the cohesion of the CF structure strengthens local community members' ability to monitor and effectively address abuses. Since the potential for conflict over newfound resources is high, well-understood and agreed-upon transparent systems for dealing with misuse of funds are imperative. The CF has helped build a foundation for trust, but the influx of larger-scale funds will require more skills and elaborate systems to smoothly manage finances.

Many Eyes on the Forest: Effective Control of Drivers of Deforestation

Multiple, diverse drivers of deforestation place intense pressure on forest resources in Oddar Meanchey. Based on extensive consultation and research in the province, Table 1 outlines the main drivers as identified by communities and local officials. With limited resources and management capacities, the communities have had varying degrees of success in controlling these drivers. Some CFs have received micro grants to fund their patrols while others make do with voluntary contributions from members. In most of the CFs, local villagers travel frequently to the forest to collect non-timber forest products, graze cattle, and gather firewood, activities that will be allowed under the REDD project.[6] Generally, these

Table 1: Drivers and Agents of Deforestation. The table shows the relation between drivers and agents of deforestation (Oddar Meanchey CCBA Project Document, 2009).

Deforestation Driver	Deforestation Agents					
	Migrants	Private Companies	Local Communities	Hunters	Soldiers	Other non-Local
1. Forest clearing for land sales	●	●				
2. Conversion to cropland	●		●		●	
3. Conversion to settlements	●		●		●	
4. Fuel-wood gathering	●		●			
5. Annual forest fires induced to "clean" the land	●		●			
6. Hunters inducing forest fires				●		
7. Illegal logging for commercial on-sale	●	●	●		●	●
8. Timber harvesting for local use	●		●			
9. Large economic land concessions		●				
10. Small economic land concessions		●				
11. Timber concessions		●				

villagers report suspicious activity (e.g. a soldier's car parked inside the forest) observed during these trips to the MC. In this way, there are many vigilant eyes on the forest, which provide a *gratis* protection service.

Of the 13 CF groups struggling to enforce forest laws with very limited resources, the Monk's CF group (Sorng Rokavorn CF) is exceptional in that it has been able to divert donations to the pagoda into forest protection. The head monk has also been able to attract support from a group of nuns in the United States and was the recipient of the UN Equator Prize in September, 2010. Sorng Rokavorn CF (18,261 ha) is the largest and best-protected of all the CFs in the province with the highest biodiversity conservation value.[7] Results in the Monk's CF demonstrate the importance of leadership, determination, and resources to control the drivers of deforestation. REDD revenues could easily turn the tide in CF enforcement success on the ground.

All of the community forests in Oddar Meanchey have GIS maps showing the CF boundaries. These are effective tools for confronting government concessions or private sector encroachment at the planning stage. However, CF boundaries are hard to recognize on the ground unless they coincide with a natural feature or road. Communities have installed a number of boundary posts and signs but these are insufficient in number. Some CF leaders have also cited incidents of boundary-post destruction and sign removal,[8] indicating the importance of constant vigilance, maintenance, and communication with neighbors.

[6] According to the new mosaic methodology developed specifically for this project by Terra Global Capital for certification by the Verified Carbon Standard.

[7] According to the Biodiversity Assessment, 2011.

Participating communities believe that with enough resources they will be able to control most of the drivers of deforestation effectively (Bradley 2011). If the MC has enough money for gasoline and rice, and can organize a sizeable village force for patrols, communities are confident in their ability to confront and intimidate illegal loggers, even those that are armed. At the same time, they recognize that certain drivers may pose problems beyond their control. Recent conflict over the Cambodia-Thai border and the associated influx of military and infrastructure development seriously threatens some CFs in the area. In Romdoul Veasna CF, more than 740 migrant and military families have moved into the CF area over the past two years to claim land for settlement and cultivation. Local communities and forestry officials have so far been unable to control the widespread clearance of forest by these migrants despite concerted efforts. And on a large scale, economic land concessions are threatening Cambodia's forests. Such concessions, usually driven by very powerful political interests, would be difficult for communities in Oddar Meanchey to prevent.[9]

CF groups are generally good at solving conflicts and combating forest crime. Many conduct regular voluntary patrols both day and night. All the CF groups in the province have regulations that define forest management rules. The CF Agreements (CFA) also empower the CF committees to take action against forest crime, for example, by temporarily detaining forest offenders and confiscating timber or equipment. According to the chief of Andong Bor CF, "After signing the CFA, we have the power. Even if the Forestry Administration does not come to cooperate we can prevent illegal logging activities."

The experience in Oddar Meanchey suggests that with modest capital resources[10], proper regulatory frameworks, good internal management, and backstopping support from government authorities and NGOs, communities can effectively control almost all of the drivers of deforestation. REDD policy developers and donors need to make sure that this potential among communities is fully realized and supported under the framework.

Empowering Forest Stewards: The Interplay of Governance, Tenure Security and Rights to Carbon

Forest and carbon tenure rights have proved to be a critical foundation for the Oddar Meanchey REDD project implementation. Eleven of the thirteen community forests received a renewable 15-year CF Agreement in May, 2009, while the final two were legalized in April, 2011.[11] These agreements for collective management are based on a standard template for CFs in Cambodia. The template was modified by the Forestry Adminstration specifically for the Oddar Meanchey communities to include provisions on community rights to carbon credits under the project for the legally registered CF areas. The Agreement was renamed "Community Forest and Forest Carbon Credit Agreement" and specifically ensures the rights of communities, "to be responsible for the management and protection of the carbon stock and to benefit from the community forest resources in a sustainable manner." It further reinforces the right to carbon in stating that, "The CF community will receive financial support from funds generated from the sale of forest carbon to manage community forest resource activities and to develop the local community."

[8] Villagers suspect soldiers and illegal loggers of destroying posts and signs, but there is little direct evidence.
[9] There is no indication that Oddar Meanchey CF sites are facing the risk of lost tenure due to economic land concessions.
[10] CF groups have requested approximately $200 per month to support operational costs for patrols.
[11] The project relies on the assumption that the CFAs will be renewed at the end of the first 15-year agreement term.

Though the government remains the "owner" of the forests, secure tenure in terms of management rights underpins the REDD project in Oddar Meanchey and empowers communities as stewards and beneficiaries of the forest and its carbon.[12] In the current national context of rapid conversion of forest lands to agricultural concessions it remains to be seen if community tenure and high-level government endorsement of the REDD project will be sufficient to protect the forest over the 30-year duration. There is no doubt that in Oddar Meanchey, CF tenure has provided an important boost to communities and reinvigorated forest protection measures. Land-use decisions in Cambodia are not made with a long-term perspective on economic or environmental criteria. However, REDD with a CF structure is compelling government decision-makers to reconsider shifts to industrial agriculture, which come at the expense of forests and livelihoods. Higher carbon prices and increased private sector engagement in REDD will be necessary to reverse the current trends in land use decisions in Cambodia.

The results of a demonstration project such as Oddar Meanchey will be influential in the formulation of a national approach to REDD. If the model proves successful, there is potential for local community forestry groups across the country to play a central role in REDD project implementation, particularly in view of the government's goal to expand community forestry to cover two million hectares.[13] It is therefore important that these demonstration projects receive adequate institutional support. While secure tenure is a linchpin towards sustainable forest management, poor governance tends to weaken trust in these agreements. Cambodia will need to prove to the international community that its promises are valid over the long-term.

A REDD Bargain: Cost Effectiveness of Community Forestry REDD

In the case of the Oddar Meanchey initiative, project preparation costs have derived from a combination of donor support, in-kind technical assistance in exchange for future credits, and unrestricted NGO funds, not to mention the voluntary labor and inputs from local communities and other stakeholders. The estimated total monetary outlays for project preparation are approximately $600,000 over three-and-a-half years.[14] The cost-benefit analysis is favorable since over the 30-year project lifespan, more than $50 million will be generated under an assumed price of $7 per ton of carbon dioxide.

Working on REDD with community forestry groups is likely to be one of the most cost-effective ways of controlling drivers of deforestation. Rural communities have pre-existing incentives to guard the forest and make sure it is sustainably used. For example, most of the community forestry groups in Oddar Meanchey note the importance of protecting forests for future generations in their official documents. Both Khmer and the small minority of indigenous Kuy residents also believe in forest spirits and the importance of forest stewardship to ensure the health and prosperity of the village. Thus, most community members are interested in protecting forests and related livelihoods including non-timber forest product collection.

Vast financial resources are being poured into REDD. Unfortunately, very limited funds are currently reaching the community level or contributing to the development of community forestry as a foundation for REDD in the future. Several key international REDD-Readiness funds[15] focus on

[12] Management rights also come with the obligation to protect the forest over the long term.
[13] The National Forestry Programme clearly sets this goal. Currently there are 130 CFs covering approximately 141,000 hectares.
[14] This excludes the costs of technical support from Terra Global Capital LLC, which were covered by the agreement for a portion of future carbon credits to flow to this company.

creating the legal frameworks for REDD, conducting national forest inventories, and building national capacity for REDD systems. However, little attention is paid to the efficiencies that can be achieved by supporting and working through existing foundations, such as CF tenure. Ironically, in the case of Oddar Meanchey, significant emissions reductions and revenues are foreseen, but the lack of up-front cash means that communities all over the province are struggling to keep up patrolling efforts and demarcate the CF boundaries, putting the project's future benefits in jeopardy. REDD projects need outside support from initiation to the first sale of carbon credits to mitigate the risks of deforestation.

Conclusion: Strengths and Weaknesses of the Community Forestry Framework

The experience in Oddar Meanchey reveals important benefits of a CF framework on REDD project implementation while also highlighting the gaps and needs for further support. These include:

- Increased attention to the participation and engagement of women and other vulnerable groups
- The need for basic education and awareness-raising on climate change and the REDD concept prior to consultations
- Clarity on benefits, revenue flows and support for skills and systems to properly manage finances
- Support for community forest governance during project preparation
- Expansion of community forestry as a foundation for REDD
- Enhancing long-term tenure security and ensuring carbon rights

Acknowledging these gaps, experience in Oddar Meanchey has shown that communities are extremely motivated to protect the forest and excited and encouraged by the potential of REDD. CF-structured REDD projects in Cambodia have a huge and unexploited potential to satisfy both the desires and needs of rural forest-dependent communities while at the same time reducing the impacts of climate change.

> *We want to thank all the countries that are making a commitment to buy our carbon. We never thought that we could sell carbon like this. We will try to protect our forest so that we will not make all those countries hopeless. Please trust us.*
>
> *-Chhouk Meas, CF Group, 2011*

[15] e.g. Forest Carbon Partnership Fund, UN-REDD, Government of Norway

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7

Pilot REDD Activities in Cambodia are Expected to Improve Access to Forest Resource Use Rights and Land Tenure for Local Communities

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Abstract

There is concern that REDD+ revenues might encourage re-centralized control and management over forests, but Cambodia has shown an opposite trend. At pilot demonstration sites and in national readiness documents a strong intent has been documented to identify and strengthen traditional rights holders.

This case study examines the Seima Protection Forest REDD project.

Pre-existing strategies there aim to support the recognition of traditional forest use rights and issuance of indigenous communal land titles. Management also aims to protect the underlying resources from both external and local threats. REDD should provide both an impetus and increased resources to accelerate and sustain these processes, whilst also strengthening economic arguments at the national level for maintaining this forest. Local communities have been found supportive, especially because they perceive a high and rising external threat to their resources.

The Seima case illustrates how improved tenure could be a central outcome of REDD in some settings, and that tenure itself may serve as a more dependable type of community benefit than direct financial payments. The risk that REDD will fail to compete with the economic drivers of deforestation is highlighted as perhaps a more serious threat to current forest users than any future risk of re-centralisation, at least in Cambodia.

Introduction

While more than 80 percent of forest around the world remains government-owned there has been a significant movement towards decentralization of the forest sector in the last 25 years (FAO 2005; Larson et al. 2010; Phelps et al. 2010). 'Decentralisation' in this sense can range from a full transfer of ownership to various co-management arrangements. Payments for improved forest protection under the REDD[1] framework might undermine this progress by increasing the monetary value of forests and so leading governments to recentralize (Sandbrook et al. 2010; Phelps et al. 2010; Larson et al. 2010.) The need for performance measurement under REDD may also favour recentralization due to economies of scale and ease of standardization (Phelps et al. 2010). In this case study we discuss whether these risks are likely to affect implementation of REDD in Cambodia, using evidence from the Seima Protection Forest (SPF) REDD demonstration project and national REDD-readiness plans. We focus on the Permanent Forest Reserve, under the management of the Cambodian Forestry Administration (FA). Our hypotheses are that (1) in Cambodia REDD will stimulate improvements in land tenure and forest resource access rights for local communities; and (2) REDD will increase the feasibility of protecting these forest and land areas against growing threats, a crucial precondition for exercising those access and tenure rights.

National context

Cambodia had 58.9 percent forest cover in 2006 and a deforestation rate during 2002-2006 of about 0.8 percent per annum. Clearance is concentrated along forest frontiers and new roads, with ongoing degradation through e.g. illegal logging and charcoal manufacture. Issuance of large agri-industrial plantations of rubber, acacia and other crops (locally termed 'economic land concessions') has recently emerged as a dominant threat to forest nationwide (RGC & UN REDD 2011).

REDD rose in prominence in Cambodia forests following decisions at UNFCCC COP 13 in December 2007[2], and the Royal Government of Cambodia (RGC) is now planning a national-level REDD framework. The Cambodia Readiness Plan Proposal was approved by the World Bank Forest Carbon Partnership Facility (FCPF) Participants Committee in March 2011 and the Cambodia UN-REDD National Programme Document was approved by the UN REDD Programme Board in June-July 2011. Drafting these documents led to the creation of an Interim Inter-Governmental agency REDD+ Taskforce (RGC & UN REDD 2011).

[1] We use REDD and REDD+ more or less inter-changeably in this paper.
[2] Decision 2-/CP.13 on "Reducing emissions from deforestation in developing countries: approaches to stimulate action" (http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=8)

The Forest Administration (FA)'s responsibilities for REDD were set out in Subdecree 188 (2008) and REDD was also highlighted in the National Forestry Program (NFP; approved December 2010) under Programme 6 on Sustainable Financing. In early 2011 FA created an Office of Carbon Credits and Climate Change within the Department of Forest Industry and International Cooperation. Several site-based projects have also been proposed or initiated from 2008 onwards and three of these, all under FA jurisdiction with extensive NGO involvement, have been adopted by the government as pilot projects to inform national policy. The primary pilot is the Oddar Meanchey Community Forestry REDD Project, approved by Council of Ministers Decision number 699 in 2008 (Bradley 2009), followed by SPF and the Southern Cardamoms Protected Forest.

Most natural forests in Cambodia, including all Community Forests, are state owned. Typical Community Forests are restricted to production forest areas and so are not directly relevant to the Seima Protection Forest. Protected Forests are state-managed, with various forms of community co-management being tested at Seima and elsewhere around the country. The key legal basis is the Forestry Law (Article 40) which protects the traditional forest use rights of local communities, including the harvest of non-timber forest products (NTFPs), timber for housing and grazing rights over most of the forest estate, including Protected Forests. Such use rights do not constitute tenure as such, but are nonetheless crucial, since dependency on forest products is typically high. They are generally respected by the state[3], but are at risk due to decline in the availability of the resources as forests are converted or degraded.

Agricultural land tenure is also relevant to REDD in Cambodia since so many forest boundaries are disputed between the state and local communities, or at least are legally ambiguous. In Seima most communities belong to the Bunong indigenous ethnic group. They are vulnerable to land alienation so the 2001 Land Law allows them to obtain communal land titles that recognise and protect their unique way of life. Communal titles cover mainly residential/cultivated land and fallow swidden areas. In Seima and other similar sites they represent prior claims and can lead to the legal reclassification of parts of the protected forest. This process redefines forest management boundaries and resolves community doubts about their tenure security on agricultural lands - such doubts would otherwise be problematic for REDD implementation. In addition to residential and farming land, these titles can place small areas of natural forest (e.g. sacred groves)[4] in community ownership and this may give the communities ownership of some forest carbon, although that issue has not yet been decided on by the Royal Government of Cambodia (Keo Omaliss pers. comm. 2011). To date no such communal titles have been issued but several villages are near to completing the complex process, including two in the case study area.

REDD+ at the Seima pilot site

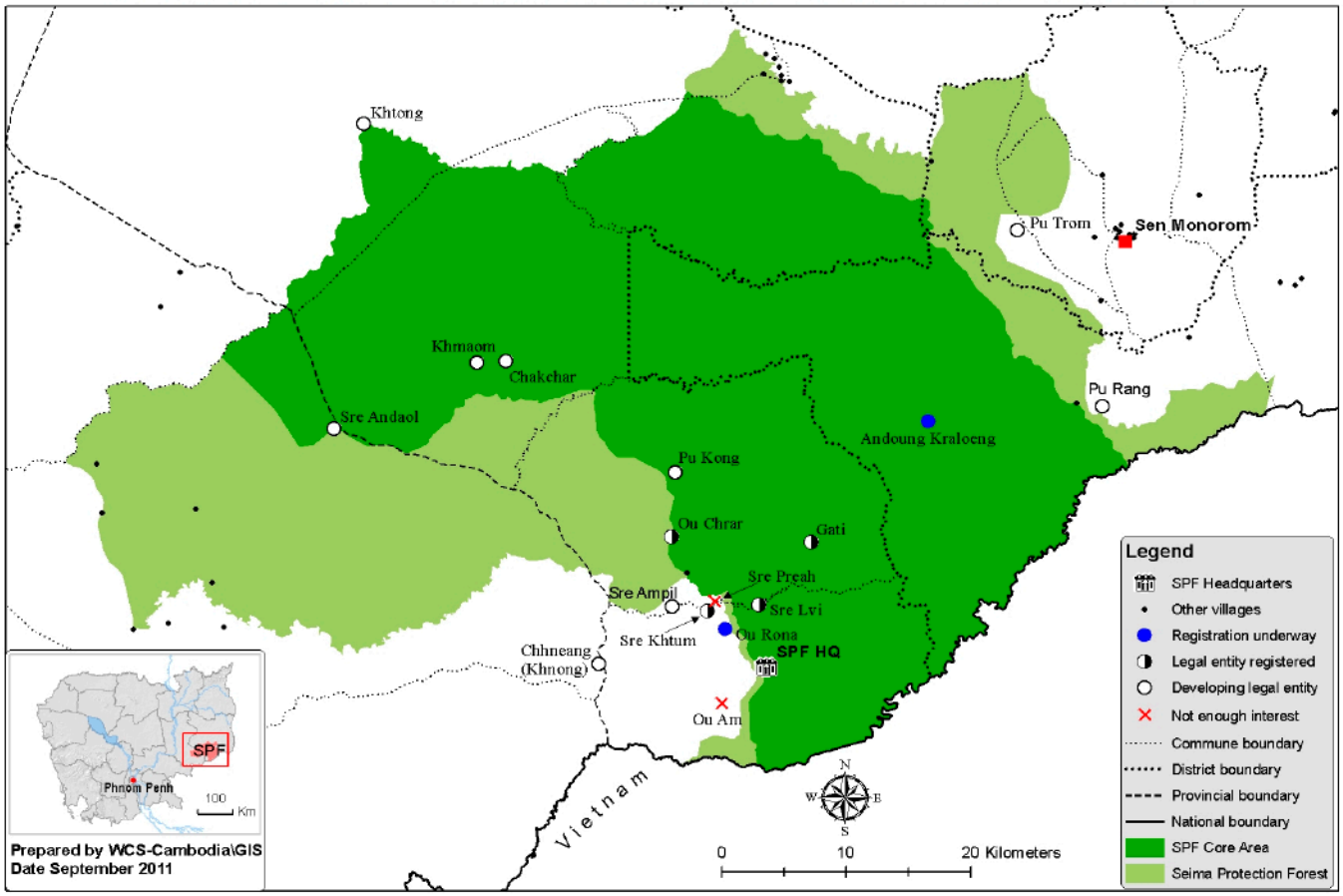
Overview

Seima Protection Forest (SPF)[5] covers 292,690 hectares, mainly in Mondulkiri province (Figure 1). It protects extensive evergreen, semi-evergreen and deciduous forests with high biodiversity value on the flanks of the Annamite mountain range and adjacent plains (Evans et al. in press).

The Forest Administration (FA) has managed the site, with support from the Wildlife Conservation Society (WCS), since 2002. Dominant threats are the accelerating rates of forest clearance for agriculture, illegal logging of high value timber and

[3] Although these use rights have been violated by some concessionaires
[4] In contrast to some other countries (e.g. Canada, the Philippines) communal titles cannot legally include extensive mature forest, even if it is used for the collection of fish, timber and non-timber forest products (NTFPs).
[5] Formerly Seima Biodiversity Conservation Area

Figure 1: Current status of registration of indigenous communal lands in Seima Protection Forest (SPF)



unsustainable trade-driven hunting of wildlife. Both outsiders and local residents are involved in these practices. Seima is also under potential threat from the issuance of large-scale agro-industrial concessions, and possibly from mining (prospecting is currently underway). These threats are partly driven by local factors such as improving road access, population growth and weak protection measures and partly by broader economic factors such as increased demand for cash crops (Evans et al. in press).

Existing management and social values

Management of SPF includes forest protection patrols, forest monitoring, resource zones for use by local communities, indigenous communal land titling and a buffer-zone community sustainable forest management project. Significant progress has been made in at least partially controlling some of the key threats (Evans et al. in press).

The site has high community value. The area that will generate REDD credits is used by 20 villages (c.12,800 people; Figure 2). These local citizens' livelihoods are threatened by resource declines and land loss to outside groups. They typically live in small, remote villages with high poverty. In addition to agriculture they continue to have a high degree of economic and cultural dependence on the forest. For example, the trade in wild tree resins is economically crucial and largely sustainable (Evans et al. 2003) and they collect a high diversity of other foods medicines and fibres for subsistence or sale. Most of their agricultural land currently lies within the legally defined forest estate.

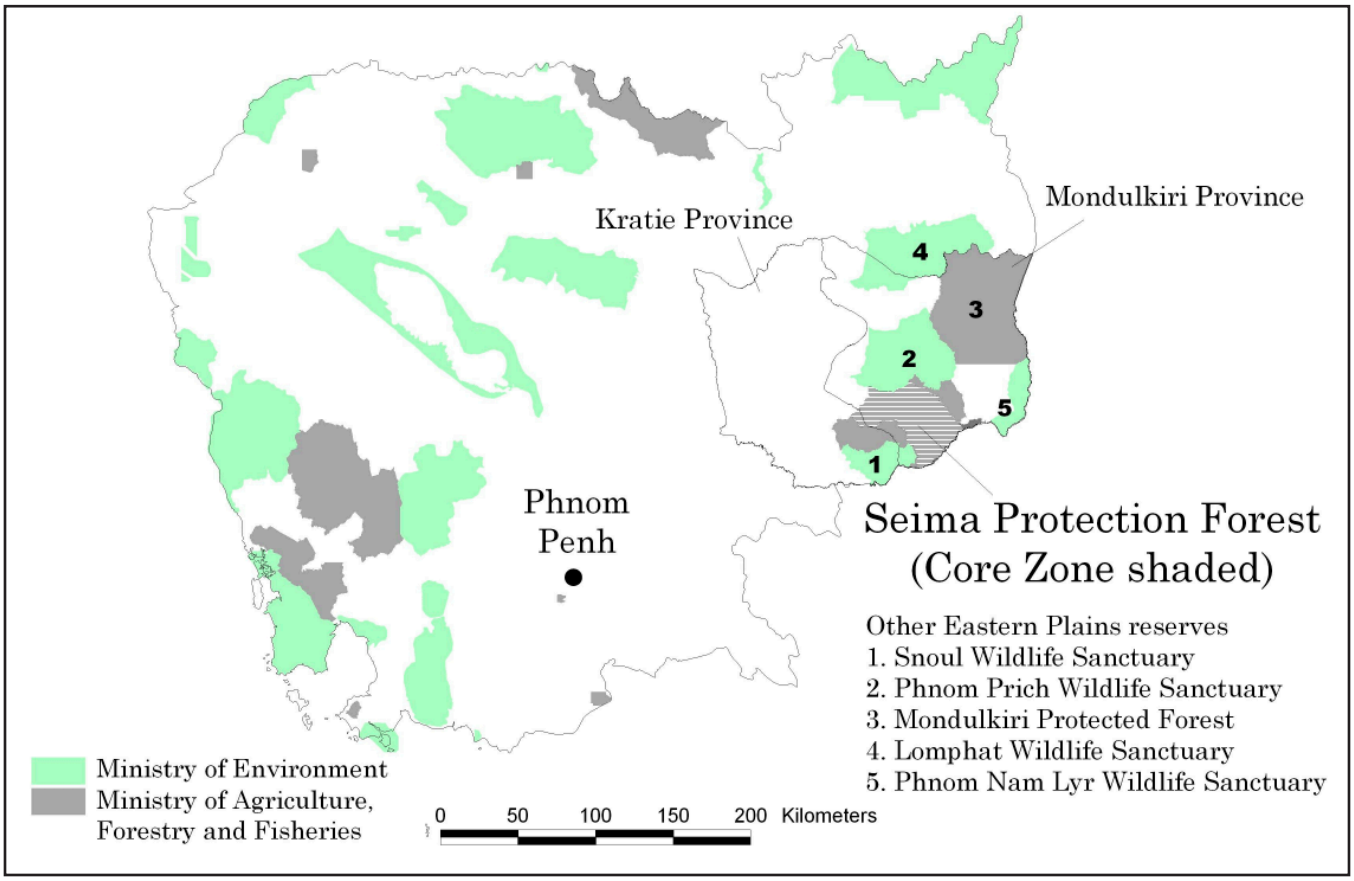
Existing conservation activities already focus on indigenous communities, as set out in the legal

instrument creating the SPF and in the SPF strategic plan (Evans et al. in press). The two activities discussed below are of special relevance to the debate over whether REDD is a threat to tenure security - (i) clarifying forest user rights and (ii) formalising village land tenure rights.

Clarifying forest user rights

Concepts of traditional forest tenure are widespread in Cambodia but rather more weakly expressed in practice and in law compared to regions of Melanesia or Latin America. Thus, whilst the main forest areas used by each village in places like Seima are distinct, this has rarely resulted in sharply defined boundaries, codified management arrangements or systematic exclusion of users from other communities. For this and other reasons, legal ownership rights over forested land are not available in a Protected Forest (with the exception of the small areas within Communal Land Titles, see below). Given this legal setting, two aims of SPF management are to enhance the long-term availability of forest resources and ensure secure continued access rights for legitimate (mainly traditional) users in clearly designated zones. To enhance long-term availability the project aims to prevent deforestation and reverse past degradation. This entails preventing deforestation and restoring degraded forests as well. As formalising use rights and demarcating use zones. Forests in Cambodia are generally treated as open access resources, with illegal users swamping legitimate local users and making sustainable management impossible. The SPF approach identifies legitimate traditional users in accordance with the Forestry Law and ensures they receive identity cards. People without cards can then be excluded. The process of checking card users thus encourages compliance with for-

Figure 2. Project location in relation to the Cambodian protected area system



est laws, thus deterring unsustainable use by all parties. The largest forest user group in Seima is the resin tappers, who have locally recognised family-level ownership of groups of large *Dipterocarpus* trees in deep forest areas and visit them on a roughly weekly basis to draw resin in a manner analogous to rubber-tapping (Evans et al. 2003). In a phased process, all resin tapping families are gradually being been issued with cards, as are other families who regularly collect other products such as fish or bamboo.

Formalising village land tenure rights

All communities in or near the project site of appropriate ethnicity who have retained concepts of collective land ownership and other traditional practices are eligible to apply for indigenous communal land titles. Most communities consulted by the project team have chosen to exercise this right. A village supported by the Seima project since 2003[6] was selected in 2004 as a national pilot site for the legislation, has had its land claims agreed and physically demarcated, and is on the verge of becoming the first in the country to have its lands formally registered by the Ministry of Land Management, Urban Planning and Construction (MLMUPC). Of the other 11 villages engaged so far, four have made strong progress (having completed their registration with the Ministry of Interior as legal entities eligible to hold land) and seven have begun the process but remain at an earlier stage. The Seima area has arguably achieved greater progress in indigenous land titling than any other part of the country.

This is important for reserve management since it constructively addresses two of the main long-term drivers of deforestation - expansion of farmland by existing residents and forest clearing by new migrants. The communities perceive titling as beneficial too, because their lands are highly threatened by a combination of threats from outsiders (e.g. migrants, loggers, rich businessmen, and land concessions to companies) coupled with weak internal and external governance. It also reassures them that future conservation measures will not impact their rightful livelihoods. Most villages have decided that these benefits outweigh the perceived restrictions inherent in demarcating the maximum future extent of village agricultural lands. The two villages that have made the most progress towards communal land-tilting have both found that their ability to resist or mitigate external threats is noticeably increased, even prior to issuance of titles, through better internal organisation, confidence, awareness of rights and back-up from the SPF patrols teams. Other villagers are eager to gain similar protection. Other, more intangible benefits include the strengthening of traditional community governance systems and the creation of constructive relationships between villagers and reserve staff, moving gradually towards co-management. After titling the communities are expected to benefit from continued direct support (to assist their own protective activities) and indirect support (from other project activities such as law enforcement patrols and provincial land-use planning).

Design of the proposed REDD project

The REDD project was initiated in mid 2008. The REDD project focuses on the Core Area, which covers 187,983 ha. Credits will be sold on the voluntary market with Verified Carbon Standard and Climate, Community and Biodiversity (CCB) Standard certification. The Forest Administration is the project proponent, with Wildlife Conservation Society as a technical partner.

The REDD project builds closely on existing management, described above, providing additionality mainly through expanded and sustained finance, thus enabling management activities to extend across the whole landscape and to fully address all key threats long-term. The REDD projectIt also aims to enhance the perceived economic and so-

[6] Andoung Kraloeng village in O Rang District

cial benefit of maintaining this part of the national forest estate (in the eyes of national decision-makers), and so reduce the pressure from external threats such as the demand for economic land concessions. One element of the project will be to provide direct conservation incentives to local communities from the net revenues, but the exact form of these incentives has yet to be decided by RGC.

Each village will sign a Community Agreement that inter alia clarifies carbon ownership, confirms community consent for the project and ensures that the voluntary, revocable nature of the agreement is clear. It also commits the community to:

- cooperate to respect and implement laws protecting natural resources and the rights of the Community to use these resources sustainably;
- cooperate with the FA in developing and following land-use plans, management plans and other sustainable resource-use agreements as needed;
- cooperate with the FA to develop alternative livelihoods that reduce deforestation; and
- avoid increasing deforestation outside the Project Area[7]

A detailed list of planned REDD project activities is appended to the agreement, but most communities are familiar with these activities through past collaboration. The benefit-share arrangements are not specified at this stage. Communities can later terminate the agreement without liabilities, placing them in a position to demand equitable treatment at each stage of project implementation.

Discussion

Effects of the SPF REDD project on opportunities for improved land tenure and forest resource access rights

Evidence to date suggests that the SPF REDD project will strengthen rather than undermine local forest access and agricultural land tenure. In fact, the project is designed assuming that this will be necessary to achieve real and permanent emissions reductions. Hence it both provides an additional reason why such policies and investments should be maintained into the future and will eventually supply the funding needed for increased implementation. REDD implementation has also increased the level of community participation in decision-making for the Protection Forest. This is mainly due to the project's approach to implementing the requirements for consent under the CCB Standard, since extensive consultations are underway prior to the signing of the Community Agreements and will be repeated periodically. These outcomes are consistent with Hypothesis 1 set out in the Introduction, namely that in Cambodia REDD will stimulate improvements in land tenure and forest resource access rights for local communities.

The REDD project design also aims to have a broader effect on protective measures for the SPF. This is consistent with Hypothesis 2. Political support for protection of the SPF as a whole has been increased, as shown by the Council of Ministers upgrading the site to Protected Forest status in 2009, an action which was partly influenced by the potential for REDD revenues. Even prior to the delivery of any credit sales, this decision has already been instrumental in blocking a number of serious threats to the reserve and its inhabitants, most notably a number of agri-industrial concessions that were proposed during 2010. When REDD revenues begin this will also increase the funding available for implementation

[7] Primarily by continuing to adhere to existing rules and law in those parts of SPF outside the Core Area, and in adjacent forest management units such as Snoul Wildlife Sanctuary.

of essential non-community focused activities such as improved law enforcement.

Improved resource security as a more dependable REDD benefit than financial incentives

Consultations in SPF have sought to minimise expectations of direct benefits and focus much more on the indirect benefits from improved protection of existing livelihood assets. Hence these are among the key benefits of REDD perceived by the local communities. These will flow from the most basic project activities, which can be funded reliably even in lower income scenarios. The eventual scale of direct financial and development benefits from REDD in SPF is acknowledged to be uncertain due in part to weak current prices for credits and doubt about market demand without a global regulatory signal. Furthermore RGC has yet to establish a formal benefit-sharing system for the site, although it is likely to be modelled on the system for the Oddar Meanchey piloit site, where 50% of net revenues (after the significant project implementation costs) are earmarked for community benefits.

The target communities presented with this message have been sufficiently receptive and expressed consent. They accept that benefit-sharing arrangements will be decided later and may be limited if the net revenues are small, with the caveat that maintenance of consent for the project will be dependent on the system being perceived as fair. In essence, better resource- and access-protection were sufficient incentives to achieve buy-in, at least at the project start, because of the high level of concern regarding the difficulties forest-user communities will face in a business-as-usual scenario. A similar result was found in the Oddar Meanchey pilot (A. Bradley and Long Ratanakoma, pers. comm.). Internationally, direct benefit-share arrangements often take centre stage in discussions about the effect of REDD on communities; however our experience to date in SPF suggests that indirect benefits such as forest protection may be as important, or more so, in some situations.

National comparisons

Cambodia has a mixed record on the recognition and promotion of decentralised forest management. The legal framework is progressive in many ways, for instance regarding community forestry, community protected areas and titling of indigenous communal lands, and there is growing evidence of a will to implement these recently developed instruments. However, many powerful interests resist implementation of this legislation, leading to serious disputes with communities, for example around logging concessions (during the 1990s) and agri-industrial land concessions (in recent years). Against this backdrop it should be asked what incremental change REDD might bring. We argue that initial indications are positive but monitoring of implementation is required.

Site-level REDD is under consideration for a number of other Protected Forests in Cambodia, which are also likely to take a progressive approach to community involvement. REDD has also stimulated increased activity in Community Forests in Production Forest areas[8]. The official Oddar Meanchey REDD pilot is based on a group of 13 Community Forests sites shared by >50 villages. Community Forestry legislation is different from that for Protected Forests, since although the forest remains state property, it establishes a 15 year co-management agreement between state and community over the whole extent of the forest in question. Thus the model is even more fundamentally linked to community tenure rights than in SPF (Bradley 2009). Replication of the Oddar Meanchey model has already begun in a cluster of Community Forests in Siem Reap Province (Hour Lim Chhun pers. comm. 2011).

[8] To date 430 Community Forests have been declared, covering 377,502 ha (Phan Kamnap, Director, Community Forestry Office, pers. comm. July 2011).

Policy documents also provide evidence that national-level REDD will be designed so as to promote rather than hinder the recognition of community rights. The programmes agreed by RGC with FCPF and UN REDD both state that REDD will be implemented by strengthening existing laws and policies, rather than setting up parallel systems. The key relevant policy for areas under FA management is the National Forestry Programme (NFP; RGC 2010). This sets out a progressive vision based on the concept of sustainable forest management, with secure tenure and use rights as one of its six defining characteristics. These concepts recur throughout the NFP, notably in Programme 1 on Forest demarcation and classification (in which the '..recognition..of indigenous people's rights and local user rights... is fundamental.."), Programme 2.4 (which aims to increase the coverage of Protected Forests and the successful models they employ for protecting community use rights to 3 million ha), and Programme 4 (which aims to expand the area of Community Forests to 2 million ha). Thus if the NFP is effectively implemented, community forest tenure and use rights in Cambodia will be greatly enhanced. RGC & UN REDD (2011) reinforces this approach in Section 4.5 (Draft Strategy and Implementation Framework) with statements such as:

- 'a critical [implementation] issue is clarifying management rights of local people over forest areas, through existing modalities such as Community Forestry, ...and Indigenous Communal Land Titling. REDD+ would need to support scaling up of these existing modalities.' [p86]
- 'During the evaluation of the candidate REDD+ strategies key environmental and social issues will be considered in order to (a) enhance the formulation of the strategies, and (b) apply social and environmental safeguards. '[p89]
- 'For REDD+ demonstration activities tenure over forestlands should be clarified through the development of the project. [....] clear agreements over tenure and forest carbon ownership should be developed through the project.' [p89]

Longer term prospects and underlying factors

The positive initial signs do not guarantee that REDD will be implemented in Cambodia with due regard for community tenure rights but the process has evidently started in a promising way. Below we list three of a number of likely reasons for the progressive stance of the Cambodian government on these issues:

i) National socio-political factors. The forestry sector is going through a prolonged period of restructuring and repositioning within Cambodian society. Centralised industrial forestry is no longer a mainstay of the economy due to the seemingly irretrievable collapse of the concession system, so over the past ten years the agencies entrusted with the forest estate have increasingly sought to remain relevant, and in control of the lands they manage, by highlighting the broader social contribution that forestry can make (e.g. through Community Forestry, poverty alleviation measures and protection of watersheds). REDD planning is just one example of this strategy.

ii) The increased global recognition of the value of community involvement in forest management has shifted attitudes in-country gradually towards a more pluralistic approach, both for REDD and in NFP formulation.

iii) The involvement of international NGOs and donors in the site-based pilots and of multilateral organisations in planning for the national system may both also have played a role in bringing a progressive agenda to the fore. The market demand for certified social co-benefits has encouraged a specific focus on this aspect in the site-based pilots.

These three factors seem likely to remain relevant

in the near to medium-term although changes in political or economic logic may lead to changes of direction in the future and it is critical that implementation is transparently monitored so that such changes can be brought to public attention. On balance, however, we suspect that the benefits that REDD brings to users of Cambodia's highly threatened forests may be more at risk from a failure to compete with the economic factors driving deforestation, rather than any reversal of current pro-tenure policies.

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8

REDD+ in Lao PDR: Is It Also a "Plus" for Forest-Dependent Communities?

A Case Study from the Nam Et Phou Louey National Protected Area, Lao PDR

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Abstract

Apprehension exists at the international level that a future REDD+ mechanism may pose risks to the livelihoods of forest-dependent communities that lack clear forest and land tenure rights. These risks are of particular concern in Lao PDR where existing land tenure rights and governance are weak. Through the lens of the Nam Et Phou Louey National Protected Area (NEPL NPA), this case study illustrates how weak land tenure arrangements have caused land insecurity for local communities. A planned REDD+ project in the NEPL NPA expects to make community land security a central feature of its mitigation strategy. Additional factors such as support for the national process of communal land titling, clarification of carbon rights and the need for a conflict resolution mechanism will also need to be addressed, both at the project and national level, to ensure greater land security for local communities and to minimize the potential negative effects of REDD+ implementation.

Introduction

The ability of REDD+ to benefit forest-dependent communities has been called into question in many fora (Westholm et al. 2011). In particular, concerns exist that forest-dependent communities may be dispossessed from their forestlands by outside interests during REDD+ implementation if clear forest tenure arrangements are not in place (Cotula & Mayers 2009). Lao PDR's Readiness Preparation Proposal (R-PP) under the Forest Carbon Partnership Facility recognizes that a wide range of forest resource tenure rights exist in Lao PDR. Therefore possible entitlements to REDD+ benefits are also present. The R-PP specifically warns that "entitlement of ethnic groups and local communities to REDD+ benefits presents a particular problem because they typically do not hold registered title and enforceable rights over the land they manage." Furthermore, when land ownership remains centralized with the state, as in Lao PDR, Cotula and Mayers (2009) indicate that problems of corruption and rent-seeking may be of particular relevance in the REDD+ context. As a country that ranks 154th out of 178 countries in the 2010 Transparency International Corruption Perceptions Index, this is of particular concern in Lao PDR. Nonetheless, Lao PDR's high forest carbon stocks, 41.5% forest cover in 2002 and deforestation rates of 0.5%[1] annually during 1982 – 2002 ensure that it remains a priority country with regards to REDD+ implementation.

As a way to build national level capacity with REDD+, the government of Lao PDR (GoL) has endorsed four REDD+ demonstration projects. One of these is the Nam Et Phou Louey National Protected Area (NEPL NPA) REDD+ project, a site with an outstanding diversity of carnivores and one of the most important tiger populations remaining in Indochina (Johnson et al. 2009). Despite the NPA being managed by the GoL , with considerable assistance from the Wildlife Conservation Society (WCS) since 2003, deforestation and forest degradation continue to occur, contributing to habitat loss and fragmentation. Given these threats, the potential to develop this site as a REDD+ project according to the requirements of the Verified Carbon Standard and Climate Community and Biodiversity standards is being explored jointly by WCS and the Laotian-German Climate Protection Through Avoided Deforestation Program. The project envisions using carbon finance both to incentivize alternative land-use practices by local communities and as a sustainable source of financing for NPA management.

Through the lens of this REDD+ project, this case study explores how existing weak land tenure arrangements have impacted rural Lao communities in the past. It also examines how the REDD+ project will seek to improve land security for local communities, and what still needs to be addressed, at both the project and national level, to ensure greater land security for local communities during REDD+ implementation.

Land Tenure Rights in Lao PDR

Generally, laws in Lao PDR do not grant a broad range of land tenure rights to villagers. All land is under state ownership and community use of these lands is permitted as per the 2007 Forest Law and 2003 Land Law. While the Forest Law recognizes communities' customary use rights, the law contains a caveat that this use must be in accordance with applicable laws and regulations, which essentially limit communities' permissible use of forests to subsistence use (GoL 2007a). Usufruct rights to agricultural land are granted by the Land Law, however the amount of land assigned to a farmer is limited to one hectare for cultivating paddy rice and raising animals and three hectares for industrial plantations and growing upland crops (GoL 2003). In upland areas, where swidden rotations range anywhere from six to twelve years on a corresponding

[1] Lao PDR's R-PP states a range of 0.5 – 1.4%/year depending upon the method of analysis used. The more conservative value of 0.5% has been used here.

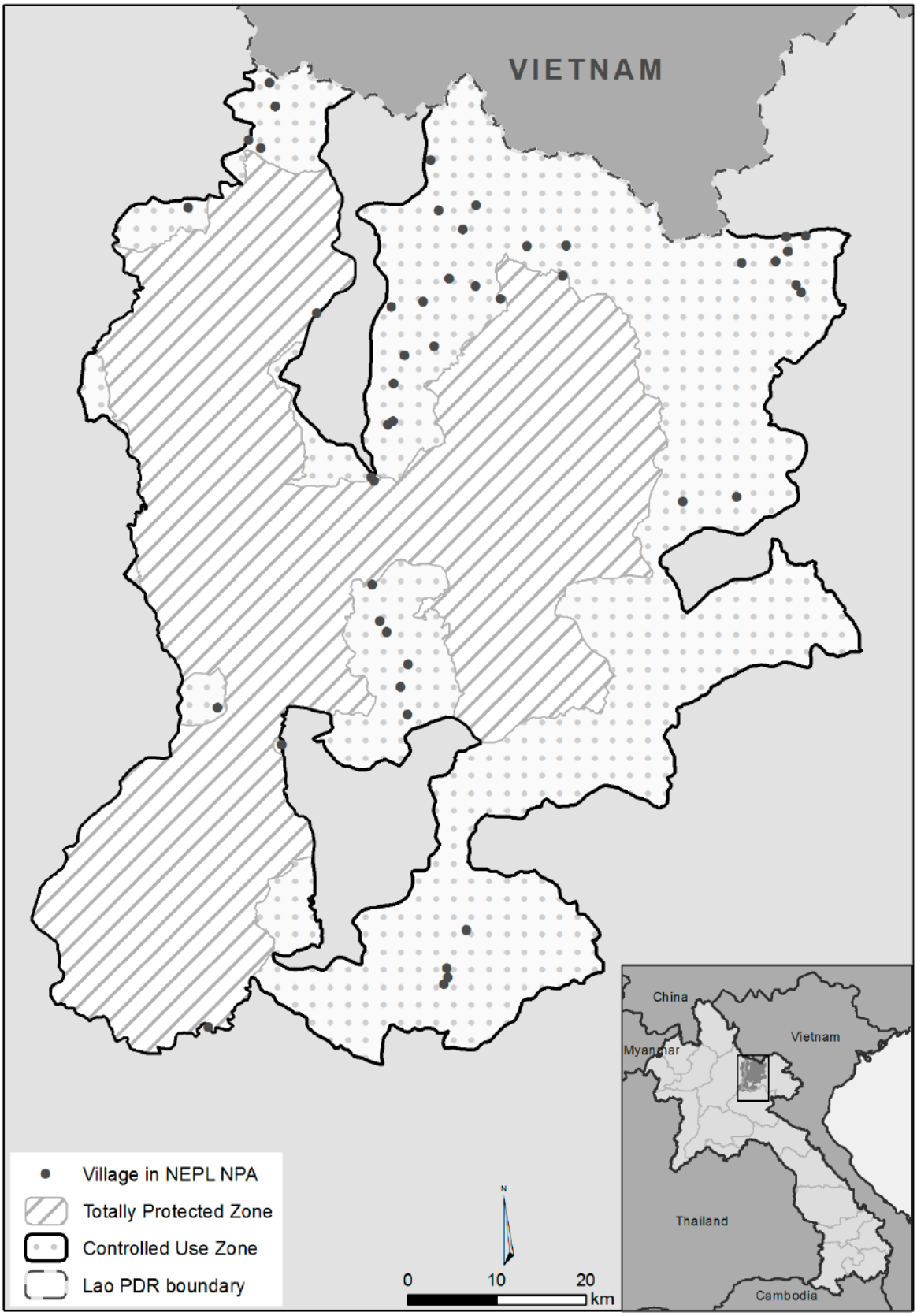

Figure 1: Administrative map illustrating that the NEPL NPA covers three provinces (Luangprabang, Houaphanh, and Xiengkuang). Protected areas in Lao PDR are classified as multi-purpose IUCN Category VI Managed Resource Areas as villages remain inside protected area boundaries in a designated Controlled Use Zone. Only villages within the NEPL NPA boundary have been identified on the map.

number of hectares, this represents a significant departure from traditional practices.
The Land Law does grant individuals the opportunity to receive a title to both agricultural and forest land. These titles grant the owner a significant range of tenure rights, including the right of usufruct, rights to protect, use, or transfer the land and to inherit. However, the amount of land over which an individual can receive a title is limited. In forestlands this is capped at three hectares of degraded or unstocked forest; on agricultural lands this is limited to the same quotas mentioned above.

A ministerial instruction passed in 2007[2] first made it possible to issue communal titles for land collectively used by villagers (GoL 2007c). This instruction states that communal titles grant the title holder the right both to use and protect the land. Although this instruction does not grant communal titles the same level of rights as individual titles, it remains an important step towards establishing greater community land security. Unfortunately, granting communal titles has not been a government priority to date. The first of these titles was only issued in 2011, primarily in village areas supported by international donors.

The Forest Law stipulates that National Protected Areas (NPAs) must be zoned into a Totally Protected Zone (TPZ), where no human activities are permitted, and a Controlled Use Zone (CUZ) where communities are allowed to live and use resources to satisfy their livelihood needs (GoL 2007a). The purpose of the TPZ is to maintain source populations of biodiversity which in turn provide a steady supply of wildlife, fish and plant stock for subsistence consumption in the CUZ. In this regard, communities living within the CUZ have the same access and use rights to forest and agricultural land as communities outside an NPA.

Land Insecurity in the Lao Context

Rural communities, especially ethnic minority communities, in Lao PDR suffer from low levels of education and literacy (Postiglione and Tan 2007). Therefore, communities often lack the social capital to effect change or prevent exploitation of their lands. For example, as global food and commodity prices rose in 2007 and 2008, so did foreign investment in land concessions in Lao PDR for commercial production of rubber, sugar, cassava and fast-growing pulpwood forests. In some cases, land was sold for a fraction of the market value by officials who personally profited from the sale-with little or no reward going to the affected villages (MacKinnon 2008). In one example from Bolikhamxay province, farmers were relocated when a eucalyptus plantation was developed on their land. They did not receive the land for rice paddies that was promised as compensation, and they now work as laborers on the plantation instead. Inadequate government wages, which encourage corruption, along with traditional village level patronage to authority are cited as conditions that facilitate such exploitation of village lands (Stuart-Fox 2006). In southern Laos, where thousands of hectares of land have been transformed into private or state-owned plantations, there are similar reports of companies claiming village lands and fencing communities out or seizing communal lands with little or no compensation (Guttal 2011). Although such large-scale concession agreements have not been issued in areas surrounding the NEPL NPA, similar examples exist of communities losing access to their forest lands or traditional fishing areas because of government or business priorities. National level policies directed at land use have also been a source of land insecurity for local communities. For example, in the early 1990s the stabilization of shifting agriculture became a major policy goal of the GoL and was encapsulated in many of the policy strategies issued

[2] National Land Management Authority (NLMA) Ministerial Instruction 564 on Adjudications Pertaining to Land Use and Occupation for Land Registration and Titling

during this period, including the 5th, 6th and 7th National Socio-Economic Development Plans (GoL 2000, 2006, 2010c), the National Growth and Poverty Eradication Plan (GoL 2004), and the Forest Strategy for the Year 2020 (GoL 2005). The principal policy intervention used was the Land Use Planning and Land Allocation (LUP-LA) program. Its main aim was to implement land-use zoning in villages by designating specific areas for use or protection using a primarily top-down approach. The main purpose of designating land in this way was to reduce shifting cultivation fallow periods in upland areas, thus eradicating the centuries-old practice of swidden agriculture (Lestrelin 2009). At the same time, the state sought to strengthen its land claims by issuing land-use certificates–a form of land rental contract. In many cases this was the first time that villagers recognized the state as the owner of their land.

Reviews of the LUP-LA program have highlighted numerous shortcomings, regarding both the process and the impact of implementation (Ducoutieux 2005; Barney 2007; Fujita & Pengsopha 2008; WB 2008; GoL 2009; Lestrelin 2009). Limited government capacity, time and resources to implement the LUP-LA program meant plans were often of poor quality, not conducted in a participatory manner and, in some cases, fabricated conflicts between villages. Reducing the amount of available agricultural land, while intensifying population pressures through village relocations, resulted in less land security, increased food shortages and increased environmental degradation. Reducing and rezoning the amount of village agricultural land also permitted local governments to redistribute "non-productive" land for commercial plantations.

The outcomes of the LUP-LA program and experiences of villages affected by commercial interests demonstrate clearly how land security has been an issue for communities in Lao PDR in the past. This raises a red flag when considering the larger policy shifts and possible commercial implications that will accompany a REDD+ mechanism and whether such changes might result in even greater land insecurity for local communities in Lao PDR.

Improving Land Security under the NEPL REDD+ Project

The NEPL REDD+ project anticipates reducing forest based carbon emissions and improving land security through a variety of activities with villages in the CUZ that have undergone a process of free, prior and informed consent. These activities include land-use zoning, planning and titling; sustainable agricultural extension; capacity building in the areas of land and resource rights; increased enforcement activities against illegal logging and the establishment of forest conservation agreements.

Land-use planning under the NEPL REDD+ project will be conducted according to the guidelines of the GoL's recently published Participatory Land-Use Planning (PLUP) manual (GoL 2010a). This new manual recognizes the many limitations of the LUP-LA program. It outlines a nine-stage, bottom-up process that greatly increases the participation and input of local communities in land-use planning. PLUP implementation has thus far been limited to a few donor-led initiatives and its long-term impacts cannot be assessed at present. However, the participatory nature of PLUP is a significant departure from the LUP-LA approach and if implemented as written should result in several improvements.

Firstly, participatory boundary demarcation processes under PLUP will resolve boundary conflicts that existed either historically or due to the poorly implemented LUP-LA program – a first important step towards ensuring land security. Secondly, it is anticipated that village participation in the PLUP process will result in more realistic land allocations and land-use plans than

under the LUP-LA program. Such plans will take into account the actual agricultural needs of communities. It should be noted, however, that while many donor-led initiatives seek to move beyond the limitations placed on agricultural land allocation by the Land Law, uncertainty remains over the extent to which government led initiatives may use PLUP to continue to curb the amount of area for upland agriculture. Nevertheless, active participation in land-use planning is more likely to enhance communities' sense of ownership of their PLUP plans and thus the likelihood of being enforced. Furthermore, clear and documented plans outlining permissible activities in each zone can be consulted in cases of dispute with outside parties, including government. Finally, PLUP establishes village-level monitoring teams that empower villagers to be more vigilant of land-use within their village zones and reduce the risk of outside exploitation.

The PLUP manual stipulates that two types of land titling are possible in rural villages: individual or communal. Individual titles are granted consistent with the Land Law and are most likely to occur in areas such as paddy fields or orchards. Communal titles, on the other hand, are granted on forest lands zoned as village sacred land, village use forests and communal grazing and agricultural lands. Communal titles, however, cannot be granted for village protection forests, village conservation forests and unexploited forest land, all of which remain under the ownership of the state. Therefore, while communal titling will improve land security in some village areas, the lack of communal titling for all village forest areas remains a possible source of risk under a REDD+ mechanism. Not only will these areas be at greater risk of appropriation by government or commercial interests, but it reduces the potential forest area over which villages can claim carbon ownership.

PLUP plans are not considered official until they are approved by the relevant district governor, a government position with relatively little political power. This gives these documents a low legal recognition and may be of little consequence in the face of higher level government approvals, e.g. for agricultural, mining or hydropower concessions. To further ensure land security for these communities', efforts should be made to bolster the legal standing of PLUP plans in future revisions of the Land Law.

Beyond PLUP, the NEPL REDD+ project aims to implement three additional mitigation activities that should have positive impacts on land security. Firstly, the project will provide agricultural extension activities such as biochar, no-till agriculture, crop diversification, minimization of soil erosion and small livestock production. While these techniques have not always proven successful in Lao PDR, done in combination and along with appropriate technical assistance, it is expected they will contribute towards a decreasing need for communities to expand the agricultural frontier. More importantly, it is hoped that the increased time and financial investments made to improve agricultural practices will result in villagers taking a more active role in managing and monitoring their land, further encouraging them to secure their rights to their land.

Secondly, the NEPL NPA anticipates entering into conservation agreements with villages in the CUZ. Under these agreements, conditions will be outlined under which villages will receive financial compensation for reducing their village baseline rates of deforestation. Performance payments and possible penalties for under-performance will be agreed upon during the free, prior and informed consent process. How project revenues will be distributed is still under discussion and will in large part be determined by decisions that will be made by the GoL REDD+ Taskforce. Nevertheless, it is hoped that REDD+ financial incentives will encourage villagers to take a more

active role in land-use planning, management and monitoring, further empowering them to improve their land security.

Thirdly, to address communities' limited understanding of their land and resource rights the NEPL REDD+ project will conduct outreach activities to increase village capacity in these areas. For example, lawyers will present training courses outlining relevant laws and tenure rights of communities. Improved understanding should encourage greater engagement and allow villages to make informed decisions about land use, especially if their land rights are being impinged upon.

Further Ensuring Land Security for Local Communities During REDD+ Implementation

It should be noted that the REDD+ approach explained above pertains to a specific project that seeks to generate credits for sale in voluntary carbon markets. While lessons learned from this project will be considered during the development of the national REDD+ strategy and framework, there is no guarantee that this project's approach will be adopted by the GoL under a national REDD+ mechanism. The Climate Community and Biodiversity (CCB) standards require that community livelihoods and land security be integrated into a project's design from the earliest stages. The extent to which these issues are addressed in a national REDD+ framework will in large part depend upon the outcomes of the ongoing safeguard debates under the UNFCCC. A weak agreement on safeguards could result in national level standards with low requirements for the consideration of forest-dependent communities.

The NEPL REDD+ project plans to use PLUP as its main tool to strengthen village tenure claims and land security. However, PLUP is only a process that results in land-use plans and the titling of certain lands. While this will go some way towards increasing land security, there are still a number of factors to be considered to better ensure tenure rights for villagers. These are elaborated below and are equally applicable to the NEPL REDD+ project and a future national REDD+ framework.

Ensure titling of all collective lands

There is currently scant experience with the issuance of communal titles. To date this has been limited to cemeteries, spirit forests or other sites adjacent to village areas of little interest for REDD+. Instead, the titling of communal agricultural and forest areas should be prioritized as these are areas of high relevance for REDD+. Not only are they the most likely to be the subject of future deforestation but they are crucial to ensuring community livelihoods. Granting title to communal lands will foster a greater sense of community ownership and increased likelihood of protection. Needless to say, communal titles will need to be respected by the appropriate legal bodies in order to be effective.

As mentioned previously, the PLUP manual specifically states that village protection forests, village conservation forests and unexploited forest lands cannot be issued communal titles. This remains a source of risk for communities with regards to REDD+ implementation as authority for these lands remains with the state. Not only will it be harder to assign carbon rights to communities for these forest areas (see below) but they may also become the target of top-down policy interventions, potentially to the detriment of local communities. In this regard, extending communal titling to all village forest areas would help mitigate this risk. This will, however, require a considerable review and revision of land and forestry laws and is unlikely to occur in the short-term. More immediately, it may be possible to include these areas under the project's conservation agreements. However whether the government

will accept to forego some portion of the carbon claims to these areas remains to be seen.

Conflict resolution process

Linked to the issue above is the need for effective government channels through which communities can lodge complaints against outside appropriation of their lands. This should empower communities to exert control over their lands and improve their land security. It may prove difficult, however, where local or provincial governments are often the catalyst for the appropriation. In these cases, an independent monitor or resource external to the relevant government agency will be required through which these complaints can be made and subsequently brought through the appropriate government channels.

Clarification of carbon rights

Currently no laws or regulations exist that clarify the legal rights to carbon in the forest areas of Lao PDR. For example, within the NPA a complex picture emerges with various stakeholders that could, in theory, be considered as the rightful owners. This includes local communities, provincial and district agriculture and forestry offices, the national Department of Forestry, or even the Ministry of Agriculture and Forestry. Furthermore, clarification is required as to whether a communal title to a forest area also grants the title holder the right to the carbon. In cases where a communal title is given to a village that sits within a NPA's CUZ, questions arise as to whether carbon ownership would remain with the NPA or the community. Similarly, whether carbon rights can accrue to communities for forest areas that fall within their village boundary but remain under ownership of the state, i.e. village protection or conservation forests, also needs to be clarified. The ultimate owner of these carbon rights and the related regulations on how these rights can be transferred or sold will strongly influence who will seek access to these lands, how they are managed and ultimately the security of those whose livelihoods are linked to these lands. How rights are allocated is also an important factor when determining how REDD+ distribution mechanisms will be designed and the extent to which communities will benefit from REDD+. A poorly designed distribution mechanism could easily result in REDD+ finance being captured at the central level while communities incur all the liabilities for actually reducing deforestation.

Conclusion

Weak land tenure claims, poor governance and strong commercial pressures have historically been a source of land insecurity for rural communities in Lao PDR. The NEPL REDD+ project aims to address this issue by delivering a diverse set of incentives at the village level (land use planning and titling, agricultural extension, conservation agreements and land rights training) that have the potential to concurrently reduce deforestation and improve land security. Delivering community benefits is a pre-condition for certification under the CCB standards, which encourages projects to consider community land security from the earliest stages of project design. Whether a national REDD+ framework will take a similarly progressive approach towards community land security remains to be seen. In this regard, existing REDD+ demonstration projects should play an important role in informing the design and implementation of the national REDD+ framework. Successfully demonstrating that improved community land security can deliver on REDD+ goals will reduce the risks of REDD+ implementation for local communities. In addition, advocacy for communal title expansion, clarification of carbon rights, establishment of an effective distribution mechanism and development of official channels to deal with land-use conflicts will further minimize implementation risks.

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9

An Analysis of Structural Impediments to Landowner Participation in Ecuador's Socio Bosque Program

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Abstract

In the Paute River Basin of south-central Ecuador, a series of regional and internationally important environmental and economic values converge. The watershed is home to the largest hydroelectric generation system in Ecuador and also considered an epicenter of biodiversity within the Tropical Andes hotspot. In late 2008, Ecuador launched a national payment for the protection of environmental services program: Socio Bosque (¨forest shareholder¨) to protect priority ecosystems like these. Following its first two years of operation, however, marked differences in participation exist, suggesting that the structure of Socio Bosque favors the participation of indigenous groups with government-awarded land titles, while denying participation to many mestizo landowners, irrespective of ecosystem services conserved. Similar carbon-based programs, like Reduced Emissions from Deforestation and Forest Degradation (REDD+) should draw lessons from the experience in the Paute River Basin where irregularities in provincial land titles curtail landowner participation. Such programs may confront similar heterogeneous land titling practices, which ultimately limit landowner recruitment and participation.

Introduction

In the Paute River Basin of south-central Ecuador, a series of regional and internationally important environmental and economic values converge. The watershed, with an estimated 900,000 inhabitants, is home to the largest hydroelectric generation system in Ecuador (Figure 1). Scientists also recognize this area as an "epicenter of biodiversity" within the Tropical Andes hotspot, hosting endangered and threatened wildlife and flora (Birdlife and Conservation International, 2005; Mittermeier et al., 2004, The Nature Conservancy et al., 2005; Mast et al. 2000). This overlap of economic interests and ecosystem values provides an ideal laboratory for the implementation of a payment for the protection of environmental services program.

In late 2008, Ecuador became the third Latin American country to launch a national payment for the protection of environmental services program: Socio Bosque (¨forest shareholder¨) following experiences in Costa Rica and Mexico.[1] The program provides a per hectare economic incentive to landowners who possess a legal land title and agree to conserve native ecosystems for a period of twenty years. On its surface, Socio Bosque is an attractive conservation tool for provincial governments and non-governmental organizations in the Paute River Basin. However, despite accepting all interested and qualified applicants during its first two years, less than 0.75 percent of total area participating in Socio Bosque is found within the Paute River Basin (Programa Socio Bosque 2011).

Nationwide the principal factor limiting participation in Socio Bosque relates to land titling, an issue creating program winners, those with approved land titles that are allowed to enroll, as well as losers, who are denied participation due to lack of land title or incomplete land title, irrespective of priority level or environmental service conserved. Current rules curtail the participation of many mestizo property owners who, in some cases have no title, and in others purchased their land *ad corpus*[2] without an accompanying property map, making these properties incompliant with Socio Bosque standards. Those with government-awarded land titles, principally indigenous groups, are the program´s primary beneficiaries.[3]

The implementation of this program in the Paute River Basin offers preliminary insights on structural challenges that may arise in similar environmental services programs elsewhere: the inability to process or resolve problems related to incomplete, competing or overlapping land titling claims; the challenges of enrolling areas of high conservation value; and the recruitment and retention of rural landowners. The resulting disqualification of many rural forest owners in the Paute River Basin provides program designers critical feedback, suggesting that land titling, rather than service value, may be the principal criteria for program inclusion. Similar conservation programs, like Reduced Emissions from Deforestation and Forest Degradation (REDD), may confront similar challenges of landowner recruitment and participation and should draw lessons from this case.

Socio Bosque: The design of a new conservation tool

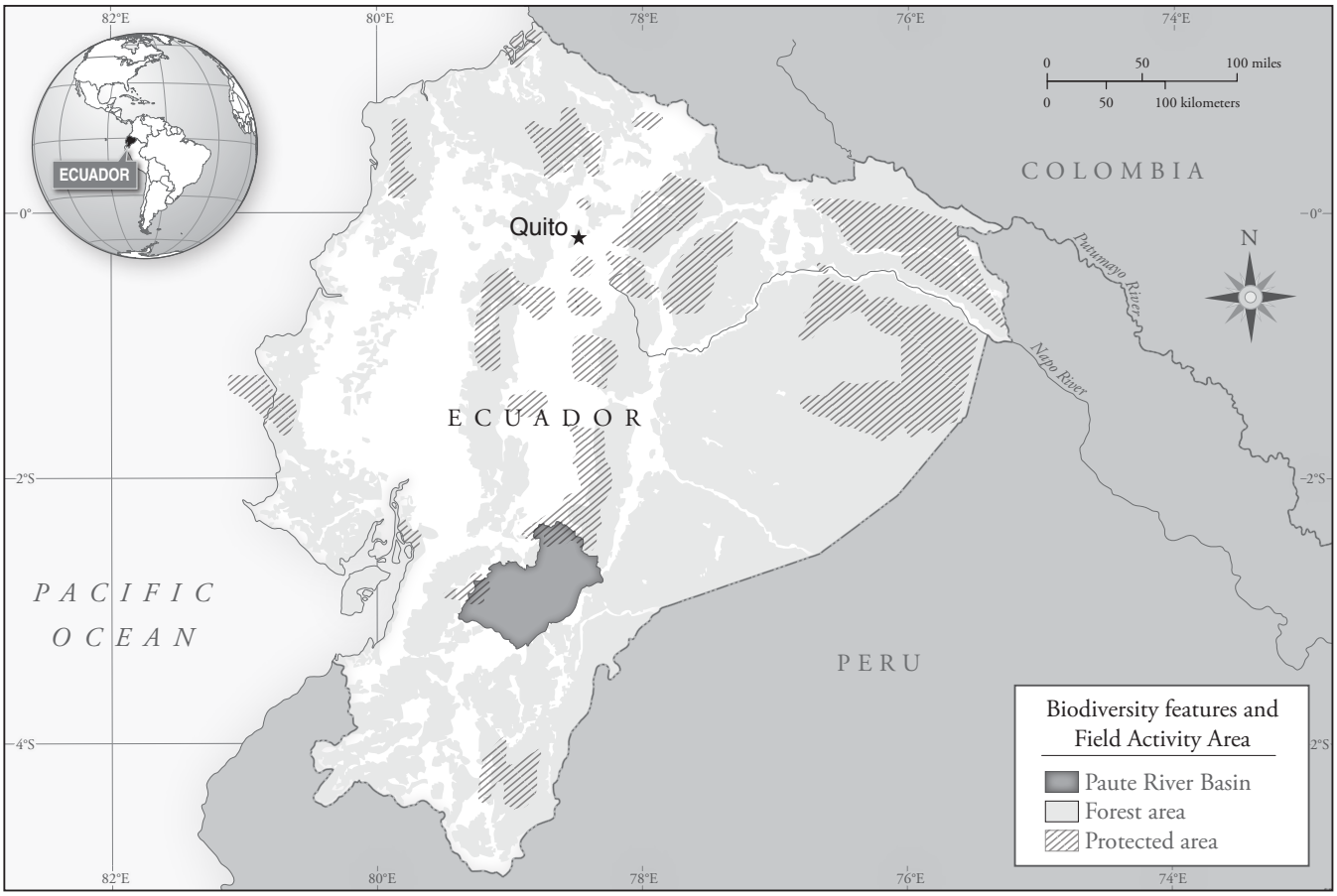
The Ecuadorean Ministry of Environment launched Socio Bosque, a public payment for the

1 Socio Bosque markets itself as an economic compensation for conservation actions and explicitly avoids all reference to the concept of payment for environmental services. However, it shares many characteristics with other payment for the protection of environmental services programs in Mexico and Costa Rica and the differences between Socio Bosque and similar programs appear to be principally semantic.

2 Known in Spanish as ¨cuerpo cierto¨.

3 The Ecuadorian Institute of Agrarian Reform and Colonization (IERAC by its Spanish initials) officially awarded land titles to all indigenous groups in the 1980s and 1990s, completing individual georeferenced maps and registering each property with its local municipality.

Figure 1: Map of Paute River Basin in Ecuador



University of Wisconsin Cartography Lab

protection of environmental services program (per Wunder 2005), in late 2008. The program aggregates local supply and demand for environmental services, e.g. hydroelectric production, water consumption, or biodiversity conservation, under a single national umbrella. The Constitution regulates the ¨production, provision and use¨ of all environmental services to the State; in practice, this decision led to the consolidation of all payment for the protection of environmental services efforts within the overarching Socio Bosque program, eliminating opportunities for the development of regional initiatives that might naturally form between upstream and downstream users (Ecuador 2008, Article 74).

The program aims to enroll 3.6 million hectares of native landscapes and benefit between 500,000 and 1.5 million rural landowners by 2015 (Ministerio del Ambiente 2008 and Ministerio del Ambiente 2009). An annual government appropriation funds the Socio Bosque program, differentiating this program from some of its analogues who assess green taxes to cover program costs. In the future, the program aims to enroll participating lands in international carbon markets and capture additional funds from the sale of Reduced Emissions from Deforestation and Forest Degradation credits (REDD), eliminating the reliance on internal and donor funding. A cohort of experts established a $30/hectare conservation opportunity cost for all participating land covers that would be further scaled to total participating area. For example, a 150 hectare parcel would earn: $30 x 50 hectares + $20 x 50 hectares + $10 x 50 hectares, for a total of $3000 per year (Table 1).

Participation is voluntary and open to all individual or communal landowners with native land cover and a legal land title. Although the program accepts applications from all interested landowners, it aims to allocate contracts based on three criteria: threat level, environmental service provision, and poverty, assigning the first two variables the highest weights, nearly double that awarded to the third variable (Ministerio del Ambiente 2008a). Admittedly, incomplete baseline information frustrated targeting. Nevertheless, the resulting priority map designates 40 percent of the Amazonian region as high priority compared to just 27 percent of the Coast and Sierra, respectively (ibid).[4]

Table 1. The Socio Bosque program pays landowners per hectare conserved, with a greater number of hectares conserved receiving a lower price paid per additional hectare.

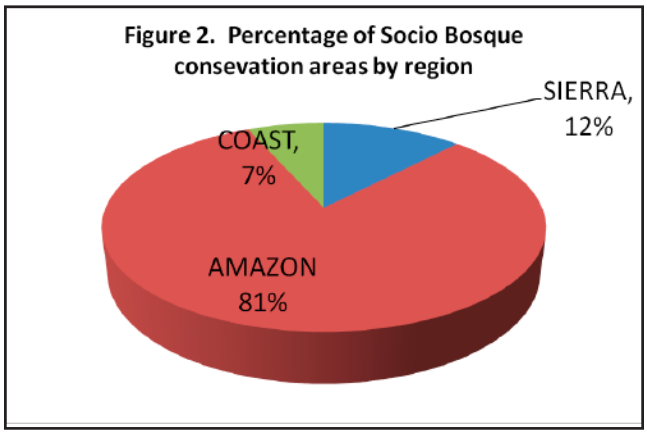
Number of Hectares		Price per hectare
1	50	$30.00
51	100	$20.00
101	500	$10.00
501	5,000	$5.00
5,001	10,000	$2.00
10,000		$0.50

In the lower Paute River Basin, Socio Bosque supplanted the launch of a local upstream/downstream payment for the protection of environmental services program between rural forest owners and the downstream hydroelectric company. The local program aimed to conserve privately owned tropical montane forest and páramo ecosystems that captured, stored and released water used by the country's largest hydroelectric project. The targeted participants included indigenous Quichua communities and mestizo landowners, all of whom practice small-scale cattle ranching. In this region, individual landowners own an average of 50-1000 hectares, while communities have title to significantly larger areas covering anywhere from 2000-10,000 hectares.

The local program responded to the ongoing threat posed by the conversion of these montane forests and páramo ecosystems to agricultural and pastoral uses and the corresponding future degradation of hydrological services (Fundación Cordillera Tropical 2009). Ultimately the local program aligned closely with Socio Bosque's stated conservation objectives, facilitating the adoption of Socio Bosque program in mid-2009.

Program participation in the Paute River Basin

Independently funded non-governmental organizations partnered with Socio Bosque to assist priority populations with their applications. The partnerships developed organically given that Socio Bosque priorities aligned closely with those of regional conservation initiatives found throughout the Choco-Darien and Tropical Andes hotspots. Together they have achieved the successful inscription of 837,492 hectares nationwide in 1,208 contracts (Programa Socio Bosque 2011). Participation rates, however, vary widely by region (Figure 2).



Cañar Province in the lower Paute River Basin represents only 0.15 percent of total area participating in Socio Bosque, despite a partnership with a local non-governmental organization

[4] The remaining 6 percent of lands are found within existing protected areas and designers did not analyze those within this analysis.

that generated 5,286 hectares of pre-applications (Programa Socio Bosque 2011). Land titling irregularities limited participation to 617 hectares belonging to 11 property owners, and denied participation to over 3,100 hectares. Following a two year delay, land owners rescinded 1,587 hectares from further consideration due to their losing confidence in the program's ability to comply with its stated commitments. In summary, while Socio Bosque ranked 30 percent of the Paute River Basin as ¨high priority¨, and a local non-governmental organization aided outreach and applicant pre-enrollment, the program approved a mere 11percent of pre-enrolled hectares contributing to only 0.15 percent of total enrolled area programwide.

Implementation challenges: Regional land tilting practices do not meet national norms

The systemic disqualification of many rural forest owners in the Paute River Basin points to a structural bias that may influence participation, essentially barring participation of certain landowners irrespective of potential service value protected. A June 2010 report found that land titling constitutes the principal factor limiting participation in Socio Bosque throughout Ecuador, confirming observations from the Paute River Basin (Bustamante and Alban 2010). Similar to other tropical countries, land titling in Ecuador is incomplete and partial with consistent irregularities between provinces as well as between indigenous and mestizo landowners. Environmental lawyer Manolo Morales explains that the system is a relic of the 1960s and 70s Agrarian Reform movement,

¨From that period to the present, the problem of land tenure security becomes evident, marked by judicial insecurity produced by the contradictions and inconsistencies in the distinct legal frameworks, the absence of a efficient mechanism for land legalization and land cadastres, and the presence of possession conflicts [between two landowners] that many times received [overlapping] land titles from the same agency, the Ecuadorean Institute of Agrarian Reform and Colonization…¨.[5]

This insecurity and confusion is manifest in the Cañar Province where the majority of titles use the term ¨*ad corpus*¨, which although legally sanctioned by Ecuadorian law for use in places with extreme topography and difficult access, is not accepted by Socio Bosque. Typically an *ad corpus* property title will make reference to the physical boundaries of the titled land, e.g. the southern edge is bounded by a certain river, but it does not include a georeferenced property map. The result is that while mestizo landowners have legally purchased, registered, and paid taxes on their individual properties, provincial land titling practices do not comply with national standards. In contrast, government adjudicated land titles exist throughout most indigenous territories and readily comply with program requirements. The program's rules place an unfair onus on individual landowners, asking them to correct past errors of provincial leaders who either incorrectly or incompletely complied with national titling standards, or have not yet been able to comply with newly established ones.

Can extra judicial support increase the number of participating landowners in the Cañar Province?

Local non-governmental organizations sought to identify legal alternatives that would allow the participation of forest owners holding an *ad corpus* title, arguing that structural limitations should not preclude program participation given the region's strategic national importance in the protection of hydrological services. However,

[5] *Desde aquella época hasta la presente, se hace evidente el problema de la seguridad en la tenencia de la tierra marcada por la inseguridad jurídica producida por las contradicciones e inconsistencias en los distintos marcos jurídicos, la ausencia de un mecanismo eficiente de legalización y catastro de tierras, y la presencia de conflictos de posesión de los predios muchas veces adjudicados por el mismo IERAC (Morales, M. et al. 2010:12)*

Ministry of Environment lawyers rejected what may have been the most attractive legal alternative that would, in theory, have permitted greater local participation: a field measurement of the property with the landowners and his/her neighbors using a handheld Global Positioning System (GPS) unit later accompanied by a sworn affidavit affirming that the accompanying topographic map represents the land area that belongs to the given property owner. In other instances, this process has been used to successfully clarify land boundaries, proving to fit well within the national legal framework as well as respond to individual landowner needs; however, Ministry of Environment lawyers confirm that this option does not meet Socio Bosque standards.

The remaining legal options are onerous, requiring lawsuits and significant expense, effectively disqualifying either option from serious consideration. The judicial department of the Ministry of Environment will accept *ad corpus* property titles in two cases, both equally improbable in the short-term: if accompanied by a cadastre, or if a landowner seeks a court's legal ¨interpretation¨ of the property.[6] The Cañar Province of Ecuador is similar to other rural regions throughout the country which lack a cadastre that would provide a map of all known property holdings in the region. Cadastres may cost upward of $500,000 and fall outside the purview of local conservation groups. The other option, an ¨interpretation¨, requires the landowner to file a lawsuit to define his/her property boundaries. A judge then orders a court-appointed surveyor to field-measure the property. The resulting map is later incorporated into the land title. Local environmental lawyers with the Corporation of Environmental Law and Administration[7] caution that the ¨interpretation¨ process may last two to three years and incur significant expense. Independent local research estimates costs upwards of $3,000 to map a 50 hectare parcel independent of legal fees, more than the average annual income of many rural landowners, confirming initial observations.

Other alternatives could consider increased legal support or institutional strengthening of agencies charged with land titling, however, these options are difficult given Ecuador's rapidly changing legal terrain. In mid-2010, the Ecuadorian government dissolved the national land titling agency in response to charges of wide-spread irregularities. These changes may create a future legal atmosphere that more aptly responds to individual landowners and or collective actions led by non-governmental organizations; however, in the short-term these changes muddle any local efforts to identify a viable legal resolution.

Lessons from the field: Incorporating bottom-up ideas into future REDD+ program design

A national REDD+ program elsewhere in the tropics may confront many of the same challenges as Socio Bosque. Given the growing interest in REDD+ and its accompanying mandate to enroll high-risk forest parcels, those that are frequently owned by rural mestizo land owners as well as indigenous groups, the following preliminary insights aim to strengthen future program design.

1. Local initiatives may confer valuable lessons and should be encouraged. Often, local groups maintain a detailed knowledge of the local landscape and can capably recruit high priority lands for program participation as well as respond quickly to potential barriers. Reliance upon a bottom-up structure, such as sub-national REDD+ programs, to inform national REDD+ program design could aid the identification of future participation barriers and viable site-specific resolutions.

[6] In Spanish, this action is referred to as an *¨aclaratoria¨*.
[7] Also known as the ¨Corporación de Gestión y Derecho Ambiental (ECOLEX)¨ in Spanish.

2. Planning for a national REDD+ program should assess institutional readiness – that of municipalities, courts, and all institutions involved in land titling – to avoid issuing individual edicts that run counter to conservation and enrollment objectives. In a place like Ecuador with a long history of land titling conflicts and relatively weak institutions, a one-size-fits-all approach to new conservation policy development has been inadequate.

3. Programmatic flexibility will be critical to the long-term success of any REDD+ program. If the ultimate goal is to protect highly threatened forest carbon reserves, it may be of no use to create a national deforestation threat map if high risk/priority regions lack land titles or manifest title irregularities, ultimately preventing landowner participation in the REDD+ program. Program rules must favor immediate ecosystem protection, and also create mechanisms by which to normalize land titling. The case of the Platanar watershed in Costa Rica provides a potential model; there, the national payment for environmental services program, (known by its Spanish initials as FONAFIFO), developed a special framework that capably protected the region's hydrological services in a region with few legal land titles. When program officials found that the lack of legal land titles limited participation to as little as 12% of the Platanar watershed, they partnered with the hydroelectric company Plantanar S.A. to create a "differentiated payment" for landowners without titles in the Platanar watershed who agreed to conserve area forests (Pagiola 2002 and Mendez Gamboa). The payment was less than the price per hectare paid by FONAFIFO and meant to assist landowners in obtaining a legal land title and transferring their participation to the national initiative. The payment ostensibly helped the company guarantee the protection of forests and their related hydrological services in the short-term, while ensuring that landowners had the necessary capital to obtain a land title in the medium-term. This Costa Rican model provides a clear example of the flexibility that future REDD+ programs may require.

Conclusion

In conclusion, a national environmental services program, like Socio Bosque or a future national REDD+ program, may be an effective conservation tool to conserve critically important ecosystems and their services. A national program confers many advantages. It may lower overall transaction costs (those related with program administration, outreach, and monitoring). However, the case of Socio Bosque suggests that national initiatives, in contrast with their regional peers, often struggle to effectively respond to heterogeneous social and environmental landscapes. In the case of the Paute River Basin, a strong case exists for the conservation of environmental services, but currently land titling irregularities preclude the majority of local participation. Better planning, more flexible program rules and incorporation of bottom-up ideas could strengthen this and future initiatives.

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10

Efforts to Secure Indigenous Communal Land Rights in Northwest Ecuador—A Vital Foundation for Direct Incentive Forest Conservation Programs

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Abstract

Many of the world's most carbon and biologically rich forests are actually managed by local and indigenous communities who live in these forests and derive their livelihood from them. Rewarding these communities for conserving forests and their associated ecosystem services is often a more effective conservation strategy than relying on thinly-stretched state institutions to monitor and protect these forests. However, identifying whom to reward and

determining how to enforce and monitor PES or direct incentive contracts requires understanding who controls a particular forested area. This case study from a forested region of Ecuador offers lessons about delineating land ownership by indigenous peoples and the importance of strengthening local land and forest governance institutions. The site offers challenges common to other remote forest areas: locally rooted conflict involving claims on land between different ethnic and social groups as well as externally rooted conflict and interventions. The case shows that resolving conflict and improving tenure security is possible, albeit a complex, time-consuming process. Moreover, our case suggests that some communities consider entering direct incentive forest conservation schemes as a means to improve their land tenure security.

Introduction and Background

Many of the world's most carbon and biologically rich forests are found in areas where land ownership is unclear or contested. In Latin America, although a high proportion of forested land is legally owned by the state, a large portion is actually managed by local and indigenous communities who live in these forests and derive their livelihood from them. Rewarding these communities for conserving forests and their associated ecosystem services is often a more effective conservation strategy than relying on thinly-stretched state institutions to monitor and protect these forests. As a result, payment for environmental services (PES) and direct incentive programs have been implemented or proposed within the vast forests within indigenous territories, particularly in South America.

Identifying, however, whom to reward and determining how to enforce and monitor PES and direct incentive contracts requires understanding who controls a particular forested area. Most communities do not hold legal title to their lands; in addition, conflict among communities with regard to boundaries and land use are frequent. Yet PES and direct incentive programs usually require that a community (or group of communities) hold legal title to its land. Another special challenge is that of collective action—if contracts are to be met, communities must have sufficiently strong internal norms and capacity to enforce conservation measures.

This case study from a forested region of Ecuador offers lessons about delineating land ownership by indigenous peoples—in this case the Chachi—and the importance of strengthening local land and forest governance institutions. This forest ecosystem is a place of extraordinary species richness (Ganzenmüller et al. 2010) and rapid deforestation (Sierra 1999). The site also offers challenges common to other remote South American forest areas: locally rooted conflict involving claims on land between different ethnic and social groups, as well as externally rooted conflict and interventions. The question of legal legitimacy also surfaces, namely that national law did not initially offer Afro-Ecuadorians the same authority and access to communal land as indigenous peoples. The case shows that although resolving conflict over land claims is a complex, time-consuming and highly political process, it is possible to do so and it is essential for any PES or direct incentive project. Our case study also suggests that there may be reverse causality occurring in that some communities enter into PES or direct incentive schemes to improve their land tenure security. The early experiences at this site suggest that direct incentive programs may be challenged both by external threats to local land tenure as well as collective action and that it may be difficult to distinguish these tenure problems. This ambiguity creates challenges for assigning liability for deforestation and broken commitments. Finally, the case shows that securing tenure is not a one-shot intervention; rather, periodic support and follow-up are necessary and will yield benefits beyond specific projects. (See Appendix 1 Timeline at end of chapter)

Formalization of Community Forest Land Rights

The Chachi people have resided in the coastal forests in the Colombia-Ecuador border region since at least the early 1800s (DeBoer 1995), together with Awa and Afro-Ecuadorian ethnic groups. This was a relatively remote region until the second half of 20th century when economic activities increased and land conflicts surfaced. By the late 1980s, these conflicts escalated, particularly between Chachi and Afro-Ecuadorians. A wave of loggers and agri-business enterprises (oil palm plantations and shrimp farms) bought, leased or sometimes stole land from both Chachi and Afro-Ecuadorians (Morales Feijóo 2002). Both ethnic groups claimed the other was trafficking in land that belonged to them.

In 1992, the Esmeraldas Federation of Chachi Centers (FECCHE) began seeking formal recognition of land rights for a number of Chachi communities grouped into "Centros" (centers) in northwestern Esmeraldas region whose lands had not yet been titled.[1] In the Eloy Alfaro cantón (municipality), where many of the Chachi Centers are concentrated, Afro-Ecuadorians opposed the titling process contending that the land was also theirs.

Project SUBIR: Biodiversity Protection and Land Rights Formalization

During the same period Ecuadorian and international environmentalists who were concerned about rapid deforestation in the area and began to develop plans to improve land use planning and promote sustainable forest management, particularly in and around protected areas. In the early 1990s, the project SUBIR (Sustainable Uses for Biological Resources), a US$15 million project funded principally by USAID, began working around the Cotacachi Cayapas Ecological Reserve (RECC). Patterned after other conservation initiatives of the time, SUBIR used an approach designed to integrate conservation and development objectives and promote economically, ecologically, and socially sustainable forest management (Zambrano Mendoza 2002).

After an exploratory design phase, SUBIR project leaders agreed that a key first step was to delineate and formalize the land rights and boundaries of local communities, thus a legal and policy component was added to the project. In 1994, the project entered a formal agreement with the Chachi and Afro-Ecuadorian communities to title their lands, an area of approximately 750,000 hectares, much of it forested (Zambrano Mendoza 2002). The SUBIR land initiative designed an approach centered on training and supporting local paralegals selected by the Chachi and Afro-Ecuadorian communities, particularly from those communities involved in boundary conflicts. Paralegals serve as intermediaries between their communities and government agencies in legal processes. For that purpose, the 30 Chachi and Afro-Ecuadorian paralegals for this area[2] were trained in the legal aspects of land rights and natural resource management, as well as community organization, including conflict mediation techniques and conflict management (Morales Feijóo 2002). Training emphasized that paralegals should be objective and neutral in order to decrease disagreements between the conflicting parties and to arrive at agreements beyond legal and cadastral dispositions. Training was carried out in the field over a six-month period and cost, on average, US$2,000 per paralegal. After training, paralegals were paid

[1] Much of the Chachi land in Esmeraldas had been titled by IERAC, the government agency with jurisdiction over land reform and settlement. IERAC was replaced with INDA (Instituto Nacional de Desarrollo Agropecuario) in 1995. A consortium of logging companies and an NGO (Fundación Natura) were also involved in assisting three Chachi Centers to obtain community titles to their lands during this time (Rival 2007). There are a total of 28 Chachi Centers in the province of Esmeraldas; those that had land conflicts with Afro-Ecuadorian communities had not been titled.

[2] Under SUBIR a total of 192 paralegals were trained in Esmeraldas and the other SUBIR project sites. Very few women (none in the Chachi area) were selected by local leaders for paralegal training (Zambrano Mendoza 2002).

the going day-rate in the area (US$6.00) and were eligible for membership in the social security system. Their community president approved and signed off on their monthly timesheets.[3]

Conflict Mediation and Land Titling

Paralegals worked with the Chachi and Afro-Ecuadorian communities, mediating conflicts between them and preparing the primary land titling document to present to government agencies. When SUBIR began, national legislation did not recognize the ancestral land rights of Afro-Ecuadorian communities—only indigenous groups could claim ancestral rights—until 1994 when the right was extended to Afro-Ecuadorian communities.[4] An equally challenging issue for the titling effort was the attitude of the Chachi community leaders, who initially did not want to meet with their Afro-Ecuadorian counterparts to discuss their land conflicts. In essence, the Chachi felt that the Afro-Ecuadorians did not have the same ancestral rights as they did. Thus, one of the first tasks of the paralegals was to promote communication and respect between the two groups. This process emphasized the equal rights of both Chachi and Afro-Ecuadorian peoples to claim ancestral access to their land.

Resolving boundary conflicts lasted nearly two years and required engagement by Ecuadorian experts with formal legal training as well as the day-to-day assistance of the paralegals. Sketch maps [5] made it possible to graphically identify problems. Boundary disputes were discussed multiple times and positions entered in written records. The paralegals accompanied community leaders in the field-mapping inspections in order to arrive at a definitive agreement regarding boundaries. Finally, the primary land titling documents for the communities were drawn up and submitted in 1995, allowing for the adjudication of land rights to the Chachi Centers and Afro-Ecuadorian Associations.

Once the inter-community negotiations regarding boundaries ended, the paralegals and 17 local cadastral technicians[6] undertook a planimetric survey utilizing GPS and drew up a memorandum of understanding in each community. These memoranda were reviewed in a general assembly within each community in the late 1990s (Morales Feijóo 2002). The survey indicated the territorial boundaries for each Chachi Center and Afro-Ecuadorian Association. A Plan de Manejo (Management Plan) was subsequently drawn up for each Center and Association that mapped out different land use zones: a managed-use community forest area, a reserved community forest area, and area for individual agriculture. Use rights to these agricultural parcels were recognized and enforced according to customary tenure rules, such as the right to pass them on to heirs. These Management Plans were discussed and agreed on by the entire community in general assembly according to the cultural practice among the Chachi and the Afro-Ecuadorians, not by local forest management committees. These agreements recognized the cultural aspects and issues surrounding the relations between the land and its people. For example, the ancestral ceremonial areas in some Chachi Centers were respected and designated as cultural spaces in the zoning and mapping exercise.

The maps created by the paralegals were verified by a geographer who used them to draw up the delineation map and report for the official adjudication records. This record was presented to National Institute of Agrarian Development (INDA) officials who verified and approved the record. The project assumed all cost of the fieldwork for INDA verification and approval

[3] Paralegals also had access to a motorized canoe and fuel for transportation and a food allowance.
[4] The *Ley de Desarrollo Agrario (*Agraian Development Law) passed towards the end of 1994.
[5] These maps (*mapas parlantes*) are drawn using participatory and consultative methods and different communication strategies, providing information that raises awareness and publicizes ethnic diversity (Radcliffe 2010).
[6] SUBIR trained 17 cadastral technicians from the two municipalities and local government agencies.

which included logistical expenses for INDA personnel and drawing up of maps and reports. The INDA approval process for each group of communities took approximately 12 months.[7]

An important result of this effort is that whereas previously the government titling agency (perhaps with the collaboration of an NGO) was solely in charge of the titling process, a precedent was established for local paralegals to take a key role in adjudicating and legalizing ancestral rights to forest land (see box below). With the involvement of local paralegals, conflicts were more effectively managed and local tenure rules were understood and respected. Such local 'buy-in' was all the more important given the weak capacity of state agencies to control forest use in the region.

Process for Legalizing Indigenous & Ethnic Lands

An important outcome of the titling effort with paralegals is that a process for consolidating, adjudication, and titling of community land was established:

- Selection and training of paralegals
- Collect and confirm the territorial information (extension, boundaries, characteristics) and cultural information of the residents regarding their territory (e.g., natural resource management practices, decision-making process)
- Evaluate the strength of local organizations and institutions
- Cartographic survey of boundaries
- Conflict management between communities
- Boundary marking
- Design a strategy for defending territorial boundaries and rights
- Design and implementation of Management Plans

Once verified, the lands were adjudicated as ancestral land to the Chachi Centers and the Afro-Ecuadorian Associations. National legal reforms during this period also had powerful impact: the 1998 Constitution recognized the collective property and ownership rights of indigenous and Afro-Ecuadorian communities, prohibiting the subdivision and sale of their territories.[8] This recognition meant that, at least on a legal basis, these communities were protected from encroachment or land purchase by timber and agribusiness enterprises (Zambrano Mendoza 2002). SUBIR staff reached out to cantón (municipal) officials who were very supportive of the titling efforts since it gave them basic information for establishing a rural cadastral system, including information on agricultural technology, land use, and physical and social infrastructure (Zambrano Mendoza 2002). The project also helped municipal officials set up a land tax subsidy for private and non-ancestral collective properties[9] that engaged in conservation efforts. During the last few years of the SUBIR project, when African palm oil plantations began to threaten natural forest, municipal officials at the Esmeraldas provincial level became more engaged in the environmental aspects of the project as the project advised them on environmental ordinances and regulations.

[7] The INDA verification and approval process would normally take several years. SUBIR drew up an agreement with INDA to expedite the process by taking on or paying for much of the fieldwork and legal paperwork.

[8] The issue of the subdivision and sale of communal land was unclear prior to 1998. When IERAC and INDA were titling communal lands, some titles expressly prohibited the selling and subdivision of communal lands (comunas) while others allowed for the "transfer" of land to third parties. The 1994 Law of Agrarian Development (Art. 31) allowed for, with approval of two-thirds of the community, the subdivision of communal lands (with the exception of páramos (highland ecosystems) and forests) and seemed to allow for eventual land sales. The 2008 Constitution ratified the indigenous land rights and responsibilities laid out in the 1998 Constitution, including the prohibition to subdivide, mortgage, or sell communal land.

[9] According to the 1998 Constitution, Art. 84, indigenous communities do not pay property taxes.

Cost of Titling Chachi Centers

Between 1997 and 1999, titles were given out to six Chachi Centers, consisting of 425 families and 11,294 hectares (Table 1).

Table 1: Chachi Centers Titled under SUBIR

Centro Chachi	Year Tilted	Hectares	No. Families
San Miguel*	1997	4,526.0	180
Guadual*	1997	1,283.8	65
Corriente Grande*	1998	3,703.9	60
Calle Manza*	1998	241.4	33
Playa Grande	1999	731.9	29
Zapallo Grande	1999	806.6	58
Total		11,293.6	425

**subsequently participated in Gran Reserva Chachi and/or Socio Bosque.*

Source: ECOLEX Ecuador

The average cost for ***titling community land*** under the SUBIR project[10] was approximately US$5.00 per hectare, including:[11]

- Field work (transport and coordination of project officials and public officials to the project site for supervisory activities)
- GPS equipment to register boundaries
- Cartographic processing (salaries & supplies)
- Drawing up of Management Plans and socio-historic studies
- Submitting documentation and following up on their processing in the respective government agencies (salaries & transportation)
- Lawyers' fees and salaries for paralegals

Because of the isolated nature of this region of Ecuador and the lack of roads and infrastructure, the most difficult aspects in the management of the Chachi-Afro-Ecuadorian conflicts and the titling process were the logistics and cost of mobilizing people and resources over several years to keep the mediation process and community meetings going.

Assessment of Paralegal Involvement

The emphasis on local paralegals yielded both advantages and disadvantages. Paralegals were well placed to organize and attend the training programs and meetings set up for community leaders and members. They were also able to communicate pertinent legal information to the communities in the Chachi language (Cha'palachi). Since they were from the communities, they were considered equal in status and were able to collect pertinent information, such as number of families in the community and community boundaries. Their training in conflict resolution was valuable in achieving mutual agreement among community leaders. Finally, the paralegals took on the task of monitoring the fulfillment of the terms of the memorandums of agreement regarding natural resource management and land tenure within each community. A main disadvantage of relying on paralegals was the fact that they drew a salary while other local participants did not. Community authorities often pointed out that they themselves did not receive a salary even though they also worked on resolving the conflicts.

Paralegals worked on the titling effort and monitoring until 2002 when SUBIR ended. Most paralegals remained in the area and many of them became leaders in their communities and local organizations. Project SUBIR ended its work in the area with a withdrawal strategy that included the preparation of the communities to ensure the sustainability of their activities, particularly those related to forest management such as management of native forest, reforesta-

[10] In Zambrano Mendoza (2002), a figure of US$500,000 is given as the total cost of the Policy and Legal Issues component of the SUBIR project for these two municipalities. This figure, in addition to conflict management and titling activities, includes the training of paralegals and legislative reform activities. The author mentions that logistical costs, because of the area's geographical isolation, greatly increased project costs and that replicating it in other municipalities could cost as little as US$100,000.

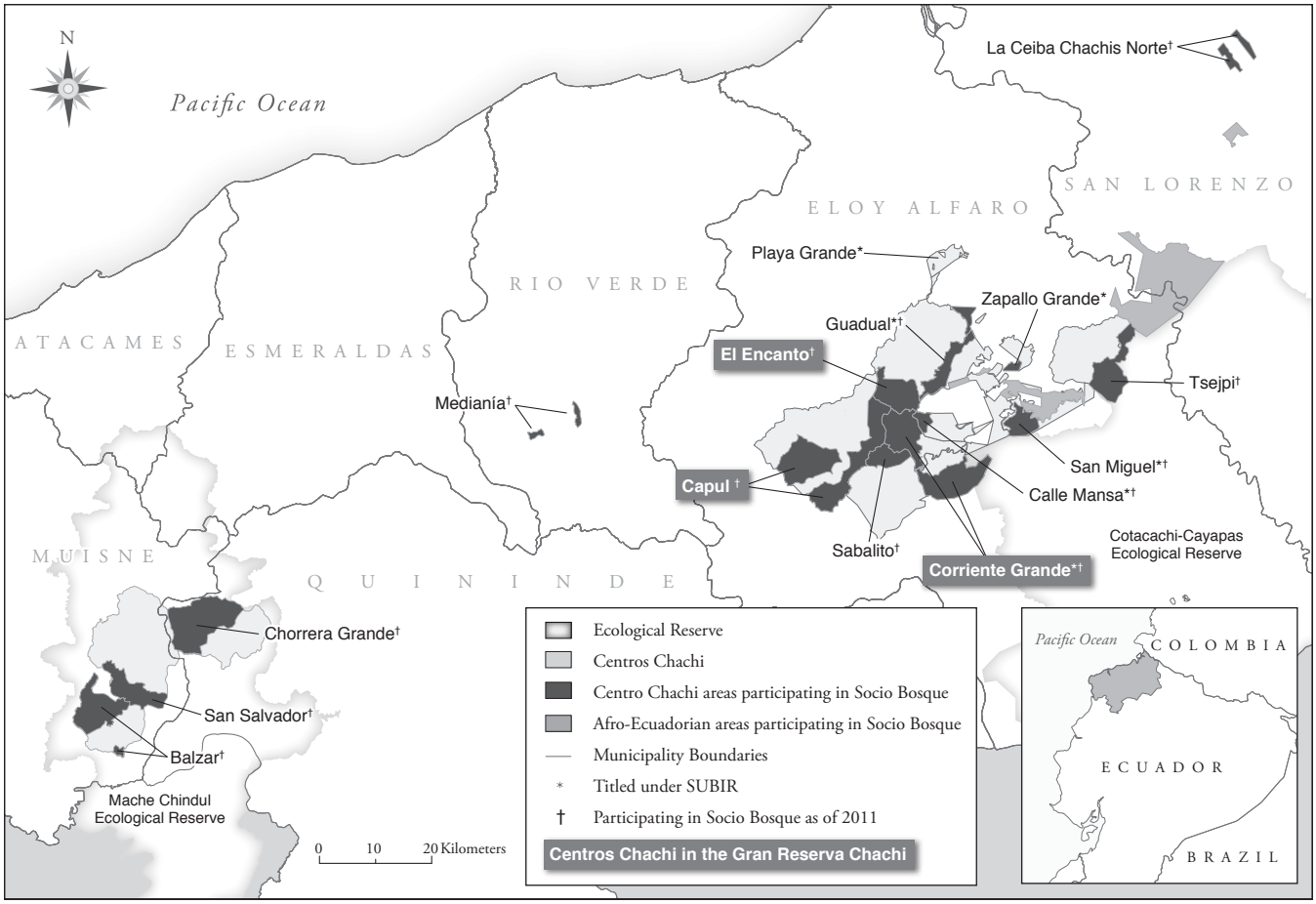
[11] The cost for titling non-communal land or settler (colono) land ranged from US$15 to US$18 per hectare.

tion, and silviculture. These activities included sustainable logging. Unfortunately, there were no economic resources to implement the strategy.

Establishment of the Gran Reserva Chachi

As SUBIR was ending, GTZ began to work in the area with Chachi Center Capulí on forest and biodiversity conservation. In 2004, Conservation International (CI) joined GTZ and work expanded to three other Chachi Centers (Corriente Grande, El Encanto, Sabalito) in the Eloy Alfaro municipality to implement a pilot direct incentive program based on a community conservation area. Of these four centers, Corriente Grande had been recently titled under the SUBIR project. The direct incentive program was designed and implemented to attain both conservation and poverty-reduction objectives by voluntarily prohibiting forest conversion and commercial exploitation and providing direct economic incentives for conserved forest (Mora et al. 2010). Community leaders and members participated in the design of the program and the negotiations related to the conservation area (size, location, zoning) and the investment plan (i.e. how to make use of incentives). An agreement was signed in 2005 with three of these Centers[12] for a trial period of three years to protect 7,200 hectares belonging to the three communities, an area that was subsequently declared the Gran Reserva Chachi (Figure 1). In addition, a buffer zone of 11,500 hectares was drawn, designed to be used for sustainable use such as ecotourism and

Figure 1: Gran Reserva Chachi and Surrounding Study Region



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12 Sabalito decided not to participate at this time, preferring to sign contracts with timber companies.

non-timber forest products (Mora et al. 2010).

During the three-year pilot phase, communities were paid a US$5.00 incentive per hectare per year of conserved forest (Mora et al. 2010). This price was based on the opportunity cost of protecting the forest from illegal logging: "the value per hectare of forest preserved was estimated in terms of the income that would have been received from the felling and sale of trees, including reference to both present earnings and to potentially increased earnings in the future due to improved logging practices" (Mora et al. 2010: 6). The incentive went into a fund managed by the community and the decisions on how to utilize the funds were made in community assemblies, resulting in annual investment plans. The incentive funds during the first three years were utilized for control and surveillance, agricultural production (such as cacao), micro-enterprises, micro-credit, as well as medical and educational materials and supplies. These funds were also used to finance infrastructural improvements such as piped water, improved house roofs, and community centers (Mora et al. 2010).

A critical element for the establishment of this direct incentive program was that the Chachi Centers were able to enter into negotiations and agreement with donors (CI and GTZ) as legal owners of the land. One of the three Chachi Centers in the pilot program had been titled under SUBIR; the other Centers were titled before. If the Chachi Centers had not already held legal ownership to their communal lands, it would have been necessary for the donors to help the Centers obtain legal titles (Wendland et al. 2010), greatly increasing the time and funds needed to implement the direct incentive program. In other words, the time and cost of titling or otherwise securing land rights is often part of the cost of establishing direct incentive or PES programs. Ecuador was able to quickly establish the direct incentive program and keep costs relatively low in Esmeraldas because the Chachi and Afro-Ecuadorian communities had been titled by the mid-2000s. Based partly on the Gran Reserva Chachi experience, the Ecuadorian government launched a national direct incentive program in 2008 called Socio Bosque. The program's objectives of conserving forests and alleviating poverty are achieved by transferring direct economic incentives to rural communities and families in return for conservation activities. The contracts are signed directly between the state (Ministry of Environment) and the communities; in this way, the state serves as intermediary for any international funds utilized in this program. A requirement for participation for the community is a formal title to their land (de Koning et al. 2011). In addition to the three original Chachi Centers, between 2008 and 2010, ten more Chachi Centers signed direct incentive agreements with Socio Bosque adding another 19,092 hectares to the program (Figure 1).[13] As of 2011, the annual incentive paid to Chachi Centers in the Socio Bosque program varied between US$5 and US$15 per hectare, depending on the number of reserved hectares (Table 2).

In 2007-2008, despite holding formal land titles, Corriente Grande experienced land invasions from a neighboring group, the Afro-Ecuadorian Guayacanes Association, who were extracting timber. Corriente Grande was suspended from the Socio Bosque program until the conflict could be resolved. National authorities eventually assisted the Chachi authorities in moving out the Guayacanes (Mora et al. 2010). The problem of land invasions and illegal occupation may be a result of the failure of state institutions; a land title is of little use if the state cannot enforce and protect the rights it gives out. Mora et al. (2010: 10) maintain that "invasions are a latent threat in the area". The isolated nature of the region contributes to the low presence of governmental officials and even regional institutions. In such situations, communities are potentially punished via stopped

[13] Seven Afro-Ecuadorian Associations and Comunas also entered into the program.

Table 2: Chachi Centers Participating in Socio Bosque as of 2011					
Chachi Center	Date Entered Program	No. Families	Has. under Conservation	Annual Incentive	Incentive per Ha.
Corriente Grande*	Dec 2008	86	4,578.8	$26,894.5	$5.87
Calle Mansa*	Dec 2008	46	342.3	$4,923.0	$14.39
San Miguel*	Dec 2008	235	1,047.5	$9,237.5	$8.81
Capulí	Dec 2008	69	5,626.7	$30,252.0	$5.38
Guadual*	Dec 2008	52	1,175.2	$9,876.0	$8.41
Tsejpi	Dec 2008	78	2,000.0	$14,000.0	$7.00
La Ceiba Chachis Norte	Dec 2008	48	606.5	$7,032.5	$11.59
San Salvador	Dec 2008	117	1,785.7	$12,928.5	$7.24
Chorrera Grande	Dec 2008	89	3,723.6	$22,618.0	$6.07
Sabalito	June 2010	45	954.1	$8,770.5	$9.19
El Encanto	June 2010	162	1,813.6	$13,068.0	$7.20
Balzar	Oct 2010	46	2,352.6	$15,763.0	$6.70
Medianía	Oct 2010	66	285.8	$4,358.0	$15.24
Total		1,139	26,292.4	$179,721.5	$6.84

**Titled under SUBIR*

Source: Karen Podvin, Ministerio del Ambiente, Socio Bosque (Sept 2011)

payments when encroachments or invasions occur, while regional government agencies responsible for protecting land rights are not affected. Fortunately, in this case, the direct incentive program has generally strengthened the Chachi Centers' relations with the Ministry of Environment (Wendland et al. 2010), providing more legitimacy for their property claims and improving tenure security. Although there state services continue to fall short, such as housing and education, the presence of NGOs,[14] particularly environmental ones, has increased, providing at least some services and support to the communities.

Another problem is that some community members, as well as outsiders such as settlers and loggers, are entering into the Gran Reserva Chachi in order to hunt and extract timber and other natural resources. These types of invasions and poaching are not unusual in remote tropical regions. Both GTZ and CI have recognized the need to invest in "training community members in land rights and enforcement ... to increase their ability to enforce property rights and exclude encroachers" (Wendland et al. 2010: 18). More broadly, in some cases tenure security ought not to be considered only as a precondition for incentive programs, but rather as a possible result of such programs. This resonates with older debate in land tenure literature. Besley (1995) and many others have argued that increasing tenure security will result in greater investment in the land, while other scholars observed that landholders invest in their land (e.g., planting trees, building fences) in order to strengthen their tenure security (Brasselle et al 2002). In an institutional analysis of PES programs, Vatn (2010) maintains that some communities entered into PES projects to improve their tenure security.[15] In the case of Socio Bosque, some Chachi participants perceive improved tenure security and reduced illegal invasions of community lands as a result of participation in the direct incentive program (de Koning et al. 2011).

[14] Such as Ecolex and Fundación Altropico.

[15] Vatn (2010) does not specify the sites or communities.

With regard to local governance, some communities maintain that the decision-making process related to the investment plan, how to invest the direct incentives, has strengthened local organizations and governance (de Koning et al. 2011). This interplay between tenure conditions and the motivations for participating in direct incentive conservation programs deserves further study.

Conclusions

This case study reveals that the complex and politically challenging work of clarifying land rights and bolstering local legal expertise provides an essential foundation for direct incentive and PES-like programs. An emphasis on training and paying local paralegals as key leaders and facilitators was essential for land conflict mediation and land right delineation, particularly because state agencies were weak or nearly absent in this remote forested area. The case study also suggests that rather than secure tenure simply being a precursor for participation in direct incentive programs, some communities may opt to participate as a strategy to improve their tenure security. The case also revealed that the weak presence of state agencies in remote forest regions leaves communities exposed to land invasions and property disputes. The experience with paralegals and community organization promotion, particularly the successful resolution of boundary disputes through mediation and the internal community discussions regarding land use and natural resource management, may have had a positive impact on local governance. Future research may be able to determine the impact of these processes on local governance and community-based natural resource management.

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Acronyms

CI	Conservation International
FECCHE	Federación de Centros Chachi de Esmeraldas (Federation of Chachi Centers of Esmeraldas)
GPS	Global Positioning System
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (now called GIZ)
IERAC	Instituto Ecuatoriano de Reforma Agraria y Colonización (Ecuadorian Institute of Agrarian Reform and Settlement)
INDA	Instituto Nacional de Desarrollo Agropecuario (National Institute for Agricultural Development
INEFAN	Instituto Ecuatoriano Forestal de Áreas Naturales y Vida Silvestre (Institute of Environment and Forests)
MAE	Ministerio del Ambiente (Ministry of Environment)
PES	Payment for environmental services
RECC	Cotacachi Cayapas Ecological Reserve
SUBIR	Sustainable Uses for Biological Resources
TNC	The Nature Conservancy
UONNE	Unión de Organizaciones Negras (Union of Negro Organizations)
WCS	Wildlife Conservation Society

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Appendix 1

Timeline of Titling & PES Processes among Chachi Centers	
Year	Event
1992	FECCHE begins the land rights formalization process for Chachi Centers without land titles in the northwestern Esmeraldas region.
1994	SUBIR develops a land titling and land conflict management project among Chachi and Afro-Ecuadorian communities in the Eloy Alfaro and San Lorenzo municipalities utilizing paralegals and mediation.
1995	Paralegals and community leaders draw up the initial titling document for the government agencies INDA and INEFAN.
1996-97	Planimetric mapping (drawn up with GPS) and the respective Memorandums of Understanding were approved in general assemblies in their respective Chachi and Afro-Ecuadorian communities.
1997-99	Land adjudication for 6 Chachi Centers (and 12 Afro-Ecuadorian Associations).
2004	Three Chachi Centers begin discussions with CI y GTZ for a direct incentive forest
	conservation scheme.
2005	Conservation agreements between 3 Chachi Centers and CI and GTZ are signed, establishing the Gran Reserva Chachi with a community conserved area of 7,200 hectares.
2008	Ecuador establishes the Socio Bosque program.
2011	Ten more Chachi Centers and 7 Afro-Ecuadorian Associations and Comunas have entered into Socio Bosque, increasing conservation land to 37,465 hectares.

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