

Enabling Forest Users to Exercise Their Rights:

Rethinking regulatory barriers to communities and smallholders earning their living from timber

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Authors' Note

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Executive Summary

About this report

In many Asian countries, communities and smallholders are faced with barriers to exercising their tenure rights and to making a living from selling timber and other forest products. This study puts forward an effort to respond to the issue of restrictions, in the form of regulatory barriers, in the pursuit of sustainable forest management. When local communities (and smallholders) gain appropriate benefits from forest management and utilization, their motivation to invest in, improve and sustain their productive base increases can lead to “triple win” of improved forest conditions, maintenance of ecological services and improved local livelihoods. The program of work looks at sharing knowledge on the current impacts of regulatory barriers, with particular reference to costs of missed opportunities through restricting rights, governance and market access issues. The study was conducted in six Asian countries (Cambodia, Indonesia, Nepal, Papua New Guinea, the Philippines, Vietnam) and Mexico.

Key findings

Forestry is significantly regulated with a heavy onus being placed on local communities and smallholders. The regulations in forestry are partly a reflection of the environmental importance of the forests, as well as the fact that in many tropical countries the majority of forests are under state administration and are poorly managed. A strong and dominant emphasis on environment is often the motivation for the regulation of forest management; hence the large number of restrictive regulations found in the countries studied, particularly in the Asian countries.

The communities and smallholders in the Asian countries studied face a significant number of regulatory barriers that greatly inhibit their ability to profit from their forest tenure rights. Regulatory compliance involves a significant investment in time and money. Meeting the complicated technical requirements for compliance is often beyond the capacity of the local people, both communities and smallholders. Difficulties in compliance are compounded by the smaller areas that are more frequently managed by local people. This leaves them with a competitive disadvantage as compared to the larger forestry businesses – for whom the regulations were usually tailored in the first place – that can benefit from economies of scale. Unarguably, regulations need to be in place but, they must be created to address specific circumstances. Examples from the countries studied illustrate the depth of the issues:

- Rent seeking was strongly emphasized as an issue in the Asian countries, particularly regarding transportation.
- The complexity involved in meeting the requirements of the regulations, particularly in management plan development, exceeded the capacity of the communities and smallholders in all the Asian countries.
- The fees and work required to meet the regulations was viewed as being prohibitively expensive to varying degrees in all countries. This was a significant issue in Vietnam and a strong concern in Cambodia.
- The inequalities in forest ownership structure were emphasized in all countries. For example, to varying degrees in all the countries studied, private companies face fewer regulations than communities, while in Cambodia, the Philippines and Vietnam often the smallholders have fewer obligations to meet in terms of regulations compared to communities. Additionally, the large number of regulations for forestry compared to agriculture was highlighted in many of the countries, particularly in Vietnam.

The majority of forest communities in Mexico have not yet been able to take advantage of their natural assets. The reasons for this include issues related to land conflicts, cultural dynamics, forest use histories, community capacity, size and quality of forests, and regulatory and market barriers. In spite of these barriers, Mexico has had great success in CF due to collective action at the community level or forest associations bringing greater benefits to the member communities. Lessons and principles from the approach in Mexico are valid for Asia as well.

It has been noted that the regulations are often counterproductive in that they may encourage rent seeking behavior by those who should be upholding the law, increase illegal logging, and ultimately result in unsustainable forestry practices and sub-optimal economic returns.

Finally, it must not be overlooked that complex regulations also impose burdens and costs on the administering agencies. Governments could cut costs and employ staff in more productive capacities if regulations were relaxed.

Key recommendations

There needs to be a general strengthening, at the governmental level, of the understanding that a key component of the success of community forestry is allowing the communities to benefit from the forests under their management. Community forestry can play a vital role in the sustainable management of forests.

- Governments in the region need to revisit the regulations regarding forest management and examine whether the regulations are providing the best route to the sustainable forest management, including combating illegal logging.
- Governments need to move away from using regulations (i.e., prescriptive regulations) as a method for achieving sustainable forest management and focus more on appropriate incentives (i.e., outcome-based regulations) for communities and smallholders to sustainably manage the forests, and more effectively use the criminal justice system to target organized crime rather than local communities.
- Regulations for communities and smallholders should focus less on the cumbersome and prohibitive processes to instead focusing on the outcome: specifically ensuring the sustainability of the remaining forest.
- Governments in the consumer countries, such as in Europe and North America, must ensure that policies that try to assure the legality of timber are not counter-productive and in fact result in restricting local peoples' access to the market, greatly reducing their livelihood options.

ABBREVIATIONS

AAC	Annual Allowable Cut
BLU	<i>Balai Layanan Umum</i> (Indonesia)
CBFM	Community Based Forest Management (Philippines)
CBFMA	Community Based Forest Management Agreement (Philippines)
CENRO	Community Environment and Natural Resource Officer (Philippines)
CF	Community Forestry
CFA	Community Forest Agreement (Cambodia)
CFE	Community Forest Enterprise
CFMC	Community Forest Management Committee (Cambodia)
CFMP	Community Forest Management Plan (Cambodia)
CFUG	Community Forestry User Group (Nepal)
CONAFOR	The National Forestry Commission of Mexico
CRMF	Community Resources Management Framework (Philippines)
CTO	Certificate of Timber Origin (Philippines)
DAO	Department Administrative Order (Philippines)
DENR	Department of Environment and Natural Resources (Philippines)
DFMP	District-level forest management plan (Nepal)
DFO	District Forest Office (Nepal)
DMC	DENR Memorandum Circular (Philippines)
EO	Executive Order (Philippines)
ERA	Estudios Rurales y Asesoría (Mexican NGO)
EU	European Union
FA	Forest Administration (Cambodia)
FA	Forest Association (Mexico)
FAO	Food and Agricultural Organization
FMP	Forest Management Plan
FSC	Forest Stewardship Council
FWP	Five-Year Work Plan (Philippines)
HD	<i>Hutan Desa</i> - Village Forests (Indonesia)
HKm	<i>Hutan Kemasyarakata</i> (Indonesia)

HTR	<i>Hutan Tanaman Rakyat</i> - People's Timber Plantations (Indonesia)
ICOFOSA	The Forest Community Integrator of Oaxaca (Mexico)
LGU	Local Government Units (Philippines)
MAFF	Ministry of Agriculture, Forestry and Fisheries (Cambodia)
MXN	Mexican Peso
NGO	Non-governmental organization
NPPFRDC	Ngan, Panansalan, Pagsabangan Forest Resources Development Cooperative (Philippines)
NPR	Nepalese Rupee
NRMP	Natural Resources Management Program
NTFPs	Non-timber forest products
OP	Operational Plan (Nepal)
PhP	Philippine Peso
PO	People's Organizations (Philippines)
RUP	Resource Use Permit (Philippines)
RGC	Royal Government of Cambodia
RRI	Rights and Resources Initiative
SEMARNAT	The Secretariat of Environment and Natural Resources (Mexico)
SVLK	<i>Sistem Verifikasi Legalitas Kayu</i> (Indonesia)
TIP	Textitlán, Ixtlán de Juárez and Pueblos Mancomunados (Mexico)
TLA	Timber License Agreements (Philippines)
UNECOFAEZ	Zapata Union of Forest and Agricultural Ejidos and Communities (Mexico)
USAID	United States Agency for International Development
USD	United States Dollar
UZACHI	The Zapotec-Chinantec Union of Forest Communities (Mexico)
VPA	Voluntary Partnership Agreement

Chapter 1 - Background

Introduction

Through forest tenure reform, communities living in and around forests have been provided with various rights, including the right to access the forest, use and withdraw forest products, manage their resources, and exclude others from exercising the same rights (e.g., Poffenberger 1996, 2006, White and Martin 2002, Dahal et al. 2011). These supposedly clear, stronger and enforceable rights are expected to translate into concrete economic and social benefits for these communities, including employment creation (see e.g., Berkes and Adhikari 2006, Berkes and Davidson-Hunt 2007, Molnar et al. 2007, Devkota et al. 2010). However, benefits are often not delivered because of restrictive requirements placed on the communities (Larson and Ribot 2007). Despite this, however, there are still numerous examples where community forestry (CF) has contributed to poverty reduction and enhanced forest quality (Gilmour et al. 2005, Poffenberger 2006).

Among the most serious restrictions that communities face are those that are regulatory in nature, with over-regulation generally being the most common. Complex and rigid regulations abound around timber harvesting, possessing or operating forestry equipment and machinery, transporting of logs and processed timber, forest management planning, and technical and financial aspects (Bennett 1998, Larson and Ribot 2007, Pandey 2008, Pokorny et al. 2010). Too often these regulations are known only by government authorities, with communities learning of them only through the process of running afoul of them (Kusters et al. 2007). An adjunct to over-regulation for communities is the depressed value of timber in markets where they must compete with illegal operations and trade and/or in globalized markets that prefers a consistent supply of cheap, uniform material from plantations (Fay and Michon 2005).

Smallholders throughout Asia face similar barriers in making a living from trees that grow on their own land (Herbohn and Harrison 2005, Midgley et al. 2007, Nawir et al. 2007). This is especially pertinent when considering how important small scale farm forestry plays on national levels, for example, in Vietnam and Indonesia (Nawir et al. 2007).

In the past, tenure rights were identified as a principal barrier. Now, this is gradually being addressed through tenure reforms in many countries. But such tenure reforms, while necessary, are insufficient when the existing regulations fail to evolve in recognition of the changing patterns of ownership and thus, forest management. Too often the existing regulatory frameworks significantly restrict local people and communities from taking advantage of their strengthened rights. And, as often, there is a failure to fully appreciate the need to address regulatory obstacles to forest management and utilization by these newly empowered actors. Historically, in many countries the laws and regulations governing forestry were written to assure privileged access to timber wealth and to prevent encroachment by the poor (Sunderlin et al. 2005, Fay and Michon 2005). These legal frameworks were also based on a belief that communities have neither the abilities nor aspirations to sustainably manage their forests. Elite control of the timber resources is perpetuated by the continued prevalence of such attitudes in governments; a fact demonstrated by the strong tendency for governments to provide rights and access to communities only in low value and/or degraded forests (Molnar et al. 2006).

It is within this context that this study set out to identify and analyze the regulatory barriers that restrict communities and smallholders from attaining robust, forest-based livelihoods from the sale of timber and timber products. Specifically, the study wished to identify:

- Existing formal (i.e., regulations) and informal (e.g., corruption, rent seeking) constraints to local communities and smallholders exercising rights regarding the commercialization of timber;
- The costs (financial and temporal) of these constraints for local people; and
- The extent to which these can be systematically addressed via regulatory reforms (i.e., identifying whether the regulations fit the situation), as well as other measures such as improving the capacity of the smallholders to meet the technical obstacles in their path.

To develop the understanding of the barriers facing local communities and smallholders, reviews were conducted in six Asian countries (Cambodia, Indonesia, Nepal, Papua New Guinea, Philippines, and Vietnam) and Mexico. Aspects of particular interest were those related to the capacity (skills and funding) of local communities and smallholders to comply with regulations, if and how regulations facilitate corruption, and/or encourage unsustainable practices. The countries were selected based on their differing levels of development of community forestry, the different regulatory barriers thought to be found in each, and the varying scenarios they present as regards ownership and forest types. While the work ultimately did not provide for a comparative analysis as such, it did enable a comparison of the issues in each of the countries. In the case of Mexico, an analysis of community forest enterprises (CFEs) was conducted with the aim of complementing the studies from the Asian countries. Mexico presents a case in which CF demonstrates a greater “maturity” and longer evolutionary history in the development of legal, institutional and regulatory frameworks. This allowed a more comprehensive view of the range of barriers – not only regulatory – that can impede the development of CFEs and of the types of organizational modes and responses that communities develop and adapt in the attempt to overcome these barriers.

It is hoped that this review contributes towards the positive trend worldwide of enabling local people to have access to forests and derive appropriate benefits from their management and utilization. By strengthening the interconnection of communities and individuals with their forests and forest resources, the potential for achieving the triple “win” of improved forest conditions, maintenance/enhancement of ecological services, and improved livelihoods becomes incrementally possible.

Literature review

A great deal of work has been done by diverse organizations – academic, research, non-governmental (NGOs) and international – to explore the motivations and the impacts of different regulations on local communities, smallholders and small-scale forest enterprises that rely on forest resources for their income (in whole or part) or livelihoods. This work has identified the presence of regulatory barriers at local and national levels, as well as recognized regional and international trends that have contributed to the raising of these barriers. Here we will briefly examine some of this work and highlight the recommendations stemming from it.

Tenure reform

It is apparent that significant progress has been made in Asia in the reform of tenure, though admittedly to quite different degrees. Generally speaking, the impetus behind the move towards devolved forest management can be viewed from two perspectives (Shackleton and Campbell 2001, White and Martin 2002, Edmunds and Wollenberg 2003, Kowero et al. 2003, RRI 2008):

1. As a response to the perceived ineffectiveness of state forestry in the management of forest resources, and
2. With the aim of creating opportunities for local users to improve livelihoods through devolved forest benefits.

Reforms, however, do not guarantee the delegation of authority to local forest users (Meinzen-Dick and Knox 2001, Edmunds and Wollenberg 2003, Gilmour et al. 2005). Although devolution expects to provide to a large number of the local forest users improved access to forests and greater self-determination in making decisions regarding resources on which their livelihoods depend, the outcomes of devolution are often very limited (Edmunds and Wollenberg 2003). While the impetus for devolution policies may be strong, the actual outcomes from devolution programs in various sectors and countries have been mixed. Forest resources have not always been used more efficiently than under state management, nor have the benefits been distributed equally among users; in many cases the resource base has even been depleted (Blaikie 2006, Maryudi and Krott 2012).

There are informal and formal constraints to effective, devolved forest management. Weak security of tenure reduces the incentives of locals to protect the forest. After all, why invest when there is little security to safeguard the investment? If the benefits fail to match the responsibilities, the result will be feelings of frustration or apathy on the part of the local population (Meinzen-Dick and Knox 2001). In addition one must consider the motivation for the devolution, Taylor (2001), for example, raises the point that community development is often a secondary consideration (of devolution) with the main goal being conservation of forest resources and biodiversity; as such, this will be reflected in the support provided and rights devolved in the name of increasing levels of community involvement and empowerment.

There are numerous issues that need to be addressed for the successful implementation of devolution, including the need for a certain level of motivation among the local populace to manage forests (Ostrom 1999), and that in addition to their having the time, skills and resources to make their efforts worthwhile. Devolution also requires a shift in mindset among the different government actors that intervene at national and local levels (Shackleton and Campbell 2001, Scherr et al. 2004). One large obstacle to changing attitudes is that devolution often results in the restructuring and downsizing of the role of government agencies, implying both job losses and diminished control for agency employees and contracted personnel (Meinzen-Dick and Knox 2001). Consequently, agency employees often do not support devolution policies and decision makers are unaccustomed to thinking of local people as responsible resource managers (Meinzen-Dick and Knox 2001). Where devolution would significantly transform the manner of forest sector authorities' interaction with local villagers, often these sector decision makers lack the capacity and/or motivation to design appropriate policies that would enable local people to both reap benefits and meet their responsibilities.

Regulatory barriers

Generally, forest laws and regulations exist to safeguard the sustainability of forests and forest resources while conforming to overall government policy; two goals which may or may not be mutually compatible. Thus they are not created in a vacuum, but rather exist for a variety of reasons that are not always apparent at first glance.

According to Bennett (1998), "regulations... are intended to ensure that the integrity of the forest ecosystem is maintained over the long-term and that all stakeholders share in the benefits of the forest (to varying and appropriate degrees); in short, to ensure sustainability." Figure 1 illustrates this from an ecological perspective where the regulations are a reflection of the ecological importance of the forests (Bennett 1998, Fay and Michon 2005). The assumption by government is that these, often poorly understood (particularly hydrologic services), functions are better maintained under state control and through strict regulations (Bruijnzeel 2005, Fay and Michon 2005). This is one area especially that would merit from greater scrutiny, given the increasing focus on ecological services as an end to forest management. Reducing or offsetting carbon emissions, as one example, will in all likelihood further

impinge on the commercial use of forests, particularly those in the hands of smallholders. Why? Because in many tropical countries the majority of forest is under direct state administration (RRI 2008, Dahal et al. 2011) even though government is incapable of protecting, conserving and managing such a vast estate. The immediate instinct is then to add more regulations and require more complex processes in order to deal with the ubiquitous and common illegal harvesting of timber and other forest products and resources.

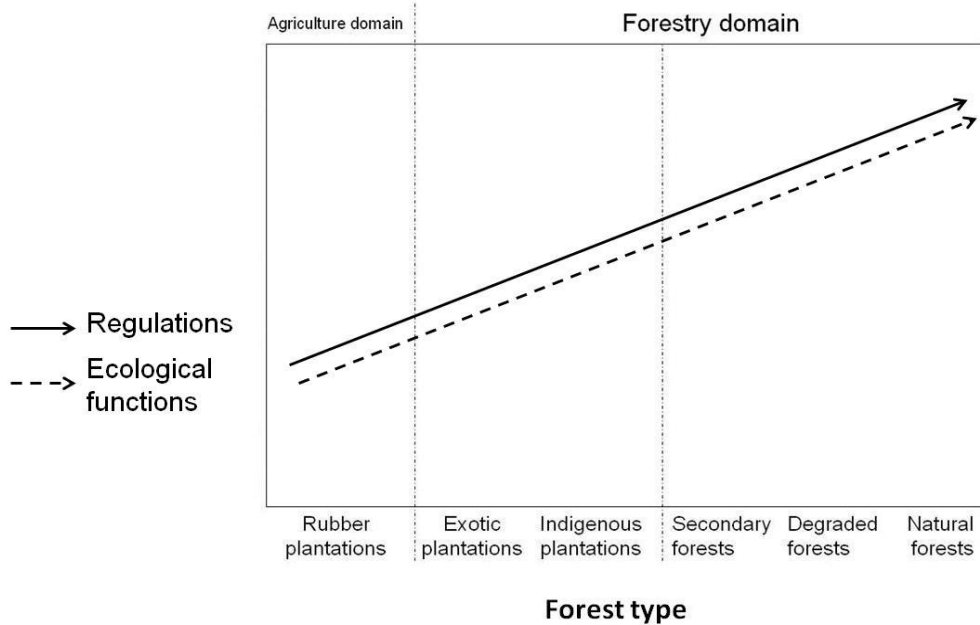


Figure 1. Illustration of the link between increased number of regulations, ecological functions and forest type based on Bennett (1998), Fay and Michon (2005), Brockerhof et al. (2008), Fitzherbert et al (2008), Koh and Wilcove (2008), Bauhaus et al. (2010).

Another reason recognized for the proliferation of forest regulations is that of ensuring that the state's assets are used for the national interests. This rationale can also be associated with other, non-transparent goals such as the safeguarding elite interests (Fay and Michon 2005) or of giving the state freedom to utilize the land and/or change its land management with little opposition from local people and communities, i.e., it is much more challenging to exercise eminent domain on land owned by a community than it is to make an executive decision to change land use.

Recognizing the absolute validity of and need for regulations to protect public good aspects of forests, experience teaches that the evolving contexts of forest tenure reform and commercially-oriented community forestry are making outdated certain aspects of existing regulations. Some regulatory concerns are not credible for community forestry (e.g., those directed at large-scale, industrial concessions and those based on incorrect understanding of the role of forests in provision of hydrologic services) and other fail to reflect the current and evolving (e.g., devolution, decentralization, and modernization of the role of state agencies) conditions. As such, despite valid concerns, the regulations these concerns engender are often counter-productive. Just as for government regulation of other segments of the private sector, regulation of community forestry should be about facilitation of sustainable economic growth and employment generation rather than inhibiting timber extraction and

sales by local communities . Arguably, this can be seen as important as acknowledging the communities' tenure and access rights in forests (Bennett 1998).

In looking at these and other issues associated with regulatory barriers to community forestry, Gilmour et al. (2005) suggested some general principles for developing practical and implementable frameworks:

- Provide secure and long term access or ownership to forest resources
- Avoid over-regulation, thereby helping to ensure that those implementing the regulations are capable of doing so
- Minimize transaction costs (i.e., avoid demanding and complex decision making procedures)
- Build capacity of stakeholders
- Facilitate continuous practice/policy feedback
- Ensure consistency between policies and legal instruments
- Support accountability
- Review and update regulatory instruments periodically

In addition, Bennett (1998) pointed out that frameworks must be credible, easy to understand, transparent, involve low-costs and be goal-oriented, while also addressing legitimate government concerns about unsustainable harvesting in community forests.

The other side of the coin, that of flawed regulations that impede the potential of community forestry, has a number of salient characteristics:

- Creation of an uneven playing field where competing industries, such as pulp and paper plantation companies, have access to significant subsidies or are not subjected to taxation. Larger companies are also favored by complex and technically demanding regulations as they can better bear the costs and mobilize the technical assistance and skills to comply. Or, not uncommonly, they can avoid full scrutiny and compliance through extralegal means. In the absence of supporting programs, most communities and smallholders simply lack the capacity to meet regulatory standards; especially when they are more strictly enforced by government authorities as compared to enforcement upon the larger companies.
- Lack of clarity, including that resulting from frequent changes in government policy that creates confusion among those required to meet the regulations, as well as for those responsible for their implementation and enforcement. The lack of clarity is also a reflection of the seemingly conflicting goals of government departments and agencies, which for example may seem to be supporting community forestry while concurrently creating numerous obstacles to its development (Harrison 2005, Molnar et al. ND).
- Disincentivize local investment in forests and incentivize unsustainable management and illegal logging. When communities and smallholders are simply unable to meet regulatory requirements, they will seek other options for securing their forest-based livelihoods and income.

Beyond regulatory barriers, one might also consider other factors that prevent community and smallholder enterprises from participating fully in a forest sector economy and from exercising whatever comparative advantages they may have. Berkes (2007) and Seixas and Berkes (2010) highlight the importance of ensuring that community enterprises have a support network in place to help them thrive. They found that the most successful enterprises are those that have (and have had) the assistance of both governmental and non-governmental institutions in ensuring their ability to compete. Successful conservation-development initiatives are often reliant on these networks, for example, to facilitate the marketing of timber products by communities and smallholders (Seixas and Berkes 2010). In the absence of such support, the enterprises' chances of survival are usually limited greatly.

Chapter 2. Data collection

This report is based on an analysis of the regulatory barriers in Cambodia, Indonesia, Nepal, Papua New Guinea (PNG), Philippines, and Vietnam, as well as Mexico. These countries were selected based on their differing development of community forestry (RECOFTC 2009), as well as differences in the regulatory barriers in each of the countries as reported in the literature (e.g., Gilmour et al. 2005, Molnar et al. 2006, Masipiqueña et al. 2008, Pulhin et al. 2010, RECOFTC 2009). In order to capture as comprehensive a view as possible the work followed three stages:

Literature and policy review. The review focused on timber regulations and on attempting to provide a perspective on these particular regulations had been imposed. Where possible, the review identified quantifiable costs and the number of steps required for compliance. Finally, the review sought evidence on the extent to which the regulations were actually achieving their intended goal.

Experts' workshop. In the six Asian countries, 10-12 national experts were brought together for a workshop to discuss the issues related to local communities and smallholders harvesting and selling of timber. The aim of the workshops was to build an understanding of the issues along the chain from access to timber, all the way to their ability to profit by selling into available markets. The goal was then to use this understanding to identify the barriers that local communities and smallholders face to their participation in the market. Participants were selected who had a great deal of proven expertise and experience. They included experts from government and individuals involved in the harvest, transport, processing, and marketing of timber and timber products.

Focus group meetings. A series of focus group meetings were held in five of the six Asian countries, at each of two sites. The purpose was to collect detailed information from a broad range of relevant community stakeholders on site-specific issues and costs to local communities and smallholders for harvesting and selling their timber and timber products.

Table 1. Location of the focus group meetings in the Asian countries

Country	Location of focus group meetings
Cambodia	Tbeng Lech Community Forest, Province of Siem Reap; SreRussie, Ampil Commune, RomeasHeak District, Province of Svay Rieng
Indonesia	Not Applicable
Nepal	Jhimjhimia and Rajapani Community Forestry User Groups (CFUGs), Rupandehi district, in Western Terai
Papua New Guinea	Madang City, Madang Province, with representatives of communities engaged in a group forest certification scheme, from the the Awane Clan, Raicoast District; Dawn Clan; Sumkar District; Ngait Clan; Bogia District; Urinite Clan; Sumkar District; Yate Clan and; Usino Bundi District.
The Philippines	The Ngan, Panansalan, Pagsabangan Forest Resources Development Cooperative (NPPFRDC), Compostela Valley, Mindanao; Smallholders from Inopacan, Hindang, Hilongos, Bato, Matalom, Baybay and Albuera municipalities, Leyte province (focus group meetings took place in Visayas State University, Leyte)
Vietnam	Taly village, Ea Hleo District ; Cham B village, Krong Bong District

The Mexico review, on the other hand, was based solely on a literature and policy review. The analysis of CFEs in Mexico was conducted with the aim of complementing the studies from the six Asian countries. The authors of the study were all recognized experts, knowledgeable and experienced individuals, who have been working for decades in Mexico's community forestry sector. Given the vastly different context and better-developed legal, institutional and regulatory framework in the country, the Mexican case looks broadly at a range of barriers (not only regulatory) impeding the further development of CFEs in the country. It then offers an analysis of the different types of community organizational modes that have sprung up to respond to these barriers.

Chapter 3. Country Analysis

The analysis from each country provides information on the general situation for community forestry and smallholders, the regulatory barriers they face as well as recommendations with respect to these barriers. As much as possible, the information is presented in a format that allows for comparison within the differing country contexts.

CAMBODIA

Background

Community forestry began informally in Cambodia in the 1990s as a result of efforts to engage communities in the management of forest resources. From the outset there was support by the Forestry Administration (FA) and local governments. With the enactment of the Forest Law of 2002 a regulatory platform was provided for CF as a modality for communities to manage portions of the Royal Government of Cambodia's (RGC) Permanent Forest Estate. This marked the beginning of the formal recognition of CF. Subsequently, in 2003 by the Office of the Prime Minister issued the Community Forestry Sub-decree to guide the establishment and management of CFs and, in 2006, this was followed by the Ministry of Agriculture, Forestry and Fisheries (MAFF) *Prakas*¹ on Community Forestry Guidelines. In 2010, CF was incorporated as "Programme 4" of the National Forest Programme. This broadened CF to encompass a variety of different models by which rural people could engage in, and benefit from, forest management.

The granting of a fifteen year (renewable) CF Agreement (CFA) is the first official step in establishing a community's formal eligibility to manage forest and harvest, process, transport and sell forest products and Non-Timber Forest Products (NTFPs). The CFA provides the physical description and institutional framework for the community's CF and allows for the submission of a Community Forest Management Plan (CFMP) by the Community Forest Management Committee (CFMC). To date, only a few CFMPs have been drafted, including four in Siem Reap which were drafted in 2008, not long after the issuance of the MAFF *Prakas* on Community Forestry Guidelines. As of March 2012 not one CFMP had been approved by the FA, meaning that no community had yet gained the legal right to manage their forests with a goal of selling timber and timber products.

A growing number of CF projects are being supported by donors for the purpose of improving rural livelihoods through forest-based livelihoods and enterprises. For these projects, the CFMP is an essential instrument and foundation for project implementation. As more CF projects come online and the implementing agencies gain practical experience, challenges and issues are arising regarding the development of CFMPs as called for under the existing CF (*Prakas*) and related guidelines. At the National CF Program Coordination Committee Annual Meeting held in Phnom Penh in February 2011, there was an overwhelming concern and call for the review of the CF guidelines on CFMPs, a simplification of the process and, for the creation of a standard guide for CF stakeholders. In response, the FA organized a consultancy with support from Danish International Development Agency to develop a "Manual on Simplified Forest Management Planning", in accordance with existing CF guidelines and initial field experiences in the development of CFMPs.

¹ A "Praka" is a proclamation issued as a ministerial or inter-ministerial decision and signed by the relevant Minister(s). *Prakas* must conform to the Constitution and the law or sub-decree to which they refer.

In considering CF in the Cambodian context one should include consideration of private forest smallholders as well. Despite significant differences between private forest smallholders and CF by communities, they have both issues in common, as well as problems unique to each. Private forest smallholders are persons having forest plantations on registered and titled private land. While all natural forest land in Cambodia belongs to government, trees that are planted by an individual are private. A surge in smallholder establishment of forest plantations began in 2000, for a number of reasons, principally: as a response to market demand, because of land ownership benefits it bestowed to the family and, for the economic benefits.

Findings

The following provides a brief overview of the forest regulations affecting CF and smallholders in Cambodia. In order to assess the regulatory barriers: (i) a literature review was conducted; (ii) field visits/studies were carried out in a CF and a site for smallholders; (iii) interviews with local authorities and community leaders were carried out and; (iv) a national workshop was held with representatives from the FA's various regulatory departments, the Cambodia Timber Industrial Association and, the Forest Certification Office. Where possible, cost information was collected and is presented in Table 2 at the end of this section. However, as no CFMPs are currently under active implementation, cost data are largely unavailable.

Forest Management Plan. As noted previously, the CFA is the point of departure for the community's management of forest. Once the CFA is approved, the CFMC is to prepare a CFMP with the participation of the CF members in compliance with procedure in the CFMC by-law (Article 29, Sub-Decree on Community Forest Management, 2003). It is then to be submitted to the Chief of Forestry Administration Cantonment for review. As established in the Guidelines (Article 22, Prakas on Guideline on Community Forestry, 2006) the review is to be accomplished and an official decision handed down within 90 working days. In practice, however, the FA lacks the operational guidelines and technical and financial capacity to review the CFMPs at both the national and cantonment levels. In some cases, years have passed (e.g., in Siem Reap) without approval. The Tbeng Lech CF community is another example where a CF agreement has been signed, but the community is still unable to legally extract the timber or timber products as their draft management plan has not yet been approved by the FA and well over 90 days had passed. Currently, both national funds and donor support are being channeled to funding and training of FA staff in order to address this bottleneck.

For communities as well there are very serious issues of organizational, institutional and technical weaknesses to be overcome in order to attain a CFA and develop their CFMP. While training is being provided to overcome these problems, in fact they are often poorly attended. This is due to a lack of incentives. The communities are poor and otherwise engaged pursuing their livelihoods from other sources. Meanwhile, the prospects for having an approved CFMP and developing forest-based livelihoods appear distant. One immediate effect on the forests is that efforts to control illegal logging by community members are minimal at best, given that there is no funding available for forest protection either, without a CFMP approval.

Other issues of concern that have been raised regarding the planning framework include:

- The government will take the CF back from those communities, who act in any way that may seriously damage or carry out any misconduct in managing the CF (Article 32, Sub-Decree on Community Forest Management, 2003). What constitutes "seriously damage" and "misconduct" remain to be clearly defined. While no CFMP has yet been approved, the uncertainty created by

what could be a highly subjective and punitive regulation is thought to have a chilling effect on CF development.

- CFAs may be terminated prior to the expiration date based on one or more conditions [including a determination by] the RGC that there is another purpose which provides a higher social and public benefit to the Kingdom of Cambodia (Article 28, Sub-Decree on Community Forest Management, 2003). If the RGC decides that a CF is in an area where they would like to develop another project, the CF can be taken away and the community possibly displaced as well. In the absence of any notion of due process or compensation for loss, this is perceived as a barrier to development of CFs, amongst others, particularly in more accessible and populated areas.

For smallholders, no management plan is required. However, the lack of technical and institutional capacity in the FA is an obstacle to the expansion of smallholder forests. Smallholders would benefit from support in areas such as species selection, site preparation and plantation establishment and management, etc. in order to both maximize their benefits and promote increased establishment of forest plantations.

Harvesting. There is a comprehensive set of regulations in place around harvesting of timber and NTFPs for any purpose, commercial or domestic. Harvesting of timber for commercial purposes requires a permit issued by the FA (Article 24 & 25, Law on Forestry, 2002). Harvesting (and all other activities) within the permanent forest estates requires permits that: (i) set the annual harvesting quotas for forest products & by-products; (ii) authorize the harvest of the forest products & by-products and; (iii) set the harvest quota of forest products & by-products for local communities (Article 96, Law on Forestry, 2002). Faced with these permitting requirements, community informants suggested that they see the costs associated with compliance as excessive (i.e., revenues would be significantly higher from illegal rather than legal logging). Additional concerns were raised regarding:

- Article 12, Sub-Decree on Community Forest Management, 2003 that establishes that while communities under a CFA may harvest, process, transport and sell forest products and NTFPs, they may not do so within the first 5 years of approval of the CFMP. Such a waiting period is an enormous constraint and disincentive to the development of CF as a livelihood option.
- Prakas on Guideline on Community Forestry, 2006 sets out that the harvesting of forest products and by-products, either at levels greater than the customary user rights or for commercial purposes, shall be subject to payment of Royalties and Premiums to the State. Given the potential cost burden associated with overall regulatory compliance, such additional payments to government are viewed as restrictive to the growth potential of the CF subsector.
- The Cambodian Code of Practice for Forest Harvesting, 1999 requires that directional felling be used to minimize damage to standing trees, assist skidding and avoid ground disturbance. There are potentially significant cost implications for compliance with this requirement in hilly and mountainous areas where additional equipment and/or workers would be required to do so.

For smallholders the only concerns were related to obtaining permission to use a chainsaw and norms that do not all a tree to be cut below a specific height. In practice, authorities assume that chainsaws used in harvesting are invariably illegal if not wielded by licensed operators. This requires potentially unnecessary, additional cost to the smallholder. The prohibition on cutting below a certain height decreases the usable timber in the most valuable log in a tree (the butt log).

Transportation. Separate permits are required for both transport quotas and the transport of forest products and by-products (Article 26, Law on Forestry, 2002). Significant penalties (fines) are established for failure to comply (Article 96, Law on Forestry, 2002). At present, in the CF community there is no

legal harvesting occurring (i.e., no approved CFMPs) and therefore permits are unattainable. Instead, payments must be made to officials at check-points or when transporters encounter the police, environmental and/or FA officers. The payment may range from USD 10 - 20 or even as high as USD 50 for a loaded oxcart. Transport by bicycle, at night, is one way that checkpoint payments are avoided.

For the smallholder, timber can be transported anywhere without tax payments when in possession of a proof of timber origin to show at the check points along the road. There are exceptions to this for certain tree species (e.g., grade 2 *Hopea odorata* grown in natural forests). Of greater concern was the need to make "payment" (for which no receipt is given) at every check point along the road. These average about KHR 20,000 (USD 5) at each point. Occasionally there was also a middle man that had to be paid.

Processing. For both CF and smallholders it is prohibited to establish and operate any type of processing facility for forest products or by-products within the boundaries of the Permanent Forest Reserves or within five kilometers of the boundary (Article 30, Law on Forestry, 2002). Permits are required to establish and operate any type of processing facility for forest products or by-products (Article 25, Law on Forestry, 2002). Relatively harsh penalties (incarceration, fines) are indicated for use of a chainsaw without permission of the Head of FA or, the import of machinery, vehicles and chainsaws without an appropriate evaluation by MAFF (Article 99, Law on Forestry, 2002) or, for processing unpermitted raw materials (Article 96, Law on Forestry, 2002).

Although these are in place to restrict illegal activities, this is an example of another set of regulations with the potential to severely restrict the development of forest-based livelihoods through CF. For example, there are no guidelines for using portable sawmills, therefore their use is illegal. Effectively, then, the potential for value-added processing or semi-processing by communities is further limited, as well as having to pay additional costs should processing be desired. Even if allowed, they could not be deployed on or near the logging site to generate savings in transport costs.

Selling. Permits are required to stock, store, sell or distribute forest products and by-products (Article 25, Law on Forestry, 2002). The main issues here are complexity and ambiguity. Taxes vary depending on species and co-Prakas between MAFF and Ministry of Economics and Finance may be needed; this is under discussion. A special permit is required if logs are to be exported (export license) and logs to be exported from CF communities have incremental processing requirements (must be smooth on two sides) while smallholders can export rough logs).

For smallholders: (i) any timber can be exported but is subject to an export license (Article 2, Sub-Decree 131); and (ii) while any kind of timber can be sold with no taxes levied, evidence must be provided when selling as to timber origin.

Purchasing. Timber from CFs, sold to customers or any third party who has collected forest by-products from local communities for purposes of trade, must have a permit to be transported and is subject to royalty and premium payments (Article 40, Law on Forestry, 2002). Presently there are no guidelines for communities and smallholders for purchasing, apart from what is standard procedure when purchasing from larger companies. It is thought that if timber is brought directly from the CF, it would be required to show the CFA and CFMP under which it was harvested. The Ministry of Economics and Finance sets the selling price of timber and the minimum price is based on royalties and species. In the case of direct purchase from smallholders, there are neither taxes nor requirements to follow official prices, i.e., the smallholder can negotiate the price with the buyer.

Table 2. Estimated costs to communities and smallholders for meeting the regulations in Cambodia (KHR 4000 = USD 1 approx)

Step	Regulation	Cost (time & money)
Forest Management Plan ¹	The CFMC shall prepare a CFMP with participation of the CF members in compliance with procedure in the CFMP by-law (Article 29, Sub-Decree on Community Forest Management, 2003).	CFMP review long & expensive process (data collection, analysis, updating of planning criteria & indicators).
Harvesting ²	<ul style="list-style-type: none"> Any individual, legal entity, or community that intends to harvest timber products for commercial purposes must possess a harvesting permit issued by FA (Article 24, Law on Forestry, 2002) Local communities living within or near the Permanent Forest Reserves, the state shall recognize and ensure their traditional user rights for the purpose of traditional customs, beliefs, religions and living as defined in (Article 40, Law on Forestry, 2002) 	Costs for harvesting permits & royalty payments are not yet set nor have any CFMPs been approved so no data is available on this aspect.
Transportation ³	All activities related to the permanent forest estates and forest products & by-products shall require transport quotas permit and transport permit issued through authority of Head of FA (Article 26 Law on Forestry, 2002)	No information is available about time and cost and it is not outlined in the regulations.
Processing	<ul style="list-style-type: none"> All activities related to the permanent forest estates and forest products & by-products require the following (Article 25, Law on Forestry, 2002): <ul style="list-style-type: none"> a. Prakas to establish a forestry industry, sawmill, or forest products & by-products processing facility; b. A permit to establish all types of kilns that use forest products & by-products as raw material. It is prohibited to locate processing facilities in the domain of the Permanent Forest Reserves; must be located at least 5 km from the boundaries (Article 30, Law on Forestry, 2002). 	<ul style="list-style-type: none"> As noted above, no information is available as yet. The requirement that processing facilities be located 5 km or more from the CF will increase transport costs and time. The same may be true for smallholders.
Selling	<ul style="list-style-type: none"> Anyone with legal possession of a harvest permit must pay all royalties and premiums prior to transferring or selling any of these rights to a third party (Article 56). Individuals who gather, transport, process, stock, sell/buy, or export/import Forest Products & By-products shall provide the original legal documents concerning these products upon request by the FA inspection Officer (Article 75, Law on Forestry, 2002)⁴. 	<ul style="list-style-type: none"> No information was available from smallholders on royalty payments. For CFs there are no guidelines regarding royalty payments.
Purchasing	Timber from community forests sold to customers or, any third party who has collected forest by-products from local communities with the purposes of trade, requires having the permit for forest by-products transportation and is subject to royalty and premium payments (Article 40, Law on Forestry, 2002).	<ul style="list-style-type: none"> Timber can only be sold locally Grades I & II timber sells for KHR 1.28 million/m³ (USD 320) A pole (10-15 cm x 3-4 m) sells for KHR 12,000 - 13,000 (USD 3 – 3.25).

¹ – There is no set standard for management plan review, thus it is difficult to assess the time & cost required.

² – Timber sales constitute commercial use and therefore are subject to royalty payments.

³ – As no CFMPs have been approved, there has been no legal transport of timber at this time

⁴ – MAFF may grant an exception based on FA study demonstrating no harm or significant social/environmental impacts.

Conclusions and Recommendations

In Cambodia there are currently no communities able to legally earn their living from timber as no CFMPs have been approved by FA. Regardless, there exist many regulatory barriers that could or will prevent communities earning their living from timber and timber products. Barriers for smallholders are much less onerous, giving them much greater freedom along the value chain as compared to communities.

More attention is required to supporting local communities by further analyzing the regulatory barriers found in this study. Due to the lack of human and financial support, management plans in CF are not progressing. These play an important role in organizing the CF for long-term sustainable uses of timber and will be a key element in employment generation and enabling economic growth and poverty reduction from forest-based activities.

There is a critical need to enhance forest governance and so foster a more positive business and investment climate for both CFs and smallholders. Better governance, including control over illegal activities in the timber value chain, will be a prerequisite to attaining responsible investment and improving the subsector's contribution to social and economic development objectives. Good opportunities exist and are being forgone because of the poor business environment and constraints on the growth of markets. Illegal activities dominate in many CFs and smallholder communities, undermining incentives to invest, innovate and increase productivity. A review of the potential cascade effect of regulatory costs and taxes on businesses working or wanting to invest in CF would be highly desirable to assist decision-makers in avoiding the creation of disincentives to subsector growth.

Building up and investing in human capital will go hand in hand with improving the investment climate. Increased funding and improved technology will be a waste of time and resources if not accompanied by sound management, quality timber, dynamic marketing and more equitable producer:buyer relationships. To be able to participate in markets (including, one day, carbon markets) all CFs and smallholders will need assistance. Governments can foster a skilled workforce through basic education programs, well-considered labor market interventions to promote higher skills, and through helping workers cope with change. Additionally, cross-learning between CFUGs and smallholders, to share and disseminate successful experiences must be a central element of education in CF and smallholders communities.

Currently none of the community forests have their management plans approved, which means communities cannot harvest and benefit from timber legally. The procedures required for communities to obtain approval of their management plans needs to be simplified and made transparent. Additionally, the capacity of FA staff and community members needs to be strengthened in order to meet the regulatory requirements. Other operational barriers, such as the inability of smallholders to use chainsaws without obtaining permission, should be evaluated and removed in favor of more outcome-based approaches (e.g., focus on illegal felling, not the means of felling at the expense of legitimate users).

Specific recommendations for action in Cambodia are as follows:

- Define in detail “seriously damage and misconduct” – for example, once the CFMP has been approved the CF will be taken back from communities if they cause serious damage to the CF by not following the CFMP (as set out in Article 32, Sub-Decree on Community Forest Management, 2003).
- Regarding Article 28, Sub-Decree on Community Forestry Management, 2003 where the CFAs may be terminated prior to the expiration date if the RGC determines that there is another purpose which provides a greater social and public benefit to the Kingdom of Cambodia. If this regulation is

to remain in place it should be clarified and incorporate compensation mechanisms, as required, and environmental benefits.

- Waive fees for harvesting permits and issue them at the same time the CFMP is approved (referring to Article 24 & 25, Law on Forestry, 2002, and Article 96, Law on Forestry, 2002).
- Regarding Article 12, Sub-Decree on Community Forest Management, 2003 which states a 5-year waiting period before harvesting or selling of forest products; the recommendation is that this regulation should be modified so CFs can harvest timber as soon as the CFMP has been approved. Royalties should be reduced or removed.
- Referring to Articles 26 & 96, Law on Forestry, 2002, remove the need for communities to pay at checkpoints along the road for timber harvested. Ensure that all stakeholders (communities, police, FA, etc.) understand no payments should be made or collected. Issue quota and transport permits at the same time the CFMP is approved. If any administrative costs must be charged, it should be minimal relative to the potential profit. The same recommendation is valid for smallholders, i.e., issue transport permits that negate the need to pay at checkpoints.
- Regarding Article 30, Law on Forestry, 2002, allow communities and smallholders to have chainsaws, portable sawmills, kilns and small processing facilities within or proximate to the Permanent Forest Reserves to reduce costs and optimize profits. Maintain suitable penalties for those found to be processing illegal timber (e.g., confiscation of equipment and machinery, fines, etc.).
- Guidelines for CF taxation should be based on principles of fairness, equity, transparency and simplicity. For example, species should not be taxed at different rates as not all CFs contain the same species or species mix. Alternatively, reduce the tax CFs pay on their timber revenues or waive taxes altogether for CF communities that successfully protect and manage the public domain forests for which they take over responsibility.

INDONESIA

Background

Indonesia began to devolve a limited degree of authority and management responsibilities to local communities and indigenous groups through CF schemes in the 1990s, following the “experimental” (i.e., not formally legislated) CF approaches attempted between the 1970s and 90s. The first formal arrangement was the introduction of a program, CF Hutan Kemasyarakata (HKm), in 1995 through Ministerial Decree No. 622. The program aimed to rehabilitate degraded land and/or to protect conservation areas while providing locals with economic opportunities. The Ministry subsequently issued Decree No. 677/1998, which conferred on target beneficiaries long-term usufruct rights for purposes of subsistence and income generation.

In 2007, a Government Regulation (PP No. 6/2007 under the Forestry Law 41/1999) introduced the current CF arrangements, including several new schemes in addition to HKm. There are major differences on the objectives and the targets of the three schemes that affect how local people and communities access the forest resources.

- HKm aims to empower local communities (individuals) to improve their ability to sustain their livelihood through improved access and optimal uses of forest resources. People must organize themselves in a CF group, but not necessarily from the same village.
- HD - Village Forests (*Hutan Desa*) implemented in state forests within village boundaries, to foster the village development and to improve the prosperity of the people.

- HTR - People's Timber Plantations (*Hutan Tanaman Rakyat*) schemes aim to encourage local people to engage in more financially-oriented forest practices through development of timber plantations to increase the domestic timber supply.

The CF schemes allow communities access to forest resources and give them the right to exploit and benefit from timber and non-timber resources while excluding others from using their forest resources. The long-term rights granted – while not full ownership rights – mean that the forests are effectively held by the communities. However CF communities and groups are faced with numerous legal requirements and administrative and technical barriers that significantly impact their ability to meaningfully benefit from the resources under their control. The main constraints are both within the formal regulatory frameworks and the informal environments (e.g., corruption); these act as barriers that reduce the viability of community and smallholder forestry.

Indonesia acknowledges clear separation of forestland from non-forest areas (e.g., agriculture), reflecting the tenurial separation of state domain from private property. According to recent data, the Indonesia's forest area spans about 131 million hectares, approximately 100 million hectares of which are identified as forested (Ministry of Forestry 2012). The forests are now designated into (1) Conservation Forest; (2) Protection Forest; and (3) Production Forest. The sector generates approximately USD 6-7 billion annually in formal revenues, with further USD 1 billion from informal revenues associated with illegal logging and unreported exports (Barr et al. 2006). The export of wood products represents an estimated 15% of total export earnings (APKINDO 1998). In addition, forestry and the forest industry provide direct employment to more than one million people and indirect employment to many, many more (Hasan 1991, Massijaya and Kartodihardjo 1999).

Forest tenure and administration reflect the overwhelming hegemony of the state over the forest resources: the state claims the custody the forest and controls its allocation and management. The state's control over forest resources is based in the 1945 National Constitution, principally in Article 33, which stipulates that the natural resources are to be controlled by the state.

The Basic Forestry Law was enacted in 1967 to secure the state's legal-regulatory control over the nation's forests (Barr et al. 2006). The Law defined that all forestland that is unencumbered by private rights and titles was automatically be designated as Forest Zone (state forestland) which included the forestland used by Adat² communities. The 1999 Forest Law, further strengthened regulatory control over the harvesting, processing, and marketing of forest products, particularly timber (Barr et al. 2006).

By the end 2011, the total area of forest land transferred to local communities was less than 30,000 hectares. The total area of state forestland that has been approved for allocation to the communities is less than a million hectares. The latter is a tiny fraction of the state forestlands and the former is a small fraction of the lands available to be allocated. A main reason for this slow pace is that the implementation of the CF schemes (HKm, HTR, HD) relies on the availability of state forest areas that are not under any other licenses. The is often fraught with problems. There are common discrepancies between the actual land conditions and official qualifying criteria, for example, the existence of residential areas and agricultural activities. Also, sites may be too distant, too scattered and highly fragmented creating a host of operational issues, not the least of which is the greatly increased transportation costs (Obidzinski and Dermawan 2010, Kartodihardjo et al. 2011, Noordwijk et al. 2007).

² *Adat* refers to “the cultural beliefs, rights and responsibilities, customary laws and courts, customary practice and self-governance institutions shared by an indigenous group prior to incorporation into a colonial or post-colonial state.” (Contreras-Hermosilla and Fay 2005)

The existing schemes (particularly HTR), arguably offer a degree of tenurial security that is close to the full bundle of ownership rights defined by the Rights and Resources Initiative (Sunderlin et al. 2008). Unfortunately, where HTR permits are lacking (Permenhut 23/2007 art. 15) is that they cannot be traded, transferred or inherited. This limits the time horizon of a household's management options (Obidzinski and Dermawan 2010) and dampens the enthusiasm of local communities for engaging in HTR plantations (Schneck 2009).

The complex licensing process has slowed the adoption of CF programs. For the three programs discussed a number of Ministerial Decrees (No. P. 51/Menhut-II/2006, No. P. 62/Menhut-II/2006, Regulation No. P. 33/Menhut-II/2007) have been issued for establishing licensing procedures. Licensing is said to be necessary for ensuring the tenurial rights the people so that they can exclude non-grantees from accessing and using the forests once being granted with the licenses (Muttaqin 2010).

Two General Directorate regulations (Perdirjen No.10 & 11/2010) were promulgated in hopes of achieving a 60-day completion time for the processing of applications for licenses under the three schemes. This goal has not yet been achieved and the current process now averages about a year and is technically demanding. The lengthy process is due in part to investigations on whether the groups have the capacity for managing the forests (Maryudi 2011) and difficulty in accessing assistance from the numerous governmental institutions. No formal costs are involved in the licensing processes, although significant costs are incurred in the preparation of the application. "Informal" fees and payments are known to occur (Noer 2011).

Findings

A brief overview of the regulations and policies affecting progress in implementing CF in Indonesia is presented here. Information was obtained through a study, based on literature review and policy analysis on forest administration and management and CF development in Indonesia. That cost information that was possible to obtain is presented in Table 3.

Forest Management Plan. The three schemes require the development of management plans, for both management and utilization rights, meaning two sets of application procedures are needed before harvesting timber. Before securing the utilization rights, HKm and HD grantees are only permitted to use the forestland and harvest non-timber products. In the HTR, the right to timber is bundled with the principal permit and the government has allocated more financial support for assisting the HTR grantees. The maximum area included in the permit is 900 hectares which requires communities seeking to manage larger areas to apply for multiple permits (Royo and Wells 2012).

Management planning requires communities to: (i) map and gazette forests; (ii) detail management objectives, approaches and technical practices to be employed; and (iii) submit reports to government on management activities. Business licenses are also required in addition to the permits granting them rights in an area (Royo and Wells 2012). Considering that the limited capacity of forest users and the licensing requirement pose a great deal of challenges, the HKm and HD communities which currently have licenses were assisted by NGOs through donor-funded projects (Maryudi 2011).

The HKm scheme requires that the district and provincial governments facilitate the process on developing groups, creating management plans and empowerment (Ministerial Regulation P.37/2007). This rarely occurs due to limited human resources and budgets (Partnership Program 2011) in local government and perception that it is a central government program (Ministry of Forestry), to which they have no structural responsibilities and offer limited opportunities to boost the incomes for local governments (ibid.).

Local communities are experiencing a financial burden in implementing the community forestry schemes with limited financial support from government. For example, only USD 5.7 million (in the form of grants) had been allocated for assisting HKm and HD grantees in preparing management plans whereas the actual cost may be in the region of USD 27.8 million for 500,000 hectares (Royo and Wells 2012).

In order to fulfill the demand for national timber industries the Ministry of Forestry has established the Forest Development Funding Agency to support the development of HTR plantations. The HTR grantees can access a government fund of around USD 5 billion derived from the Reforestation Fund between 2007 and 2016 with lower than commercial interest rates set by the Indonesian Deposit Insurance Corporation (Obidzinski and Dermawan 2010).

Few HTR grantees have been able to access the financial support for several reasons: (i) lack of regional offices (grantees must apply directly to the Jakarta office) (Kartodihardjo et al. 2011); (ii) limited ability to nurture and aggregate HTR groups at a scale capable of absorbing the financing schemes (Royo and Wells 2012).

There are also concerns on whether financing schemes are enough to meet the true cost of set-up and maintenance (Schneck 2009, Obidzinski and Dermawan 2010, Royo and Wells 2012). Schneck's study (2009) on 22 proposed HTR sites reveals a negative Net Present Value under the predicted base-case prices. This means that HTR may be financially nonviable as it will cost more to implement than the financial benefits it would generate.

Despite its significant contribution to the national timber industries, financial support is rarely provided to smallholders on private lands. Financing schemes for micro, small and medium-sized enterprises exist but commercial banks are rarely supportive of the long term requirements of tree growing. Another difficulty relies in the fact that land titles, required for the collateral bond before accessing any loans and credits, are rarely held by smallholding tree growers.

Harvesting. The implementation of community forestry schemes in state forestland has yet to yield a significant quantity of major forest products (e.g., timber). All timber harvested is from smallholding private tree farming. Although the land is not under its domain, the Ministry of Forestry controls and regulates the harvests of the trees and the transportation. In many cases, people rarely apply for harvest permits for their own use.

Forestry Ministerial Decree No. 126/Kpts-II/2003 on Forest Product Management requires that prior to any harvest, tree growers apply for a harvest permit, to be issued by the district forest service. This is to ensure applicant's ownership and to prevent illegal harvesting in state forests. The process of getting the harvest permit is often complicated requiring (i) presentation of applicant's ID card; (ii) a letter from the village chief indicating that the trees are owned by the applicant; (iii) A field check by a team from District Forest Service, a sub-district officer, Perhutani officer, and police and military personnel to confirm proper ownership.

Formally, a harvest permit costs nothing, but a number of local/district governments also see harvests of trees in smallholding tree farming as an opportunity to generate regional revenues, either formally or informally.

Transportation. The Ministry of Forestry requires that the transport of timber (for specific species) be accompanied with a certificate of origin issued by the District forest service. The tree farmers must provide a note from the village chief that states the harvested trees originate from the farmers' own land. The process of obtaining the certificate is often cumbersome and may be unavailable at the district

forest service. It has been stated that the documents are often sold as blank documents to timber traders (Rahmanta Setiahadhi, personal communication 21 February 2013).

Regulations do not stipulate fees to obtain the certificate of origin, however fees are charged on the harvest by the village chief and the district government (through the forest service). Informal fees are also often charged by police and the district transportation agency (Mayrowani 2006).

Selling. The process of obtaining documents, coupled with the limited knowledge on the timber markets, has encouraged individual tree farmers to rely on timber traders/collectors who offer lower timber prices to the farmers. It is suggested that tree farmers generally receive less than 50% of the actual market price for timber (National Geographic Indonesia 2012). Timber traders have become influential in some regions where they are well connected to district forest officers or influential district government representatives, who might issue local regulations favoring them vis-a-vis tree growers (Rahmanta Setiahadhi, personal communication 21 February 2013).

For marketing timber internationally, the government of Indonesia's Ministry of Forestry has welcomed the EU's Forest Law Enforcement, Governance and Trade Action Plan dedicated to tackle illegal logging and its associated trade. In 2011, Indonesia and the EU agreed to sign a Voluntary Partnership Agreement (VPA) in 2013. Anticipating the conclusions of VPA negotiations with the EU, the government of Indonesia had made a "jump start" by swiftly implementing the legislations for the *Sistem Verifikasi Legalitas Kayu* (SVLK or Indonesian Version of Timber Legality Assurance System). This is a mandatory legal verification that is applied to all forest management units on both state and private forests and within wood processing industries. Some analysts are concerned that the implementation of the VPA and its legal verification system may turn out to be an insurmountable barrier to many communities and increase poverty among forest-dependant, vulnerable groups (Kaimowitz 2003, Elson 2008). Others (e.g., Dharmawan et al. 2012) suggest that tackling illegal logging amongst those who are the least prepared for legal verification – in this case, small-scale tree farmers – misses the point as it target a practice that rarely occurs, if it exists at all (MFP 2012).

For most, the costs of legal verification and the surveillance are beyond reach. This is because of the artisanal nature of tree planting and the treatment of such trees as a source of complementary, additional income. Legal verification of group management units is advocated as a strategy to deal with the costs associated with verification (MFP 2012), but thus far the only groups that have been legally verified were those where the financial and transactions costs were fully borne by donors. It is highly unlikely that the full costs of SVLK certification will be paid by donors when one considers the vast area of smallholding tree farming in Indonesia.

In addition, SVLK requires tree growers to meet a complex set of criteria and indicators. Although the standards are said to be remarkably simple (van Heeswijk 2010), farmers face huge challenges in preparing the verification. Months or more than a year may pass before a group becomes ready for the verification (Arupa 2013) as, among others, it requires time and energy outside of farming and other livelihood activities. Problems with obtaining land titles and formal and informal payments collected by the village chief and BPN officers also add to the complexity of the process.

Conclusions and Recommendations

The recent policy shift toward community forestry in Indonesia shows an emerging acknowledgement of the ability of local forest users to manage forest resources sustainably, and gives the people opportunities to benefit from the resources. Nonetheless, local forest users and smallholding tree growers face a number of regulatory and technical barriers as well as limited financial support from the government. That the government-initiated community forestry schemes fall short of the initial targets

**Table 3. Estimated costs to communities and smallholders for meeting regulations in Indonesia
(IDR 9700 = USD 1)**

Step	Regulation	Cost (time & money)
Forest Management Plan ¹	Government Regulation PP6/ 2007 (for HTR scheme utilization is bundled in principal permit), requiring that <ul style="list-style-type: none"> • map and gazette forests; • detail management objectives, approaches and technical practices to be employed; and • submit reports to government on management activities. 	For 15 ha: mapping, data processing, documentation, reporting; facilitator: IDR 20 million
Harvesting	Ministerial Regulation P.55/Menhut-II/2011 (limits management area to 500 ha for HTR) Forestry Ministerial Decree No. 126/Kpts-II/2003 on Forest Product Management requires that prior to any harvest, tree growers apply for a harvest permit, to be issued by the district forest service	<ul style="list-style-type: none"> • Formally costs nothing, but may spend a minimum of IDR 200,000 to cover expenses of inspection team • District Governments may charge from IDR 100,000-200,000/permit
Transportation	Requires a certificate of origin (dependant on species) <ul style="list-style-type: none"> • Regulation No. P.51 & 62/Menhut-II/2006 • Regulation No. P.33/Menhut-II/2007 	No costs to obtain certificate of origin Informal fees charged by police and district transportation agencies (collectively up to IDR 500,000 for 4-6m ³) ²
Timber Sales	SVLK (Indonesian Version of Timber Legality Assurance System)	Costs thus far have been paid by donors Process may take months or years Informal payments may be required

¹Exwan Novianto, an HKm facilitator, personal communication 25 February 2013

²Rahmanta Setiajadi, personal communication 21 February 2013

in terms of the limited areas of state forestland being managed by forest communities, this is explained to a large extent by the regulatory barriers of tenurial uncertainties and the complex licensing procedures. Those, coupled with the limited capacity of communities and the lack of technical assistance provided by government institutions, appear to impede local peoples' ability to secure community forestry licenses.

Still, even those that have secured CF licenses have yet to obtain meaningful benefit from the forests, particularly timber. Even in cases where the trees were planted by the communities, as in HKm cases in Yogyakarta, government has not permitted harvesting.

Further, the government rarely provides technical and financial assistance for CF. Only HTR grantees appear to receive some degree of support, although there are concerns that assumptions used for the financial subsidies/loans do not encourage viable business.

Similarly, smallholding tree growers, despite their contribution to improving the environment and supporting the national timber industries, lack government support. One of their main challenges is their reliance on timber traders, who receive a large share of profits along the distribution chain. Loans can help, but commercial banks and micro financing institutions are rarely convinced of the viability of tree growing business ventures. Some government regulations, principally on harvest and marketing of timber from private forests, result in increased financial burden on the growers due to both the formal and informal fees and payments charged. Arguably, these regulations may enhance the power of timber

traders in the market chains. Finally, the new policy on mandatory legal verification could have unintended impacts on the livelihood of the people.

Recommendations for minimizing some of the challenges faced by communities in forest management include:

- The government should attempt to remove both regulatory and technical barriers which prevent local communities and smallholding growers to benefit from the forests. This includes removal or revision of unfavorable policies, and provide technical facilitation and financial support to encourage the competitiveness of community forestry business.
- Simplified licensing procedures (for both management and harvest rights) should be supported for CF schemes in the state forests can also reduce the preparation costs of documents.
- Establish an integrated task force/desk in closer proximity to the applicants to reduce time and minimize informal fees/payments. This can also provide services for CF grantees in accessing financial support provided by the government (BLU³ scheme).
- Technical assistance and capacity building for dealing with the complex managerial requirements are also crucial. The government can collaborate with other institutions, e.g., universities, NGOs and local governments in providing technical assistance (requiring greater financial commitment from the governments). While substantial funding has been allocated, the challenge is how to ensure that BLU scheme can be equally accessible for all community forestry schemes.
- Financial support is needed by smallholder tree growing in private land. Establishing micro finance institutions with simpler requirements in providing loans will reduce the dependence of the tree growers on timber traders which may consequently improve their bargaining positions in regards to the price negotiations.
- Technical assistance for the farmers, particularly on improving silvicultural practices, would improve the quality of the timber products and eventually increase financial benefits.
- In both state and private land, mainstreaming CF among related institutions and stakeholders should be further improved. There is a need for intersectoral coordination and cooperation with the Ministry of Home Affairs, National Police and Highway Service and other related institutions, for example, to minimize the additional payments charged by local governments (village, sub-district and district) on harvests and transport. This could also reduce the dependence of tree growers on timber traders, who have the advantage of know how to deal with these multiple actors.
- Government should take advantage of and systematically reward good forest practices through payment for environmental service schemes and carbon trading. These additional benefits would be important for communities and smallholders.

NEPAL

Background

Community forestry was introduced in Nepal during the 1980s through a series of policy and legislative reforms aimed at 'regreening the Himalayas' in order to counter rampant deforestation and a perceived ecological crisis. Buoyed by early successes and government's decentralization policies, CF expanded rapidly throughout the 1990s under the auspices of the Forest Act of 1993, Forest Regulations of 1995, and the CF Guidelines of 1999. Today over 1.6 million hectares of forest are managed by over 17,685 CF user groups (CFUGs), equivalent to 25% of Nepal's forest being managed by 35% of its population (DoF

³ The "BLU scheme" (*Balai Layanan Umum*) is a government-operated revolving fund that provides low interest loans to forestry investors in support of the development of production forests.

2012). Outcomes from CF have included the rehabilitation of degraded hill forests (Yadav et al. 2003, Gautam et al. 2004), improved livelihoods (Kanel and Niraula 2004), strengthening of local institutions and more democratic governance of natural resources (Pokhrel et al. 2007).

Nepal's forest policies, laws, and institutions are largely protection-oriented and tend to avoid market development issues (Hills 1999, Bampton and Cammaert 2007, Banjade et al. 2011, Paudel et al. 2010). While the 1995 Forest Regulations clearly state that CFUGs can extract timber from their CFs, the overall framework appears to deliberately discourage timber harvesting and trade, particularly for rural communities. Indeed, since its inception CF has focused on meeting the basic forest product needs of rural people (Hobley 1996, Springate-Bingiski and Blaikie 2007, Ojha et al. 2008). This orientation is manifested by:

- government's reluctance to hand over valuable timber resources in the Terai region (southern lowlands);
- the placement of strict regulatory controls on timber harvesting and high royalty payments levied on timber and;
- the high profile of NTFPs in policy documents, development plans, political manifestos and public discourse, where they appear as highly significant economic assets for rural peoples whereas in practice their economic contribution is relatively small (Banjade et al. 2008).

Government policies also change frequently and without warning; for example, blanket bans were issued on tree felling in 2010 and 2011. The first, due to media attention on illegal logging and corruption in the Terai and the latter in "observance" of the UN's International Year of Forests.

The subsistence-focused policy largely ignores the clear trend of CFUGs becoming increasingly involved in timber-related activities. Recent case studies (Paudel et al. 2008, Pokharel et al. 2007, Banjade et al. 2011) have found that timber increasingly accounts for the majority of CFUG revenues; in some cases more than 70% and as high as 90%. Estimates from forest technicians suggest that currently some 50 to 60 million ft³ (1.4 to 1.7 million m³) of timber may be harvested from forests by CFUGs following principles of sustainable forest management (Subedi 2012). While still a very small volume, it does indicate the broader potential for CFUGs to enhance rural livelihoods through commercializing timber. Yet, despite the significant improvements in CF timber stock and emerging market opportunities, CFUG potential to benefit from timber sales is largely constrained by restrictive government policies and regulatory frameworks, the lack of financial resources and capacities, and the attendant corruption that can flourish where economic opportunities conflict with institutional frameworks.

Findings

The following is an overview of the framework that regulates CF and the concerns and issues it has generated among stakeholders. The sources of the latter are primarily from semi-structured interviews with key stakeholders (government authorities, community leaders, traders and contractors); five focus group discussions with CFUGs; field observations of timber harvesting operations, transportation, depots, etc. and; a national-level meeting with thirteen experts in Kathmandu, representing the Department of Forests, Federation of Community Forest Users Nepal, association of timber traders, policy experts and researchers. Where possible, information is provided on the costs associated with regulatory compliance (see Table 4).

Forest Management Plan. Every five years CFUGs must – according to the Forest Act 1993: Article 25 and Forest Regulations 1995: Rules 28 – prepare or renew their management plans. These are commonly referred to as "community forest operational plans" or "OP". These plans are to define forest conditions, regulate management activities and, establish the allowable annual cut). The requirements

and guidelines for OP content and preparation are provided in the CF Inventory Guidelines of 2004. Prior to granting or renewal of CFUG management rights, their OPs are reviewed by the District Forest Offices (DFO) to ensure compliance with the district-level forest management plan (DFMP). The DFMPs, as established by law (Forest Act 1993: Article 20; Forest Regulations 1995: Rule 3) constitute the master plans for guiding forest management and use in the district.

Relative to the technical capacities of the CFUGs and local DFO officers, the 2004 CF Inventory Guidelines are overly demanding. The guidelines require detailed information on forest resources (e.g., block-wise data on growing stock, annual growth rates) and management practices (e.g., selection systems, improvement felling, annual allowable cut). Given the CFUGs limited financial resources and inability to hire technical specialists and, their lack of equipment and technical capacity for preparing an OPs themselves, there is good reason to question the reliability of the management plans being produced. Other priority concerns include:

- Many local DFO officers have insufficient knowledge and resources to fully meet OP requirements. Anecdotal evidence suggests that sampling errors in calculating growing stock and annual allowable cuts are between 10% and 50%; leading to DFO staff the tendency to err on the side of underestimation.
- The DFMPs are, in many instances, poor quality. They contain incorrect data on forest conditions, are prepared with limited resources and, developed without consultation with the CFUGs. As the OPs are required to conform with the DFMPs, these weaknesses are carried over into the Ops.
- CFs are required to undergo an initial environment examination (if ≥ 200 ha) or a full environmental impact assessment (if ≥ 500 ha). This is beyond the capacity of the CFUG and costly in terms of time and money.
- Given all of the issues enumerated above, significant room is left for discretion on the part of the DFO staff in interpreting inventory data, environmental conditions, etc.. Along with their forest administrative power, they are in a position to manipulate OP's provisions and to forge clandestine relationships with CFUG leaders and timber traders.

Harvesting. There are no specific government policies to regulate CF timber harvests. The 1995 Forest Regulations clearly state that CFUGs can harvest timber from CFs on the basis of approved OPs. Thus DFO officers commonly encourage the CFUGs to utilize the government's guidelines for harvesting in government-managed forests (Forest Product Collection and Sale/Distribution Guidelines). In accordance, CFUG harvesting operations follow six steps and each is associated with compliance concerns:

1. Application to DFO for tree marking (Guidelines 2002, Guide 4) – The documentation for this is difficult and time-consuming to compile. CFUGs are required to submit copies of timber harvest decisions made by the CFUG general assembly and executive committee, the previous year's CFUG annual report and financial audit, and recommendations from the local DFO range post and sub-district (*Area/Ilaka*) forest office.
2. DFO's decision for marking (Guidelines 2002, Guide 4) – The CFUG timber harvest application is reviewed by the DFO and they may set special conditions (e.g., may fell on dead, dying, or dry and fallen trees) in exchange for approval. After approval, the local forest ranger is assigned to mark trees in the CF for harvest. The approval process is generally slow due to incomplete or unclear documentation, requiring several rounds of back-and-forth reviews before approval.
3. Marking in the field (Guidelines 2002, Guide 4) – Forest technicians and CFUG members must record detailed information on all marked trees (e.g., species, height, DBH, overall condition,

etc.) and calculate the timber volume. Tree selection typically involves negotiation between the forest technicians (who often lack expertise) and CFUG members.

4. Application to the DFO for a timber harvest permit – After tree-marking, the CFUG applies for a harvest permit. The application requires detailed records from the CFUG and recommendations from DFO technical staff. It is relatively straightforward for the CFUGs to provide the required details and documentation, yet delays are common due to additional information requests.
5. Issuance of harvest permit – The DFO, in consultation with technical staff, may make final suggestions or set conditions for timber harvesting (e.g., number or condition of trees and/or volume). CFUGs are given authority to harvest within a certain time period; sometimes under the direct monitoring of DFO field staff.
6. Harvesting and logging in the field – Harvesting operations (felling and bucking) are carried out either by contractors or the CFUGs. The DFO's technicians monitor and supervise the operation. Day-to-day monitoring is by the CFUG's monitoring committee that keeps detailed records of logs and felled trees. In general, those carrying out the harvest lack adequate training and knowledge of safety measures. Between poor skills and substandard felling equipment, operations are inefficient and waste is high (an estimated 10% to 20% of wood is wasted on-site). Many CFUGs feel that DFO technical support focuses more on meeting administrative formalities than providing actual technical guidance to help improve efficiency of the harvesting operations.

Transportation. The transport of timber from the CFUG depot to the market must follow: (i) the criteria for sales established in the OP and; (ii) Forest Regulations 1995: Rule 35 and Guideline 2002, Guide 16. These latter specify that timber must be transported within 21 days from the date of approval of the tender. A transportation permit, specifying the route and vehicle number, is jointly issued by the DFOs and CFUGs. Both organizations also place a mark (with a marking hammer) on each log. The DFO's representative is also required to put a seal on the vehicle using a gabion wire with a representative of the timber buyer present. At the final destination, the seal must be broken in the presence of a ranger from the local ranger post. If the timber changes vehicles before reaching to the destination, the seal must be broken in the presence of forest officer or ranger of the local post and resealed following the same process. This heavily bureaucratized process carries both implicit and explicit transaction costs that must effect timber pricing to the CFUG. In addition, other "costs" that the buyers often encounter during transport (e.g., local gangs demanding payment to allow timber to pass, pay off of check-point officials to avoid fines) must inevitably be factored into the price paid to the CFUG for its timber.

Processing. This involves three steps:

1. Storage – It is required (Guidelines 2002, Guide 10) that logs be stored in an approved depot location. Generally only one depot is permitted for security and convenience of monitoring but, for larger CFUGs particularly, a single depot may be inconvenient and increase transport costs.
2. Timber grading – This is a relatively new requirement. Logs are graded (A, B, or C) based on criteria such as girth, length, form and number of defects. The price of logs will vary by grade⁴. Timber traders oppose the grading system, arguing that the market should determine prices. The traders pressure the graders (mostly by Forest Rangers) to give lower grades. As there is not yet a fully standardized approach to grading, a significant degree of subjectivity is involved.

⁴ For example, a cubic foot of Sal (*Shorea robusta*) sells for: Grade A - NPR800, Grade B – NPR500 and, Grade C - NPR300. This is the equivalent in USD 322, 201, and 121/m³, respectively.

Under such conditions, there is an increased potential for corruption. Transaction costs are also increased by the delays associated with the grading.

3. Sawmilling – CFUGs may process logs, but the establishment and operation of a sawmill requires prior approval from the DFO. Sawmills must be located outside the forest (5 km away in the Terai and 3 km away in hills and mountains), in order to minimize illegal activities and allow for easier monitoring by relevant authorities. The 1999 CF Guidelines contain a provision permitting CFUGs to saw timber for internal use at sawmills located nearby if approved in advance by the closest forest office. These regulations have been heavily criticized as being impractical. Transport costs are high and existing sawmills tend to be far from the CFs. The inability to semi-process logs on or near the felling site encourages CFUGs to sell unprocessed logs directly to timber traders. This limits the opportunity for value-added processing, employment generation and additional income.

Selling. The 1995 Forest Regulations prescribes where and how CFUGs may sell their timber. While sales are allowed either within or outside the CFUG, first priority must be given to CFUG group members, second to district residents, and third to non-district buyers. The OP must specify in advance where the timber will be sold. DFO approvals are based on the submittal of records maintained on timber sales, income generated by sales, and expenses incurred. Other issues associated with sales include:

- Timber sales within CFUGs are governed by provisions stipulated in the OP. Pricing may differ for households, according to their wealth. Internal CFUG prices are usually between NPR200- 300 ft³ (USD80 - 121/m³). This compares with timber prices on the open market that may be three or four time greater, i.e., NPR 800 - 1,100/ft³ or USD 322 – 442/m³. Once sold, the CFUG management committee monitors to ensure that buyers have used the timber themselves and not resold it.
- The DFO may approve sale of surplus timber within a seven day window to district residents at government royalty rates or at prices set in the OP. The timber purchaser may have to produce proof they reside in the same district or provide a recommendation letter from the DFO and/or local Village Development Committee, along with a purchasing application letter. The amount of documentation needed, combined with the limited selling period, greatly limits opportunities for the CFUGs to sell timber within their district.
- Any timber not sold as previously described may be sold to buyers outside the district in accordance with the 1999 Financial Procedures Act. Once the CFUG gets permission from the DFO, they can publicly announce a 21-day period for a timber auction to licensed firms (contractors, sawmills or furniture factories). Firms are required to submit copies of their licenses, proof of tax clearance and proof of deposit (10% of the minimum price) along with completed tender-bid forms. A committee formed by the CFUG facilitates the tender process and approves the highest bidder. Before collecting the timber, the winning firm(s) must submit: a bank voucher of deposit of the total amount in which tender is approved; proof of government royalty paid (15% of approved price of timber); and proof of VAT paid (13% of approved price of timber). If the contractor does not pay and collect the timber on time, another auction must be held. During the tender period, the CFUG is also required to pay for the presence of a local government and/or DFO representative. The price for timber sold through this process is often well below what it would be in a more transparent and open market. This process is wide open to collusion among potential buyers and CFUGs are in a poor position to negotiate should a buyer threaten to back out. Because it so cumbersome, the incentive is for CFUGs to dispose of available timber as quickly (thus cheaply) as possible.

Table 4. Estimated costs to communities and smallholders for meeting the regulations in Nepal (NPR 87 = USD 1 approx)

Step	Regulation	Costs (time & time)
Management plan	<ol style="list-style-type: none"> 1. Forest Act 1993 2. Forest regulation 1995: <ul style="list-style-type: none"> • Rule no.28 [Preparation of community forestry Operational Plan (OP)] • Community Forest Development Programme Guideline 2009 	<ul style="list-style-type: none"> • 100 person-days¹ • NPR 30,000 (USD 342)
Harvesting	<ol style="list-style-type: none"> 1. Forest Act 1993 2. Forest Regulation 1995: <ul style="list-style-type: none"> • Rule no. 32 (CF) • Rule no. 47 (Leasehold Forest) 3. Forest product (timber/fuelwood) collection and selling guideline 2000): Guide 3,4,5,6,7,8 and 9 	Costs to CFUG associated with permitting: <ul style="list-style-type: none"> • 28 person-days • NPR 6,430 (USD 73)²
Transportation ³	<ol style="list-style-type: none"> 1. Forest Regulation 1995 2. Forest product (timber/fuel wood) collection and selling guideline 2000) 3. Operational guideline for tendering of forest product (2003): 	
Processing ⁴	Forest product (timber/fuel wood) collection and selling guideline 2000):	
Selling ⁵	<ol style="list-style-type: none"> 1. Forest Regulation 1995 2. Forest product (timber/fuel wood) collection and selling guideline 2000) 3. Operational Guidelines for Tender of Forest Products 	<ol style="list-style-type: none"> a. 18 person days b. NPR 12,000 (USD 137)

¹. The minimum time number of person-days for completion is estimated to be sixty (60). This includes the time of one Forest Ranger, one forest guard and two assistants from the CFUG working together on the forest inventory and approval process. However, the extra regulatory burdens cause the entire process to require the significantly greater investment in time.

². Visits are required to all three levels of the DFO's office – Range Post, Ilaka (a sub-district) and District. The travel cost/person/visit to each are NPR20, 110, and 210, respectively. If visits to each office were not required (i.e., if the DFO office internally coordinated its own process) travel costs could be decreased by 60%.

³. The CFUGs are not involved in transportation. They sell timber from their own depots usually by the side of their office premises. Therefore the transportation costs are borne by contractors/traders; these vary substantially based on distance to destination points.

⁴. The CFUGs have not practiced any processing. They sell logs to their own members and to contractors through tender.

⁵. This involves payment to invitees during the tender process including some sort of informal incentives.

Conclusions and Recommendations

The policy and regulatory provisions are designed to ensure protection of resources, generate revenues for the state, and promote a fair distribution of the benefits of community forests. To ensure the sustainable management of community forests, forest management plans (OPs) are required. The development of the OPs is guided by a normative framework and technical guidelines that seek to ensure that forest inventories are sound, that annual allowable cuts are within sustained yield parameters, that reduced impact logging techniques are followed during tree felling, that sawing is efficient, and that financial transparency is maintained. Government, through the DFO Offices, guarantees the entire process through oversight, monitoring and regulation of the process. While this appears fine on paper, in practice the local communities lack the technical, financial and administrative capacity to follow all of the procedures and produce all of the documentation upon which the community forest management scheme rests. Further, the DFOs lack the training, manpower and other needed resources to monitor and support the large numbers of CFUGs that have come up across the country. This poses a great challenge to the future and successful development of the CF timber industry as an option for forest management, conservation, and restoration and improvement of rural livelihoods.

Among the more serious obstacles are the consequences of the waiting periods and uncertainty endured by the CFUGs in all phases of the process. The times required to obtain permits and engage in forestry activities, harvesting and sales is excessive. Until the actual extension of a permit, there is no certainty as to if and when permissions will be given. Inconsistencies in Annual Allowable Cut calculations, in timber grading and, in every other type of formal assessment creates friction between DFO staff and CFUG leaders. Subjectivity, lack of transparency, inconsistencies and friction affects the relations between all parties (DFO staff, CFUGs and traders), opening the door to illegal and sub-standard practices.

Regulatory barriers and bureaucratic hurdles result in unnecessarily high transaction costs for the CFUGs. Excessive meetings, visits and document preparation increase time and cost and create conditions for corruption and bribery along the timber value chain to “facilitate” the resolution of the bureaucratic processes. Increased timber prices to the final consumer and decreased timber sales prices to the CFUGs result. Overall, this diminishes the potential for community forestry to improve livelihoods and reduce poverty.

The uncertainty and political/administrative interference in harvesting and sale of timber has effects well beyond the CF timber market. At the policy level, recurring political and administrative interventions – such as the frequent bans on tree felling, the fixing of minimum prices, and attempts to increase royalties and minimum stumpage prices – impact the sector overall and decrease the competitiveness of the market. For CF, particularly in the Terai, the unstable policy environment around tariffs and markets has been problematic.

Based on the above assessment, the principal recommendations are as follows.

- The CF policy and legal provisions must embrace the Government of Nepal’s wider policy priority to reduce poverty through forest management.
- Regulatory provisions must be practical and feasible, requiring simplification of procedures and documentation and the reduction of administrative layers in decisionmaking.
- The CFUGs capacity to carry out forest management activities must be developed and arrangements for promoting compliance through local monitoring should be supported.

- Much greater technical support to CFUGs is required; increasing availability and access will require schemes based on independent services providers.
- DFO staff requires strengthening. Trained technicians and improved tools and equipment would greatly improve efficiency. Systems that make DFO staff accountable for the quality and timeliness of the services they provide to the CFUGs are needed.

PAPUA NEW GUINEA

Background

Official government figures⁵ estimate Papua New Guinea's (PNG) forests to cover over 60 percent of the country (28.6 million ha). The government of PNG has identified forestry as one of the key economic sectors for achieving the country's long term economic growth objectives. In the commercial forest sector, logging activities are dominated by a small number of large private logging companies, generally foreign owned. Total smallholder contribution to the official forest industry GDP is quite small and estimated to be less than 5 percent.

Land tenure in PNG is overwhelmingly customary, with ninety-seven percent of land owned by clans and passed down from generation to generation. Both the land and forest resources are owned by the clan. The size of the holdings are varied and may be quite small (0.1 hectare) to over 10,000 hectares. With over eight-hundred different language and cultural groupings, the forms of ownership and governance are diverse. In general, however, individual communities have usufruct rights but the clan takes all major decisions affecting land and land use, especially where financial interests are involved. Under the Incorporation Land Group Act (Amendment) Act and the Land Registration (Amendment) Act, passed in 2009, clans may, on a voluntary basis, register their customary lands. This policy of promoting formalization of land titles is reported to be for purposes of facilitating access to credit for commercial investment.

Community forestry in PNG is synonymous with "Ecoforestry", "Portable Sawmilling" and, small-scale forestry. In practice, it means landowners on their lands are engaged in non-timber forestry activities (including harvesting of NTFPs, Ecotourism, Bird Watching, etc.) and/or felling and milling (portable sawmills or chainsaw milling) of timber. Land and forest resources owners are, by law, responsible for the forestry development over their own land and are expected to obtain "maximum benefits" from the use of their forest resources. No public forest extension services are provided by government to assist the landowner in these endeavors; an outcome from the 1991 Forestry Act. Communities are left to their own devices to obtain technical assistance and to comply with forest regulations.

In PNG, portable saw milling is done by individuals and groups that are scattered all over the country. The portable sawmills are utilized on site in the clans' forest area and sawn timber is then carried to the road side and transported out. Many groups have formed that are taking portable saw milling seriously as a both a business and rural development tool. Many of them have linked up with local NGOs to obtain assistance in capacity building to operate their mills and manage their forests. Although there are a very large number of portable sawmills in the country, there is no proper monitoring by authorities as to their status, whereabouts, ownership, and level of activity/production.

The 1991 Forestry Act with its many amendments (in 1993, 1996, 2000, 2005 and 2007) is the main law governing the forestry sector which aimed to correct the many legal loopholes in the previous forestry

⁵ PNG Forest Authority website (<http://www.forestry.gov.pg/site/page.php?id=11>). Based on 2002 forest cover map. Website consulted February 11, 2013

laws that had allowed the widespread abuses to take place. The PNG Forest Authority (PNGFA) is charged under the Act with its execution. The Act established a National Forestry Board to oversee the PNGFA, the PNGFA as a unified forestry service, and Provincial Forest Management Committees (PFMC) as a consultative instrument. The intent of this structure was to institute a system of checks and balances that also secured greater stakeholder participation.

Among others, the Act largely re-asserted the State's monopoly over timber sales. For forest exploitation the Act established a series of specific licenses and permits for forestry development:

- Timber Permits (Regulation 118/119) are for large-scale logging and given for periods of at least ten years on areas with a minimum size of 40,000 hectares. It is under these permits that the vast majority of official timber harvests are realized. Though carried out on customary land, it is the Forest Board, not the landowners, that selects the forest industry participant and recommends to the Minister that a Timber Permit be granted.
- License (Regulation 177) are annual permits to engage in "forest industry activities". They are issued primarily in forest plantations on state land.
- Forest Clearance Authorities (Regulation 161-164) are for the clearance of up to 50 hectares land for agricultural purposes under a Special Agriculture Business Leases.
- Timber Authorities (Regulation 159-160) are for small to medium-scale logging which is where CF is regulated. There are 5 types of Timber Authorities (TA-01 through -05). Each type differs by purpose (e.g., domestic use, road clearing, agricultural clearing, etc.).

Findings

Following is an overview based on review of literature and sessions with forest sectors stakeholders focused on obtaining their views on existing barriers for forest management, harvesting, processing and transport of forest products and, selling and purchasing of forest products. Principal concerns expressed are included below. Limited cost information was available for analysis (Table 5).

Forest Management Plan. For purposes of Timber Permits , the Act defines a process of "resource acquisition" to be implemented by the PNGFA. This requires the PNGFA to first enter into Forest Management Agreements (FMA) with the clans (customary landowners) following a process of awareness raising, land group incorporation and acquisition. Under the FMA, the landowners guarantee rights of access to the PNGFA for the management of the forest, including harvest and the construction of infrastructure and the PNGFA establishes the returns due to the landowners. The FMA's duration is for a period adequate "to allow for proper forest management measures to be carried out to completion". Under the FMA, commercial logging companies submit proposals for Timber Permits directly to the PNGFA. These proposals are to be developed in consultation with the customary landowners. Once submitted, however, the Act does not require further consultation with the customary owners in the process of evaluation and approval of the Timber Permit. Landowners have no legal standing or voice in regard of which timber company is awarded the permit or in the details of the permit itself (e.g., rate of timber harvests; type, location and quantity of infrastructure to be constructed; royalties; etc.). It is important to note that Timber Permit areas often correspond to landholdings of more than one clan.

For TAs there are no specific guidelines for resource acquisition. Applicants must secure the approval of a clan agent that has been signed in front of a village magistrate or land mediator. Land group incorporation is an option, but is not necessary. No process of landowner awareness raising is required prior to approval nor are there requirements for development options study or project guidelines.

Amendments to the Forestry Act in 2005 strengthened the scrutiny of applications for TAs by both the PFMCs and the Board.

Common regulatory requirements for all categories of forestry resource exploitation includes (i) the posting of a performance bond; (ii) the development and approval of an annual logging plan; and (iii) the payment of royalties (benefits) to the owner of the forest resource. Further, all persons must be registered as a forest industry participant prior to initiating forestry activities. Specifically for obtaining a TA-01 additional information required includes (i) map and description of project area; (ii) term and commencement date; (iii) allowable cut; (iv) performance bond, and (v) standards conditions. The performance bond must be paid prior to the issuance of the TA and is dependant on the size and volume of the forest resource area. It is held by the PNGFA and forfeited if the TA holder defaults on the terms and requirements of the TA; otherwise it is refunded. TAs issued for operations under 5,000m³/yr must also comply with Environmental and Forest Management Standards as per Regulations 159, Form 155.

For the communities, the TA permitting process itself is perceived as a barrier. As such, they noted a tendency to harvest timber without the required permits until/unless officials require them to halt. While such infractions carry legal penalties, informants were not aware of any such actions on the part of authorities. Specific concerns included:

- Refundable performance bonds requirements are onerous. As no income from harvesting can be realized until the TA is approved, the funds are frozen while application is being processed; a process that usually takes at least 12 months.
- Communities lack the capital, capacity, technical expertise and the resources to develop their own forest management plans. There are no widespread, organized and systematic programs to assist. Currently only 2 local NGOs provide support.
- Internal conflicts in the community created when timber companies attempt to influence internal decisions (e.g., bribe clan members) in order to have access to forest resources. Disgruntled clan members have been known to invite competing timber companies onto clan lands to harvest timber. This situation creates conflict and infighting among clan members with negative repercussions for the development and maturation of the communities' forest management activities.
- Performance of the Forest Authority bureaucracy. It is felt that the Authority fails to follow up adequately with permitting processes or to itself comply with due process. The example was given of TAs being given that overlap with other, existing TAs. Also, the lack of technical assistance and extension services from the Forest Authority are seen as a hindrance to development of CF management capacity.
- In general, the policies behind the 1991 Forestry Act and its amendments to date are perceived as having eroded the land and resource access rights of local people. The Forest Authority has taken for itself the power to develop the communities' forest resources and the landowners are forced to live with the decisions taken by the Authority. As the landowners, communities want the right to decide whether they will develop their own land and forest or allow someone else to harvest their forest. The excessively bureaucratic nature⁶ of the TA issuance process was one of the two principal

⁶ The Managing Director of the PNGFA must first review the application to ensure it "...has been lodged in the approved manner" and then refer it to the PFMC (who generally meet two to three times a year) must evaluate the application based on: (i) consistence with National Forest Policy and Provincial Government policies and (ii) the commercial viability of the project (the financial resources of the applicant, the past performance of the applicant in forest industry and other projects, analysis of projected cash flows and the anticipated net benefit to the resource owners and to the State). If they approve, their recommendation must then be passed to the National Forest Board for their clearance. The Board has four weeks to clear or it is cleared by default.

concerns expressed in the private sector. Waiting periods of up to one year for obtaining an approved TA are not uncommon.

- That favoritism is practiced by the Government officers processing TA applications. Due to the lack of clear guidelines for the allocation of timber resources by the PNGFA, government officials have a great deal of discretion in the awarding of timber resources to TA applicants. This has created a process that lacks transparency and, ultimately, accountability in forest resources allocation. For example, there are charges that nepotism and the giving of gifts play a role in the decision-making process. It is also noted that the PNGFA does not necessarily follow its own rules and gives out new TAs that interfere and conflict with existing TAs, for example, each TA has a defined “work corridor” that is reserved to allow the TA operator to transport timber. There are cases where new TAs are given within the work corridor of an existing one, requiring haul routes to be relocated and transport costs to increase
- The policy behind the issuance of forest regulations, restricting communities’ access to small timber volumes for processing and sale in only the domestic market, is seen as a major hindrance to forest and economic development. Also, the lack of any well-articulated policy to assist local forest owners/indigenous peoples to develop forest management and processing capacity is pointed to as problematic. Local people’s aspiration and interest in developing their forest resources on their own lands are not being addressed by the state. There is no long term strategy nor are there state systems to assist communities to develop their forests. Reliance upon donor-financed NGOs for such work is not an effective substitute for state intervention.

Harvesting. Registration and fees are required to become “Forest Industry Participants”, eligible to harvest timber and record keeping requirements of timber harvests are complicated and onerous. A bewildering diversity of laws and regulations must be complied with (e.g., Environmental Contamination Act, Environmental Planning Act, Water Resources Act, PNG Logging Code of Practice, etc.). As a matter of policy, no attempt has been made to simplify regulations for CF harvesting.

In the private sector, the principal issues are associated with the lengthy process for issuance of TAs, the uncertainty and costs incurred as a result (e.g., need to re-clear roads, equipment relocation costs). Like the communities, the private sector perceives the diversity of laws and regulations that must be complied with as an undue hindrance and points out the need for policies that support the simplification of regulations for the small-scale harvesting. Political interference by local politicians seeking “favors” to build facilities for communities (and so influence votes) is also mentioned as a cost of doing business that can negatively impact profitability.

Transportation & Processing. The policies that restrict access and rights of communities to forest resources, allowing access only to relatively modest timber volumes, are a major impediment to developing community forest business and building processing capacity. Transport costs are also major issue. The market for rough sawn timber is in urban areas and transport costs are sufficiently high as to be a disincentive to accessing those markets. Many sawmill owners are forced to accept a much reduced price for their sawn timber so as to avoid the risks associated with the high transport costs. Other issues raised included:

- Large companies apply for TAs in direct competition with local people and they have the capacity and resources to fast track the permitting process. They also use “divide and rule tactics” with clan members to access forest resources. This means that often communities cannot even legally access their own timber resources.

- Landowners do not have the capital to purchase sawmills themselves or to cover operating costs; they also often lack manpower and technical capacity.
- Concerns were also expressed about the difficulty in meeting health and safety requirements, particularly as regards insurance coverage.

CF in PNG is largely defined by the actions of the portable saw milling industry. The main regulatory requirement for portable saw milling (and chainsaw mills) is to operate under regulations for TA-01 that allows harvesting of up to 5,000m³/yr with the timber to be directed to domestic processing facilities. Some barriers identified include:

- Too commonly these mills operate for only a short time and are then left unutilized. In a large number of cases, the mills had been gifted to the groups for political ends (e.g., by local politicians to curry favor with and influence constituents).
- Community or individual enterprises lack knowledge concerning business practices and the capacity to resolve disputes about resource ownership.

Certification of CFs was seen as an important path for sustainable management by local people, although costs and complexity of certification processes were prohibitive for small-scale timber producers. The Forest Management and Product Certification Service (FORCERT) was established to provide the needed outside assistance and support for group certification. Experience had by this time shown this approach to work as it allowed the external costs of certification to be shared and for much of the administrative burden to be borne by an outside organization.

**Table 5. Estimated costs to communities and smallholders for meeting the regulations in PNG
(PGK 2 = USD 1 approx)**

Step	Regulation	Cost (time & money)
Forest Management Plan ¹ and Harvesting	TA-01 Permit: <ul style="list-style-type: none"> • Performance Bond • Government Business Registration • Registration with PNGFA as Forest Industry Participant • TA application fee 	<ul style="list-style-type: none"> • Up to PGK 20,000 • PGK 450 • PGK 275 • PGK 100
Timber Processing and Transport		Prohibitively high costs required to transport to urban markets
Timber Sales and Purchase	Forest Regulation 179 (license enables Timber Permit or Authority to purchase timber from other sources)	PGK 1000

¹ A formula for calculating the bond is established and based upon the gross royalty rate payable, the assessed average gross rate of all levies and premiums payable, the annual allowable harvest volume and, the estimated capital cost of any proposed processing plant and facilities

Selling and Purchasing. Both stakeholder groups had essentially the same concerns. The complexity and difficulty of compliance with all recordkeeping requirements was a central concern⁷ as were regulatory requirements regarding timber sales prices, fixed rates of payments to resource owner and PNGFA

⁷ Regulations require maintaining records of all timber cut as per PNGFA Manual on “Procedures for the Identification, Scaling and Reporting on logs harvested from Natural Forest Logging Operations” and “Procedures for Exporting Logs”

levies. For timber purchases, the requirement of holding a Timber Permit, Authority or license to purchase timber from other sources and well as the official transaction fees were identified as unrealistic. In practice, timber in log form is purchased either in the forest or at factory gate with only informal agreements between the seller and buyer on how payment is to be made. Private sector participants also noted that internal conflicts within communities arise when clan members make agreements with a buyer without consent from other clan members.

Conclusions and Recommendations

PNG has been independent for over 35 years and during that time much experience has been gained and national capacity has greatly increased, with many more trained professionals working in the sector. What is now becoming evident is the need to for greater flexibility, in terms of policy and regulation, to keep up with new challenges and the changing times.

Since the 1991 Forestry Act came into effect, there have been some six amendments realized. However, these amendments have all been tailored for the convenience of the large-scale, industrial forest concessionaires and the PNGFA. There have been no fundamental changes for landowners or small and medium-scale operators. Landowners still have no first right of refusal to forestry interventions carried out on their own land. This may be the most fundamental change required in order to make the landowners the central figures in forestry development. As it stands now, the state and the logging companies have greater rights and access than the owner of the land and forest themselves. Additionally, performance bonds have been a major obstacle to local groups getting involved in forestry activities on their own lands.

Prior to the 1991 Forestry Act, there was the Private Dealings Act under which agreements were made directly between the landowner and the logging company. Due to abuses such that the logging companies ended up the main winners and the landowners the losers, that Act was repealed and replaced with the Forestry Act 1991. During discussions, many participants implied that the “private dealings” approach should be reinstated but with greater safeguards so both partners are winners.

Clearly, for CF to become a reality and a viable development and forest conservation alternative, the current forestry laws will require review and reform. The 1991 Forestry Act needs to be overhauled. The laws need to be grounded in the social and cultural traditions of the country and facilitate how forestry in general, and CF in particular, are pursued. PNG has the great advantage that land tenure is not an obstacle. The people own the land and the forest resource. That should be the starting point for resource development. Policy, laws and regulations need to be geared towards improving the lives of the local people and sustainable forestry development as small to medium scale operators. As a starting point, much greater give and take is needed between sector stakeholders.

The recommendations coming out of this review are simply:

- Reform the 1991 Forestry Act so that PNG landowners become the major developers of their forests resources as a priority or first preference.
- Government need to be more proactive in create enabling conditions for landowners by facilitating forestry training and capacity building to allow communities to manage and develop their own forest resources.
- Clear priorities should be established as regards providing enabling conditions for local people, where interested, to develop their forest resources themselves. In particular and in addition to capacity building and training, access to capital is needed to kick start community forestry businesses

THE PHILIPPINES

Background

In the Philippines the involvement of local communities in forest management has evolved since the mid-1970s at which time the government enacted laws that recognized the presence of upland occupants in the forests. The issuance in 1975 of the Revised Forestry Code of the Philippines, required the government to design an agroforestry development program for the forest occupants identified.

Several government programs were implemented at that time and consolidated into the Integrated Social Forestry Program in 1982. The emphasis was put on the issuance of secured long-term tenure stewardship contracts for 25 years. In return, the forest occupants were expected to rehabilitate their areas through reforestation and agroforestry (Poffenberger and McGean 1993, Magno 2001). This is part of the response of the government to the destructive outcome of the uncontrolled timber harvesting by Timber License Agreement (TLA) concessions and huge conversion of forestlands to agriculture (Dahal and Capistrano 2006). The shift to CF intensified in 1986 after the overthrow of the Marcos Regime. During this period, there were also mounting pressures from lending institutions and from consumer countries on tropical wood producers to evaluate national and sectoral policies and to adopt sustainable forest management practices (Tumaneng-Dieti et al. 2003).

In 1995, the government launched the Community Based Forest Management (CBFM) Program as a national strategy for forest management by virtue of Executive Order (EO) No. 263 to intensify its effort in addressing the social and economic problems of the upland communities while at the same time contributing to the rehabilitation of the forest areas. Through the CBFM Agreement (CBFMA), local communities are given the authority and the responsibilities to manage a given forest area for a 25 year period renewable for another 25 years. The majority of former TLA areas are now under the CBFM Program, which provide part of the annual wood demand of the country (Pulhin and Ramirez 2006).

Only 30% of CBFMA and Certificate of Ancestral Domain Claim holders have affirmed or approved resource management plans and annual work plans (Guiang and Castillo (2006). Given the suspension of community harvesting rights and the ending of the Asian Development Bank/Japan Bank for International Cooperation forestry loan project that funded most community reforestation and rehabilitation efforts (World Bank 2004) these communities are left with minimal support to manage the forest.

Most of the upland areas under CBFM are under the second-growth production forests that contain an average volume of 145 m³ per hectare, equivalent to a gross national volume of approximately 217.5 million m³ (FMB-DENR, FAO and UNDP 2003) potentially worth more than USD 13 billion. In effect, timber harvesting by communities in these second-growth forests has the potential to bring about a 375% increase in rural family income and increase employment if these communities were given the right to harvest and sell 500,000 m³ per year, a total of at least 60,000 full-time jobs would be created (Guiang and Castillo 2006).

Numerous studies have also shown that with adequate incentives, communities are willing to invest their own labor in developing tree farms and small-scale agroforestry systems while protecting the forest from forest fire, poaching and the entry of slash-and-burn farmers (Borlagdan, et al. 2001, Mickelwait et al. 1999). Unless the government looks at CBFM as a serious investment and make the People's Organizations (PO)s as meaningful partners in forest protection and development, these forests will always be susceptible to intense pressure from illegal forest activities.

Smallholders' plantations in the Philippines started in the early 1970s when the Paper Industries Corporation of the Philippines provided free seedlings and technical assistance to plant *Paraserianthes falcataria* on individual lots. The paper company's purchase of the pulpwood, provided an assured market and stimulated the farmers to raise pulpwood in their private lots (FMB, 2009). This spontaneously emerged as a profitable enterprise and a viable alternative to industrial plantations and costly reforestation programs of the government (Garrity and Mercado 1993).

The government was able to capitalize on the success of the program which helped in regaining a fraction of the country's forest cover. The farm forestry industry promoted planting of "million-peso trees" (*Gmelina arborea*, *P. falcataria*, *Acacia* sp. and *Eucalyptus deglupta*) which now upon maturing, the prices for fast grown timber have declined due to market saturation (Santos et al., 2002).

The basic difference between CBFM and smallholder forestry is that the former is located on the public lands which is mostly vegetated by natural grown trees and the latter is mainly situated in private lands which are planted with fast growing species. Because they are on private lands, there are fewer regulations for timber harvested from smallholder plantations compared to those harvested from state-owned lands. Also, there is a growing general perception that public forests should now be devoted mainly for the protection and conservation of biodiversity and the maintenance of watershed functions.

Findings

Following is a summary of the regulations detailing requirements and key implications for CF and smallholders. Information is based on review of a policy analysis of timber harvesting activities; case studies at an experienced community-based timber enterprise and a smallholder forestry enterprise; and visits and discussions with local Department of Environment and Natural Resources (DENR) offices, checkpoints, furniture shops, police stations, mini sawmills, etc. A summary table where possible of estimated costs to meet the regulatory is presented in Table 6.

Forest Management Plans. A requirement before any activities in the CBFM area can proceed is the preparation of the Community Resources Management Framework (CRMF) and the Five-Year Work Plan (FWP) as mandated by Department Administrative Order (DAO) 96-29 and amended by DAO 2004-29. The CRMF is a "document defining the terms and procedures for access, use, and protection of natural resources, which shall in all cases be consistent with the overall management strategy of the entire watershed area where the CBFM area is located, and shall be formulated by the community with the assistance of its PO and the DENR, Local Government Units (LGU) and/or private entities." The CRMF, valid for 25 years, includes the goals of the PO in (i) managing the forest, (ii) the volume of trees (natural grown and planted) that the PO plans to harvest, (iii) the area of degraded forestlands to rehabilitate or reforest, and (iv) the strategies that they will institute to achieve their long-term goals, including the partnership that they would pursue with other stakeholders. The CRMF is then incorporated into the FWP to implement and set short-term targets.

Development of the CRMF can be costly due to the technical nature of these documents; it is common to require the services of a professional forester which helps improve the chances of approval. Other costs include: Barangay consultations; per diem of DENR personnel and NPPFRDC staff for boundary delineation; timber inventories and tree markings; cost of public deliberation; and incidental expenses when following up the papers at the Regional Office of the DENR. Those POs that have enough political clout can sometimes secure financial assistance from their LGUs, reducing the cost to some degree (Pulhin and Ramirez, 2006). Additional costs are incurred if the POs are planning to harvest natural grown timber, because once they have an approved FWP, they still need to secure the RUP, an instrument by the government to control the volume to be cut in the CBFM area.

The approval of the plan can take another 8 months to 1.5 years before proceeding with the harvesting and forest development activities. While waiting for the approval, cooperative members and staff often have no work in the area and some opt to work in illegally established sawmills in the municipality while others are engaged in illegal cutting of trees.

Smallholders' plantations if situated in private lands do not require a management plan; instead they must register their trees that they plan to commercially harvest. DENR Memorandum Circular (DMC) 99-20 and DMC 97-07 list the documents required as: (a) letter of application/intent; (b) certified photocopy of either original land title, transfer certificate of title, certificate of land ownership award or tax declaration of untitled A and D lands⁸; (c) certification of tree plantation ownership from the Barangay Chairman or chief Executive of the Municipality/City; (d) picture of the tree plantation; and (e) map and plantation records. Although these documents are relatively easy to prepare, information regarding tree registration does not usually get to the farmers (Gravoso et al. 2009). Tree registration requires a boundary survey of the property which is an added expense to hire a surveyor and pay transportation expenses for DENR personnel to inspect and validate the survey. As a result many people do not register their trees with DENR (Gordon et al. 2005).

The inspection will establish the date and number of individual trees per species planted. Once approved, the Community Environment and Natural Resource Officer (CENRO) will issue a Certificate of Tree Plantation Ownership which is needed prior to harvesting as mandated by DMC 99-20. DMC 97-09 outlines several benefits to tree registration: (a) it will help make harvesting and transport of timber easier; (b) easy to secure documents/clearances to harvest and transport timber products from the plantation; (c) exemption from any forest charges and other environmental fees; and (d) better access to potential buyers through DENR database information. It takes an average of three days to secure tree registration in the Philippines (Yonariza 2010) and can be done at any time.

An obvious difference between CBFM and smallholders plantations is in management planning. A CBFM site has to undergo rigorous planning activities before any harvesting permit can be issued by the DENR which is practically unheard of in individual plantations. Unfortunately because lack of planning and technical assistance for species selection and poor silvicultural practices, the plantations often yield poor quality wood. The smallholders' sector are also beset with other problems such as the lack of information on what species to produce, lack of knowledge on the current value of their products and where and how to market them often causing disenchantment among farmers (Bertomeu 2005).

Harvesting. Perhaps the most talked about topic of CBFM practitioners and supporters for the past 10 years is the numerous suspensions and cancellations of timber harvesting rights of POs. Over the last three decades (1970-2000), there have been over 20 policy issuances on logging imposed in selected municipalities, provinces, regions, or nationwide covering more than 70% of the country's 77 provinces (Yonariza 2010). The most recent policy that again hit the wood sector is EO 23 issued on February 1, 2011, declaring a moratorium on the cutting and harvesting of timber in the natural and residual forests.

The logging bans "disallow the extraction of timber from the natural forest," through cancellation, suspension and non-renewal of timber license or logging concessions (Bugayong 2006) and Resource Use Permits (RUPs). These policies have been issued mainly as a reaction to various environmental crises, destruction and loss of lives and property, deforestation, and alleged illegal logging in CBFM areas which penalizes even the POs with untarnished performance records (Ramirez and Bautista 2004, Pulhin and Ramirez 2006, Bugayong 2006).

⁸ There are two major classifications of land: alienable and disposable (A & D) and forest land. Both are considered public domain. A & D lands are the public lands that have been declared as not needed for forest purposes.

Logging moratoriums are equally disastrous for the upland communities that rely on logging as their livelihood. This means that the only source of wood for the country is imported or coming from illegal sources. According to the Philippine Wood Producers Association, the recent log ban has caused the prices of lumber and plywood products to increase by around 25% to 30%, a move that will hurt not only the producers but the consumers as well.

Regardless of the state of harvesting rights over the years, the requirement for harvesting timber is the RUP - a document that serves as the permit to sell the logs, lumber and other forest products coming from CBFM areas (DAO 2000-29) which only the DENR Secretary (in Manila) has the authority to approve. For CBFM POs, applying for an RUP involves a lot of time, effort, negotiation skills, and transaction costs. The entire process of RUP processing and approval can easily take more than six months (which counts against the one year that it is valid) and transaction costs up to USD 5,000 as experienced by a PO in Mindanao (Pulhin and Ramirez, 2006).

While the PO has a target volume in harvesting natural grown species each year based on its FWP, it still has to comply with the AAC approved by the DENR which is usually lower than the volume proposed by the PO. In harvesting plantation species, nonetheless, the DENR usually provides the volume requested by the PO (Pulhin and Ramirez 2006).

Once, the RUP has been approved, the PO still has to wait for the issuance of the Notice to Proceed which gives permission to initiate timber harvesting activities. Given the limited resources of POs and the losses incurred in the processing of the approval papers, the majority of them have no choice but to turn to logging financiers to fund their harvesting activities and who often reap the profit that is supposed to belong to the POs.

Another feature of EO 263 is the call for labor intensive harvesting systems as opposed to mechanized logging systems which increases employment opportunities in upland communities. At the PO level, timber harvesting has proven to be an important source of capital build-up, enabling the PO members to support forest protection, venture into various income-generating projects, and establish linkages with government and other sectors (Borlagdan et al. 2001). Since 2002, the Chainsaw Act (RA 9175) requires all chainsaws be registered by the DENR; a straightforward measure to control illegal logging (van der Ploeg et al. 2011).

For smallholders' plantations, a permit to harvest timber is not required for registered plantations of non-premium (i.e., fast growing) species (DMC 99-20). However, the same circular requires a Special Private Land Timber Permit for premium species plantations (e.g., species of Benguet pine). Existing naturally growing trees on private titled lands may be harvested by securing a similar permit as described above. (DMO 2000-21). In Leyte, a study on tree plantations found that different CENROs charge different rates for timber harvesting (Mangaoang et al. 2005), indicating that the policy requires a uniform interpretation among the DENR offices.

Transportation. Transporting timber products from CBFM areas or any other areas are covered by EO 277 (amending Presidential Decree 705). It states that the mere possession of timber or other forest products without legal documents is "illegal logging" and considered a criminal act. Logs are deemed illegal if transported without a duly approved Certificate of Timber Origin (CTO). Additional certificates are also required along with a CTO for all logs that are shipped outside of the province, for log delivery from the cutting area to the processing plant or log storage area of the licensee, or if the conveyance used for transport is not owned by the licensee.

Before the CTO is issued (DAO 94-07), the logs must be properly measured and the legitimacy of the source of the logs must be verified and established. Accounting of CTO forms is regularly made by

requiring the TMOs to submit monthly reports of all used and unused CTO forms (blank forms are numbered) to avoid inconsistencies in the use and issuance of CTOs. Noncompliance with the standards and procedures for issuance of CTOs fall on the issuing officer as well as the shipper making them liable to criminal and administrative charges. Cases of fake, forged and recycled CTOs are still rampant (Cruz and Pulhin 2006, Pulhin and Ramirez 2006).

The only requirement for transporting round logs from the cutting area to the sawmills is the CTO, but transportation costs substantially increases due to the numerous official checkpoints manned by various agencies (e.g., the DENR, military, barangay and municipal LGUs) and numerous unofficial “mobile checkpoints”. Proceeding past checkpoints often requires payment in the form of cash or food (often referred to as SOP – Standard Operating Procedure). A “land use fee” paid to the owner of the land where the logs will transit is also common.

Compared to the CBFM areas, it is much easier to transport logs coming from smallholders’ tree plantations. Under DMC 99-20, the Original Copy of the Self Monitoring Form from CENRO manifesting the timber or forest products to be transported must accompany the truck. Also required are a Certificate of Verification issued by the CENRO and if the transporter is not the owner of the timber, a certified photocopy of the Certificate of Tree Plantation Ownership Given the very limited number of checkpoints in the area, illegal loggers often transport logs at night or using the river for transportation.

Processing. Wood processing is usually done by a third party usually, a mini-sawmill, but there are few POs that also have the capacity to process their cut logs into lumber. As of 2008, there were 55 regular sawmills in the country, but only 35 were active, and 304 mini-sawmills with but only 116 active. Only processing plants involved in veneer, plywood and block board production remain active (DENR 2009). Most of these mills have old and inefficient equipment due to the absence of investments owing largely to a diminishing wood supply and the uncertainty of policies regarding wood utilization (FMB 2009).

DMO 96-09 provides the guidelines for permits to establish and operate mini-sawmills. Mills can be operated by CBFMA holders, Industrial Forest Management Agreement holders and private individuals provided that the raw materials are: planted trees coming from private lands and A & D areas; planted trees from forest lands under government plantation development lease/contracts; planted trees managed and developed under the CBFM program(s) of DENR; and naturally grown timber harvested by CBFMA holders authorized by DENR. A moratorium, DMC 2003-14, has been declared on the establishment of a new wood-processing plants

Establishing a sawmill requires a log supply contract from a legal source, a wood processing permit and a lumber dealer permit from the DENR if the owner plans to sell it. Wood processing permits are costly to secure from the regional office of the DENR . As a result, most of the re-saw mills in Leyte only have business permits from the LGUs which can be technically construed as illegally operating. The furniture industry in the area, on the other hand, is challenging the DENR with respect to the wood processing permit since they argue that the business permit from the LGU also includes the operation of a sawmill, an essential part of the furniture business.

The CTO is covered by DAO 2007-31 to transport lumber outside the sawmill accompanied by a Certificate of Verification Clearance, a Certificate of Transport Agreement (if the truck is not owned by the buyer), and hatchet markings on the products. There are, of course, a number of ways to circumvent the official requirements. For example, in Mindanao permits for the transport of recycled papers are purchased from legal sources and used for timber transport.

Owners of smallholder plantations, on the other hand, do not usually process their cut timber but sell these as logs to sawmill operators, pulpwood manufacturers and local furniture makers and nearby markets.

Table 6. Estimated costs to communities and smallholders for meeting the regulations in the Philippines (PhP 1,000 = USD 24 approx)

Step	Regulation	Cost (money and time)
Management plan	<u>CBFM</u> DAO 96-29 and DAO 2004-29 (revision), Rules and Regulations for the Implementation of Executive Order 263 <u>Smallholders</u> DMC 97-07 and DMC 99-20 Supplemental Guidelines Governing the Registration, Harvesting, Transport and Marketing of Timber By-Products Coming From Private Plantations Within Private Lands or Tax Declared Alienable or Disposable Lands	PhP 80,000 – PhP 100,000; 8 weeks preparation
Harvesting	<u>CBFM</u> DAO 2000-29, Guidelines Regulating The Harvesting And Utilization Of Forest Products Within Community-Based Forest Management Areas <u>Smallholders</u> DMC 99-20	CBFM: PhP 3.4 million for 1 to 2 months (or up to 6 months) Smallholders: <ul style="list-style-type: none"> • PhP 300-500 for 3 to 7 days • PhP 1,000 –PhP 3,000 (timber inventory) • SOPs as high as PhP 1.00/bdft • Securing Certificate of Tree Plantation Ownership: 7 steps, 7 to 9 days, PhP 2,275 – 2,375 plus
Transportation	<u>CBFM</u> DAO 94-07, Revised Guidelines Governing the Issuance of Certificate of Origin for Logs, Timber, Lumber and Non-timber Forest Products. <u>Smallholders</u> DCM 99-20	PhP 8,500 per truckload of legally cut logs or PhP 11,000 for illegally cut logs
Processing	DAO 2003-53, Further Amending Section 11 and 12 of MNR Administrative Order No. 50 Series of 1986 (Integrated Regulation on the Establishment and Operations of Wood Processing Plants) Sections 11 and 12 of MNR Administrative Order No.50, Series	PhP 60,000 and three months (includes SOPs)
Selling	None	Not applicable
Purchasing	None	Not applicable

Selling and Purchasing. One of the obligations of the government to CBFMA holders is to link them to competitive markets. In reality POs, receive little assistance from the government and must find their own markets; markets that for the most part offer deflated prices as legal forest products must compete with wood imports and illegally sourced logs that are usually priced lower than their products (Pulhin and Ramirez, 2006). This makes them vulnerable to middlemen and unscrupulous buyers given their limited negotiation skills and knowledge on prices. An attempt to access the export market was made by one CBFM PO in Mindanao by applying for SmartWood accreditation. Although approved, the high accreditation fee (USD 500/year), including the cost of the audit, and the unstable policy on resource use, forced them to terminate their accreditation (Pulhin and Ramirez, 2006). They attest that the certification has improved their practices on sustainable forest management.

Smallholder leverage in the timber markets is also an issue. Smallholders are at a disadvantage as they have very limited negotiating power and they must also compete with the cheaper, illegally sourced logs. The extent to which illegal logs are responsible for lower prices is not known, but it is clearly a significant factor. For example, in Leyte smallholders generally contract to grow Gmelina. When it comes time for them to sell the contracted timber, the price they receive is much less than the price on the open market and it does not compensate them for the implicit land rents or the time they have invested. Gmelina requires some ten or more years before felling for market and, under smallholder conditions, yields from 20,000 - 30,000 bd ft (47 - 71 m³/ha). They are paid from PHP 45,000 - 100,000/ha of plantation (USD 1,106 – 2,457/ha) or about PHP 2.25 – 3.33/bd ft (USD 23.00 - 35.00/m³). In contrast, wood processors in Leyte pay PHP 6.00/bd ft for imported logs and the NPPFRDC's CBFM scheme pays PHP 7.00/bd ft for local timber.

Policy instability at the national-level can also have severe impacts on smallholders' markets and profitability. For example, as a result of the first national RUP suspension in 1999, NPPFRDC's net profits dropped from a high of PHP 677,842 in 1998 to a low of negative PHP 135,807 in 1999. When the second national RUP suspension occurred in 2002/03, net profits went from a PHP 90,860 high in 2002 to a low of negative PHP 2,402,820 in 2003. In 2007/08, when the issuance of the Cooperatives RUP was delayed for almost 12 months, net profits dropped from a high of PHP 828,006 in 2007 to a low of negative PHP 285,206. Subsequently, the cooperative decided that it would not request a new RUP (adapted from Pulhin et al. 2007).

Conclusions and Recommendations

The establishment of forest plantation and timber harvesting in the Philippines, either by POs or individual smallholders, are subjected to complex social, economic and political considerations. The multiple goals such as revenue generation, saving foreign exchange through import substitution, regional development and improving the competitiveness of the domestic wood processing sector and forest conservation addressed by government is difficult due to their conflicting nature (Tumaneng-Dieti et al. 2005). The multiple layers of policy assurances that Government has inserted on timber harvesting has somehow satisfied the objective of forest conservation and at some point forest protection, but negatively affects the lives of those people whose very livelihood depends on it.

The Philippines cannot rely on wood imports alone and must support the activities of CF and smallholder plantations to meet this need. Overregulation has damaged the industry and has resulted in high transaction costs for the producers by way of informal barriers and excessive planning activities. The only way to put an end to this problem is to pass a law on sustainable forest management that can finally dictate what elements are needed to sustain the livelihood of forest communities and at the same time, respond to environmental problems, such as the effects of timber harvesting to climate change.

In the absence of this law, the following recommendations are worth exploring:

- Simplify the procedures to be followed in harvesting timber in residual forests and individual plantations to reduce transaction costs and minimize (if not abate) corruption;
- Provide the necessary incentives and support system to the private sector, CBFMA holders, and individual farmers in the establishment of forest plantations, utilizing both endemic and exotic species;
- Institute a timber certification system to end speculations that products coming from CBFM areas and plantations are illegally cut;
- Craft an incentive mechanism that can benefit DENR and other monitors so as to limit, if not stop, the collection of SOPs; and
- Make the CBFM POs active partners in the National Greening Program of the DENR in producing quality seedlings that can be the source of their income until such time that they are allowed to harvest forest trees in their areas of jurisdiction.

VIETNAM

Background

In Vietnam, the devolution of forest management began in 1991 with the introduction of the Forest Protection and Development Law. In 1993 this was followed by the Land Law that enabled land users to obtain long term, renewable usufruct rights to land. However, it was not until after Decision 187, issued in 1999, that forest land allocation was implemented on a large scale. This Decision directed State Forest Enterprises to give forest lands back to the districts, so that they could be further allocated to households. With the passing of decree 163 in the same year, individuals and households could get a “Red Book” for the forest land allocated to them. The Red Book (referring to the red cover of the certificate) is given in formal recognition of the holder’s usufruct rights and is valid for a period of 50 years. Until 2004, forests were allocated to smallholders (individual households) and the private sector, but not for whole communities. This changed through the enactment of Articles 29 and 30 in 2004 of a new Forest Protection and Development Law, which issued regulations regarding forest allocation for local communities. Since that time there have not been any significant policy changes in forest devolution, though a number of policies have been developed and passed to assist Red Book holders (smallholders and communities) to overcome initial investment constraints when they are allocated forest lands.

At present there are about 3.3 million ha of forest allocated or contracted to smallholders and communities to care for, protect and develop. The area allocated for communities is only about 1% of total area of forest, while that of individual smallholders is much greater, with 24% of total forest area. (MARD 2009).

In spite of the efforts to produce a conducive environment for smallholders and communities, there has been only a very limited reduction in poverty and improvement of livelihoods among communities living in and around forests in Vietnam. There are various reasons for this, principally:

- The forest allocated are often poor quality, therefore those receiving a Red Book perceive little benefit in the short to medium-term without significant prior investment.
- Those receiving Red Books often lack the time and resources to manage and protect the forests, are absent qualified leadership to conceive and implement development plans and, do not have the capacity (technical, financial, organizational) or access to technical services required to manage the afforestation efforts required to bring the forest lands back into production.

- A lack of opportunities, options and, capacity to engage in value-added activities and increase income from existing forest resources (timber and non-timber) and/or to actively compete in the market and sell products.
- Policy issues related to weak incentives (lack of effective reward and penalty systems), institutional weaknesses in the system for protecting and managing allocated forests, and an as-yet low level of market orientation in many of the local economies.

In recent years government's efforts have been more focused on implementation of its evolving decentralization policies and the maintaining progress towards development of a more a market-oriented, socialist economy. These challenges have been enormous and the processes all-consuming, leaving many problems remaining to be solved.

Findings

As with the other countries in this report, the main focus of the work in Vietnam was on the regulatory environment and aspects that are impairing the ability of communities and smallholders to make a living from their forests. Where possible, cost information was collected and is presented in Table 7 at the end of the following section. Clearly, while these regulatory issues and costs are very important, as reflected in the discussion above, there are many other non-regulatory issues impeding the development of a robust and economically viable community forestry subsector.

Forest Management Plan. The first hurdle to community forest management is associated with the forest allocation process for communities. First, there is a lack of precise terms and criteria for that allocation, which has resulted in numerous difficulties in executing these rights. The allocation of forests is based on the area (not to exceed 30 ha per household as per Decree 163/CP), but the process lacks any criteria for determining viability based on potential for protection and development. Second, the process itself requires detailed technical information at the time of allocation (i.e., demarcation on maps, delimitation in field, area calculations, forest types and status, timber quality and reserves). It is difficult for applicants to meet these requirements given their general lack of capacity and capital. Additionally, most of the forests allocated to smallholders and communities are of poor quality, therefore, the potential for generation of short-term benefits from timber and other timber forest products as an incentive and source of re-investment capital is very limited. Location of allocated-forests can also oftentimes be a problem. If the allocated area borders protected areas (e.g., Protection or Special Use Forest such as a nature reserve) user rights to the area may be limited or lost. In general, procedures are lacking to assess lessons from the forest allocation program and use them to improve the process.

Once lands are allocated, guidelines for preparing management plans and plans for timber harvesting are outlined in several documents. Decision 40/2005/QD-BNN sets out regulations for timber harvesting in the four types of forests (Production Forests - Natural and Plantation; and Protection Forests – Natural and Plantation) while the Circular 35/2011/TT-BNNPTNT sets out the regulations according to two types of forests (natural forest and plantation forest). Plans for commercial exploitation of natural forests have the most requirements while guidelines for other forest types is much more straightforward.

Generally speaking the major impediment for communities and smallholders is their lack of capacity to develop an acceptable management/harvesting plan. Circular 35, which is being revised in 2012, requires smallholders and communities to create a harvesting plan before initiation of the harvest. Most recipients of the Red Books must hire a consultant to prepare the plan. The harvesting plan requires detailed, geo-referenced (mapped) information on species and size of trees. This must be approved by

the relevant government offices. Government itself lacks the needed, basic information on the status and conditions of forest and growth and yield and the forest owners (smallholders and communities) lack the technical capacity to provide this information.

Harvesting. There are six steps required to harvest in natural forests for economic purposes:

1. Approval of harvesting plan – In order to harvest timber, the forest owners must have a harvesting plan approved by the District People’s Committee (Circulars 87/2009/TT-BNNPTNT and 70/2011/TT-BNNPTNT).
2. Assignment of quota – The District People’s Committee issues quotas, which are then assigned to forest owners by their respective Commune People’s Committee.
3. Issuance of harvesting license – A set of documents must be sent to the District People’s Committee that includes a “request” statement, an explanation of the design, the detailed harvesting plan, the minutes from the Commune People’s Committee meeting containing the approval by the local Forest Protection Officer or Forestry Officer, and maps of the affected area. The District People’s Committee approves the documents and issues the license within 10 working days of receipt of the complete and valid set of documents. A harvesting license is valid for 12 months from the date of issuance.
4. Harvest operations – the forest owners will harvest the timber themselves or contract for harvest by another entity.
5. Verification and extraction of harvested timber
6. Implementation of post-harvest management activities (e.g., regeneration) as per approved management.

Harvesting in other forest types has fewer and simpler requirements. For example, to harvest timber in a protection forest through a state or ODA-financed operation requires only three steps: a definition of the harvest method, a felling and extraction plan, and the issuance of the harvest license. Harvesting in plantation forests also requires only three steps: a definition of the harvest method, a list of products to be harvested and sold, and registration of intent to harvest.

The barriers that exist for harvesting by communities and smallholders are several:

- The regulations for the harvesting of timber are complex and costly to apply. There are no allowances for the differences between harvesting in plantation forests versus natural production versus protection forests.
- The procedure for allocating timber quotas to the individual communities and smallholders may take 4 to 5 months. A national quota is set by the Prime Minister and these are passed to the provinces. The Provincial People Committees establish the quotas for the individual districts and the private sector, which are then passed on to the District People’s Committees for allocation to the Commune-level. The respective Commune People’s Committee then assigns portions of the Commune-level quota to the various smallholders and communities. Delays in quota assignation may result in long delays in harvest operations if the favorable months, weather-wise, have already passed.
- The poor quality and low volume of harvestable trees in the allocated forest lands makes harvesting and extraction inefficient, difficult and costly; especially in complex terrain. High transport costs associated with under-developed road networks and poor road maintenance can make operation unprofitable.

Transportation. The regulations are unclear for individual smallholders or communities seeking to obtain timber transport licenses. In October 2005 MARD replaced Decision 47/1999/QD-BNN-KL with Decision 59/2005/QD-BNN regarding the control of forestry products, in order to simplify transportation

procedures for smallholders and communities. However, the updated regulations do not distinguish differences between the timber of large companies and organizations and that from smallholders and communities. When transporting timber harvested from natural forests, it is required to have a sales invoice showing the timber's source, the timber record from the harvest, and the Forest Protection Office's stamp on each log (done with a log marking hammer). The approval process to authorize the office to stamp the logs can take five working days. It requires the forest owner to send to the Forest Protection Office proof of their land rights, the harvesting license, and proof of the timber's source. While small diameter timber does not require a stamp from the Forest Protection Office's stamps, a similar set of documents still are required by the local district Forest Protection Office in order to confirm the legality of the small diameter timber. Transportation of processed timber on the other hand requires only a minimum of documentation (i.e., the sales invoice between the forest owner and the buyer).

For timber harvested from plantation forests, if it is to be used locally for housing, only an official confirmation paper is required. If the same timber is to be sold, it is necessary to have both the official confirmation paper and the sale invoice or list of products to be sold, depending on whether it is for private or commercial use. Similar documentation must be carried by vehicles transporting timbers and presented to the Forest Protection Station at district level.

Decision 59/2005/QĐ-BNN reveals a bias towards timber of companies. Private companies need only the Forest Office stamp whereas the smallholders and communities must have in addition the invoice showing the source of the timber together with the timber record.

Additional barriers exist for communities and smallholders in the transport of timber. Since 2004 smallholders have had the right to transport timber, but communities only have the rights to harvest, not transport. Traffic laws stipulate the vehicles allowed to transport timbers, which limits opportunities for smallholders in timber transportation. Round wood may not be transported, i.e., some processing is required prior to transport. Smallholders generally lack processing capacity, so must hire authorized companies effect the transport of timber.

Processing. The government encourages non-state sectors to develop forestry product processing enterprises, making available low interest loans and providing favorable tax policies. In June 2010, Decree 61/2010/ND-CP, stipulated that forest product processing companies in rural areas are to be a focus area for investment (e.g., for capacity building and reduced taxes). Also in 2010, Decree 41/2010/ND-CP allows households and individuals in rural areas that are involved in production or services related to forest products to obtain low-interest loans from credit organizations in the amount of VND 50 million to 200 million (\approx USD 2,400 to 9,600) . This is an opportunity for households and individuals to access capital to develop enterprises related to forest products and processing. However, the Decree does not extend to communities as groups, only to cooperatives.

Timber processing by smallholders and communities has so far been very limited. Current policies do not yet provide them support in the form of low-interest loans and other assistance to develop CFEs as it does for other rural economic activities and groups. Government also limits processing permit approvals in order to protect forests and simplify enforcement of regulations (e.g., requires fewer enforcement staff). It must be noted, however, that existing penalties are not strict enough to deter illegal activities.

Selling. In 2007, Decision 27/2007/QĐ-TTg signaled efforts to facilitate commercial development in the country, including the formation and development of direct, stable and long-term relationships between commercial enterprises, processing-industry enterprises, and households producing agricultural and forestry products. The consumption of domestically produced agricultural and forestry products have

also been promoted through Decision 80/2002/QD-TTg, and in 2008, Instruction 25/2008/CT-TTg. Local government offices were directed to facilitate this through mobilizing farmers, enterprises, cooperatives and cooperation groups.

With regards to pricing, there are not any specific policies with respect to forestry products, so they are set according to the market price. However, in some provinces the local government promulgates the minimum price level over a short period of time (1-2 years) for some kinds of timber in order to be able to project future revenues from tax assessments and other relevant costs and fees.

Table 7. Estimated costs to communities and smallholders for meeting the regulations in Vietnam

Step	Regulation	Cost (money and time)
Management plan ¹	Decision 40/2005/QD-BNN; Circular 35/2011/TT-BNNPTNT	Management plan: USD 1,000 - 1,500 Harvesting plan: USD 10 - 20/m ³
Harvesting ²	Decision 40/2005/-BNN; Circular 35/2011/TT-BNNPTNT	Harvest costs: USD 15 - 20/m ³
Transportation ³	Decision 59/2005/QD-BNN	USD 30 - 40/m ³
Processing		Not allowed
Selling		Tax of 10% of selling value
Purchasing		Tax of 10% of purchasing value

¹ Local communities do not have trained foresters so must hire a consultant

² Costs based on site conditions and quality of the timber

³ Not mentioned in Decision, but in practice, local communities have to contract a partner.

Regarding taxes and other fees and tariffs, the 2009 tax law for the exploitation of natural resources (45/2009/QH12 of the National Assembly) stipulates the taxation rates for wood, which vary depending on species: (i) 10 - 35% for roundwood; (ii) 10 – 20% for branches, tops and stumps and; (iii) 1 – 5% for firewood. Additional costs are passed on to the consumer in the price of timber products, e.g., the harvesting license fees, fees for Forest Protection’s stamp, fees for the appraisal of natural timber harvesting plan, etc., all of which are defined by MARD. As smallholders and communities harvesting and selling timber pay additional fees for design of the harvesting plan (if they employ the consultants), for felling the trees, and for transportation their margins are either commensurately reduced as compared to other timber producers or their products must be less competitively priced in the market.

At present, involvement in the timber markets appears beyond the capacity of smallholders and communities. They receive little support from government and their unit production costs are high (economies of scale and regulatory costs) leaving them at a disadvantage when selling timber. The volumes they can sell are too small to have any leverage or negotiation power with processing facilities, so those can set the price they pay for the timber as low as possible. Value chains for community forestry do not exist. The lack of access to information on prices and supply and demand forecasts leaves them at a disadvantage. Further, while government does not require that smallholders and communities auction their timber, in most provinces local regulations do. They are forced to put their timber out to tender and are not allowed to sell timber directly. In theory, this could make sense in well functioning markets with large volumes of timber. However, this is not the case due to a small number of buyers for what are small lots of timber being tendered by inexperienced sellers. Even in those

provinces where the local People's Committee annually set minimum prices for timber, this does benefit the forest owners as they are unable sell timber directly.

Conclusions and Recommendations

The Forest Protection Ordinance (1972) and the Laws Of Forest Protection and Development (1991 and 2004) have clearly defined that forests may be allocated to smallholders, communities and the private sector. Among the Government's principal objectives for allocating forests to smallholders and communities was to improve the livelihoods of forest-dependent people, including ethnic minority groups. Yet, these many years later, the CF made possible by these (and other) laws has had only small and localized effects in reducing poverty and improving livelihoods. Over-regulation is one of the main factors impeding the development of an economically vibrant CF sector capable of changing the lives of the rural poor for the better. It is recognized that there are real issues and risks that have led to good faith efforts to regulate forestry in order to protect and conserve forest and the environmental services they provide. Still, the tension must be resolved between the state's policies of conserving and protecting forests and those of seeing forests become a valued asset of communities for rural development and poverty reduction. A middle path is needed in which smallholders and communities can effectively and efficiently capitalize upon their rights to forest lands.

Barriers to described above can be summarized as follows:

- Most smallholders and communities lack the skills to develop a forest management plan, a forest business plan and an acceptable harvesting plan. The poor quality of the forests and forest lands allocated to communities, coupled with the fact that the forests tend to be located in remote areas on complex terrain with poor road access, makes the management of these lands and the harvesting and transportation of timber extremely expensive relative to the benefits that the land owners can expect to perceive in the short to medium term.
- Requirements for the transport of timber are cumbersome and a cascade of informal costs associated with transport have been a disincentive and barrier to communities complying with the requirements.
- Households, individuals, and communities are not allowed to establish timber processing enterprises. Additionally, it is difficult for local people to access credit at the low interest rates given by government for the development of other alternatives for transformation of forest products.
- The government does not provide market support to communities or smallholders, which places them at a disadvantage when it comes to selling the product. Regulations imposed by Provincial and local authorities severely distort the markets for forest products and disproportionately impact smallholder and communities.
- Tax rates for timber harvested from natural forests is prohibitively high.

Specific recommendations to improve CF activities in Vietnam are as follows:

- Simplify regulations and provide training so that local communities may comply without having to resort to hiring outside consultants.
- Forests allocated to communities could be seen as special forests that (i) the government wants to devolve to local communities for protection and economic development while (ii) passing on to them the long term costs of rehabilitation and restoration of productivity. From that perspective, government could forego taxing the harvest of timber as the benefits provided by the communities to the state outweigh the loss of the tax revenues.
- The government should strengthen its capacity to reduce illegal logging by empowering and supporting local communities to monitor forestry activities and halt illegal loggers.

- The government should continue to invest in training to improve local capacity, including that of local government officials. One priority area would be to improve understanding and knowledge about market economies.
- The government should continue efforts to enhance local citizens' capacity, to minimize shifting cultivation, and to increase salaries and improve the living conditions of public official in order to attract high quality people.
- The government should continue to promote mechanisms, policies, and administrative reform for the commercialization of timber under transparent and fair market conditions. Among others, this would require building support and cooperation between local officers and communities and smallholders to protect allocated forests and realize economic benefits from timber; developing a reward and penalty system with detailed and transparent regulations that are supported by the relevant authorities; and addressing contradictions and confusion within the regulatory framework, for example, Circular 35/2011/TT-BNNPTNT needs to be revisited as it weakens Decision 40/2004/QĐ-BNN.

Because most of the forest areas allocated are of low quality, the government should support communities and smallholders efforts to repopulate and restore forests. The principal support required is effective incentives combined with capacity building.

MEXICO

Background

Forests cover some 64.8 million hectares (33%) of Mexico's total land area (FAO 2011). Of this figure, about 56% is temperate forest and the remaining 44% consists of tropical formation. Of the total forest area, about 35% is considered production forest, though at present only about 6.5 million ha of this area is under management plans, about 28% of the area identified as having potential for productive use (FAO 2012).

What is particularly notable about the Mexican forest sector is the extent to which community ownership is the dominant form of forest tenure. In contrast to most other developing countries, Mexico is characterized by the degree to which forest policy has historically facilitated, rather than suppressed, the emergence of a strong community forest sector. This is a legacy of the Mexican Revolution (1910-1917), and inscribed in the Article 27 of the Mexican Constitution, which introduced an agrarian reform process implemented in successive waves during the 20th century. This reform redistributed land to rural communities under two forms of tenure: ejidos, which are land grants to groups of (typically mestizo) individuals, and rural (mostly indigenous) communities holding titles issued by the Spanish Crown during the colonial period. Though agricultural plots within ejidos and agrarian communities are usually individual usufruct, forests are typically held as common property, and managed by a common resources committee (*comisariado*), under the community assembly of ejidatarios or comuneros (i.e., community members with voting rights). Technically, the Mexican government retains ownership of ejido and agrarian community land, but recognizes *de jure* community ownership of forest resources, provided that communities manage them according to established rules. In the case of indigenous communities, the Mexican state also recognizes traditional decision making processes (*usos y costumbres*) as having legal validity.

As part of this governance structure, a democratic process for electing community leaders, including representatives in the *comisariado*, is held every three years. This rotation of responsibilities has its disadvantages resulting in capacity impermanence and, sometimes, petty corruption. However, the

strong incentive provided by access to valuable forest commons has encouraged broad community participation, the establishment of rules through democratically-established community statutes, vigorous monitoring, and clear sanctions for rule breakers. Application of local governance systems also results in important social capital to CF operations, in a world where traditional authorities and governance are often ill equipped for the demands of forest and territorial management (Cronkleton et al. 2011).

Over the past two decades, a transition to greater autonomy in forest management has been consolidated, following a 1992 reform to the Mexican Constitution that gave communities a near-complete bundle of rights over their forests, ending government claims to timber. The only rights that were not devolved were that of alienation and land use change; communities cannot privatize or sell their forests and they cannot convert them for non-forest uses.

This devolution of rights over forest resources, combined with legal recognition of community-level governance institutions, has led to a flourishing of CFE development in the country that is unparalleled globally. Currently, it is estimated that communities have secure property rights to an estimated 60.3% of the national forest estate (Bray et al. 2007; Madrid et al. 2010). The National Forestry Commission of Mexico (CONAFOR) has identified 3,056 communities throughout the country that are managing their forests in accordance with a forest management plan. Numerous analyses show clearly that well-run CFEs substantially contribute to local development through employment generation and the building of community assets like schools, clinics, water systems, electricity, and social services such as free medical care and pension packages. As a result, successful enterprises have been shown to fortify community cohesion (both within and between communities), build social capital, and create greater social peace in areas that have seen considerable conflict and violence, all of which helps to stem the tide of rural out-migration plaguing so much of the Mexican countryside. Moreover, recent studies are proving that such sustainably managed community forests are as effective, or more effective, than protected areas as a means to protect forests and their associated services (Porter-Bolland et al. 2012).

Although these gains are truly impressive, the vast bulk of the estimated 8,928 communities in Mexico with forest are not currently engaging sustainable management. Of the communities that have permits to legally remove timber from their lands, more than half sell timber on the stump to outside loggers, timber traders or other interests. More often than not, these communities realize only a small percentage of the market value of the wood and other forest products harvested on their lands, while forest extraction fails to create sustained employment for locals. Lack of community involvement in forestry planning, operations and monitoring typically results in unsustainable management (through high-grading, over-harvesting and operations that damage soils and watercourses), as well as side contracts for illegal extraction, and petty corruption. Such mismanagement undermines the forest resource, biodiversity and other forest services, while foregoing the substantial potential social and economic contributions of CF.

Findings

Presented here is a review of not only some of the regulatory barriers in development of forest management plans and harvesting, but also successful examples and enterprises in CF.

For the average CFE, commercial extraction of timber and NTFPs requires compliance with a series of regulatory requirements in accordance with Mexican environmental law. Accessing permits for harvesting forest products requires considerable time, cost, and technical expertise. To be granted a harvesting permit, community operations must produce a range of documents, including: (a) their agrarian title, (b) proof of legal status of the harvester (if it is not the community), (c) written statutes

that govern the forest management unit, (d) an official act of the community assembly authorizing the extraction, and (e) a forest management plan (Ley General, Artículo 74).

The forest management plan (FMP) is the most expensive and technically challenging requirement of the requirements needed for a harvesting permit. The FMP must be prepared by a professional forester (certified and registered with the state) and must contain sixteen sections (Reglamento, 2005; Article 37) with detailed technical information on cutting cycles, forest tree measurements, inventory sample design, existences of stocks, average density and increments and other details by stand and species, the silvicultural method to be used and its justification, reforestation, and fire prevention. If there are species of flora and fauna at risk of extinction or otherwise controlled, conservation measures must also be specified.

Costs of the preparation of the FMP range between US\$2.50 and \$8.50 per hectare (FAO 2012, CCMSS 2008). Table 8 summarizes the main technical and professional costs that can be expected for a temperate forest CFE of 25,000 ha. Once the FMP has been approved, the services of a professional forester must again be retained to undertake tree marking and the elaboration of a forest operations plan and finally, a range of services related to submission of these documents and ensuring approval by the appropriate agencies must also be retained by the community. Although costs can be significantly offset by subsidies available through state-run programs, applying for and winning such subsidies – often through forestry firms that then implement the FMP preparation – represents a major investment for forest communities (if indeed they are aware of the subsidy programs at all).

Table 8. Main technical requirements and associated costs (USD) for temperate forest CFE (25,000 ha)

Item	Cost
Forestry Technical Services <ul style="list-style-type: none"> • Forest management plan preparation (\$5.35/ha x 25,000 ha) • Tree marking and operational plan (3/m³ x 20,000 m³/yr) • Other technical services 	<ul style="list-style-type: none"> • USD 133,750 • USD 60,000 • USD 12,500
Other professional services <ul style="list-style-type: none"> • Accounting and finance • Legal and notary 	<ul style="list-style-type: none"> • USD 8,000 • USD 5,500
Transport, follow up, incidentals to ensure FMP and permitting approval	<ul style="list-style-type: none"> • USD 3,300
Total cost	<ul style="list-style-type: none"> • USD 223,050

Once the FMP has been developed and approved, another payment is necessary in order to receive a harvesting permit. These payments differ in relation to: (a) type of tenure, (b) forest type, and (c) size of forest holding. Figure 3 represents how such forest operations are classified as a first step to determining the payments to be made for different types of forest management activities. Once the type of operation has been determined, the exact amount to be paid for a harvest permit by types is determined according the volume harvest and the forest type as outlined in Figure 4.

Figure 3. Classification matrix by tenure, area, forest type and management intervention

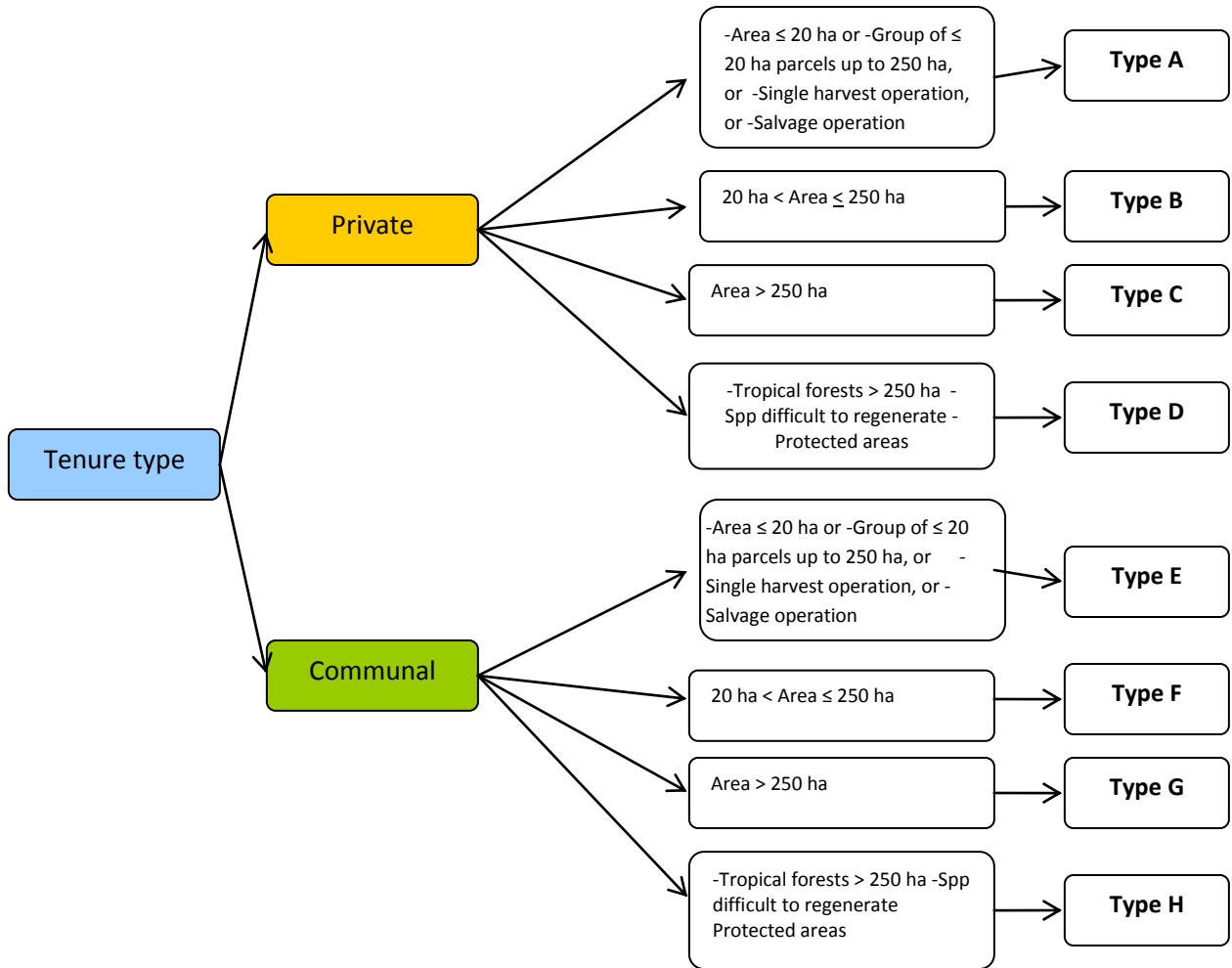
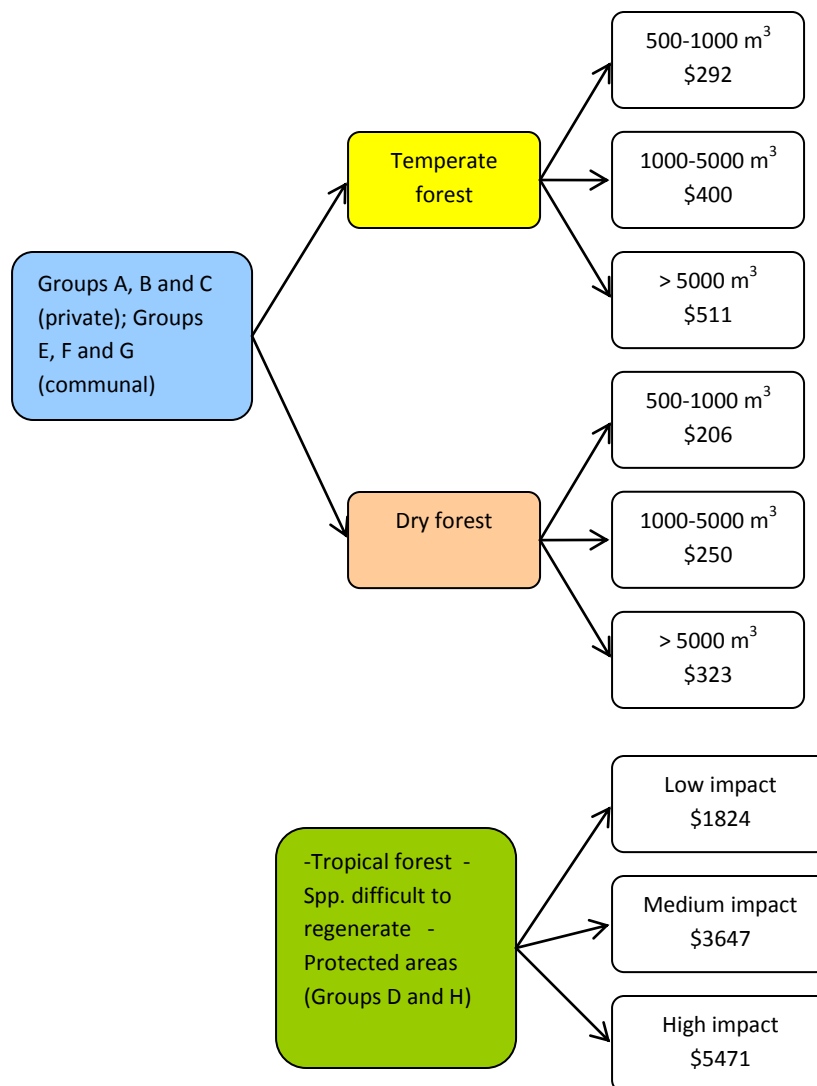


Figure 4. Variable costs⁹ of harvest permits according to forest management type



Beyond these fixed costs, there are host of other costs borne by producers in order to ensure that documentation is officially acceptable, then received, reviewed, revised (as needed) and ultimately approved. Such costs are difficult to quantify and vary significantly based on operational measures, forest locale, and community capacity, etc. FAO (2012) estimated these costs roughly to be on the order of USD 16,000 for the same 25,000 ha CFE.

As noted in the figures above, there is an even heavier regulatory and therefore cost burden for management of tropical forests. In the case of tropical forest products, an environmental impact assessment must also be prepared which can cost about USD 4,000 for an average size CFE in the tropics.

Since several of above costs in Table 8 are for products that do not require annual renewal the annual cost per cubic meter cost must be calculated differently. FAO 2012 estimated costs for a 20,000 ha

⁹ Figures in USD based on exchange rate MXN 12.8 to USD 1.

operation at USD 5.67/m³, though this does not include many of the costs related to transport follow up, etc. cited above.

Critically, despite the country's progressive tenure arrangement, CFEs are still required to pay various fees for the "right" to harvest forest resources on their own lands. These are variable fees attached to a host of The Secretary of the Environment and Natural Resources (SEMARNAT) regulations related to forest type, operational legality, transport and processing that collectively amount to a substantial cost, on the order of USD 2.4/m³, or over 40% of the fixed technical costs of receiving a harvest permit. These fees are higher for more vertically integrated CFEs, since their operations require "rights" payments at each stop on the value chain – from the forest, to transport, to processing. Taxes also affects CFEs unevenly, since only those that add value are required to pay. But the tax is steep, 17.5% of income on sales of value-added products. On a per cubic meter basis, this can add up to USD 3.4/m³, another high cost for CFE operations.

Adding the costs of all these requirements for an "average" CFE adding value to its product in Mexico, FAO (2012) estimated total costs at USD 11.8/m³, with technical services, taxes and "rights" payments as the highest costs, respectively.

Beyond monetary considerations, an overly bureaucratic and inefficient process characterizes the review, approval and issuance of harvesting permits. Such processes are typically drawn out (sometimes taking up to six months) because the approval system is too heavily centralized. SEMARNAT has limited staff to process the large numbers of FMPs and new applications for extraction permits. A provision in several regulations governing the sector holds if a fixed period of time passes since submission of a given document without SEMARNAT approval, it is considered void (CCMSS, 2008). Thus through no technical fault on the part of the CFE, but rather due to bureaucratic inefficiency, a particular permit request can automatically be disqualified, resulting in a major financial loss (not to mention opportunity costs).

For the host of requirements and associated costs outlined above, the Mexican CF sector has been characterized as "overregulated", which has been cited as a principal factor in the decline of timber production and logging permits over the last decade (CCMSS, 2008). However, in comparison to other countries, it would appear that Mexican forestry is not too heavily overregulated. For example, Humphries (2010) undertook a comparative study of regulation of forest management among communities in Brazil and Mexico and found that in Mexico the bureaucratic process "may not be perfect, but it has worked without major renovations for years. CFE actors at times complained it might take a few weeks to get their timber transportation documents. In contrast, (in Brazil) it can take years to get a FMP and several months to get an annual operating plan approved." Notwithstanding such positive comparisons, the regulatory framework in Mexico could certainly benefit from best practices in other countries, particularly the Bolivian policy of reducing or eliminating the national regulations for community enterprises that have received Forest Stewardship Council certification (Gregersen and Contreras, 2010). Moreover, the policy of requiring CFEs to pay for the "rights" to harvest forests that are titled as communal lands should be reviewed.

Institutional Arrangements in the Community Forest Sector

It has been argued that the unique forms of entrepreneurial organizations that have developed in Mexico around forest production and marketing are so unusual that they require an extension of more traditional economic theories of the firm (Antinori and Bray, 2005). It appears clear that the economic incentives provided by full ownership of a valuable forest resource, combined with forest governance systems that are endowed with the weight of law and well-defined rights holders, facilitates collective

action both at the level of individual CFEs and in inter-community organizations between CFEs (although the latter is not as common).

In the remainder of this section the special institutional and organizational challenges of CFEs in Mexico are examined and different forms of classifying them are discussed. Several case studies presenting a few different forms of collective action in forest associations that have emerged over the last few decades are also presented.

Challenges of CFE Organization

The agrarian governance platform provided by Mexican law, has shown flexibility to innovate and adapt to the administrative needs of market-oriented enterprises. There are challenges of collectively administering a territory, a forest, and an enterprise which have been summarized as:

1. *Hierarchical relationships versus 'democratic community governance'*. Communities may not understand the management issues involved in the CFE, yet they make key decisions on things like wages and employment. The tension is common in issues of discipline in the workplace, where community members find it challenging to supervise fellow community members, with confusion between shareholder, manager, and worker functions.
2. *Inefficiencies in traditional practices*. Managerial positions in the CFE are elected every three years. This is seen as a safeguard against corruption, but also implies high training costs and the risk of inexperienced or incompetent managers.
3. *Accountability and corruption*. Poor accounting may lead to suspicion and confusion even if actual corruption is not present. The degree of this depends on the capacity of the assembly to control more powerful rent-seeking members (e.g., community political elites).
4. *Conflicts*. Most see the CFE as a source for jobs and profit sharing, not as a profit-maximizing enterprise, leading to tensions over wage and employment policies. In some communities, emerging conservation orientations object to all logging and there are also conflicts over the multiple uses of the forest for timber, firewood, and non-timber forest products.

Such issues are typically found in all CFEs, but their impacts vary according to the nature of the community and its enterprise as discussed below.

Typology by Vertical Integration

In the 1990s the Mexican government established a typology which is still in widespread use today to categorize communities along a gradient of development, which also implies a hierarchy of community collective action, given that transaction costs are higher with each successive stage of industrial integration. Among communities actively managing their forests and investing in some level of local control over forest management and/or product marketing, the development of value-added among CFEs remains relatively low. Table 9 summarizes the overall picture of CFE development in the country.

There may be 20-25 CFEs that qualify as Type V in Mexico at present, usually with commercial forests larger than 10,000 ha, employing hundreds of community members, and having mature, stable, diversified forest industries and who may compete in international markets (Bray 2010b). At the other extreme, there are communities with forests of 300–400 ha that have successfully managed their forests for timber for decades, although with correspondingly modest economic and employment results.

The level of vertical integration correlates negatively with both regulatory requirement loads and associated costs. This negatively affects the development of the CFE sub-sector as it acts as a significant barrier-to-entry for less vertically-integrated CFEs that have the capacity to add increased value to their

forest products. It impedes the ability to reduce costs and improve efficiencies among those CFEs that are best positioned to achieve competitiveness in domestic and international markets.

Table 9. Level of CFE development and percentage of overall forest communities

Type	Definition	Approx % total forestry communities
Type I – Potential producers	Owners or possessors of forest resources that have commercial potential but that presently are not undertaking forest planning, use, conservation or management of their forest ecosystems, having no management plan and/or the inability to implement one	48%
Type II – Producers selling timber on the stump	Owners or possessors of forest resources that have management plans and timber harvesting permits, but that contract operations to third parties and sell timber to outsiders, with no direct participation in forest harvesting	32%
Type III – Primary producers	Owners or possessors of forest resources that have management plans and timber harvesting permits, and that participate in some phase of forest harvesting as well as in some part of transport, sales and/or primary transformation	11%
Type IV – Producers with primary transformation and commercialization capacity	Owners or possessors of forest resources that have management plans and timber harvesting permits, and that have infrastructure for primary transformation and that directly carry out the marketing of their products	8%
Type V – Producers with secondary transformation, industrialization and commercialization capacity	Owners or possessors of forest resources that have management plans and timber harvesting permits, and that have infrastructure for primary and secondary transformation for the production of finished products, and that directly carry out the marketing of their own products, or through productive associations	1%

Typology by Community Entrepreneurial Form

The different forms of community enterprise governance are correlated to some extent with the degree of vertical integration, but there exists a wide variety of different institutional arrangements at the community level. However, three of the most typical forms of enterprise governance in CFEs are as follows:

1. *The Comisariado Form.* Consists of an enterprise manager under the supervision of the community Assembly and all administrative posts are treated as community service assignments. Thus, there are no specialized management functions or positions. This lowers costs since these are mostly unpaid positions, but it can create inefficiencies when poorly informed or trained leaders occupy the position, and when Assemblies as shareholders make decisions which may reduce the competitiveness of the CFE. This is most commonly the case with Type II and some Type III communities
2. *The Forest Council/Manager Form.* In many larger CFEs, the assembly elects a Forest Council that serves as a Board of Directors and it is the council that reports to the assembly. A professional manager is appointed and supervised directly by the Forest Council and is not subject to rotation and paid administrative positions exist on a semi-permanent basis.
3. *The Work Group Model.* Concerns about corruption among community authorities have led some communities to create subcommunal enterprises, where the authorized annual harvest

volume, but not forest territory, is divided up among kinship and friendship based smaller units called “work groups”.

There is no one best practice in managing a CFE, with each variation as described above arising as a creative response to local conditions. Such varying forms of management have less to do with regulatory and market barriers as with issues surrounding cultural traditions, forest management objectives and forest administration histories.

Inter-Community Collective Action in Forest Associations

In addition to the varieties of the Mexican CF experience at the level of the individual CFEs, Mexican communities also have considerable experience in inter-community collective action, where forest communities band together at a sub-regional, regional, state or national level to pursue common interests and combine or channel services. Such collective action at the inter-community level tends to bring high transaction costs (the intention was the opposite) making such collaborations a less common feature of the institutional landscape, although it is clear that organizations still come together “to reduce transactions costs left by gaps in the market and government policies” (Antinori and García-Lopez, 2008). Tanaka (2012) has suggested some of the economic benefits that may be gained by arguing that “to develop a competitive CFE, the initial benefits of intensive intra-community integration must give way over time to allow for extensive extra-community linkages such as value chain level collaborations and the open recruitment of well-qualified professionals.” The extent to which this happens in reality varies considerably (see the cases below).

Forest Associations (FA) emerged in the 1970s and 1980s from both top-down government organizing efforts and bottom-up protest movements against logging concessions granted on community lands. These protest movements, particularly when they achieved their goals, in many cases transformed into service-provider organizations. In the last two decades, government policy has again promoted the creation of these regional organizations, mostly to make service delivery and other civil society-government interactions more efficient (Antinori and García-López, 2008). Studies indicate that the number of CFEs involved in second level forest associations is significant.

There are two main reasons that CFEs now come together to form FAs. The most common reason for collective action is to hire professional forestry services that can carry out the technical work required for permitting summarized above, as well as handle follow up work with government agencies to ensure that permits are granted. These groups thus come about as a response to regulatory barriers. Secondly, entrepreneurial alliances are also formed around production and/or marketing efforts among CFEs trying to reduce costs, improve efficiencies, achieve scale and access better markets. These groups are formed largely in response to market barriers.

In the following section, we present four cases of FAs, grouped into two different categories based on the focus of the collective action. The first group - the “forest technical and government services group” - where organizations with small numbers of communities with generally small forests have banded together for the primary purposes of lowering the costs of the forest technical services, i.e., hiring their own professional forester who works directly for them and who can thus provide a variety of services beyond just FMPs. The second group - the “entrepreneurial alliance group,” - where the primary focus of the inter-community action is to engage in a larger scale of business venture than would be possible for any one member, and also to channel government support. In these examples, members do not however provide forest technical services to member communities – the sole focus of the collaboration is in response to market barriers.

The Forest Technical and Government Services Group

The Zapotec-Chinantec Union of Forest Communities (UZACHI)¹⁰ UZACHI was founded as a successor organization to a grassroots movement in 1980 that rose up against the renewal of a 25 year concession to private industries in the pine-oak forests of the Sierra Norte of Oaxaca. In 1989 with the support of some of the external advisors who had formed the local NGO Estudios Rurales y Asesoría (ERA), five of the communities who participated in the grassroots movement formed UZACHI. The communities first organized to demand their resource rights over the forest, but with the formation of UZACHI they began to focus on more sustainable forestry practices.

The four communities that currently constitute UZACHI manage 23,125 ha of mixed pine-oak and tropical forests. With ERA's support, UZACHI communities were among the first to implement land use zoning exercises (ordenamiento territorial comunitario) that established permanent forest and agricultural areas in the communities, and were also among the first in Mexico to implement new silvicultural practices that encouraged regeneration of pine (the standard method used by the parastatal logging company had inadvertently encouraged oak regeneration). Young people in the community were also encouraged to pursue forestry careers, and since 1990 the forest technical director position has been occupied by professionally-trained foresters from the communities. The UZACHI communities were also among the first in Mexico to receive Forest Stewardship Council (FSC) certification for well-managed forests, although due to lack of demand in domestic markets for the FSC label this has resulted in little in the way of increased sales over the years. UZACHI is governed by a General Assembly, an Administrative Council, an Oversight Council and an Advising Council. The General Assembly is composed of four delegates from each community, in addition to each community's Comisariado.

UZACHI was also pioneering in an exploration of traditional knowledge of mushrooms and also in a joint industry-community effort to analyze chemical properties of mushroom mycelia. and was also a founding member of the NGO Environmental Services of Oaxaca, established in 1990 in an effort to market carbon capture services. After many years of effort, Environmental Services of Oaxaca was able to open the national voluntary carbon market in Mexico in 2008 with sales to several Mexican corporations and other Mexican entities. In addition to providing a wide variety of forest technical services and the channeling of government program to its members, UZACHI has also been in demand as a technical advisor to more incipient forest communities in Oaxaca and other Mexican states (Hodgdon 2009).

Society of Forest Production Ejidos of Quintana Roo (Sociedad de Productores Forestales Ejidales de Quintana Roo)¹¹ As in the case of UZACHI, the Sociedad arose in the wake of the ending of a 29-year concession to a parastatal company. A combination of federal government, German foreign assistance and the state government support, through a program known as the Forest Pilot Plan, created a network of forest community organizations throughout the state, from which the Sociedad was founded in 1986. This program supported the communities in establishing zoned forest estates or reserves on which 25-year management plans would be based, devolved forest management authority to the communities helping them form CFEs, and helped them get extraction equipment and sawmills. Intensive support in technical and organizational training was available for many years. The Sociedad was originally composed of nine communities and at its peak, the Sociedad represented nearly 2000 legal members with 121,000 ha of tropical forest under commercial management.

¹⁰ Taken from Chapela, F. (2005) and ERA (2009).

¹¹ Unless otherwise noted based on Wilshusen (2005)

Although originally focused entirely on forest management, the Sociedad over time developed programs in wildlife management and ecotourism. The formal goals of the Sociedad, are (1) forest management and conservation, (2) timber products marketing, (3) support for local economic development, (4) forestry technical services and training, and (5) support for local planning and CFEs. The Sociedad was shaken in 1998 by the withdrawal of its largest member. This has happened in several cases in Mexico where the largest member of a second level organization has withdrawn because they feel the costs of participation outweigh the benefits, particularly in being able to directly control their own forest technical services.

The organization's structure includes two layers of representation including the General Assembly of Delegates and the Executive Committee and Oversight Council, again paralleling agrarian governance at the community level. The Assembly of Delegates is made up of two elected per ejido who form the highest governance body. Founding members of the Sociedad serve as "Counselors", providing an important institutional memory. The Assembly is responsible for marketing studies, cooperative agreements with government agencies and buyers, while the Executive committee administers day-to-day interactions. The committee structure mirrors the generic ejido administrative form including a President, a Treasurer, and a Secretary. In addition, the delegates elect a representative to preside over an Oversight Council. The administrative offices have only one full-time staff member and a part-time certified public accountant, supervised by the Treasurer in the Executive Committee.

Like UZACHI, the Sociedad is a small organization which nonetheless persists as a model of collective action self-service delivery, with the important functions of supervising the work of the Forest Technical Director, who elaborates the government-approved management plans and environmental impact statements for all of the communities (Galleti Busi and Uc Tzec, 2010). Research has shown that the Sociedad and the other forest organizations in Quintana Roo have been important in reducing deforestation and alleviating poverty in the region (Bray et al. 2004; Bray et al. 2007). Presently, however, the Sociedad faces significant challenges due to the negative effects of Hurricane Dean in 2007, an overall decline in volumes of mahogany and an increasingly difficult struggle to find markets for the lower-priced lesser-known tropical species. However, the group has shown resilience in being useful to its member communities, who continue to engage in the collective action to maintain it.

Forest Associations as Entrepreneurial Alliances

TIP Muebles¹² TIP Muebles represents a new form of inter-community collective action focused on marketing furniture directly to the consumer. TIP is an acronym that stands for Textitlán, Ixtlán de Juárez and Pueblos Mancomunados, three Zapotec indigenous communities in the Sierra Norte and Sierra Sur of Oaxaca. Government purchase orders initially played an important role in stimulating the formation of the TIP alliance. The Oaxaca state government launched an initiative of buying school furniture from community forest enterprises, which stimulated the expansion and consolidation of substantial furniture manufacturing capacity in the three communities. However, civil unrest in Oaxaca in 2006 shut down the state education bureaucracy for months and halted sales. In response, the communities made the decision to develop new lines of furniture to sell on a retail basis. The three communities were in discussions about their common problem, so a decision was made to informally join forces and open a store to sell each of their furniture products. The trust enabling the collective action was helped by the fact that all the communities are indigenous Zapotec, that they had all been managing their forests and sawmills for decades, that all had made the transition to professional managers, and that all were

¹² Based on Klooster and Mercado, 2011 and Tanaka, 2012 unless otherwise indicated

certified or in the process of being certified by FSC (thus they could ensure chain of custody that would allow them to market their furniture as FSC certified).

The retail store had sufficient success in sales that the communities decided to formalize and expand the alliance to not only coordination of sales but provision of administrative services and joint purchasing. The Forest Community Integrator of Oaxaca (Integradora Comunal Forestal de Oaxaca S.A. de C.V.-ICOFOSA) was thus established legally in February 2007. Additional outlets in Oaxaca City were subsequently opened and TIP has now opened three other branches in other parts of Mexico, and is now planning to open more, using a franchise model and attempting to build up its brand. In this way, the communities that make up TIP have achieved a kind of double second-tier organizing: through ICOFOSA as a non-commercial provider (and receiver) of services, and through TIP Muebles as ICOFOSA's commercial arm.

Being organized as a non-commercial "integradora" allows the body to facilitate the flow of support from government agencies, banks and NGOs to the communities. Meanwhile, the TIP business alliance is geared towards the specific purpose of coordinating designs and marketing furniture. All three communities maintain their independent CFEs with the principal business being selling sawnwood from their sawmill to clients nationally, with furniture contributing around 20% of total sales, and with around 30% of the total sawnwood production going into the furniture factories. Each community also has its own set of wholesale furniture buyers. The communities believe there are a series of advantages to the collective action, namely: (1) shared costs and risks of experimentation, (2) pooled knowledge – they visit each other's factories and identify problems and shared designs, (3) sharing of resources and knowledge – from loans to consumer response to designs, and (5) greater capacity to respond to possible large orders.

The member communities of ICOFOSA are also fueled by the power of government green purchasing, with the Oaxacan state government now requiring their other furniture suppliers to use certified timber, much of which is purchased from the communities. Thus, as Klooster (2010) has noted, "The ICOFOSA consortium links certified communal forests to a shared furniture brand and retail outlet". The key to its future, however, will be to achieve greater competitiveness through increased demand for community-produced, FSC-certified wood products in national markets.

Emiliano Zapata Union of Forest and Agricultural Ejidos and Communities (Unión de Ejidos y Comunidades Forestales y Agropecuarios Emiliano Zapata-UNECOFAEZ).¹³ As in the example of UZACHI, UNECOFAEZ first emerged as a grassroots mobilization against a parastatal logging firm which had received a government concession over 2.5 million acres in 1967. In 1976, supported by some reform-oriented federal government agencies, 20 ejidos and agrarian communities established UNECOFAEZ with the slogan "for the integrated utilization of our forests by their owners," and received logging permits to carry out their own harvesting and operate sawmills. As in the case of UZACHI, UNECOFAEZ had to make the transition from being a grassroots political movement trying to claim timber rights from the government to being an organization of forest producers. Now, the group is reinventing itself yet again to become a business alliance. This reinvention reflects the increasingly difficult struggle to remain profitable in a highly competitive business environment while maintaining representativeness and legitimacy with its social base, its member communities.

UNECOFAEZ operates at a much larger scale than the other three cases. As of the late 2000s, UNECOFAEZ claimed as members 72 ejidos and communities with over 11,000 community members holding a total of a million hectares of territory. Such scale has made it particularly challenging to

¹³ This section from Taylor (2000) unless otherwise noted

continue delivering enough benefits to make it worthwhile for its member communities to participate. In trying to strike this balance, the union has pursued a dual strategy of expansion and diversification. However, in terms of collective action around forest industries, the most important manifestation has not been the provision of forest technical services, as in the case of UZACHI, but rather in the establishment of the General Emiliano Zapata Silvicultural Industry (Sezaric Industrial Group) in 1995, which has now become a kind of holding company with four constituent enterprises. Thus, UNECOFAEZ is the central node of a decentralized organizational matrix that includes a plywood factory, a machine tool shop, a furniture factory, five forestry technical service societies, a plant nursery, a credit union, and an agrarian production input store. It coordinates road improvement committees in the different forest regions, operates a training center, and performs important lobbying functions for its members. It has also coordinated efforts at rural electrification.

Forty of the 72 member communities participate in the Sezaric Industrial Group, including nearly 6,000 community rights holders with 292,561 ha of commercial forest under management (<http://sezaric.objectis.net/> accessed 2/11/12). The General Assembly of member communities of Sezaric is composed of 80 delegates, two from each community. These delegates elect an Administrative Council, composed of a President, Secretary, Treasurer and Oversight Council, paralleling community governance. The Administrative Council has the balancing act of managing an industrial operation with intensive competitive pressure from plywood imports (that constitute some 75% of the Mexican market) while at the same satisfying the interests of its community members. UNECOFAEZ continues to struggle with issues of participation and trust among their member communities, but the fact that they have now survived for some 20 years suggests that this community entrepreneurial alliance continues to make the transactions costs lower for the members than the benefits.

Conclusions

Mexico has a unique confluence of historical factors which, after waves of reform and grassroots organizing over many decades during the 20th century, led to the development of a vigorous CF sector. Such a development trajectory is obviously not easily or quickly replicable. As noted above, it is also clear that a majority of forest communities in Mexico have not yet been able to take advantage of their natural assets. The reasons for this are variable and complex, but include issues related to land conflicts, cultural dynamics, forest use histories, community capacities, and indeed regulatory and market barriers. However, the hundreds of examples of successful CFE management make clear that policies have evolved over time to allow and facilitate the emergence of well-run community forest operations and businesses. The keys to this success are directly attributable to

- clear rights over communal property territory and all forest products (especially timber),
- the establishment and legal recognition of formal community governance mechanisms,
- access to technical and financial support for forestry development, and
- a supportive policy environment at multiple scales.

Of particular note is the role of formal community and community enterprise governance forms which are in their most successful forms are clear, democratic, legally recognized, and with specified links to other levels of government.

The Mexican experience shows that successful CFE management can occur at many different scales, from communities who have many thousands of hectares of commercial forest to those who have just a few hundred. It is frequently argued that the customary or traditional governance mechanisms of local communities should be respected. This is certainly true, but it also must be recognized that traditional governance mechanisms frequently did not evolve to administer an entire territory and to have legal

recognition and clear links with other scales of governance. The many varieties of local governance may also create challenges for nation-states in trying to respectfully deal with them. Thus, the Mexican experience, with what is essentially a universal democratic governance template inspired by indigenous traditions, may be a key element in forest reforms.

Mexican CFEs have demonstrated that CF can produce a range of benefits, income generation, jobs, profit-sharing, investment in public goods and welfare programs, as well as capital investments in the forest and social capital. Many CFEs are demonstrating that communities who manage their own forests can reduce deforestation and generate community income. Additionally, the evidence is clear that learning industrial skills and processes are not beyond the capacity of poorly-educated local communities, given solid training, technical assistance, and opportunities in the marketplace. There is much evidence of the deficiencies of logging under concessions by private firms in delivering benefits to local communities.

The Mexican experience also shows that collective action at the community level can lead to inter-community collective action or forest associations which can bring wider benefits to the member communities. The study by Antinori and García-López (2008) found that associations have positive impacts on investment in both forest operations and public goods, adherence to forest rules, and faunal biodiversity. They also appear to be positively related to wood product prices and greater community trust and a more active associational life.

A broad range of regulatory requirements create relatively high costs for CFEs, they act as a barrier for the expansion of this “third way” in Mexico. Such barriers, combined with market access challenges, hinder the competitiveness of CFEs in domestic and international markets and reduce the benefits flowing to communities and other indirect beneficiaries. Although in general there is a strongly supportive enabling environment for CF in Mexico, reductions in bureaucratic requirements and costs would result in significant gains for community producers. Policymakers in other countries studying the Mexican case should take note of this area of continuing difficulty for CFEs.

Chapter 4 - Summary of the study findings

Despite the differing local contexts and interactions of ecological, economic, social and political processes in each country, one can still see common trends in the findings. For example, the results have highlighted the following common issues in the study countries:

- Often prohibitive costs (in time and money) for communities and smallholders to meet the regulations.
- There are often significant differences between the regulations on paper and in practice (i.e., inconsistencies in interpretation).
- The regulations often facilitate rent seeking, and even encourage illegal harvesting and unsustainable practices.
- Capacity (skills and funding) of the local communities to comply with regulations needs developing.
- The complex regulations also impose burdens and costs on the agencies that have to administer them. Governments could cut costs and employ staff in more productive capacities if regulations were relaxed.

The situation is often exacerbated by weak property rights and prohibitive market structures (including pressures resulting from the development of forest certification). It appears that the plethora of regulations are not only restricting local communities from maximizing the benefits from sustainable forest management and hence disincentivising their participation and investment, but that the regulations are also not serving their primary purpose. The continued rampant deforestation and forest degradation, and criminal activity related to forests, generates approximately USD 10–15 billion annually worldwide. These funds are subsequently unregulated, untaxed, and often remain in the hands of organized criminal gangs, such that local communities invariably receive no benefit. National and international efforts to restrict forest crimes have focused on preventative measures, but they invariably have had little or no significant impact. While prevention is an essential part of enforcement efforts to tackle illegal logging, it has not halted the deforestation or degradation.

Figure 5. Illustration of of regulatory barriers according to forest type and tenure arrangement.

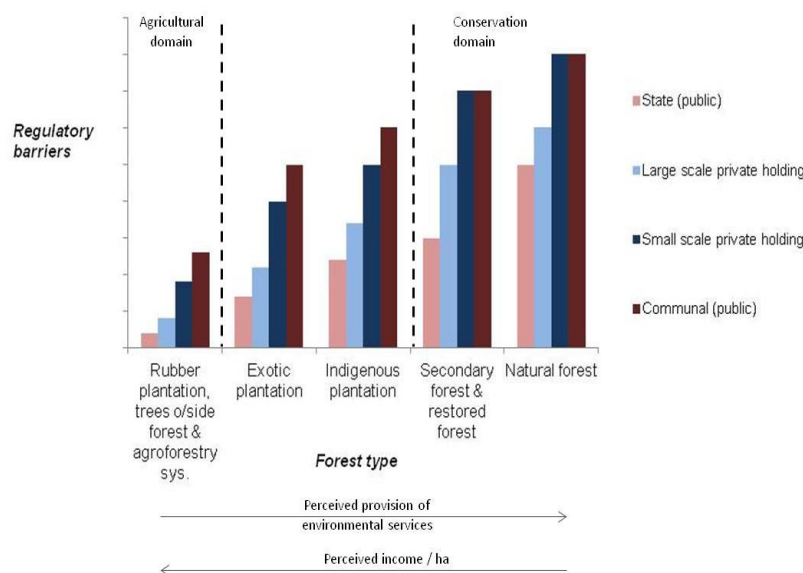


Figure 5 presents a summary view of regulations according to tenure and forest type. It illustrates the increased regulatory barriers in a continuum from plantation to natural forest, and from state to communal ownership. The perceived provision of environmental services is based on Fay and Michon (2005), Brockerhof et al. (2008), Fitzherbert et al. (2008), Koh and Wilcove (2008), Bauhaus et al. (2010). The increasing regulatory barriers from rubber plantations to natural forest, and within this from state to communal forests are from Bennett (1998), Larson and Ribot (2007), Pandey (2008), Pokorny et al. (2010).

The general conclusions are that the number of regulations increase along the continuum from plantations to natural forests, while for income per hectare is the opposite (i.e., higher for plantations than for natural forests). Against the backdrop of declining area and quality of natural forests it is understandable that they are more regulated than plantations. However, the blanket assumption that all communities and smallholders need more guidance (regulation) in their management than plantation companies has been shown to be counter-productive.

In each country reviewed, there was a significant degree of complexity embodied in the regulations and the steps required for compliance. Just as complex were the motivations behind the regulations and the challenges that communities and smallholders encountered when they attempted to comply. A common denominator in each case was an *ex ante*, input-oriented approach to regulation. That is, the regulatory approach focused on *what* and *how* something was done rather than the final results or outcomes. An example from a chairperson of a CFUG in Nepal hints at this issue:

The lengthy and complex regulatory provisions and bureaucratic process particularly related to timber harvesting are control-oriented and too costly (financially and psychologically) for us. It should be revised to be supportive and facilitative and the processes also need to be shortened and simplified. Our demand is simply to allow us to work as per the approved operation plan with very minimal bureaucratic monitoring.

These attempts to foresee and forestall all potential problems through a series of regulations that focus compliance on inputs to the process have likely (and inevitably) led to the proliferation of regulations. Their common approach is an attempt at micro-management of a terrifically complex pursuit: sustainable forest management. One may assume that each “failure” has required a regulatory response in the form of more “complete” regulations (e.g., more targeted and restrictive). This is recognized by the Nepali CFUG chairperson, who appears to be suggesting that a more outcome oriented approach would be preferred.

Chapter 5 - Recommendations

The unique context in each country studied means there is no one size fits all for how the regulatory barriers should be addressed. Nevertheless, it is possible to put forward general recommendations that are good starting points for moving forward to a “triple win” of improved forest conditions, maintenance of ecological services and improved livelihoods.

Failure to address the barriers will undermine attempts to sustainably manage forests, as communities and smallholders are unlikely to invest in their forests if the returns for their investment are not adequately rewarded compared to other courses of action. Therefore the overall goal of the suggested reevaluation of the regulations is sustainability. With this in mind, the work provides the following recommendations for governments (and their agencies), as well as for the international organizations, private sector and capacity building organizations that support and influence them.

Governments

1. Strengthen the understanding that a key component of the success of CF is allowing the communities to benefit from the forests under their management.
2. Regulations need to be simple and outcome-based. This is both in terms of the technical complexities: they must be easy for rural people to understand and comply with, and the number of steps and people involved so as to reduce transaction costs. This would also make them easier and cheaper to administer and monitor.
3. Regulations need to be objective and transparent, although there needs to be a reflection of the site specific conditions. Fewer, focused regulations that can more easily be enforced will be more effective than many different regulations that stretch enforcement agencies.
4. Regulations should focus less on what is extracted from forests and where and how it is processed, transported and marketed, and more on the state of the forest after harvesting or at periodic intervals.
5. Regulations that restrict the possession or location of equipment are ineffective and should be abolished.
6. Regulations on the transport of timber should be reconsidered; the burden of demonstrating legality should not be imposed on those that are operating legally, rather the burden should shift to forest managers and their duty to protect their assets. At a minimum, transport restrictions should be removed from exotic plantation species that are unlikely to have been pilfered from government forests.
7. In addressing the regulatory barriers, governments can start with plantations, as opposed to natural forests. The rationale behind this is that clearly there is a higher number of regulations regarding natural forests, and will be less contentious in many respects.
8. Invest in research on associated costs and impact of regulations on communities and smallholders and on enforcement agencies.
9. Existing regulations should be periodically reviewed to determine if they are still appropriate for the situation.
10. Stricter anti-corruption actions are needed. Corruption and arbitrary interpretation of the laws serve as informal barriers that inhibit forest livelihood activities.
11. The importance of small scale plantations, whether owned by a community or smallholder, needs to be acknowledged. A smallholder when faced with a seeming impenetrable wall of regulations regarding planting, harvesting and selling trees, will instead favor land use that

requires less investment with respect to dealing with regulations. Small scale plantations can potentially play a role in mitigation of climate change.

12. Trees outside the forest – focus on issues should not be limited to forests, and include, areas with trees that are outside the forest.
13. Regulations should, at minimum, be consistent across different forest management modalities and regions within a country to avoid market distortions.
14. Invest in capacity building for forest communities and smallholders
15. Issues such as capacity and economies of scale need to be addressed. This can be done through development of a support network (e.g., local and national NGOs, research and government institutions, etc) to help provide capacity building in such areas as marketing and technical training.
16. Non-forest tree area should be eventually moved to the agrarian type of regulatory framework which is less restrictive in terms of use.

International Organizations

1. Forest Law Enforcement, Governance and Trade Action Plan of the European Union-VPA, as well as other legality and assurance schemes often exclude local communities and smallholders. It is counterproductive to exclude these vital forest stewards from markets due to their lack of capacity to meet the requirements set out in various schemes.
2. With the preceding recommendation in mind, the international organizations need to contribute to the capacity building of the communities and smallholders so they are able to compete in the market.
3. Government should assist in taking advantage of opportunities to help increase financial and economic benefits through payment for environmental service schemes and carbon trading that promise financial reward for good forest practices.

Private Sector

1. Financial resources and assistance – innovative tools need to be explored in order to enable communities and smallholders to market their products and comply with regulations.
2. Role of corporations, e.g., outgrowing. Many companies need to ensure they have a stable supply of material and are open to outgrower schemes. Engaging local people in such schemes would improve relations with local communities, while at the same time giving the communities and smallholders a stake in the companies success and a market for their timber.
3. The private sector can play a key role in building the capacity of communities and smallholders.

Capacity Building Organizations

1. Create information databases (including details of relevant regulations) accessible to communities and smallholders – not just for training, but also for accessing information regarding, for example, price of timber and market structure.

Though it has been well documented that communities provide one of the best alternatives for the sustainable management of forests, it would be naïve to take this as a universal given. It is, however, clear that enabling the communities to profit from their work encourages the sustainable management of the forests under their control. This will have benefits on a sub-national as well as a national level.

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