Conservation and Society 10(2): 136-150, 2012

Article

Legitimacy of Forest Rights: The Underpinnings of the Forest Tenure Reform in the Protected Areas of Petén, Guatemala

Iliana Monterrosoa, b,# and Deborah Barrya

^aRights and Resources Initiative, Washington, DC, USA

^bLatin American Faculty of Social Sciences FLACSO-Guatemala, Guatemala City, Guatemala

*Corresponding author. E-mail: imonterroso@flacso.edu.gt

Abstract

In recent decades, forests across the world have undergone a significant process of recognition and transference of tenure rights to local communities or individuals, referred to here as forest tenure reforms. Among developing regions, Latin America has seen the most important recognition and transference of these tenure rights to forest dwelling and forest dependent communities. This paper examines the process in Guatemala, where the state has recognised and transferred rights to organised local groups—establishing a community concession system in the multiple use zone of the Maya Biosphere Reserve. We analyse the evolution of claims over forest uses, and focus on the legitimacy elements underpinning the process of a claim becoming a right. The results indicate that in order to sustain this forest tenure reform process over time, it is important to understand how tenure arrangements are transferred and distributed among rights-receivers, and how this process is influenced by the elements that underpin legitimation as well as those that define authority. Understanding the underpinnings of the legitimacy behind forest tenure reforms is central to identifying ways in which these processes can work, and also becomes important for developing more sound policy frameworks that fill gaps and resolve incongruence in governmental systems for forest management.

Keywords: legitimacy, Petén, community forest concessions, rights, forest tenure reform, Guatemala

INTRODUCTION

Over the last twenty years Latin America has witnessed an important process of recognition of local tenure rights over previously official public forest lands, and the transference of these rights to forest dwelling or forest dependent communities, including indigenous and peasant groups (Larson et al. 2010a; RRI and ITTO 2009; Sunderlin et al. 2008). In total, as of 2008, nearly 25 per cent of the region's forests are now owned by communities and indigenous peoples, and another 7 per cent

Access this article online			
Quick Response Code:	Website: www.conservationandsociety.org		
回的(高級) (ではある)			
	DOI: 10.4103/0972-4923.97486		

is designated for their use (White and Martin 2002; RRI and ITTO 2009). Across Latin America this amounts to a total 216 million ha of forests in the hands of these groups—67 million ha of which have come since 2002—representing a major shift in potential assets to the rural poor. This is an important trend as positive outcomes—the conversion of forest resources into community assets or livelihoods and incomes while conserving the forest stock—are associated with the enhancement of the institutional basis for local decision-making, and an overall improvement in forest and environmental governance (Larson 2010; Lemos and Agrawal 2006).

This article is based on research performed in Guatemala as part of a global comparative study that analysed 30 cases in 10 countries where local communities won new statutory rights to forestlands and resources over the last 20 years¹ (see Larson This issue). This process of recognition of rights has been defined as forest tenure reform (see Larson et al. 2010a, b). Although Guatemala is a small country with relatively limited extensions of temperate and tropical forests, innovative

changes in forest tenure have been underway for over a decade, and have led to the positive outcomes mentioned above. In this case, we explore the process of recognition and expansion of community rights in Petén where community forest concessions—25-year concession contracts between the state and organised communities—have been granted in over 400,000 ha within the largest protected area of Mesoamerica, the Maya Biosphere Reserve. This system of community concessions in the multiple use zone represents about 15 per cent of the country's total forest cover, including national parks (IARNA et al. 2006). Together with the national parks, these concessions constitute the largest conservation area within the Mayan Forests (an area of 155,020 sq. km including Mexico, Petén, and Belize).

There are two particularly interesting characteristics of the Guatemalan forest reform. First, land titling—the granting of full ownership rights—was not the mechanism employed by the state to secure rights. Instead, the rights granted came about through the introduction of a protected area. This provides a unique and useful example to support the work of various authors (Cousins et al. 2005, Broegaard 2005, Benda-Beckman and Von Benda-Beckman 1999) who have focused on analysing mechanisms that ensure tenure security, beyond private property. Second, the tenure reform in Guatemala did not grant alienation rights—the rights to sell or lease the land itself—but has recognised significant use, access, management, and exclusion rights to the forests. This creates a unique opportunity to observe the changes in the claims to these forest resources.

To understand the origins, nature, and initial outcomes of the tenure reform in Guatemala we examine the emergence of community concessions as a model for forest conservation in Petén, the role of forest user groups with access claims to the area, the complex set of rights recognised, the state entities (rights-granter) involved in the recognition process, and the social groups (rights-receivers/rights-holders) benefitting from this reform. We argue that when studying forest tenure reforms, it is very important to understand the logic of, or justification for, the recognition of the right, and the entity authorising the right. Equally important are the sources of legitimacy behind the local and government structures involved in the process, and the ability of local groups to develop institutions that can defend those rights vis-a-vis state entities. In the case of Guatemala, new legislation regulating community concessions created a demand for new institutions. Different forms of collective action emerge in order to exercise new rights, derive direct benefits from management activities, and ensure the ability to exclude outsiders.

The following sections will present research results evidencing major changes derived from the recognition of community forest rights in the multiple use zone of the Maya Biosphere Reserve. We explore the underpinnings of the legitimacy of the rights-receivers and of the rights-granter, and demonstrate how legitimacy is established as a process of mutual recognition of authority over this right. On the one hand, we analyse the process of how Guatemalan state

institutions legitimate their authority in Petén, while on the other we examine how the local concessions became legitimate forms of access to, and management of, forest resources. We argue that understanding the elements that maintain legitimacy of forest tenure rights is central to identifying ways in which these processes can work better for both forests and livelihood outcomes. The next section briefly reviews relevant theoretical and methodological aspects behind this study. Section 3 presents and discusses major findings, while section 4 highlights recommendations for practitioners. Finally, the last section reviews the main conclusions of this work.

THEORETICAL AND METHODOLOGICAL ASPECTS

In previous works, various authors (Clark 2000, Cousins 2007, Sikor and Lund 2009) argue that the process of granting tenure rights is one where the process of authorising rights is closely linked to the legitimacy of the rights-granter and rights-receiver. These two sets of actors play key roles in maintaining the security of those rights and the larger tenure model they sustain. This section discusses the theoretical framework used to analyse fieldwork results. First, we discuss those issues related to the concept of legitimacy, and the process of exercising authority and legitimating claims over forest resources. The outcome of this legitimation process is the recognition of rights, the basis of forest tenure reforms. Second, we discuss the analytical tools used to understand changes in the allocation of rights derived from the tenure reform process.

The concept of legitimacy: Exercising authority and legitimating access claims and claimants

While the concept of legitimacy has been widely analysed in the social and political sciences (Arneson 2003; Habermas, 2004; Weber 1921), we have adopted Suchman's (1995) working definition for the analysis of forest tenure reform processes in Petén. In his discussion, Suchman (1995: 574) defines legitimacy as "a generalised perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions." While this author bases his conceptualisation of legitimacy on a social and behavioural account, he also provides elements to explore the normative and evaluative dimensions of the concept. Particularly interesting to this research is his outcomes-oriented view of legitimacy. This is in agreement with authors (Arneson 2003; Bohman 1996) who argue that in order to explain how policies, actions and decisions are legitimated, it is important to understand norms, values, institutional arrangements, and beliefs. These elements provide insight into the collective motivation behind actions.

In the analysis of the forest tenure reform process, we have observed that multiple legitimate actions and social groups may exist. In this study, we distinguished forest claimants in Petén as rights-receivers (e.g., organised groups, non-governmental organisations) and rights-granters (e.g., the

state). The definition of claims and claimants is context- and time-dependent. New actors can appear and the role of the actors is changing depending on the historical context. The existence of different legitimating strategies and groups is the product of a collective construction, demonstrating that as a social construct legitimacy is often contested. It becomes important then, to understand how the existence of multiple legitimate actions can facilitate the resolution of conflicts related to a particular issue.

In the analysis of the forest tenure reform in Petén (1985–2007), changes in the economic and political contexts (before and after the tenure reform) influence the emergence of new social and state actors who themselves have different claims over forests. In this research, historical analysis was key to delineating this process and demonstrating the changing roles of state entities (and social groups associated with these processes) over time. When examining the changing role of the state, we paid particular attention to those spatial ordering mechanisms, i.e., territorialisation strategies² (Sikor and Lund 2009), as one form of legitimation used by the Guatemalan state to establish its authority in Petén. The state reinforces a set of regulations to establish its authority and thereby creates demand for a new set of organisations.

In the analysis of legitimacy dynamics, claimants of the tenure model include those individuals who became members of the concessionaire organisations as well as other forest users with access claims over resources within the Maya Biosphere Reserve. This means that in the process of guaranteeing access rights to concessionaire members, the Guatemalan state denies the same guarantee to other existing claimants. Conflict may result from this exclusion as in the case where formal regulations recognise extraction rights to different groups in the same territory. This is a clear indication that legitimacy, as a social construct, is often contested.

Additionally, the concepts of legitimacy, authority, and power are closely linked. Weber (1921) discussed the process of establishing authority as linked to the ability to exercise power in a way that is 'legitimate'. This definition characterises authority as the ability to influence other social actors. Therefore when analysing legitimacy it becomes important to examine the processes whereby authority is established, strengthened, and contested (Sikor and Lund 2009). Finally, it is important to note that there are different politico-legal institutions legitimating authority. When access claims are hotly contested and power relations become diffuse, as in the case of Petén, Sikor and Lund (2009: 12) suggest focusing on "how state institutions establish, consolidate, and expand their authority"; Sikor and Lund (2009: 12) also warn against considering the state as "a set of congruent institutions".

In other words, there can be competing state authorities as well as competition between the state and others. The legality of formal regulations and procedures as overall sources of legitimate authority is not enough (Habermas 2004); while the role of the state is important, political authority is not exclusive to state actors. During recent years there has been a clear shift away from state entities and increasing participation of non-

governmental actors in the governance sphere. Therefore, questions regarding the legitimacy underpinning social institutions emerge—particularly with respect to representation and accountability (Lemos and Agrawal 2006)—requiring an examination of other spheres where power and authority are exercised. For instance, third party certification of the sustainable production of forest products has also been discussed as a legitimation instrument, strengthening standards for ensuring regulatory compliance in forest management activities (Cashore 2002; Eden 2009). Other studies have explored the conditions that explain participation in comanagement arrangements in protected areas, and have found that legitimacy is a key factor favouring the participation of women (Nuggehalli and Stalker 2009). In addition, in Petén when discussing secondary-level associations in the community concessions, Taylor (2009) argues that effective organisation is important to maintain representation, equity and legitimacy (see also Paudel et al. This issue).

Finally, while the legitimacy of outcomes and actors are relevant subjects, in this article we argue that these elements are not enough to understand how forest claims are transformed into rights. Therefore, we also focus on the process and strategies shaping the legitimacy of the tenure reform process. The lack of legitimacy of prior land tenure institutions in Petén was studied by Clark (2000) to demonstrate how tenure insecurity encourages colonisation, deforestation, and forest conversion. He based his findings on three case studies, one of them related to the Maya Biosphere Reserve. Other related works include the work of Larson (2010), who emphasises the configuration of authority. In her analysis of indigenous territories in Nicaragua, Larson (2010) discusses the process of configuration of territorial authorities, and how representative powers become legitimated as rights-receivers under constant negotiation.

Introducing the tenure box to understand the complexity of the rights and the rights holders

In the analysis of forest tenure reform processes, we use a rights-based approach (Colchester 2008; see also Cronkleton This issue). We understand forest tenure as the bundle of rights determining "who is allowed to use which resources, in what way, for how long, and under what conditions, as well as who is entitled to transfer rights to others and how" in forests (Larson 2010: 80). These bundles of rights are made up of user (access, use) and decision-making (management, exclusion and alienation) rights. Access implies the possibility of entering the forest area. Use, extraction, and withdrawal rights represent the possibility of obtaining fuel wood, palms or any other timber or non-timber product from forests. Management rights refer to the decision-making over the resource (resource maintenance, harvest timing, regulating who gets to use which resources and how). Exclusion rights refer to the ability of preventing an individual or groups from accessing the forests and removing resources from it. Finally, alienation refers to the possibility of transferring rights, including selling or leasing. In forest areas, these rights are held by a range of rights holders, including community forest users, state entities, or individuals (Barry and Meinzen-Dick 2012). Barry and Meinzen-Dick (2012) argue that breaking down rights into these categories allows examining changes in rights in greater detail.

The empirical work that forms the basis of this paper focuses on the application of the conceptual 'tenure box' tool for interpreting tenure as a 'bundle of rights'. We visualise the bundle of rights as a matrix (Figure 1) where both axes have been 'opened up' allowing for more specific description of both the types of rights in the bundle of rights and the rightsholders. In the tenure box, the arrows indicate the direction in which the right has evolved, either being transferred by the state to the collective, becoming individualised or the opposite. Different styles of letters (e.g., normal vs. italics) associated with the rights implies the regulatory basis either established formally—de jure rights appearing in lower case Roman font in national regulations, or informally—de facto appearing in CAPITAL LETTERS —recognised by the collective holder of rights. Finally, those illegal actions (underlined) are not recognised by any group. A breakdown of the rights holders into specific actors allows for greater differentiation of the institutions, organisations, and agencies that hold or cease to hold these rights. This facilitates better understanding the distribution of rights across actors.

Understanding the changes that occur across the gamut of social institutions of the holders and losers of these multiple rights is equally important for gauging the trade-offs and possible conflicts being established. Forest resources are many and the internal systems—within the perimeters of the titled forestland—for managing those rights are often invisible to outsiders, including the state. These can range from clearly defined customary institutions to cultural or religious norms, or simply those constructed around repeated patterns of natural resource dependence. In the process of claims becoming rights, it is important to register the differences among the individual, group, and collective holders of different rights with claims on different resources within the forest, as some form of this internal social structure will be recognised and will become the interlocutor with the state. The act of titling itself will need to recognise a collective structure or require the formation of a new one, in order to transfer these rights.

Methodological aspects

Research activities in Guatemala were carried out between 2007 and 2008. To gather information at relevant scales, data collection and analyses took place at three levels. First, information was gathered on regulations and political processes favouring forest tenure reform at the national level. At the regional level, a literature review gathered information on relevant political and economic trends in the area of influence of the Maya Biosphere Reserve in Petén, specifically the multiple use zone. Finally, we gathered information at the level

Source: Adapted from Barry and Meinzen-Dick 2012

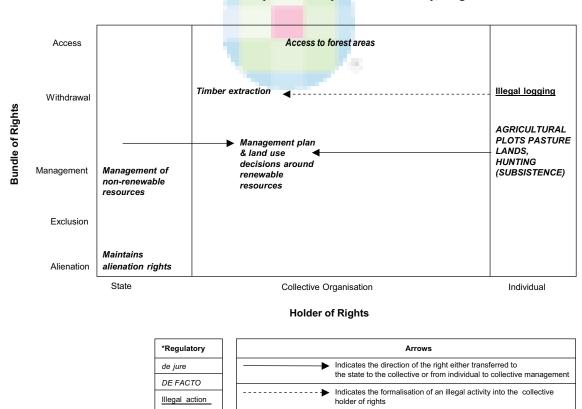


Figure 1
Mapping: Trends in the transfer of rights in forest tenure reforms

of local community and concession organisations³ including member and non-member concessionaires. Relevant groups involved in the configuration of the concession model in Petén were identified and different techniques were used to gather information.

Our research combined semi-structured interviews, focus groups, and workshops to collect information and promote the participation of local stakeholders in the discussion of the origins, nature, and outcomes of the forest tenure reform in Petén. A total of 65 interviews were carried out⁴. Target groups included government officials, representatives of nongovernmental organisations working at the local and regional levels currently and in the past. Interviews were structured to gather the perception of current conditions and issues regarding concessionaire organisations, changes and challenges in the concession system. Aspects related to the role of government agencies and existing regulations around concessions was also elicited. Major user groups (timber and non-timber) were identified and questions regarding the elements that influence the success of the community concession model were included. During the interviews, participants were asked to list relevant stakeholders that they believed should participate in the debate. In doing so, internal consistency in the selection of stakeholders was verified to ensure representation of existing perspectives. A great deal of insight was also obtained by participant observation.

While information at the local level was gathered for all 12 community concessionaire organisations (see Table 1), detailed information for two concessionaire organisations was gathered to discuss changes in tenure rights. The selection of these two organisations was based on the location of community settlements, inside or outside the forest management unit. The forest management unit establishes the boundaries of the concession contract where concessionaires have rights. In some cases (six out of twelve) management units are found within the same boundaries as the communities where they live. In the rest, concessionaires belong to communities located outside the forest management unit. In the analysis of communal tenure regimes in South Africa, Cousins (2007: 293) highlights the

importance of looking into embedded social structures, for understanding how tenure systems operate in practice. In the case of community concessions we have encountered that a set of new social relationships emerges. One that derives from the status as the member of a collective 'community concession' organisation. This new set of actors influence relationships between individuals and the community on the one hand, and between the collective and the state on the other. The relationship between the community concession organisation and the state organisation is marked by recognition and allocation of rights but also by compliance with norms that are important in terms of governance schemes.

RESULTS AND DISCUSSION

This section combines the main results and discussion of our research work by dividing the findings into two parts. The first part describes the most important characteristics of the tenure reform model. We analyse the origin and nature of community concessions, and highlight political context elements and reveal changes in claims over forest resources to understand their emergence as sustainable management mechanisms in protected areas. We subsequently analyse the characteristics of community concessions as tenure reform models, as well as the evolution of forest uses and users. The second part focuses on the changes in the redistribution of rights among rights holders. We conclude this section discussing the process of transforming claims into rights and analysing the sources of legitimacy. This discussion focuses on the processes of authorising rights, acquiring rights, and sustaining rights. For the latter, we make a distinction between those internal and external elements underlying legitimacy.

Origin and nature of community concessions

Guatemala's Petén comprises 35 per cent of the country's land area and 75 per cent of its forests (IARNA et al. 2006), including the largest extensions of its tropical broadleaf forests. This highly ecologically and culturally diverse region remained

Table 1

General characteristics of community concessions in the Maya Biosphere Reserve

Community concession	Concessionaire organisation (legal entity)	Extension (ha)	Number of members (families)	Location (resident or non-resident)
Suchitecos	Civil Association Impulsores Suchitecos SCIS	12173	50	Non-resident
Laborantes	Civil Association Laborantes del Bosque	19390	96	Non-resident
Uaxactun	Civil Association Organización, Manejo y Conservación	83558	225	Resident
Custodios de la Selva	Civil Association Custodios de la Selva	21176	96	Non-resident
El Esfuerzo	Civil Association El Esfuerzo	25386	41	Non-resident
Arbol Verde	Civil Association Arbol Verde	64974	344	Non-resident
La Colorada	Forest Association Integral La Colorada	22067	40	Resident
Cruce a la Colorada	Forest Association Integral Cruce a La Colorada	22469	65	Resident
San Miguel la Palotada	Civil Association de San Miguel	7170	30	Resident
La Pasadita	Civil Association Productores de La Pasadita	18817	74	Resident
Carmelita	Cooperative Carmelita	53797	88	Resident
San Andres	Forest Association Integral San Andrés	51940	178	Non-resident

Source: Monterroso 2007

for many years the nation's most geographically and politically isolated area (Schwartz 1990). Its history has been shaped by ongoing competition to control its natural resources, including timber (especially high-value tropical hardwoods such as mahogany *Swietenia macrophila* and cedar *Cederela odorata*), non-timber forest products (such as chewing gum *Manikara zapota*, palm leaves *Chamaedorea sp.* and all-spice *Pimenta dioica*) and non-renewable resources. The first state institution with physical presence in the region—the Enterprise for the Promotion of Development of Petén, (Empresa de Fomento y Desarrollo de Petén) FYDEP—was established by the central government in 1959. This institution, functioning until 1989, had two purposes—to colonise the region and distribute usufruct rights, mainly for timber extraction.

At the end of the 1980s, growing international interest in conservation and a strong backing of international donors (Gómez and Méndez 2005) promoted the expansion of protected areas in the region and allowed for the establishment of the Maya Biosphere Reserve in 1990, encompassing over 2 million ha, the largest area under a protected regime in the country (CONAP 2001). The reserve's master plan created three management zones. The largest portion (over 40 per cent) was established as multiple use zone to promote sustainable activities but with no human settlements involved. By the mid 1990s, with a civil war winding down and in the midst of the tenuous implementation of Peace Accords, the Guatemalan Government faced a new and somewhat unpredictable conflict. In a region characteristically lacking normal channels of communication between the local, regional, and central governments, and minimal mechanisms for governance (to inform, discuss, deliberate, etc.), the newly established protected area government offices made little visible effort to reach out to the distant and atomised community settlements throughout the vast forest area (Sundberg 1998, 2002). This resulted in significant 'pushback' from longer-term forestdependent and resident communities.

In 1994, the Guatemalan government legalised a formal community concession system within the multiple use

zone. The outcome was the recognition of the historic and recent settlement rights of existing communities, while simultaneously addressing the underlying logic of the forest and biodiversity conservation agenda, and avoiding a complete alienation of the industrial timber sector. The rationale behind this decision held that granting of these large forested areas to community forestry concessions would satisfy the competing interests of all parties—industry, conservation, and communities. Community access and settlement rights were recognised, and management rights were conferred on the basis of a heavily regulated scheme of independent, certified production of high-value timber species, transforming the previously conflictive forest landscape.

Evolution of claims over forest resources in Petén

Understanding the evolution of claims over forest resources in Petén requires comprehending the role of the Guatemalan state in defining the uses of forests and land, as well as the strategies used to establish authority. In this study, we analysed territorialisation mechanisms as an example of possible legitimation forms by drawing on two relevant historical moments in the social construction of space in Petén in relation to forest uses. Table 2 shows how interests and perception over forests in this region have varied over time, principally driven by the distinct mandates of the two central governmental institutions with authority over forests in the region over the last fifty years—FYDEP and National Council of Protected Areas (Consejo Nacional de Areas Protegidas; CONAP).

FYDEP was created in 1959 with the objective of incorporating Petén into the socio-economic dynamics of the country (Schwartz 1990). Far from a conservation mandate, it carried out its mission by establishing an agricultural colonisation programme and allocating usufruct rights over resources organising timber extraction activities (mainly through concessions that clear cut). At the end of the 1980s—responding to a political shift towards conservation interests—FYDEP was downsized and superseded by the

Table 2

Main state actors related to forests in Petén

	State entity	Main functions	Territorial mechanisms used to establish authority	Other relevant forest users
1959	Enterprise for the Promotion of Development of Petén (FYDEP)	Agricultural colonisation of lowlands Natural resources administration Land distribution and establishment of communities in Petén	Land titling (private and collective) Established a Forest Reserve Established short-term industrial concessions Promoted incentives for agricultural production Led colonisation activities	Timber loggers Extractive groups (gum tappers and xate palm collectors) Communities
1990	National Council of Protected Areas (CONAP)	Halt spontaneous migration movements Establish the protected area system in Petén Promote biodiversity conservation and sustainable use of resources Generate mechanisms for increasing social participation in protected area management	Cancelled industrial timber concessions Eviction of local communities of protected areas Titling process restricted to the Southern region of Petén Established a community/industry concession system	Industrial concessions Extractive groups Organised communities

newly created CONAP. This change in the role of the state entity in Petén towards conservation and the preservation of forests generated a shift in the logic of state presence in the forest and challenged existing *de facto* rights of forest dwellers. It also opened up an opportunity for a shift in claims over forests and the strategies used by social groups to ensure access to forest resources (see Table 3). Dominant perceptions of Petén changed from a wild area to be dominated for economic benefit to an important reservoir of biodiversity and wildlife to be protected. The shift towards conservation interests was followed by a key political moment in the mid 1990s, as the Peace Accord negotiations related to land rights were finalised. These agreements established that new government decisions over natural resources should ensure greater participation of communities in protected areas.

As a result of constant negotiations in the midst of these political shifts, between 1994 and 2001 a total of 12 community concession contracts (for areas ranging from 7,000 ha to 85,000 ha) were signed with organised resident and non-resident local community groups (a total of 390,000 ha and Table 1). Two additional contracts were signed with industries for timber production (140,000 ha). All concession contracts required collective organisation and resource extraction based on management plans approved by CONAP. Over the past 10–15 years, the community organisations have built their own local governance systems based on an expanded set of rights over

natural resources. This includes organising and financing the constant protection of the boundaries of the concession as part of their responsibilities.

Main characteristics of the forest tenure reform in Petén

Forest tenure reforms tend to be complex in nature, given the multiple functions of forest resources for goods and service provision, and the wide range of actors who share rights to common resources (Larson et al. 2010b). Certain characteristics make the concession model unique in comparison to other tenure reforms taking place in the region. First, it is important to note that this is a recent on going reform (1985–present). Second, as it developed in a protected area, the underlying logic of the concession emerged from conservation interests and not from forest decentralisation or forest policy reforms per se. Ensuring conservation outcomes was at the heart of the reform and sustainable forest management became one of the vehicles to ensure this. Third, the state continues to have a strong influence in regulating access rights. Concessions are temporary, for periods of 25 years, through renewable contracts between the state and an organised community group that transfer to the latter the ability to use and manage timber and non-timber forest products within the multiple use zone. Alienation rights as well as all subsoil rights, i.e., the management, extraction and usufruct rights over non-

Table 3

Evolution of claimants and claims over forests after the establishment of the Protected Area in Petén

Period	Claims over forests and strategies used by claima	Claims over forests and strategies used by claimants		
	Civil society actor (rights-receiver)	State actor (rights-granter)	Relevant political and economic context elements	
Establishing protected area (1989–1994)	Open (sometimes violent) confrontations Illegal logging Lack of awareness (and later ignorance) of the protected area boundaries Poaching and encroachment Aggression towards state (protected area office) forest guards Desire to ensure recognition of historical access and use rights over forests within protected area	Halt deforestation rate Control illegal activities Reinforce state presence (authority) by increasing the number of park rangers Cancellation of timber contracts* Cancellation of land regularisation processes in national parks and the multiple use zone Eviction of communities established	Dissolution of the Petén Forest Enterprise Development Office (the only central government entity with presence in the region) Establishment of a Protected Area Office (CONAP) Dependence on extractive economies (gum tapping and palm leaves)	
Establishing the concession system in the multiple use zone (1994–2002)	Promote collective action through formalisation of community organisations Establishment of a second level organisation Advocacy with state organisations Ensure legal recognition of use and management rights over timber and non-timber forest products Improve livelihoods	within protected area Halt deforestation rate Reinforce state presence Control illegal activities Solve violent confrontations Establish new mechanisms (concessions) for allowing management activities within the Maya Biosphere Reserve	Peace Accords signed in 1996 Recognition of claimants as rights receivers	
Consolidation of the concession system in the multiple use zone (2002– present)	Advocacy with national and international organisations Reinforce forest management capacities Control and surveillance of concession boundaries to avoid encroachment from outsiders Improve livelihoods	Halt deforestation rate Control illegal activities Promote community forest enterprises Regulatory compliance	New conflicts over forest areas associated with the emergence of external interests over petroleum and tourism	

^{*}Timber contracts were five-year clear cutting agreements signed between the state and the local industry.

renewable resources (e.g., petroleum, mining and gas) are held by the Guatemalan state. Areas conferred to community concessionaires could eventually be subject to petroleum extraction, given that 95 per cent of the oil found in the country is found in Petén.

Fourth, this forest reform focused more on the distribution of tenure rights over natural resources than over land (as in the case of agrarian reform). Forest resources including timber and non-timber forest products, mainly goods and services associated with provision, are at the centre of this reform. Fifth, rights-receivers are usually collective entities formed by members of local communities⁵; therefore collective action becomes an important catalyst behind the tenure reform. Last, there are specific bodies (concessionaire organisations) that govern the access to, and use of, resources, and were legally approved to be recognised as rights-receivers.

Evolution of forest users and uses in Petén

Forest products in Petén have been used for both subsistence and market purposes. Resources valued highly by the market include hardwoods and non-timber forest products such as gum resin, allspice, and palm leaves. Subsistence extractions include firewood, medicinal resources, and some hunting. While there is some low-scale agriculture and cattle production⁶ within the management zones of the protected area, these are important economic activities more commonly outside protected areas. For a long time, Petén has been considered the last agricultural frontier of the country. Some historic settlements are found within protected areas, therefore forest users include both people living inside and outside the protected areas. Historically, several other groups migrated to this forest area during the rubber tapping season. Some of these groups actually settled in the area, while others went back to their places of origin.

Rubber tapping was the most important economic activity before the establishment of FYDEP in Petén. The first regulations to increase public income taxes from its extraction appeared in 1977 when the central government approved the rubber tapping law. In the same period, collection of palm leaves and allspice became important activities, but were not regulated. Extraction of non-timber products was organised through small mobile camps. Timber extraction was organised first as short-term logging concessions under no management obligations. By the time concession contracts were signed, most areas had been previously logged for mahogany and red cedar, the high value timber.

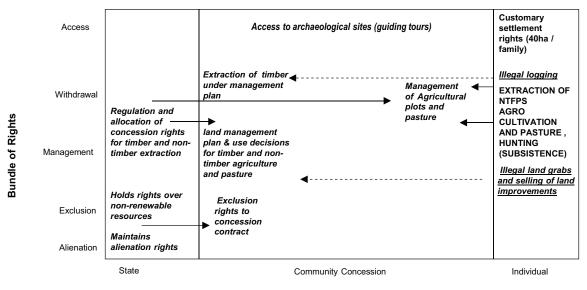
Changes after recognition and redistribution of forest rights across rights holders

This section discusses major changes in the recognition of rights and their redistribution across different right holders after concession contracts were signed. One element in this analysis is related to the differentiation between the resident and non-resident status of groups integrating community concessions. Resident communities are usually located far away from the socio-economic and political centres of Petén. These communities, having their social base in households and kinship networks, define their land and resource rights under informal arrangements. For non-residents, the relationship between the individual member (of the concession) and the community differs as well as the relationship between the concessionaire member and the forest. Six out of 12 community concessions are resident while the rest are non-resident (see Table 1). Members of non-resident concessions may be distributed in more than one community, and they may hold private landholdings outside the multiple use zone, which contains agricultural or pasture lands.

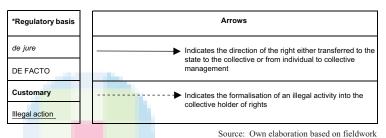
In both resident and non-resident community concessions, two processes may influence changes in internal community dynamics and thus their rights. The first important process emerges from the establishment of a formal collective organisation. The concession models 'open up' or allow for the recognition of a collective entity in large forest areas. This new legal framework in support of communities required the existence of a collective entity with legal recognition to substitute the industrial firms that previously had access to the forest through concessions. The concessionaire organisation that holds the concession right becomes the allocator and manager of those rights. The weight of this new organisation in the community becomes stronger for resident concessions, especially as the number of members within a community increases. The second important process with the new concessionaire organisation is the relationship between individuals in the community and the new organisation that grants these individuals membership status. This relationship is important, as it transfers decision-making rights from the state to the collective, or in this particular case, from the Guatemalan state to the members of the concessionaire organisations. When these members are from only one community and are forest residents, the link to the community is far stronger than when the concessionaire organisation is made up of individuals from several non-resident communities.

Major changes in the distribution of rights among forest users in concessions are illustrated in Figure 2. As previously described, this figure shows that communities have formally recognised access, use, management, and exclusion rights, meaning a transfer of these rights from the state to the collective. Alienation rights are held by the state, this means that concessionaires do not have the right to either lease or sell the land within forest management units. Also, all rights over subsoil resources such as oil are maintained by the state, even if they are found under the concession lands.

The distribution of such rights varies. Access rights for families living in resident concessions areas are recognised as a customary right for both concessionaire members and non-members (CONAP 2004). Concession contracts ratify these rights and delegate overall or general land use planning decision-making to the village government organisation, and the community development committee, which represents claims of both members and non-members of the concession



Holders of Rights



Source: Own elaboration based on fieldwo

Figure 2

Distribution of the bundle of rights in a community concession

organisation. Nevertheless, in practice, community land use decision-making around residential areas, agricultural cultivation areas, and minimal animal husbandry areas are still managed under *de facto* agreements (Figure 2) by individuals and families.

Access to non-timber forest products were claimed by different subgroups, gum tappers or xate palm collectors living within or outside the concession area. Previously, use rights over non-timber forest products of commercial value were usually allocated under an informal contractor system. This is due in part to the fact that, aside from some regulations mainly taxes from commercialisation—over gum extraction, other non-timber forest products were not yet legally regulated. Recently, recognition of this regulatory gap has driven the government to move in the direction of regulating access and management to non-timber forest products, with norms and rules similar to those of timber. This required the development of management plans and certification schemes specific for non-timber forest products as well. The same will apply to agriculture and pasturelands, although regulations have not yet become operational. While previously decisions over which areas should be used for these activities were taken at the household level, now resident concessions are organising larger landscape-level land use plans⁷.

Planning and management of specific forest resources, such as xate palm, allspice and gum, as well as tourism activities is permitted for sub-groups within the larger concessionaire membership. The state developed formal regulations for commercially valuable resources, mainly timber and gum, but without taking into consideration their relationship to other forest resources. No thought was given to the ways in which user rights of one group could affect those of others. For example, the National Gum Tapping Law (1977) states that all Guatemalan citizens are entitled to extract gum resin within national borders. At the same time, the community concession contracts give the cooperative the exclusion rights to the concessions, which are seen as the basis for the additional responsibility of defending its perimeters, allowing for sustainable timber management within the unit. Strict environmental regulations are required to maintain forest certification, which means controlling outside access. A series of conflicts emerge from this contradiction of laws as a large number of gum tappers do not belong to community concessions. Instead, they migrate during the tapping season and do not follow informal or formal regulations established by the cooperative or the concession contract.

In the case of some concessions there have been informal responses to this conflict, such as partnerships between

migrants, and community collectors and contractors. Some concessions have tried to expand their informal system of regulations that aim to keep control of who is extracting gum, where and how. They do so by providing *avales* or guarantees, a written permission that establishes the camp from where activities will be organised and the number of days the collector will be staying in the camp. While informal regulations such as the *avales* function also for xate palm collection, and although current practices are still organised based on *de facto* norms, a process of formalising is underway. However, in most non-resident organisations, traditional users not belonging to the concessionaire organisation, who previously extracted non-timber forest products under *de facto* agreements in these areas, have lost their rights.

A significant difference for non-resident concessionaires lies in the fact that without the concession contract, these members would not have had access to the usufruct or management rights of timber and non-timber forest resources. As they are not forest residents, no agriculture and pasture activities are permitted. Since concessionaires have taken legal 'possession' of management areas, the open-access conditions that favoured illegal activities including logging and archaeological looting have been significantly reduced. Concessionaire organisations have allocated important resources, time, and money for patrolling and driving out transgressors, thus securing tenure rights. Concessionaire organisations are required under contract to report any transgression to government agencies. Yet due to the lack of instructions in the penal code that sanction environmental transgressions, these efforts remain 'unpunished'. Rarely does an environmentally related case find its way into courts.

Transforming claims into rights: Legitimation strategies and purposes

The process of authorising the right: The process of acquiring legitimacy of the rights granter

In this section, we focus on the legitimation strategies used by the Guatemalan state to validate its authority in Petén. We do so by examining interactions between the state and other social actors that intervene in the processes of authorising access claims. The configuration of the Maya Biosphere Reserve as a spatial ordering mechanism implied two major changes. One was the 'setting aside' of large forest areas for strict conservation purposes with surrounding zones to come under highly regulated land and resource use. The other, was the physical expansion of the state in this territory. With a history of almost no physical presence of state institutions until the late 1950s, the establishment of the protected area brought a change in the state agencies in the forest regions, and assumed this would be sufficient to validate its authority within the management zones (Clark 2000). The establishment of a specific state entity regulating protected areas and the demise of previous state institutions—rather linked to the land colonisation programmes—required a significantly increased presence of this government in situ. Although its principle function was to guard protected areas, penalise trespassers, and monitor the evolution of the forest, eventually it found that its authority would instead stem from playing the role of accompaniment and mediator with respect to the community concession, industry, and other actors within the forest region.

According to Tschinkel (pers. comm. 2007) it was lack of clarity and slow processes for approving concession norms that delayed the allocation process between 1994 and 1998 (only three community concessions were allocated during this period). Other important government agencies such as the Forest Service, as well as Tourism and Archaeological History Institutions had little presence in the area. Moreover, the local municipal government had little or no participation in the process of defining the Maya Biosphere Reserve and the concessions, despite the importance they could have played in mediating local conflicts. Although not discussed in detail here, other authors (Sundberg 1998) have discussed the influence of external aid agencies such as the United States Agency for International Development (USAID) and several large international conservation non-governmental organisations (NGOs) on the role of government actors; project design and direction came mainly from USAID and its partner NGOs.

Our findings concur with previous works (Gómez and Méndez 2005) that discuss the key role of external institutions such as USAID in mobilising significant funding and channelling it to the region over a relatively short period. The purpose of these efforts was to completely change the logic of land use, and thus the region itself would be converted from the agricultural hinterland to the national centre of conservation. The USAID design enforced the model through the creation of a completely new agency (CONAP), paying little attention to previously existing national agencies and institutions. The newly established organisations demonstrated almost no knowledge of the degree that communities were actually settled, living and working throughout this forest region. Ultimately we consider that the USAID and its partner NGOs substituted the Guatemalan institutions and thus displaced the option of establishing more robust and local authority, greater legitimacy, and capacity for long-term governance in conjunction with communities.

The process of acquiring the right: Legitimating access claims

Strategies employed by concessionaires for acquiring and maintaining legitimacy include formalising their organisational structures through the establishment of legal entities in order to obtain the status of 'community concessions', complying with forest certification criteria and processes for production (FSC standards), and formalising their NTFP access strategies and rules. Communities must meet the standards and comply with the regulations for timber production and gum extraction—on a yearly basis—in order to renew their concession rights. Timber regulations are extremely complex, costly, and time consuming. This becomes more problematic as the organisational and technical expertise of some community concession groups is limited. Additionally, when matters require full collective

support, communities require a longer time for reaching consensus (if compared, for instance, with a private timber industry). This is more relevant in cases such as the processes required to export mahogany, to obtain the annual certification evaluations, not to mention that intentions to export non-timber forest products require separate procedures for all products (for certification and for development of management and annual operation plans as well).

The community organisations have established their own local governance systems, based on an expanded set of rights of access, use, and decision-making over their forest resources. This includes organising and paying for the constant deployment of vigilance and patrol of the boundaries of the concessions as part of their responsibilities. While most of them have stabilised encroachment and poaching activities, not without considerable investment, deforestation dynamics have been more aggressive in community concessions with histories of recent establishment (Bray et al. 2008).

The process of sustaining the right

Community concessions in the Petén are the tenure arrangements resulting from negotiation among a series of actors, including conservation authorities, community concessionaires, the timber industry, and local government. Here we differentiate the strategies of legitimating claims externally and internally.

External legitimacy of claims

In order to sustain legitimate claims over resources within the multiple use zone, community concessions should prove that the original purpose these were created for has been fulfilled. In the case of Petén, the goals are to ensure forest conservation and establish sound forest governance systems (provide an interlocutor for the state).

Despite incursions and subsequent land use changes in a number of community concessions, particularly those where initial forests were highly degraded⁸, the relative success of the majority highlights the positive outcomes of the system of community concession in terms of conservation goals. As evidence that the community concessions have been able to stabilise land use change dynamics within the Maya Biosphere Reserve, we compare land use change (in ha) between community concession systems and the three management zones (multiple use zone, buffer zone and core zone—national parks) within the Maya Biosphere Reserve between 1990 and 2005.

Figure 3 shows that between 1990 and 2005, the rate of land use change in the management zones analysed is higher for both the buffer zone (losing between 4,000 and 12,000 ha during a year) and national parks (losing between 2,000 and 6,000 ha during a year) in comparison to the multiple use zone (maintaining rates under 2,000 ha during the year). National parks studied include Sierra del Lacandon and Laguna del Tigre which together encompass over 65 per cent of the core zone. Additionally, stable forest cover conditions in community

concessions are supported by the time series Landsat images and maps of the Maya Biosphere Reserve during this period compared to the period before the community concessions (WCS, CONAP, FIPA 2002, 2003, 2004, 2005). Since deforestation rates change for communities with resident and non-resident status, this factor has become particularly relevant for those communities with history of residency. This finding has been sustained by other works examining deforestation dynamics in Guatemala and Mexico (Radachowsky et al. 2012; Bray et al. 2008).

Internal legitimacy of claims

A different set of factors define the internal legitimacy of the claimants, or the community concessionaires. The most important element for legitimising the resource rights is whether or not they generate benefits for the communities themselves. While benefit generation is usually associated with income generation, our research in these concessions demonstrates that there are at least five other ways in which concessionaire organisations generate benefits for constituencies—through membership status, through reinvestment in the community enterprise, through distribution of income from (timber) sales to individual/family members, employment generation, and finally through social investments in the communities, such as clinics, schools, roads, etc. This means that there are at least two types of social structures to take into account when analysing benefit generation and distribution—one associated with membership and the other related to residency status. The relationship between concessionaires and their communities can be analysed in terms of employment generation and by observing the investments of concessionaire organisations within the broader community.

Benefits associated with income can be obtained directly, either through the creation of employment, or through the distribution of profits from timber sales and commercialisation of NTFPs. While the first will encompass benefits for members and nonmembers, income from timber sales is distributed only among members of the concessionaire organisation. In the analysis of the twelve concessionaire organisations Monterroso and Barry (2007) found that timber management activities provide over 50,000 jobs in the region during the year, directly involving 2,000 families and over an additional 3,000 indirect individual beneficiaries. In the case of NTFP extraction, we see that job creation is more relevant in the case of resident concessions. They provide a constant income stream through salaries and wages, while the others imply year-end profit distribution.

Community concessionaires have increased household incomes notably as they reap the benefits of shared profits from timber sales (over 33 per cent increase in incomes derived from timber including cedar and mahogany), and lesser known species on the international market (over 60 per cent increase in benefits compared to before the concession). Income from collective timber sales is distributed to members, reinvested and/or invested in social infrastructure on an annual basis, and the percentage distributed varies according to the internal rules

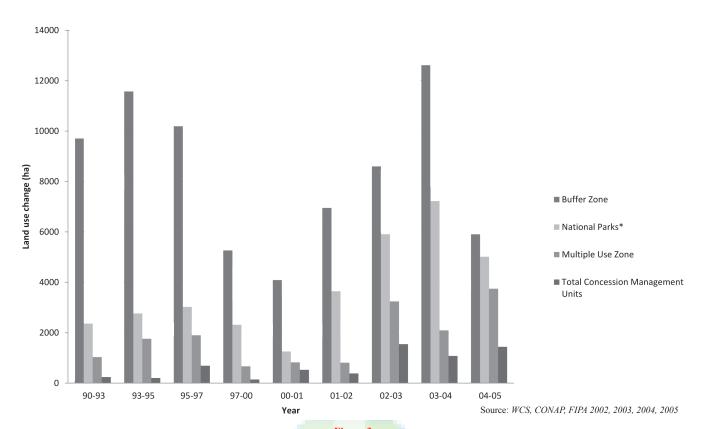


Figure 3
Land use change (Ha): comparing dynamics in the Buffer Zone, National Parks, and the Multiple Use Zone (1990-2005)

each group has established. The relation between community and community enterprise is often not clear, more so in the cases where the concessionaire organisation is comprised of individuals who are non-forest resident members from several communities. This sometimes leads to problems of decision-making over how profits are used, and lies at the heart of issues of participation and accountability and finally benefit-sharing. This last issue points to the fundamentals of the internal legitimacy of the concessions.

This analysis demonstrates that multiple mechanisms influence the distribution of benefits from natural resources to social actors. It is important to recognise at the community level what other elements come into play when discussing legitimacy, as these elements can undermine tenure security. These come particularly from the ability of organisations not only to increase economic benefits in terms of income and job creation, but also in the ability to create accountability mechanisms that ensure distribution of social and economic benefits among the different groups, including members and non-members of the collective concessionaire entity.

ISSUES AND RECOMMENDATIONS FOR PRACTITIONERS

Another major issue is the inconsistency in the state's respect

for, and defence of, community concession exclusion rights. Exclusion rights are defended on two levels—the physical defence against intrusion by third parties, and the political defence of the rights holders or concessionaires. For the first, it is important to note that the government agencies (e.g., CONAP) remain in the picture, playing a key role in the design and implementation of the regulatory framework, influencing the day-to-day execution of both the environmental (conservation) agenda and the forest production activities. However, the state, as the rights-granter, has not fully fulfilled its role in backing up the exclusion rights of the concessionaires, as it still lacks a system of enforcement for sanctions and penalties against intruders. In practice, this shifts the burden for protection against incursion to the communities. The cost of battling incursion by third parties (loggers, traffickers, outside settlers, etc) is high, requiring constant deployment of manpower throughout the forest to track and catch trespassers. Worse, we have observed that there is little follow up and prosecution by the state when illegal activity is reported.

Second, in the political defence of exclusion rights, concessionaire organisations often encounter the need to advocate the central government in defence of their rights against state-sponsored or private sector incursion into their forest areas. Archaeological and ecological tourism interests

^{*}National Parks included in the analysis include Laguna del Tigre and Sierra del Lacandon which together represent close to 65 per cent of the core zone (over 450,000 ha).

⁺Multiple use zone data is based over the total area while concession management units include data for both industrial and community concessions

promoted through joint-ventures (state and private sector) have led to the undermining and erosion of the community concession's decision-making power. The expansion of infrastructure for petroleum exploration and exploitation across their forest lands can also provoke considerable damage to the forest and undermine the authority of both the community concessions and the government environmental agency.

Given the remoteness of the region, and the overlap and incoherence in the laws and regulations between government agencies, the local forest organisations must be constantly vigilant, outspoken and active advocates for their rights to be honoured. Here the issue of legitimacy returns—the more conservation is considered as the highest priority for the state, as the logic that underpins the external legitimacy, the greater the chance for community rights to prevail against the others. What this points to is the need for both communities and conservation organisations to jointly advocate for their shared interests, in the face of pressures from other sectors. Other options could include the search for a more integrated approach to forest use that could include different types of tourism, but only on the basis of respect for the community concession rights, and their legitimacy as valid interlocutors in the design of plans for the forest region.

For practitioners, the costs involved in both levels of defence of exclusion rights are high, depending on the degree of contestation of interests in the forested region, and they are almost always underestimated. One the one hand, the physical deployment of community members to patrol their concession areas needs to, and can, be calculated and incorporated into production costs, or if relevant, as part of carbon mitigation costs. On the other hand, the costs related to the political defence of their rights are even higher, difficult to predict, yet vital to the security of their tenure rights. Travel to the country's capital for meetings with government officials, participation in numerous and ongoing meetings in the forest region, monitoring financial investments in the region (public and private), public information campaigns, and continual negotiations that imply funding for internal meetings to share and formulate positions within the communities can be overwhelming. They imply not only financial costs, but also increasingly specialised human resources at the level of the community organisations.

CONCLUSIONS

In this paper, we have argued that sustaining and securing rights to forests over time depend on the way legitimacy is established in the process of a claim becoming a right. For this we analysed the nature of the forest tenure reform process in the multiple use zone of the Maya Biosphere Reserve, where in the last twenty years the Guatemalan state has created a new set of regulations and transferred a set of rights over forest resources to organised community groups. This allowed for the emergence of a system of community forest concessions providing new opportunities to derive benefits and improve

livelihoods.

Results indicate that in order to sustain this forest tenure reform process over time, it is important to understand how tenure arrangements play out in reality (or in their context), and how elements that underpin legitimation and those defining authority intervene in the process. We reviewed the nature and evolution of the claims over forest resources, how these became recognised (authorised), and how they were transformed into rights; at the same time we observed how the 'rights-granter' was simultaneously able to establish its authority through recognition by the rights-receivers. Our findings evidence that this process takes place under constant dispute and negotiation. We explored the strategies to acquire and maintain legitimacy inside and outside the concession model. Internally, these are related to possibilities to ensure livelihood improvement and the evolution of institutions to guarantee benefits within concessionaire constituencies (rights-receivers). Externally, the underpinnings of legitimacy are closely linked to ensuring Guatemalan state (rights-granter) conservation goals within the protected area.

Finally, we argue that understanding the underpinnings of the legitimacy behind forest tenure reforms is central to identifying ways in which these processes are feasible and can work. Thus, in order to succeed, forest tenure reforms require constant response to the evolving or changing objectives of the actors involved, to enhance both forest and livelihood outcomes. It also becomes important for developing more sound policy frameworks that fill gaps and resolve incongruence in the governmental system for forest management.

Notes

- Research activities were conducted in 30 sites across Latin America, Africa, and Asia. Study sites were in 10 countries including Brazil, Bolivia, Nicaragua, Cameroon, Ghana, Burkina Faso, Nepal, Philippines, India, and Laos.
- According to Sikor and Lund (2009) territorialisation is a legitimation form employed by states to control the spatial ordering and the people within the space. Here we argue that territorialisation strategies employed by the Guatemalan state aimed at establishing control forms over natural resources and the people that use them.
- 3. According to national regulations there are two type of forest concessions within a protected area—industrial and community. Community concession contracts are legal agreements between the state and an organised group composed of members living in a given community. In Petén there are two types of community concessions. The first group includes community concessions whose constituencies live in the same location within the perimeters of the forest area in the multiple use zone. The second group is non-resident concessionaires whose members may belong to more than one community settlement outside the perimeters of the forest area in the multiple use zone. In this paper the term community refers to a rural settlement whose members share certain common social and cultural characteristics.
- Three types of research reports were produced—one at the regional level; two at the community concession level; and one integrating analysis and discussion of findings. Reports are available at http://www.cifor. cgiar.org/tenure-reform
- 5. Although the organisations that are formed are defined formally as community forest concessions, these are formed by both a portion of community members inhabiting forest management units, and members of localities that are outside forest management units and that can

- represent more than one community.
- 6. In some areas illegal cattle ranching has reached significant levels.
- Agricultural areas vary within resident concessions; Carmelita—one of the resident concessions studied—had about 2 per cent of the managed area under this land use.
- 8. Specifically we refer to the community concessions of La Pasadita, San Miguel La Palotada, Cruce a la Colorada, and La Colorada, where land grabbing and illegal sales of rights have occurred. According to fieldwork interviews and other documents (UAESPNN 2004), these processes are more related to the expansion of narco-trafficking and other related illegal activities than to landless peasants expanding agricultural frontiers.

REFERENCES

- Arneson, R. 2003. Debate: Defending the purely instrumental account of democratic legitimacy. *The Journal of Political Philosophy* 11(1): 122–132.
- Barry, D. and R. Meinzen-Dick. 2012. The invisible map. Community tenure rights. In: *The social life of forests*. (eds: Hecht S., K. Morrison and C. Padoch) Chicago, IL: University of Chicago Press
- Benda-Beckmann, F. Von. and K. Von Benda-Beckmann. 1999. A functional analysis of property rights, with special reference to Indonesia. In: *Property rights and economic development: Land and natural resources in Southeast Asia and Oceania*. (eds. T. Van Meijl and F. Von Benda-Beckmann). Pp. 15–56. Kegan Paul Publications. London.
- Bohman, J. 1996. Public deliberation: pluralism, complexity and democracy. Cambridge, MA: MIT Press.
- Bray, D. B., E. Duran, V. H. Ramos, J.F. Mas, A. Velazquez, R.B. McNab, D. Barry, and J. Radachowsky. 2008. Tropical deforestation, community forests, and protected areas in the Maya Forest. *Ecology and Society* 13(2): 56. http://www.ecologyandsociety.org/vol13/iss2/art56. Accessed December 20, 2010
- Broegaard, R. 2005. Land tenure security and inequality in Nicaragua. Development and Change 36(4): 845–864.
- Cashore, B. 2002. Legitimacy and the privatization of environmental governance: How non-state market driven (NSMD) governance systems gain rule-making authority. *Governance* 15: 503–529.
- Clark, C. 2000. Land tenure de-legitimization and social mobility in tropical Petén, Guatemala. *Human Organisation* 59: 419–427.
- Colchester, 2008. Beyond tenure: Rights-based approaches to peoples and forests. Some lessons from the Forest People Programme. London: RRI, Forest People Programmes.
- CONAP, 2001. Plan Maestro de la Reserva de Biosfera Maya. Guatemala: CONAP.
- CONAP 2004. Política de asentamientos humanos en áreas protegidas. Proyecto de Fortalecimiento a la Institucionalidad y Política Ambiental, FIPA. Guatemala: CONAP.
- Cousins, B., T. Cousins, D. Hornby, R. Kingwill, L. Royston, and W. Smit. 2005. Will formalizing property rights reduce poverty in South Africa's 'second economy'? Questioning the mythologies of Hernando de Soto. South Africa: PLAAS. Policy Brief No. 18.
- Cousins, B. 2007. More than socially embedded: The distinctive character of 'communal tenure' regimes in South Africa and its implications for land policy. *Journal of Agrarian Change* 7(3): 281–315.
- Eden, S. 2009. The work of environmental governance networks: traceability, credibility and certification by the Forest Stewardship Council. *Geoforum* 40: 383–394.
- Gómez I. and E. Méndez. 2005. Análisis de contexto: el caso de la organización de comunidades forestales de Petén (ACOFOP). El Salvador: PRISMA.
- Habermas, J. 2004. Legitimation crisis. London: Polity Press.
- Instituto de Agricultura, Recursos Naturales y Ambiente, Universidad Rafael Landivar and Asociación Insituto de Incidencia Ambiental

- (IARNA/URL/IIA). 2006. Perfil ambiental de Guatemala: tendencias y reflexiones sobre la gestión ambiental. Guatemala: IARNA/URL/IIA.
- Larson, A. 2010. Making the 'rules of the game': Constituting territory and authority in Nicaragua's indigenous communities. *Land Use Policy* 27: 1143–1152.
- Larson, A.M., D. Barry and G.R. Dahal. 2010a. New rights for forest based communities: understanding processes of forest tenure reform. *International Forestry Review* 12(1): 78–96.
- Larson, A.M., D. Barry, G.R. Dahal and C.J.P. Colfer. (eds.). 2010b. Forests for People: Community Rights and Forest Tenure Reform. London: Earthscan
- Lemos, M. and A. Agrawal. 2006. Environmental governance. Annual Review of Environmental Resources 31: 297–325.
- Monterroso I. and D. Barry. 2007. Community based forestry and the changes in tenure and access rights in the Mayan Biosphere Reserve. In: *Poverty reduction and forests: tenure, market and policy reforms*. Organised by Recoftc. Thailand: RECOFTC. September 9 2007.
- Monterroso, I. 2007. Extracción de xate en la RBM: elementos para su sostenibilidad. FLACSO-Guatemala. Editorial en Ciencias Sociales. Guatemala.
- Nuggehalli, R. and L. Stalker. 2009. Motivating factors and facilitating conditions explaining women's participation in co-management of Sri-Lankan forests. Forest Policy and Economics 11(4): 288–293.
- Radachowsky, J., V.H. Ramos, R. McNab, E.H. Baur, and N. Kazakov. 2012.
 Forest concessions in the Mayan Biosphere Reserve: A decade later.
 Forestry Ecology and Management 268: 18–28.
- Rights and Resources Initiative and International Timber Trade Organization (RRI and ITTO). 2009. Tropical forest tenure assessment: Trends, challenges and opportunities. Prepared for the International Conference on Forest Tenure, Governance and Enterprise: New Opportunities for Central and West Africa May 25–29, 2009, Hôtel Mont Fébé, Yaoundé, Cameroon.
- Sikor T. and C. Lund. 2009. Access and property regarding natural resources: A question of power and authority. *Development and Change* 40(1): 1–22.
- SI PETÉN 2002. Centro de Monitoreo y Evaluación de CONAP (CEMEC) Región VIII. Base de Datos. Guatemala
- Suchman, M. 1995. Managing legitimacy: strategic and institutional approaches. *The Academy of Management Review* 20(3): 571–610.
- Sundberg, J. 2002. Conservation as a site for democratization in Latin America: Exploring the contradictions in Guatemala. *The Canadian Journal of Latin American and Caribbean Studies* 27(53): 73–103.
- Sundberg, J. 1998. NGO Landscapes in the Mayan Biosphere Reserve, Guatemala. *Geographical review* 88(3): 388–412.
- Sunderlin, W., J. Hatcher and M. Liddle. 2008. From exclusion to ownership? Challenges and opportunities. In: *Advancing forest tenure reform*. Washington, DC: Rights and Resource Initiative.
- Schwartz, N. 1990. Forest society: A social history of Petén, Guatemala. Philadelphia, PA: University of Pennsylvania Press.
- Taylor, P. 2009. Conservation, community, and culture? New organisational challenges of community forest concessions in the Maya Biosphere Reserve of Guatemala. *Journal of Rural Studies* 26 (2): 173–184.
- Unidad de Parques Nacionales Naturales de Colombia (UAESPNN). 2004. Estrategia integral y diferencial de gobernabilidad en Areas protegidas del Petén. Guatemala: Departamento del Interior de los Estados Unidos, DOI, Programa de Fortalecimiento Institucional de Políticas Ambientales, FIPA/USAID, Consejo Nacional de Areas Protegidas.
- World Conservation Society, Consejo Nacional de Areas Protegidas, and Programa de Fortalecimiento a las Políticas Ambientales (WCS, CONAP, FIPA). 2002. Estimación de la deforestación en la Reserva de Biosfera Maya, Período 2001–2002. Guatemala: WCS, CONAP, FIPA.
- World Conservation Society, Consejo Nacional de Areas Protegidas, and Programa de Fortalecimiento a las Políticas Ambientales (WCS, CONAP, FIPA). 2003. Estimación de la deforestación en la Reserva de Biosfera Maya, Período 2002–2003. Guatemala: WCS, CONAP, FIPA.

World Conservation Society, Consejo Nacional de Areas Protegidas, and Programa de Fortalecimiento a las Políticas Ambientales (WCS, CONAP, FIPA). 2004. Estimación de la deforestación en la Reserva de Biosfera Maya, Período 2003–2004. Guatemala: WCS, CONAP, FIPA.

World Conservation Society, Consejo Nacional de Areas Protegidas, and Programa de Fortalecimiento a las Políticas Ambientales (WCS, CONAP, FIPA). 2005. Estimación de la deforestación en la Reserva de Biosfera Maya, Período 2004–2005. Guatemala: WCS, CONAP, FIPA.

White, A. and A. Martin. 2002. Who owns the world's forests? Washington, DC: Forest Trends.

Weber, M. 1921. *Economy and society*. New York, NY: G. Roth, C. Wittich, Bedminster Press.

