

# Formal Institutions, Local Arrangements and Conflicts in Northern Bolivian Communities after Forest Governance Reforms

*Walter Cano Cardona*



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**Formal Institutions, Local Arrangements and Conflicts in Northern Bolivian  
Communities After Forest Governance Reforms**

**Formele instellingen, plaatselijke regelingen en conflicten in Noord-  
Boliviaanse Bosgemeenschappen na Hervormingen van Het Bosbeleid**  
(met een samenvatting in het Nederlands)

**Instituciones Formales, Disposiciones Locales y Conflictos en  
Comunidades del Norte Amazónico de Bolivia luego de Reformas  
Gubernamentales al Sector Forestal**  
(con resumen en Español)

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A mis amados padres  
Luis Ricardo Cano Zegada  
y Noemí Nelly Cardona Angulo de Cano

A mis adorados hijos  
José Matías Cano Arenas  
y Kenia Regina Cano Arenas



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# **Chapter 1**

## **Theoretical Framework**

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## 1.1. General introduction

Over the last 30 years, many researchers have recognized the potential of community forest management (CFM) to contribute to sustainable forest use (Klooster and Masera, 2000), and to improve rural well-being of an estimated 300 million people worldwide living close to, or within tropical forests (Scherr et al., 2004; Pimentel et al., 1997). Although CFM is considered to contribute to multiple objectives, some researchers emphasized the rural welfare improvement, while others have paid more attention to the opportunities that CFM offered to involve rural communities in decision-making about forest management (Egan et al., 2002; Uprety, 2006).

The numerous social contexts and conditions in which CFM operates have stimulated ample reflection of the factors that influence its outcome (Ostrom, 1990, 1999a; Agrawal, 2001; Pagdee et al., 2006). Scholars in the fields of institutional theory and property rights theory agree that well-defined property rights, effective institutional arrangements and community interests and incentives are among the most important factors contributing to CFM's success (Pagdee et al., 2006). Similarly, conflict theorists suggests that natural resource related conflicts are often linked to inappropriate property rights, poorly developed or contradictory institutions and rules, and a lack of well coordinated collective action (Buckles and Rusnak, 1999; Price et al., 2007; Vanhanen et al., 2010).

In spite of the accumulated evidence of conflicts related to natural resources, there is still a gap in our understanding related to the origin and development of conflicts and the factors that determine the dynamics of conflicts. For instance, we still lack detailed knowledge on how individual and collective rights to land and forests, local forest governance, changing social contexts and their interplay with local and external factors trigger conflicts or influence their directions.

A revival of the focus on elements like collective action, property rights and other institutions, and conflicts in CFM research can be linked to the social changes caused by developments in the forestry sector in recent decades such as: the devolution of forests rights to local communities, forestry as an instrument to improve rural livelihoods and the role of local communities in providing forest environmental benefits of global importance (Pacheco, 2004; Larson et al., 2008; Larson et al., 2010). In the case of forest devolution to local communities, scholars are still not able to properly explain the counterintuitive outcomes of the new rights issued to rural people such as failed attempts of local forest governance, forest degradation, social inequity and the lack of effective collaboration in the management of land and forests held under common property.

Some likely reasons why changes in the forestry sector have unexpected consequences for its management and actors are their coincidence with other political reforms, in particular decentralization of forestry-related issues to lower-level governments (Larson et al., 2008). Research on forestry decentralization has demonstrated the challenges of social integration in decision-making spaces and the high influence of the decentralization models that were pursued, especially when this takes place in locations with local traditions of social exclusion, subjugation and discrimination. An inadequate or inappropriate role of government agencies themselves in implementing forestry or other related reforms will also lead to unpredictable and often hard to manage outcomes (Cronkleton et al., 2007). For instance, government agencies may use double standards with the enforcement of rules or not enforce them at all, which likely leads to an ambivalent understanding among forests users about forest-use regulating rules.

While the changes summarized above are taking their own course, the social science community working on forestry issues is trying to grapple with what are the main variables that can be used to describe and explain the changes, or how those changes should be valued. A relevant and frequently used way of such valuation is in terms of equity and democracy which guided proposals for communal land and forest access and distribution in the first place (Sabogal et al., 2008; McDermott and Schreckenber, 2009). With these reflections in mind, it is pertinent to take a new view at the new local social realities, which are the outcomes of the interplay of the recent forestry reforms and the resulting social changes. This view will also show the frictions between contradicting local and formal institutions, which in turn suggest ambiguities of the formal institutional basis itself. At a higher level, this should lead to an understanding of what are appropriate principles to define these institutions in the first place, or when are they likely to result in conflicts.

Many scholars try to find solutions for the above ambiguities (Ribot and Peluso, 2003; High et al., 2005; Larson and Ribot, 2007; Sikor and Lund, 2009), which is also the core objective of this dissertation. The northern Bolivian Amazon is a fertile place to explore the radical political, economic and social changes which have been brought about by, among others, significant forestry, land and decentralization reforms. The area is also a good example of social adaptation in response to such changes. An in depth scrutiny of the forestry related social changes in the northern Bolivian Amazon, in addition, allows to comment on theories related to institutions, property rights and conflict, that are commonly used to analyze and explain social change in a forest reform context.

This chapter reviews some of the knowledge and empirical experiences related to the various themes mentioned above. It provides the conceptual framework within which we will analyze our empirical findings. The framework will help to link our

research to theoretical discussions on social changes caused by new forest rights, new modes of forest governance and the resulting social conflicts. In chapters 4-7 of this thesis, we also describe the contributions of our findings to this debate.

This chapter describes the current thinking about three fields of research that are relevant to this thesis: forest governance, institutions and rules, debt-peonage and conflicts within communities. Section 1.2 develops a theoretical background related to governance, institutions and property rights and rules, topics that are elaborated in chapters 4, 5 and 6, but especially in chapter 4. This section summarizes the theoretical basis of governance and modes of governance, emphasizing self governance as the main domain from which we analyze formal and informal institutions and local rules.

Section 1.3 summarizes theories on debt-peonage, a phenomenon that has been important in the forestry sector of northern Bolivia and still exists in a modified form today. To understand debt-peonage we highlight three main aspects of the relationships between actors linked to this mechanism: the debtor-creditor relationship; the strategies of creditors and debtors to maximize their benefits; and the variants of debt-peonage analyzed from the local experiences available and documented nowadays. Chapter 5 of this thesis reports on a case study of the adaptations of the debt-peonage system in response to the reform of the forestry sector.

Section 1.4 of this chapter reviews conflict theory related to natural resources. It provides the theoretical framework of the case study about conflicts within forest communities that is presented in chapter 6. This section reviews conventional definitions of conflicts before analyzing the sources of conflicts. In our view, it is essential to identify and characterize the factors that motivate people to become involved in a conflict. We propose a slightly different classification of drivers of conflicts based on Buckles and Rusnak (1999) research on this topic: institutional and operationalization-related drivers; property rights-related drivers; and social, cultural and traditional values-related drivers. The last part of the section summarizes conflict escalation and conflict management.

Finally, section 1.5 of this chapter provides the objectives, research questions and outline of the present thesis.

## **1.2. Forest governance, local institutions and property rights**

This section elaborates the theoretical background of chapter 4 of the present thesis. Chapter 4 provides a case study of responses within northern Bolivian forest communities to a new forest and land regime, meant to devolve access and use rights over valuable forest resources, and define new principles of land tenure and



property rights for indigenous and peasant communities. These changes concurred with the enactment of the Popular Participation Law and Decentralization Law, which transferred responsibilities and an important share of the national budget directly to municipal governments. The reforms also called for more social participation in public administration (Pacheco, 2010), and have had significant influence on forest resources governance (Pacheco, 2010; Andersson et al., 2006; Kaimowitz et al., 1998).

The new rights cited above considered new benefits for forest users, but also legal constraints related to the use of valuable forest resources. Rural people had to devise collective arrangements to secure individual rights and collective rights, while at the same time conform to the wider legal reforms. This meant a new perspective of local governance to fit local expectations with hierarchical command-and-control governance. An important characteristic of the latter is the relationship of domination and subordination which tries to constrain the autonomy of subordinate actors (Börzel, 2007). This relates to the literature on multi-scale governance which encompasses the operations of the government and civil society institutional partnerships, both formal and informal, and decision-making processes (Berkes, 2007; Duran et al., 2011).

On the other hand, the new rights allowed rural people to challenge the traditional power of government to control state resources and their use (Arnouts, 2010; Arnouts et al., 2011). The case of the northern Bolivian Amazon shows a conjunction of several modes of governance, typical for a concrete social context (Kooiman, 2003; Gray, 2005), within a multi-scale institutional dynamic with influence over local affairs related to forest use. This case can be considered as a new evolution of governance requiring a broadening of the definition of governance itself. A true shift in governance requires the existence of a previous prevalent mode of governance. The region, however, was characterized by feudal relations, in which individual and collective rights of subordinated people were defined and constrained by a dominant class, nearly without state intervention.

Therefore, after the legal reforms, rural people transcended from having almost no rights at all, to having well defined rights backed by the state, but affected by several ambiguities of the legal reforms influencing the way to define, assure and exercise individual and collective rights that had to be embedded in a new mode of local forest governance. The balance between individual and collective expectations as well as the social trend within communities played an important role in this process. Communities had to try to address the discrepancies between various expectations in order to reach a consensus. Sometimes this consensus did not match the state's conception of appropriate governance. The attempt to find a balance between individual and collective rights in a situation of collective land

property rights, offered, as chapter 4 of this thesis will demonstrate, new insights related to the governance of the commons (Ostrom, 1990, 2002).

We focused on three main theoretical contexts to formulate our theoretical framework. The first one relates to the definition, practice and shifts of modes of governance, with special attention to hierarchical and self governance, because rural people in our study area have to design their own mode of forest governance, within the new law and regulations that were imposed by central government. The second theoretical context relates to formal and informal institutions, which is the basis for explaining the evolution of local forest governance. The third theoretical context relates to regulatory changes and rules defined to regulate, control and constrain community members and the behavior of external actors, which represent the outcome of the ability to self-organize to govern forests.

### **1.2.1. Revisiting the foundations of governance and modes of governance**

Academics with divergent disciplinary backgrounds have reviewed different perspectives of governance (Rhodes, 2000; Pierre, 2000; Kooiman, 2003; Van Kersbergen and Van Waarden, 2004; Treib et al., 2005; Börzel, 2007; Treib et al., 2007; Arnouts and Arts, 2009; Larson and Petkova, 2011). The traditional definition of governance rests on the notion that societies have to be governed by laws and other forms of regulations, controlled and applied by an authority (Pierre, 2000). This leads to the conception of state centralism governance or hierarchical governance (Kooiman, 2003), and to the distinction between governmental and non-governmental spheres (Pierre and Peters, 2000), still in vogue nowadays (Goetz, 2008).

We review the definitions of governance used by Arnouts (2010) to highlight its evolution from traditional political practice. Governance is defined by Hirst (2000, p. 24) as *“the means by which an activity or ensemble of activities is controlled or directed”*, which emphasizes the role of the state steering society. Stoker (2000, p. 93) emphasizes the centralism and hegemonic function of the state in government, defining governance as *“a concern with governing, achieving collective action in the realm of public affairs, in conditions where it is not possible to rest on recourse to the authority of the state”*. Kooiman (2003), on the other hand, stresses that *“governing can be considered as the totality of interactions, in which public as well as private actors participate, aimed at solving societal problems or creating societal opportunities; attending to the institutions as contexts for these governing interactions; and establishing a normative foundations for all those activities”*. This definition also highlights the collectivity of governance based on shared responsibilities among the state, the market and civil society.

We refer to governance as to what happens with the dominant role of the state orchestrating the policy-making process and rule enforcement, when groups of people, e.g. forest communities, have the possibility to make decisions about the implementation of rules. In that sense we link the definition of governance to “*who have the authority, advantage, or conditions to makes decisions and how decisions are made* (Cotula and Mayer, 2007; Sandbrook et al., 2010; Larson and Petkova, 2011), *based on the recognition and validation of such decisions from the national to the local level*”. Decisions made at national government level are not always properly accepted among target constituencies. Acceptance will depend on how and to what extent such decisions will affect people’s rights, on former traditional arrangements and on power. Thus, formal and informal institutions, rules, and power relations and practices of decision-making form an important part of governance definition that define the kind of decision that are made, and whether they are clear, consistent and comprehensive (Saunders and Reeve, 2010; Larson and Petkova, 2011).

Some academics link governance with the notion of steering of a policy domain that embodies a public interest (Pierre, 2000). Such traditional governance is closely associated with public actors which have government status (Arnouts and Arts, 2011). However, there is evidence that governing public domains is only feasible when non-governmental actors are incorporated in the process (Ostrom, 1999a). Certainly, a comprehensive mode of governance would accommodate hierarchical and non-hierarchical procedures (Börzel, 2007), which could lead to a mode of governance public in aim, but private in form (Reinalda, 2001). The key questions are: (1) To what extent do issues of public interest have the same priority from the government perspective? (2) What priorities have more weight at the moment of decision-making? (3) What is the definition of institutional arrangements?

We support the notion that the mode of governance ultimately depends on the extent to which governmental and non-governmental actors are integrated in governing vis-à-vis each other (Treib et al., 2005). However, key questions are also how both actors achieve that integration; what are the conditions of the integration, and what represents the integration for each actor? Börzel (2007) refers to this as modes of coordination, distinguishing between hierarchical and non-hierarchical modes of coordination. Trieb et al. (2007) distinguish between coercion, voluntarism, targeting and framework regulation in an analysis of the relationship between state intervention and societal autonomy. Peters (2000) establishes a link between old and new governance, based on the level of interaction among state, market and civil society in public domains.

We cited the typology proposed by Kooiman (2003) and complemented by Arnouts et al. (2011) which include hierarchical governance, self-governance and co-governance. In hierarchical governance, governing falls within the domain of the government, and non-governmental actors are positioned in subordinated roles. In co-governance outcomes rest on the interaction of both governmental and non-governmental actors. Self-governance is governance dominated by non-governmental actors, as the intervention of the state gradually becomes limited and focuses more on the definition of boundaries.

An important insight of this theoretical analysis is that, based on the number of slightly different definitions of governance and modes of governance, the first can be understood as the main objective of a social group related to an issue of collective interest, and the second as the strategy to achieve it. We refer to the latest as the course of evolution of governance observed in any social context where achieving individual benefits from the public interest require decision-making processes to reach collective agreements. In such instances even the most basic notion of governance might be susceptible to different levels of manipulations. This is what Doornbos (2003, 2010) called the metaphor of good governance, Peters (2000) refers to this as positive and negative governance, and presents it is a critical aspect in the negotiations related to reducing CO2 emissions (Petkova et al., 2010; Sandbrook et al., 2011; Larson and Petkova, 2011; Enzine-de-Blas et al., 2011; Kanowski et al., 2011; Nasi et al., 2011).

Nowadays, self governance, considered by some scholars as the contemporary mode of governance (van Tatenhove, 2000), represents opportunities to identify and explain the factors that drive governance evolution. However, because it has quite recently been recognized as a mode of governance, it's in the process of being validated and legitimized. As a result, a characterization of what is self governance, or what are appropriate criteria and indicators to assess its performance are subject to steady change. This is most relevant in cases where self governance draws heavily from traditional modes of governance strongly embedded within local social and political traditions. The next section describes this mode in more detail.

### **1.2.2. Self-governance in the context of institutional changes**

The basic notion of self-governance rests on the capacity of social entities to govern themselves autonomously (Arnouts, 2010), emphasizing the predominance of non-governmental actors, and the state restricting its intervention in the sphere of interaction among non-governmental actors (Arnouts et al., 2011). Ostrom (1999a) classifies the self-organizing capabilities for forest management among local communities in Africa, South America and Asia as good examples of self-governance. However, although in the latest examples there is an ample space for

autonomous decision-making, the basis to do so remains under the control of the state. For that reason, Kooiman (2003) claims that there is no entirely self-governance because the minimal role of the state, through the design and enforcement of rules, is to prevent anarchy within society.

Important features of self-governance highlighted by some scholars are: power is not controlled necessarily by non-governmental actors; resources can be also controlled by government; non-governmental actors are able to influence decision-making and have a high degree of autonomy; and finally, governmental actors interfere only when governing activities violate or exceed the limits imposed on non-governmental actors (Kooiman, 2003; Arnouts, 2010; Arnouts et al., 2011).

Our interest is in self-governance within traditional and dynamic local communities and indigenous people living in tropical forest areas. Conventional governance analysts assumed that these social organizations were not able to make wise and accountable decisions, and thus an external actor –the government or social planners- were needed in order to assure desirable outcomes (Ostrom, 2010). Contemporary social theories, however, support the idea that social organizations can make political decisions to improve their own welfare more efficiently than when such decisions are made by external actors (Ostrom, 2010). Good examples of the latest are the cases of community-based institutions and forest management institutions as efficient modes of self-governance (Jodha, 1986; Bebbington, 1997; Peluso, 1996; Richards, 1997; Larson et al., 2008; Pacheco et al., 2009; Ostrom, 2009).

For the present thesis, a relevant aspect of self-governance derives from the overall discussion that linked it to open-access resources or common pool resources. Forests are often common pool resources, like fish stocks or water sources. Forests are therefore subject to open-access use, in circumstances of actor's inability to establish effective governance systems (Ostrom, 1999c). An unregulated, open-access common-pool resource from which many actors benefit is likely to be overused, generating negative externalities (Ostrom, 2002). For many years, this was the basis of the conventional theory of common-pool resources, which shared assumptions related to resource management, arrangements of use and exclusion of other users (Feeny et al., 1996).

Factors that constrain effective self-governance of common-pool resources include the complex environments, which are difficult to understand by actors (Ostrom, 2010). Lack of understanding by actors in combination with ineffective self-governance may therefore result in a tragedy of the commons (c.f. Hardin 1968). Many local communities around the world however, have developed effective self-governance of these systems (Ostrom, 2010). This finding clearly provides new insights into self-governance of complex common-pool resources.

Hardin (1968) developed the above perspective to illustrate the problems faced by many forest users around the world. His conclusions largely supported the idea of an external authority to impose conditional institutions on this kind of settings. One important aspect related to open-access resources is the lack of rights definitions, whether they are property rights, access and/or use rights. Most of the theory on self-governance rests on the capability of users to self-organize in order to govern common-pool resources within a context of lack of defined rights and/or ill-defined institutions. This feeds the debate between private and government ownership with some scholars in favor of private property rights as the most efficient form of ownership (Simmons et al., 1996) and others supporting government ownership and control (Ostrom and Hess, 2007). However, scholars from multiple disciplines found a diversity of mechanism that were locally developed to govern common-pool resources, replacing the conventional notion of private or government ownership to solve the tragedy of open-access natural resources (Ostrom, 2010).

In several Latin American countries, in addition to granting property rights, decentralization was one of the most relevant strategies applied to encourage more active citizen involvement for better management of common-pool natural resources (Ribot et al., 2008; Rondinelly, 2006). In some countries decentralization concurred with new regulations related to land and forest resources. For us, this is the new level of complexity related to self-governance of common-pool resources that the contemporary theoretical discussion has not considered profoundly. To what extent does the introduction of ownership solve the dilemmas derived from the use of open-access common-pool resources in the past? What are the new factors that encourage people to self-organize to govern common-pool resources properly under new legal status of land tenure and forest reforms? What kind of local institutions are suitable to self-governance within the circumstances cited above? What are the priorities and principles to achieve collective agreements relate to forest resources?

The analysis of formal and informal institutions, as well as the new paradigm that emerges from the interplay between them and the new legal rights over land and forest in the process of new institutional formation, help to answer the questions posed above. Thus, a new assumption for self-governance derives precisely from the property right's perspective that we call "diverging regulatory responses" to changing legal and customary circumstances. Diverging regulatory responses refer to ways in which actors devise rules and institutions to govern forest resources (Mitchell, 2006; Andersson and Ostrom, 2008; Pacheco, 2010). We incorporate two more factors into the list proposed by Ostrom (1999a) as attributes of the resource and of the users in an open-access condition: The consequences of the new bundle of rights bestowed onto populations until recently without any rights or with highly

constrained rights, and dualities of legal reforms. The interplay of these factors materializes precisely in the definition of local institutions, which is one of the main topics discussed in chapter 4 of the present thesis.

### 1.2.3. Institutions and local rules

Northern Bolivia is characterized by a strong interaction and interdependence between urban and rural spheres. It is, therefore, relevant to discuss formal and informal institutions. Rules are the common practical expressions of institutions (Ostrom, 1990). Several factors influence the appropriateness of the institutions and the feasibility of the rules that make them functional. Important factors that shape institutions are local culture and traditions. Any empirical procedure, traditional activity or unwritten rule which facilitates social interaction, derives from longstanding cultural traditions, which commonly have more value and social weight than any other exogenous instrument to rule social behavior (Lauth, 2000; Leroy and Arts, 2006; Pacheco et al., 2009). Each factor cited above shapes institutions in different ways, and at the same time belongs to the dimension of informality.

Although we could not find a single definition of institutions, all the literature reviewed coincide in three aspects, *institutions are rules and procedures to restrain or regulate social behavior and can be formal or informal* (Helmke and Levitsky, 2004; Poteete and Ostrom, 2004; Casson et al., 2009). Different schools of thought focus on the actor-structure duality on one hand, and substance-organization duality on the other (Leroy and Arts, 2006). According to these authors, even within the recent shift to institutionalism in the natural resource governance literature, both dualities are reflected, with some authors supporting the common knowledge and beliefs as the basis of institutions (Brousseau et al., 2011), while others stress the regulatory role of institutions (Hay and Wincott, 1998).

According to the older political science tradition, formal institutions are closely related to the state (Boussard, 2000; Tsai, 2002), and therefore understood as controlling, organized instruments of the state, and formal norms and principles of the political process (Friedrich, 1953; cited in Lauth, 2000). Accordingly, formal institutions are openly codified; regulations have the status of constitutional clauses and laws, and are guaranteed and sanctioned by state agencies (Lauth, 2000). Formal institutions derive their status through binding decisions, generally guaranteed by the legally constituted state monopoly on power.

Informal institutions are often the outcome of particular social contexts, which implies a large number of factors that possibly can shape informal institutions. Helmke and Levitsky (2004) argue that the term informal institution has been applied to a number of different phenomena, as for instance, personal networks,

clientelism, corruption, clans and mafias, civil society, traditional culture and a variety of legislative, judicial and bureaucratic norms (Wang, 2000; Lauth, 2000; Darden, 2002; Collins, 2003; Boussard, 2000; Pejovich, 1999).

A comprehensive definition of informal institution is “*socially shared rules, usually unwritten, that are created, communicated, and enforced outside of officially sanctioned channels*” (Helmke and Levitsky, 2004, p. 727). This definition is, to some extent, consistent with other perspectives developed by O’Donnell (1996), Lauth (2000), Brinks (2003), and Casson et al. (2009). Pacheco et al. (2009, p. 7) refer to them as “*informal rules out of the reach of formal judicial frames in any level of decision-making and elaborated outside of official spheres*”. Based on both definitions, two aspects call attention: the seemingly isolation that features the design and enforcement of informal rules, and the constrained influence of the judicial frames. Perhaps truly informal institutions can develop among communities in very remote areas with little presence of formal government, and with the only option of self-governance. However, most rural areas nowadays have contact with mainstream society through markets and trade and they are therefore influenced by official agencies and regulatory and judicial frames.

When a local decision related to land or forest use complies with formal rules, can this be considered an informal institution? If that is the case, what factors influence the duration of the decision? What are the main factors and interest of the people to agree on a matter and thus create an informal institution? If a local decision on a new local rule does not comply with formal rules, what principles validate the hence created informal institution? If informal rules compromise the interests of the social organization, because of its incompatibility with formal rules, what factors encourage people to support an informal institution? These questions are addressed in the next section.

### **1.2.3.1. Types of informal institutions**

According to Lauth (2000) and, Helmke and Levitsky (2004) under democracy, formal and informal institutions can vary and relate to each other in different ways. Helmke and Levitsky (2004) developed a typology as indicated in table 1.1.



**Table 1.1.** A typology of informal institutions

<b>Outcomes</b>	<b>Effective formal institutions</b>	<b>Ineffective formal institutions</b>
<b>Convergent</b>	Complementary informal institutions	Substitutive informal institutions
<b>Divergent</b>	Accommodating informal institutions	Competing informal institutions

Source: Based on Helmke and Levitsky (2004)

In the case of “*complementary informal institutions*”, both effective formal and informal institutions coexist, and actors expect that the written rules will be enforced. The informal institutions provide substance for formal institutions, enabling or strengthening them, and encouraging people to comply with formal rules, or they fill the gaps that formal institutions do not cover.

The *accommodating informal institutions*, on the other hand, alter the substantive effect of formal rules, but without directly violating or contradicting them. This type of informal institutions is often created by actors who dislike or largely disagree with formal rules, but are unable to change them. Accommodating informal institutions may accommodate circumstances of social demands for change of formal institutions, helping to reconcile opposing interests.

*Competing informal institutions*, coexist with ineffective formal institutions that are inadequately enforced. The informal institutions provide opportunity to ignore or simply violate formal institutions. The combination of ineffective formal rules and divergent outcomes result in competing informal institutions, which become incompatible with formal rules; to follow one rule, actors must violate another. This category includes informal institutions related to clientelism, patrimonialism, clan politics, and corruption.

Finally *substitutive informal institutions* combine ineffective formal institutions and compatible outcomes. This type of informal institutions is employed by actors who seek to equate with formal rules and procedures. The lack of routinely enforced formal rules is characteristic in case of these institutions, and aid to achieve what formal institutions were designed, but fail to achieve. The emergence of this type of institutions, however, is related to circumstances where state structures are weak or lack authority.

Helmke and Levitsky (2004) asserted that despite the conventional believe that informal institutions tend to subvert formal rules and procedures, available evidence suggests otherwise. Informal institutions can help people to achieve results in social interactions in which formal rules become inefficient, for instance the shared beliefs among U.S. citizens that explain the effectiveness of the U.S.

Constitution (North et al., 2000). In Chile, economic and political elites created informal mechanism to counteract the excessively strong presidential system, which inhibited a broad multiparty coalition (Siavelis, 2002). The corruption in postwar Italy was embedded in alternative norms through which the violation of the law was accompanied by impunity, while those who remain under the law faced certain punishment (Della Porta and Vannucci, 1999). Poteete and Ostrom (2004) argue that in the case of forest management, informal institutions may, for instance, limit the effect of population pressure or generate trust, social interactions and collective action.

The review above does not mention social contexts in which several types of informal institutions coexist, which is usually the case in indigenous and peasant communities in several countries of Latin America. In countries where currently governance process entail smooth and/or dramatic top-down social, political, and economic changes, like Bolivia, Nicaragua and Ecuador, the consequences are perceived in the form of different reactions among actors from national to local level, in order to rearrange those changes in the sphere of natural resources access and use. To address this topic we turn to the theory of local rules, which changes the order of the relationship between rules, collective action and the theoretical basis of informal rules.

#### **1.2.3.2. Local rules**

One important assumption observed in most of the research related to institutions is the misunderstanding, confusion and/or the ill-superimposition of rules and institutions. Institutions, understood as a fundamental agreement, can or cannot crystallize in a set of feasible and enforceable rules and this depends on how the needs and expectations that are the basis for the agreement are materialized.

According to Ostrom (1990) prior to the design of rules and its subsequent enforcement, a shared collective agreement must exist that represents the foundation, justification and the essence of rules. Ostrom (1999a) distinguished between norms and rules: Norms are the shared prescriptions that are enforced through incentives or costs in the case of non-compliance, whereas rules refer to the shared prescriptions or mutual understandings among people that are enforced through agents in charge of monitoring and imposing sanctions. Therefore, institutions encompass norms, rules and regulations utilized between and within organizations, but also organizations themselves (Ostrom et al., 2001).

Following this line of reasoning, it is possible to relate norms with the moral behavior in a group, which is largely a matter of a person's private sphere. Rules, on the other hand, relate more to the collective sphere (Crawford and Ostrom, 1999), and they are enforced by endowing members of the group with powers.

Ostrom (1997) distinguish three types of rules: 1) operative rules that relate individual behavior, 2) rules related to collective decision-making that determine how rules are defined and, 3) constitutional rules, which define who is allowed to participate in the political system, what kind of powers and authority they exercise, and how rules for decision-making are created (Ostrom et al., 2001; Ostrom, 1999a).

Several academics have focused on operative rules linked to community forest governance like land tenure and forest resources access and use (Ostrom, 1990, 1999a, 1999b; Pacheco et al., 2009; Larson, 2010; de Jong, 2010). For instance, Ostrom (1999a) argues that these kinds of rules are the basis for people to explain their actions regarding forest resources use. As part of the recent worldwide devolution of forests to local communities (White and Martin, 2002; Agrawal et al., 2008; Sunderlin et al., 2008; Larson et al., 2010), formal and informal institutional contexts merge and become the foundations for the new generation of local and communal rules. This new generation of communal rules, also called rules of use, can be rooted both in formal and informal contexts (Thomson and Freudenberger, 1997; Pacheco et al., 2009).

For the present thesis, the analysis of rules focuses on land allocation and forest management among peasant and indigenous people, as part of the new rights bestowed on communities. Indeed, the recognition of rights to land and forest entail new institutional definitions and the design and enforcement of new rules (Fitzpatrick, 2005; Larson, 2010), which have to fit with new social, political, legal and economic conditions triggered by this new bundle of rights. The evolution of rules is relevant since forests began to be considered as a key resource for rural people's livelihood security or improvement (Ostrom, 1990, 1999abc, 2003, 2010; Agrawal, 2001, 2007; Agrawal and Ostrom, 2001). Most of the research related to rules is in contexts in which tenure and property rights to land and forests are in a process of consolidation. In countries where forest devolution has been completed, researchers juxtapose local rules with formal rules, and with the role of the state in the rule formulation and enforcement (Ouedraogo, 2003; Sekhar, 2000; Ribot, 2003; Larson, 2002; Ribot et al., 2006; Pacheco, 2004).

Our intention in the present research is to take a new view of the tensions between formal and informal rules by analyzing the informal rules that emerge among people who were targeted by new formal rules but who also had received new rights that they did not have before. We hypothesize that legal and illegal activities deployed by rural people to achieve benefits from forest resources are more related to the empowering and exercising of individual and collective rights, rather than a matter of complying with formal regulations or central state governance. The development of informal rules (local written and unwritten rules) to fit national policies goals and to comply with the traditional perspective of state

governance of forests, are the outcomes of the earlier strategy. We hope to provide new insights to add to the discussion of economic-institutional approaches to formal and informal institutions (High et al., 2005) and rules.

Finally, another relevant topic addressed in our research is closely linked to the collective action related to community forest management and forest governance. Most of the research on collective action has focused on economic incentives, heterogeneity of social systems, identity and power, and institutions and norms as catalyst of cooperation (Ostrom, 1999b, 2000, 2003; Fudemma et al., Poteete and Ostrom, 2004; Simpson and Macy, 2004). However, few other scholars adopted the perspective of property rights theory to explain the emergence of collective action (Ford, 1986; Agrawal and Ostrom, 2001; Ostrom, 2003), which allows considering collective action as the mechanism to secure access and benefits from forest resources use, but through the definition and the exercise of rights to those resources.

### **1.3. A theoretical basis for debt-peonage**

#### **1.3.1. Introduction**

This section elaborates the theoretical background of chapter 5 of the present thesis. It describes debt-peonage, an ancient mechanism derived from slavery, as part of labor agreements along the history of many countries, as well as the type of local or national social, political and economic factors that facilitate its continuation until today. Equally it answers why people who used to be subjected by this mechanism after several important social changes still rely on it to assure their means of production, and in many cases their subsistence. The following theoretical analysis focuses on debt-bondage, debt-peonage, or *habilito*, the Spanish term used to identify such practices in Western Amazonia. Debt-peonage is a mechanism that establishes a dominance of owners of productive factors over laborers. This section analyses the practices and the social and economic elements that have facilitated its adaptation to different contemporary social contexts.

To understand what debt-peonage is, it is essential to understand what slavery was and still is. Several scholars have manifested a deep concern with the persistence of slavery nowadays (Easley, 2009; Androff, 2010). Despite many international treaties which condemn and ban slavery, there is still a lack of consensus as to what constitutes slavery or its variants, as well as the circumstances which conduce to slavery (Androff, 2010). There is widespread consensus that slavery is rooted in poverty and lack of economic opportunities and, although slavery is illegal worldwide it is still present in many countries supported by ignorance, organized crime, official corruption and indifference (Easley, 2009).

The lack of government commitments to halt slavery and its variants in many countries has allowed its evolution into various variants, including debt-peonage. Debt-peonage has been subject to scrutiny by scholars to understand and reveal its origin and evolution. Indeed, there is a discussion among scholars about how debt-peonage must be understood conceptually and socially (Stackley, 1999; Barham and Coomes, 1994ab; Washbrook, 2006). It is amply recognized that this mechanism is closely linked to particular economic and labor circumstances in which debtors and creditors seek to benefit from each other.

### **1.3.2. Debt-peonage as an outcome of slavery evolution**

Academics assert that along human history slavery appears among ancient civilizations as a common feature of power, dominant social relationships, spoils of conquest, and the expansion of empires (de Ste. Croix, 1988). According to Bales (2000), Skinner (2008) and Welch (2009) slavery continues until today, but takes different forms. Our understanding of modern forms of slavery tends to abide by orthodox theory of slavery, setting aside meanings which can explain better the continuation of slavery until today. Nevertheless, it is important to first define slavery and review the evolution of the concept, before reviewing the definitions of debt-peonage itself.

Bales (2000) argued that there is no single definition of slavery, despite the large number of related laws and agreements written since 1815. To find an adequate definition represents one important difficulty to international actors in the struggle against slavery (Welch, 2009). As a result the definition of slavery until now includes a mix of terms and references, including chattel slavery (i.e people are somebody's property and can be bought and sold), debt-peonage and other forms of un-free labor. For Bales (2000, p. 462) slavery is "*the complete control of a person for economic exploitation by violence or the threat of violence*". The first international definition of slavery was formulated in the 1926 International Convention on Slavery (ICV) in which slavery is considered as "*the status or condition of a person over whom any or all of the powers attaching to the right of ownership are exercised*" (ICV, p. 174). The convention also called for the abolition of slavery and recognized additional practices related to slavery as for instance: serfdom, practices restrictive of the liberty of the person or tending to acquire control of the person, and the system of compulsory labor, public or private, paid or unpaid.

The ICV underwent several changes and improvements since its enactment (Bales and Robbins, 2001; Welch, 2009), due to the number of different practices and conditions linked or derived from slavery that were not considered in the first definition. In subsequent decades, the United Nations, based on the recommendations of an Ad Hoc Committee of Experts, broadened the definition in

order to cover all slave-like practices that derived from former modes of slavery. However, one obvious problem for all the anti-slavery movements is the lack of an international enforcement mechanism (Welch, 2009; Chepesiuk, 1992). Thus, the 1948 Universal Declaration of Human Rights (UDHR), states: “*No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms*” (Welch, 2009, p. 92).

The 1956 Supplementary Convention on Slavery (SCS) added four practices of servile status to the 1926 definition of slavery: 1) debt bondage, 2) serfdom, 3) certain marriage practices, and 4) exploitation of children. For the present thesis, the definitions of debt-bondage and serfdom are the most relevant for the evolution of the slave-like practices in the Amazon, and debt-peonage or *habilito* in the northern Bolivian Amazon. Similar practices were also recorded elsewhere, for instance the Peruvian *mita*, and New Spain’s *repartimiento de indios, coatequitl*, and *prison labor* (Knight, 1988).

According to the SCS, debt bondage “*is the status or condition arising from a pledge by a debtor of his personal services or those of a person under his control as security for a debt, in the value of those services as reasonably assessed is not applied towards the liquidation of the debt or the length and nature of those services are not respectively limited and defined*” and serfdom as “*the condition or status of a tenant who is by law, custom or agreement bound to live and labor on land belonging to another person and to render some determinate service to such other person, whether for reward or not, and is not free to change his status*” (Welch, 2009, p. 99). For several academics the focus on the debt and the open-ended nature of debtors’ obligation in debt bondage practices is of particular importance (Knight, 1988; Welch, 2009), as the debt is the main mechanism to control all of the factors involved in the debt-peonage practice. Some academics have deepened the definition of debt bondage based on its characteristics in different regions where it was, or still is applied. Knight (1988), defined debt-peonage based on the Mexican experience, but extrapolated this definition to the whole of Latin America. In a first type of debt-peonage, peons were temporary wage laborers. The debts were advances intended to attract workers to commercial plantations, and to pay transportation and the temporary subsistence expenses until the first wage payment. In this type of debt-peonage the debt was accepted voluntarily, very similar to a free wage labor arrangement.

In a second type of debt-peonage, debts were also more an inducement than a bond, and were included in customary labor contracts. This type assured relatively secure standards of living for farm laborers within a landlord’s property (i.e. haciendas in Mexico). Working under a debt-peonage agreement on haciendas represented a good alternative for local workers to achieve economic solutions

difficult to find elsewhere, or when they lost their own land to haciendas. The debt agreement was also voluntary, as under the first type.

Knight (1988) defined the third type of debt-peonage as servile and coercive, and as a response to labor needs to address increased international demands for agricultural commodities in the late nineteenth century. Landlords used oppression and paternalistic behavior, more severe than in many cases of chattel slavery. Knight includes in this type the debt-peonage of the Peruvian Amazon during the rubber boom since the 1880s, and the Guatemala coffee plantations. Martinez-Alier (1977), furthermore, argued that in Mexico debt-peonage was used to burden hacienda laborers with debts beyond repayment capacity to tie them to agricultural estates. Washbrook (2006) found similar examples in other regions of Mexico where authorities helped to enforce the compliance of debt-peonage. This type clearly had the intention to tie workers, through coercion and legal enforcement to landowners and their estates.

Another way to define debt-peonage is by highlighting the factors that help to maintain the indebtedness such that the landlord can capture maximum benefits. Servet (2004) for instance, includes in the definition the transfer of the benefit of the credit to the person who substituted the debtor. In such an arrangement, the substitute becomes an employee, but receives only a small fraction of the legally required pay. He or she is, at the same time, deprived of the liberty to choose a different employer and is compelled to work for the creditor or to the one designated by him.

The various definitions of debt-peonage imply power of the creditor or landowner over the debtor. This exercise of power is influenced by cultural and social conditions of the specific place where landowner and workers engage with each other. The same social relationships, however, are also influenced by market conditions, demand and opportunity costs, and available labor pool. The variability of these factors also causes a related variability of debt-peonage.

One additional factor that influences the characteristic of debt-peonage, overlooked by most commentators on the issue, is property rights over land and valuable natural resources. In former times, landlords had the *de facto* tenure over land and natural resources and in most regions where debt bondage or other forms of un-free labor existed, even national policies supported such practices (Martinez-Alier, 1977; Knight, 1988; Washbrook, 2006). The reallocation of property rights in many Amazonian countries, including in Bolivia, accounts for the evolution of debt-peonage in the northern Bolivian Amazon.

### 1.3.3. The debtor-creditor relationship within debt-peonage practices

The history of working people is marked by exploitation and oppression (Bauer, 1979). With industrialization, and the expansion of markets, labor demand increased, resulting in the appearance of new forms of exploitation (Struna, 2009). From a Marxist point of view, labor exploitation is linked to unequal social relationships, which allows a dominant class to extract profits from those who only dispose of their own labor to engage in the productive process (Marx, 1847). Parsons (1949), however, argues that within a society, relations of superiority and inferiority are unavoidable to assure stability. Therefore, the equation dominating/dominated or superior/inferior might reach different configurations according to the benefits that social actors claim for themselves and how much they can impose their will over others. We highlight the history of debt-peonage on haciendas in Mexico, and elsewhere in Latin America to understand how these equations have shaped debt-peonage. For centuries, the owners of haciendas attempted to exploit the indigenous population that resided on lands before they were incorporated into these estates (Martinez-Alier, 1977).

Most researchers on the issue, view debt-peonage as a relationship between landowner and workers that provides mutual benefits, but is more advantageous for some at the expense of others (Barham and Coomes, 1994a; Meyers and Carlson, 2002). Both social actors who engage in debt bondage consolidate their dependence to meet their needs in the short and medium term. When that happens, the perceptions of dominating/dominated or superior/inferior, cited above, are crucial over the definition of rights and obligations between both social actors. It is precisely the institutionalization of one actor's superiority which characterizes the nature of the relationship between actors linked through debt-peonage. For instance, Dore (2003, 2006) recorded a pattern in Nicaragua where the privatization of land aimed to bring together indigenous people into debt-peonage, which prevented economic modernization by binding coffee workers to the land as serfs. Even in the modern U.S, indebtedness through commodity advances and supplying illicit substances (drugs) are intended to bind workers into productive establishments (Bletzer, 2004).

In most of the reported cases, the relationship debtor-creditor was highly oppressive. The rules of the game were completely controlled by the landlord. This type of debt-peonage, therefore, resembled slavery, as the indebted workers in practice were a sort of property of the creditor. The debt had a dual function. It allowed the landlord to hold on to laborers. But also, it allowed the landlord to force laborers to acquire basic livelihood goods from him only at inflated prices. The goods were usually given as advance payments and this intended to keep laborers indefinitely indebted. In this kind of debt-peonage, the voluntary



character of the debt, cited by Knight (1988), was actually an instrument to control the laborers as much as possible.

Other academics emphasize the origin of debt-peonage as a response to labor shortage (Bauer, 1979), while suggesting that the exploitative nature of debt bondage is unrelated. Meyers and Carlson (2002) observed in Yucatan, Mexico, that even though landlords exercised enormous control over indebted local community members, they continuously had to negotiate the terms of engagement with workers. McDonald and McWhiney (1980) found that in the south of North America, people were encouraged by merchants to accept debts to protect their productive self-sufficiency, but without any coercion. It appears that in this type of debt-peonage the debtor-creditor relationship was based on more reciprocal links between landlords and laborers. This does not weaken the role of the landlord as the main authority, but rather, this can be viewed as a legitimization of debt-peonage practice among laborers.

We argue that the type of social relationships between debtor-creditor in the practice of debt-peonage play a key role for its evolution. The practice is influenced by factors that change drastically when the former social structures of dominating/dominated also changed. For that reason, the second type of debt-peonage described above is the focus of the following sections.

#### **1.3.4. Strategies to benefit from debt-peonage**

Where ever it occurred, debt-peonage constituted part of a production model, integrating the conditions of subjugation imposed by a powerful group in response to a workforce's needs and the opportunities of alternative employment. The acceptance of debt-peonage was motivated by the comparative advantages in terms of the worker's welfare (Martinez-Alier, 1977; Bauer 1979; Knight, 1988), influenced by the type of relation between laborer and patron.

For instance, in Central America, peasant resistance to wage labor was the answer to their preference for debt-peonage, which offered better living conditions, social wellbeing and economic opportunities (Knight, 1986; Knowlton, 1962). Knight (1986) argued that the resident workers in haciendas in Mexico and Andean regions often represented a privileged stratum protected from the vicissitudes of the labor market, therefore remaining better off than the day laborers. The threat of being thrown out of the hacienda often was enough to discipline laborers. Indebted workers for that reason commonly opposed the abolishment of debt-peonage. Martinez-Alier (1977), asserted that wage-labor had not been introduced to avoid turmoil among people who would be displaced from Mexican haciendas, which in addition would put excessive pressure on the neighbor communities. Bauer (1971) reported that laborers in Chile were free to leave the haciendas, had

they so wished. Even in some specific cases, Martinez-Alier (1997) argued that landlords' income losses from land occupied by laborers would have assured a constant labor supply for the establishment. While this would have been a sufficient argument to shift the economic system from debt-peonage to wage labor, share-cropping or cash tenant arrangements, landlords feared the reactions of laborers, mostly local Indians.

In other circumstances debt-peonage was a form to promote agricultural productivity, as in the case of Postbellum Georgia. Fishback (1989) argued that merchants forced tenants and small farmers to grow cotton to obtain credits. While others hold different view on the matter (Ransom and Sutch, 1972; Reid, 1973) a common view is that tenants and farmers could choose between self-sufficiency and debt-peonage, and when the latter choice was made, this was a rational economic decision.

During the rubber boom in the Amazon basin, people accepted debt-peonage to retain individual work autonomy (Weinstein, 1986; Barham and Coomes, 1994). During the *barraca* or Brazil nut estate period in northern Bolivia, debt-peonage was seen as a necessary condition to initiate productive work in the field (see Chapter 2; Bojanic, 2001), as well as an easy way to obtain credit and reduce transaction costs of extracting and transporting the harvested product (Barzel, 1989; Barham and Coomes, 1994b; Stoian, 2006). Likewise in some regions of South-central Asia, debt-peonage assured demand for labor for the production for highly seasonal markets, where engaging salaried workers was not a profitable alternative (Khan, 2010).

A relevant question that needs to be answered is: To what extent were the above examples really cases of debt-peonage? Varese (2002) argued that when landowners wield effective control themselves or through local political leaders, a debt is not needed to bind workers. But when such power does not exist, a so called debt may also be viewed as credit; that is, as advances of cash or goods against the promise of future work. Varese argues that an effective debt-peonage system needs a landlord with the ability to restrict workers' mobility, which is not the case when the advanced payments take place under more reciprocal relationships.

The empirical evidence on diverging cases of debt reviewed so far supports the interpretation of the circumstances that led to debt-peonage, in which the changes of the social balance between the dominating and dominated and the redistribution or reallocation of advantages and disadvantages between the two were fundamental. For landlords, debt-peonage could mean more income by taking advantage of the limited opportunities of laborers. Laborers acceptance of debt-peonage was the best choice to secure subsistence and income.

The analysis above explains the evolution of the debt-peonage from an arrangement that could emerge under conditions of oppression and coercive extraction of labor based on superiority/inferiority of social classes, to an economic relationship where two parties negotiated the exchange of labor for remuneration, which is a weak point among the existing literature on this topic. For instance, there is no clear explanation of why indebted laborers who have achieved new advantages like land property rights or exclusive rights to use natural resources to which they were tied in the past through debt-peonage, accept more or less similar arrangements to continue working and getting benefits from the same economic activity. Some factors which might be considered as drivers of change in the traditional order of debt-peonage, are not enough studied within the recent literature.

### **1.3.5. Debt-peonage in Amazonia**

An analysis of debt-peonage in the northern Bolivian Amazon illustrates the different perspectives on this practice since its emergence. These perspectives include debt-peonage as a mechanism of enslavement (Bauer, 1979; Weinstein, 1986), but also recent views of debt-peonage as a means to improve productive relationship and productiveness, and increase respectability and monetary income from trading relationships based on temporary credit (Aramburu, 1994; Stoian, 2000; Bojanic, 2001; Killick, 2011).

Debt-peonage in the Amazon became common during the rubber era. Researchers found striking differences in its application on the same activity but in different countries, as for instance the brutal debt-peonage conditions in the Peruvian Amazon (Fifer, 1979; Barham and Coomes, 1994c; Killick, 2011), but the relaxed relationships found in some parts of Brazil and Bolivia (Aramburu, 1994; Assies, 1999, 2002; McGrath, 1999). These are all neighboring areas, and were considered as economically depressed regions at the time. To try to understand these differences it is relevant to analyze the social relationships between groups linked by debt-peonage, and their strategies to capture benefits, which also help to explain the evolution of the practice until now.

Weinstein (1993) argued that debt-peonage persisted due to an alliance between rubber tappers and traders based on mutual self-interest. The distribution of material resources, enormous distances to be overcome, the mentality of the rural population, and the initial scarcity of capital brought about the emergence of an economic system in which production largely remained under control of the direct producer and surplus extraction occurred at the level of exchange. Barham and Coomes (1994b, 1996) adopted an institutional economic perspective to explain debt-peonage in the Amazon. They called it debt-merchandise contract and argued that it was relatively efficient in terms of transaction cost and risk reduction. Wage

labor would be inefficient due to the high transactions cost in monitoring a highly scattered workforce.

Stoian (2000) asserts that in the early rubber era, rubber tappers received fixed monthly wages, and that therefore, they should be considered proletarians in a context of primitive capitalism. Henkemans (2001), based on her studies of some *barracas* in northern Bolivian, argued that the inhabitants who decided to stay in the region after the collapse of rubber boom, develop new ties of mutual support and social security with landlords who had become the regional merchants. Stoian (2000) also argues that the survival of debt-peonage until recently is due to their productive and economic functional significance for people involved and still keeps the system alive.

In Peru and Brazil in some rubber areas, patrons had to seek the loyalty and dependability of the indigenous population to maintain lasting relationship (Barham and Coomes, 1994c; Killick, 2011). This complex social reality means that simple analyses of exploitative relationships are inadequate. Thus, while in the older understanding of debt-peonage, the carrying over of a debt from one year to the next would be understood as a sign of a worker's servitude, in some parts of the contemporary Amazon, it can be seen as forcing a patron to return the following year. Some authors even argue that social relations linked by debt-peonage are chosen by those below (laborers), rather than enforced from above (landlords), and are therefore in essence free (Barham and Coomes, 1996; Stoian, 2000).

In the northern Bolivian Amazon, debt-peonage evolved particularly among social actors linked to the productive sectors of rubber, Brazil nut and timber, modifying the levels of dependency between them (Pacheco 1992). In this region, and in much of the western Amazon, the term *habilito* is used to indicate debt-peonage practices. Before the second agrarian reform in 1996, debt-peonage allowed attracting laborers and to ensure the permanence of workers in the *barracas* under conditions controlled exclusively by the employer. According to Assies (2002) rubber tappers in the northern Bolivian Amazon can be viewed as simple commodity producers, subjected to the extraction of surplus value through monopolistic domination by a patron. In the northern Bolivian Amazon rubber was entirely exchanged for subsistence goods. For Bojanic (2001), the local term *habilito*, has a double meaning. In the first place it is an economic transaction because the Brazil nut collector receives an advance payment that he has to repay with the product collected. The second meaning implies enabling the collector to complete a task, because through *habilito* he is provided with foodstuffs and/or other basic goods.

The use of debt-peonage in northern Bolivia after the second agrarian reform raises some fundamental questions regarding the role of this practice as an economic mechanism, an issue that is addressed in chapter 5, using findings of our field research. Its evolution until today suggests new processes of negotiations between actors linked by a new variant of debt-peonage. That negotiation includes the assignment and reassignment of rights between actors through which new relations of power and property conditions are established, that define limits of action, benefits and responsibilities. The last is a direct consequence of the new local social order derived from the land and forest reforms implemented in the region. The negotiations reflect interactions dictated by advantages and disadvantages of actors linked through debt-peonage, in which the levels of dependence are analyzed from the perspective of economic rational choice, instead of labor exploitation. Nowadays in northern Bolivia debt-peonage reflects free choices to accept debts with the objective to obtain optimal terms for both creditors and indebted, based on recently modified land and forest resource ownership rights, more as relationships of trade, than a relationship of labor exchange.

#### **1.4. Natural resource-based conflicts: the social, economic and institutional approach**

##### **1.4.1. Introduction**

This section elaborates the theoretical background of chapter 6 of the present thesis, which analyses intra-communal conflicts that have emerged in the wake of the forest sector and land reforms in the region. Dahrendorf (1958) propelled a new vision to understand conflicts by viewing how they contribute to the integration of the so-called social systems. Based on the work of other prominent scientists, Dahrendorf shifted a previously held common concern of what holds societies together to a focus on what drives them on to a common goal (Dahrendorf, 1958, p. 170). Since then, conflicts are being considered no less complex and relevant than the integration of societies. Indeed, Dahrendorf asserts that the attempt to reduce all conflicts among social groups to a common principle of social relationships is sterile. This can lead to empty generalizations or oversimplifications if we only assume that every society experiences social conflicts, or that the history of all societies so far was featured by class struggles (Dahrendorf, 1958).

For instance, analyses of conflicts between workers and employers may prove that they are the result of certain structural arrangements and hence bound to arise wherever such structural arrangements are given. Thus, a sociological analysis of conflict will show how they are derived from social structures rather than the positions or interests of actors. A structural origin of conflict as point of departure

suggests questions like: How do conflicting groups arise from the structure of society; what forms can struggles among such groups assume; how does the conflict among such groups affect other social structures (Dahrendorf, 1958, p. 176)?

When actors share interests, for instance, in natural resources, a logic assumption would be that the complexity of possible social conflicts might be less. Buckles and Rusnak (1999) emphasize that conflicts over land, water, and forests are ubiquitous, as people everywhere depend on them for their livelihoods and thus compete for them. The same authors conclude that natural resource conflicts may have class dimensions provoking counterproductive acts, but that may also help resource use to be more productive.

Buckles and Rusnak (1999) proposed four principles to explain conflicts over natural resources: (1) the embeddedness of natural resources in an environment of interconnected spaces where the action of one individual or group may generate off-site effects; (2) the embeddedness of natural resources in spaces of social sharing, with complex and unequal relations among a wide range of actors; (3) the scarcity of natural resources due to rapid environmental changes, increasing demand, and unequal distribution (Hommer-Dixon and Blitt, 1998) and (4) the cultural, symbolic and traditional characteristics of people who compete over land, forests, and waterways.

The following sections outline a conflict perspective based on: the evolution of the conflict concept from a destructive event to a positive social event, the causes of conflicts, conflict management, and the most common consequences of conflicts related to natural resources, for the resources and the people who depend on them. Finally, we describe a brief perspective of property rights linked to the common dilemma theory, which allows explaining the influence of the new bundle of rights bestowed on community members to address the use of valuable forest resources and its key role in conflict formation. Chapter 6 reflects the latter through empirical findings that provide new insights to understand conflicts and the process of conflicts formation, through a new sequence of events influenced by changes in property rights, forms of local governance and economic and social relationships.

#### **1.4.2. From the destructive to the positive conception of conflict**

Academics have suggested a continuum from negative to positive outcomes of conflicts for the people and natural resources. On the negative side of the continuum, conflicts are seen as a detrimental stage of social interaction when there is no mutual agreement and parties view each other as adversaries, assuming hardened stands to reach their goals (Castro and Nielson, 2001; Kriesberg, 1998;

Bailey, 1997). This view of conflict as a negative social interaction is influenced and largely supported by the functionalist school of thought that sees conflict as a threat to the status quo and existing stable conditions (Hirschman, 1994; Bailey, 1997; Kriesberg, 1998).

Alternative views of conflicts see them as a transformative and sometimes necessary component of positive changes related to natural resources governance. For instance, Bailey (1997) sees conflict as functional, as it combats lethargy and obsolescence, and spurs needed change and growth. Both conflict and integration coexist in a single system and their interrelationship is complex, and sometimes very difficult to analyze. Nevertheless, Bailey shows that integration and conflict are complementary and need each other. Doornbos et al. (2000) made additions to the latest proposition arguing that conflict has also positive transformative power that can trigger learning and improvement in terms of resource governance. Similarly, Yasmi (2007) based on research on natural resource management in Indonesia, argued that conflict stimulates stakeholders to find better options for resource management. In that sense, conflict has both negative and positive potentials. The biggest challenge is how constructive aspects of conflicts are fostered and how destructive ones are prevented or limited.

Thus, several scholars consider that conflicts may be beneficial to forest users and forests alike (Buckles and Rusnak, 1999; Doornbos et al., 2000; Yasmi, 2007; Sanginga et al., 2007; Gomez-Vázquez et al., 2009). Indeed, the broad range of perceptions about conflicts considers that in certain circumstances conflicts can lead to collaboration (Buckles and Rusnak, 1999), can work as positive transformative factors (Doornbos et al., 2000), mediate the construction of the institutional sphere or encourage collective action (Yasmi, 2007), operate as a functional factor of social system integration (Bailey, 1997) and as a positive driver for social change in several context of social and institutional confrontation (Gomez-Vázquez et al., 2009).

Another conflict conceptualization emerges from the actors themselves. The meaning of conflict adopted by the actors enables them to interpret common realities and identify the factors of common interest, while competing for natural resources. Viewing conflicts from this perspective results in a great range of views, which make conflicts a complex phenomenon to understand and to manage. Among the meanings cited above are for instance: the notion of power and conflicts (Kriesberg, 1998; Marfo and Schanz, 2009), the deeper cognitive level of conflicts (Adams et al., 2003), the different values held by groups and individuals as a source of conflict (Cocklin, 1988), the ethics to define what conflict is and the moral behavior of those involved (Turner, 2004), the notion of non-commensurability valuation related to unresolved ecological conflicts (Martinez-

Alier, 2001; Schäfer, 2000) and culture as a driving factor in producing and managing environmental conflicts (Hellström, 2001).

Based on the above description, scholars conceptualized conflicts using three distinctive categorical elements: parties in conflict, differences or incompatibilities that cause the conflict, and conflict processes. As for the first element, every social conflict can be deconstructed into the unit of actors. Dahrendorf (1958) and Bartos and Wehr (2002) refer to conflict broadly as all relations between a set of individuals that involve some degree of incompatible objectives and goals. Deutsch (1973), on the other hand, views conflicts as incompatible activities when one party is interfering, disrupting, or in some other way making another party's actions less effective.

Fisher and Ury (1981), arguing from a differences/incompatibilities point of view, hold that conflicts are generated when individuals or groups have contradictory positions, while Pruitt and Rubin (1986) argue that conflicts can be understood as a divergence of interest, or that different parties' aspirations cannot be achieved simultaneously. Enzzine et al. (2010), describe conflicts as the clash of interests in a particular process, like e.g. decision making, control of environmental services, information sharing, of at least two actors with different interests and concrete goals (Knight, 1992). The outcome will depend on the powers the actors hold to enforce their goals.

Thomas (1992) uses a process-based conflict definition, when one party perceives that another frustrates some of its concerns. Most political ecologists argue that conflicts are determined by processes that take place within specific historical contexts and involve the interplay of local and extra-local social and ecological processes (Turner, 2004). Lewicki et al. (2003) argue that there are several frames to interpret environmental conflicts. For instance, the identity frame sees conflict arising when people's identities are threatened. Glasl (1997; 1999) identified conflicts as a situation in which an actor feels that the behavior of others represents impairment because they have different perceptions, emotions and interests. The experience of an actor's behavior as impairment is the key element for conflict, thereby providing a single criterion to distinguish conflict from non-conflict situations. Cocklin (1998), from a slightly different perspective, explains conflict as being the result of alternative values being brought to bear on decisions over the use of resources that may be mutually exclusive, which often spawns conflicts. However the seriousness of conflicts lies in its collective character: Outcomes of conflicts will be increasingly complex when more people are involved.

The different conceptual views on conflict summarized above focus on different levels of resistance among actors. To address the ambiguities of the broad range of conflict definitions, we combined the differences/incompatibilities and views on



conflict to encompass conflict processes and individual and collective perceptions, described in the following sections.

### **1.4.3. Conflict in natural resource management: the sources of its occurrence**

Different views exist on reasons or drivers of natural resource conflicts. Buckles and Rusnak's (1999) provide four reasons. First, natural resources are embedded in an environment or interconnected space where actions by one individual or group may generate effects that are felt beyond the location where they take place. Second, natural resources are also embedded in a shared social space where social actors have complex and unequal relations. Third, natural resources may become scarce due to environmental changes, excessive demands, and their unequal distribution. Fourth, natural resources have different symbolic meanings, and have therefore different values for different user groups. Donovan et al. (2007) identify scarcity to be the main driver of "extreme" conflicts related to natural resources, followed by power differences which often result in dispossession of resources, and a combination of poor governance, availability of funds to finance armed groups, and a low perceived value of human life.

Summarizing these different perceptions, it is possible to distinguish three sets of drivers of natural resource conflicts: institutional and rules operationalization-related drivers, property rights-related drivers and, social cultural and traditional values-related drivers.

#### **1.4.3.1. Institutional and rules operationalization-related drivers of conflict**

Within the drivers of conflicts related to institutional and operationalization of rules are included formulation, enactment and enforcement of policies and legislation and performance of government agencies. For instance, de Jong et al. (2005) argued that in the northern Bolivian Amazon continuous conflicts characterized changes of legislation and policies affecting natural resource governance, meant to increase the control of forests by rural communities within a context of struggles between social groups with traditionally different status and power. These authors attribute the emerging conflicts to the mismatch between legislation and the reality that it is supposed to regulate.

In the same way, Puppim (2008) argued that in the Brazilian Amazon insecure property rights are among the main causes of land conflicts and deforestation, which in turn is a consequence of distorted agrarian, forest and environmental policies, laws and regulations. In addition, government agencies like The National Institute for Colonization and Agrarian Reform (INCRA) and Brazilian Institute for the Environment and Renewable Resources (IBAMA) pursued land use policies in the Amazon which confused landowners about their rights over land and timber,

causing direct and indirect conflicts related to the content and feasibility of the rules, and of their implementations.

From the institutionalism point of view, Price et al., (2007) argue that poor governance have a negative influence to encourage people to participate in public monitoring processes in order to ensuring the transparent distributions of benefits from forest concessionaires. They argue that in many countries affected by conflict timber forest law is of inadequate character and poor administration. The authors identified the limited institutional capacity, corruption and regulatory and judiciary agencies with constrained intervention as factors that triggered conflicts. Yasmi et al., (2010) found a relationship between inadequate local institutions and the weakening of collective action within the context of conflicts related tenure and land property rights in Asian countries. Sanginga et al., (2007), argue that three dimension of social capital such as collective action, the implementation of by-laws and linking with local government structures facilitated conflict management and its transformation into opportunities for collective action in Uganda.

There is much evidence pointing at the institutional sphere as a driver of the most important processes related to forest governance, including forest-related conflicts. Ostrom (1990) and McKean and Ostrom (1995) argue that conflict generation is highly affected by the ability of government agencies to administrate effectively. Many theorists of institutional economics highlight the relevance of institutions both formal and informal, for the formation, development, escalation and resolution of conflicts over natural resources (Brinks, 2003; Pejovich, 1999; Turner, 1999; Lauth, 2000; Ballabh et al., 2002; Mbereko et al., 2007; German and Keeler, 2010; see also Ostrom, 1990; Agrawal, 2001). However, the interactions between institutions and other factors leading to conflicts are as yet still not well understood. In the following we focus on the influence of institutions on factors that in turn can be linked to forest resources related conflicts.

#### **1.4.3.2. Property rights-related drivers of conflict**

This section deals with property rights as a direct driver of conflicts, but also with the links of these rights to other factors causing conflicts. Some scholars observe that insecure, ill-defined or absent property rights over land and forest may cause land conflicts (Alston, et al., 1995; Mueller et al., 1994) and deforestation (Casse et al., 2004; Binswanger, 1991). In some cases the combination of insecure property rights over land, ill defined timber property rights and social and political factors can affect the appropriate enforcement of rules (Puppim de Oliveira, 2008).

Ill-defined property rights may negatively affect the impact of community forest management initiatives. According to Skutsch (2000) in cases of communal land and forest property that are supported by the government, people may pursue

individual land use changes and lack interest to participate in community forest management initiatives, and this may become a source of conflict. In the same way Turner (2004) argues that scholars in dry land West Africa see natural resource conflicts and environmental scarcity as resulting from open competition over ill-defined or ill-governed property.

A property right is an enforceable authority to undertake particular actions in a specific domain. Property rights define actions that individuals can take in relation to other individuals regarding something (Ostrom, 2003, p. 249). However, several academics argued that property right is a term that may have several meanings and quite different economic, social, cultural and legal connotations. The latest statement is well illustrated by Bell (1998, p. 29) who asserts that “*there can hardly be a word more freighted with meaning than property*”. The complexity of the concept ‘property rights’ emphasizes a fundamental attribute, ‘access’, which enables an appropriator to derive benefits from natural resources or things in general. Based on a broad theoretical review it can be said that rights and property can or cannot have concordant and positive consequences, at the moment of defining access to resources. Indeed, property does not always assure access to resources and rights over the resources does not mean necessarily the property of them. If both rights and/or property over resources are not linked to institutions, or to the exercise of power and authority (Sikor and Lund, 2009) they do not provide a clear advantage in access to natural resources for the people who depend on them. Ribot and Peluso (2003, p. 155) define access as the ability to benefit from things. Property is a right in the sense of an enforceable claim to some use or benefit of something (MacPherson, 1978). Access refers to a broad range of social relationships that can constrain or enable people to benefit using resources without establishing property arrangements. Thus, access retains an empirical focus on matters like who does and who does not get to use what, in what ways and when (Neale, 1998, p. 48). Therefore, the analysis of access can help us to understand why some people and institutions achieve benefits using natural resources, whether or not they have rights to them. Ribot and Peluso (2003) illustrate this when they assert that some people maintain their access to resources through people and institutions that have the control of them.

Property right is one of the most ambiguous and contradictory terms of institutional and economic theories, and due to that rights and access are closely related, several academics contributed with analysis about these topics from the point of view of social interactions, institutional influence, governance and power. For instance, Agrawal and Ostrom (2001) argue that it is necessary for local users and their representative institutions to possess at least the rights to manage and make decision about resource use and exclusion to achieve affective decentralization. Decentralization reforms may result in changes in property rights

over resources that gain local users' rights and capacities to make operational rules.

In cases where formal and informal institution are conflicting, Cronkleton et al. (2007) argue that the formal recognition of customary property rights is apparently a straightforward proposition for improving the well-being of the forest-dependent poor. However, in practice, accommodating customary rights within existing legal frameworks can be a considerable challenge. In fact well-intentioned land and policy reforms can generate confusion and conflict, possibly creating conditions that undercut the local property rights institutions that support the livelihoods of the rural poor.

In processes of rights devolution to land and forest, Larson (2008) argues that communities began to exercise their new rights in a variety of ways before the laws were implemented. The exercise of those rights has in turn shaped the nature of the rights that are being won, while the rights that are won then shape the possibility of exercising rights over resources more fully. Focusing on formal bestowing and recognition of rights, Larson (2008) argues that land titling can be an important way to guarantee property rights. However, Bromley (2005) argues that titles can increase insecurity for the poorest sectors, and that titles without the full backing of the state that issued them are meaningless. Broegaard (2005) argues that perceived tenure security is more important than the possession of a title. Studies of overlapping and complex tenure systems in Africa have demonstrated that embedded social relations are altered by the issuance of a title (Alden Wily 2008; Cousins et al. 2005; Cousins and Hornby 2000).

From the perspective of power, authority and institutions, Ribot and Peluso (2003) relate property with a bundle of rights and access with a bundle of powers, highlighting the specific mechanism by which people are able to act, whether or not they have rights, in order to gain benefits from natural resources. However Bromley (1992) was concerned with authority systems because a natural resource regime is an explicit or implicit structure of rights and duties characterizing the relationship of individuals to one another with respect to that particular resource, and define property relations stating that one party has an interest that is protected by a right only when all others have a duty. Sikor and Lund (2009) suggest that considering that access is a broader concept that includes property, law or other social norms do not sanction and encompass all forms of possession. Property may be vague in settings featured by uncertain relations of authority and power. Also ambiguous authority can render property less than clear.

Finally, related to the formalization processes, Cousin et al. (2005) argue that property does not become private property by the mere entry of a name in a register. Without social consensus around these, the activities that apparently

convert property into legalized private property may reflect the state's desire to control and manage land more than they reflect people's experiences, practices and beliefs around property.

Based on the above descriptions about property right perceptions, we hypothesize that rights can be used to develop, change and enforce rules, to moderate people behavior, and have enormous influence over conflicts and other factors that are involved or are the forerunner of conflicts, a topic that is still poorly developed within conflict theory.

#### **1.4.3.3. Social, cultural and traditional values-related drivers of conflict.**

Some scholars have argued that conflicts related to management of common pool resources depend on the perception of the protagonist (Adams, et al., 2003). As perception (the way people understand their reality) we can summarize power management, individual and collective interests, moral principles, beliefs, ethics and any other specific social feature linked or emerged from culture, traditions and social relationships. Lack of agreements can be resolved with the help of impartial experts, if they have access to accurate information, but disagreements about values and beliefs are more difficult to resolve (Thompson et al., 2005). The interests that sustain a conflict are generally reflected in the needs, desires, concerns, and even fears that underlie the position parties take in a dispute (Moore, 1996; Susskind, 1999).

Other scholars argue that unlike interests, values are types of beliefs that dictate standards that guide human action in society and serve also as the basis for judgment, opinion, and behavior (Moore, 1996; Susskind and Field, 1996). Interests are about what people want (e.g. material goods), but values relate to what they care most about (e.g. human life, religious beliefs) (Forrester, 1999; Susskind, 1999). However, we include interests within values because in traditional social groups like ethnic or peasant communities, individual and collective interests are also driven by values, depending on how community members define property rights, authority, participation and power, and to what extent they considers and respects local traditions around these factors.

Based on the above description of perception, some academics found evidence to develop a different perspective about the origin of conflicts. Adams et al. (2003) suggest that the origin of conflicts go beyond material incompatibilities and interest. They arise at a deeper cognitive level. Stakeholders draw on their current knowledge and understanding about contested issues to cognitively frame a specific common pool resource management problem. For these authors, knowledge that helps stakeholders to define the problems of resource use falls into three realms: knowledge of the empirical context; knowledge of laws and

institutions; and beliefs, myths and ideas. The ideas, ideologies and beliefs that different stakeholders draw from when defining a problem, largely influences the problem perception.

In the same way Gomez-Vasquez et al. (2009) link conflicts emergence with divergent perceptions of a changing socioeconomic situation among a group of actors linked to the same set of natural resources. In these circumstances, conflict generation is affected by the ability of government agencies to administrate effectively and to help to fit the new perceptions within a regulated context. From the environment perspective, conflicts can be seen in terms of different values held by groups and individuals in relation to the environment and resource use. Almost inevitable, conflicts arise over how resources are utilized (Cocklin, 1988). There is a debate not only over the objectives of resource use, but also about the mechanism that should be invoked to ensure that the allocation of resources is consistent with the objectives of society.

An important outcome of the above theoretical analysis related to values is its importance over the configuration of new individual and collective perceptions within changing social, economic and political contexts. Although Adams et al. (2003) emphasized three dimensions of local knowledge which influence people's perception related to conflict, there is little references about how the surrounding context and the external factors that might enter the local sphere and distort the foundations that used to be the reference, can have great influence in creating new individual and collective perceptions and meanings. In the same way, there is little reference of values over the understanding of formal principles as for instance, democracy, governability, and individual and collective rights.

#### **1.4.4. Conflict escalation and management**

##### **1.4.4.1. Conflict escalation**

Conflict escalation is a process of increased and worsening tensions among actors involved in a conflict (Wall and Callister, 1995). Kriesberg (1998) refers to escalation as the increase of coercion and the number of participants within a conflict. Conflict escalation encompasses a series of dynamic processes which occur within a certain period and can be disaggregated into conflict stages (Yasmi et al., 2007). To understand escalation, several scholars have developed models of conflict intensification, and taxonomies of conflict escalation in different social contexts (Pondy, 1967; Pruitt and Rubin, 1986; Glasl, 1997; Yasmi et al., 2007). We focused on conflict escalation models developed by Glasl (1997) and Yasmi et al. (2007).

Kriesberg (1998) argues that conflict management has the goal to achieve a beneficial outcome and avoid destructive escalation. To achieve this goal, several scholars have referred to the factors involved in conflict and conflict escalation, as the main issues to be studied (Yasmi et al., 2007). Glasl (1997; 1999) developed the notion of “impairment” to analyze and explain conflict occurrence. Conflict management research, usually refers to conflicts that have reached a high escalation stage. Yasmi et al. (2007) argued that, while many studies about conflict escalation exist, the topic has been neglected in NRM related conflict research. For this reason, he proposed a conflict escalation model based on Glasl’s (1997) work, which considers eight stages presented in table 1.2.

**Table 1.2.** Comparison of two models related to stage of conflict escalation

Stage of conflict escalation (Glasl 1997)	Stage of conflict escalation (Yasmi’s et al. 2007)
Hardening	Feeling anxiety
Debates and polemics	Debate and Critique
Action not words	Lobby and persuasion
Images and coalition	Protest and campaigning
Loss of face	Access restriction
Strategies of threats	Court
Limited destructive blows	Intimidation and physical exchange
Fragmentation of the enemy	Nationalization and
Together into the abyss	internationalization

Source: Yasmi et al. (2007)

Glasl’s model emphasizes the behavioral changes of conflicting actors, when the process of conflict management does not result in the reduction of conflict intensity. This model also describes how actors consider each other when the conflict escalates. Finally, the model describes possible strategies that actors adopt at each stage of escalation, and the possible threshold to the next level when the negotiations do not work properly. Glasl’s model can be considered the template to understand and try to manage any kind of conflict within social science. On the other hand, Yasmi’s (2007) model specifically focuses on NRM related conflicts. Yasmi emphasizes actors’ strategies and mechanism at each stage, as well as the behavioral change of conflicting actors.

One important point that is not well developed by both authors is precisely the notions that actors recognize and are concerned about conflicts, when conflicts start to be evident. The first stage of Yasmi’s model, ‘feeling anxiety’, can be understood as the outcome of a process of negotiation and discussion which do not result in a common agreement. The ‘hardening’ stage of Glasl’s model expresses similarities with Yasmi’s ‘feeling anxiety’ stage whenever both are the

outcome of a lack of concessions among actors to achieve an agreement. The idea of the present thesis, however, is to scrutinize the gaps and ambiguities between the moments with and without conflict, the space within which the factors that contribute to the emergence of conflict begin to take shape for the looming conflict.

#### **1.4.4.2. Conflict management**

We considered two relevant assertions related to conflict management. The first one, that conflicts have to be resolved because they are bad and dysfunctional (Zartman, 1991). The second one, that to address conflicts constructively, a so-called conflict competency is required (Lynch, 2001; Runde and Flanagan, 2007). However, other scholars support the idea that conflicts are not entirely negative but more neutral; they are complex but at the same time can be addressed in different ways (Wall and Callister, 1995).

Although there are three common approaches for addressing conflicts, that is, conflict resolution, conflict management and alternative dispute resolution (ADR), we consider the set of strategies taken into account within the three approaches. The use of these strategies requires a set of competencies which are well summarized by Yasmi and Schanz (2007) within their analysis of conflict coping strategies (see table 1.3).

Several researchers have contributed to the above set of strategies from institutional, social capital, economic and political perspectives. For instance Sanginga et al. (2007) argued that in the highland ecosystems of Uganda, the off-side effects generated by a wide range of social actors and stakeholders, makes that the use and management of natural resources are prone to multiple forms of conflict. For the authors what matters is not the presence of a conflict, but the ways such conflicts are managed and resolved, and transformed into a force for positive change.



**Table 1.3.** Coping strategies and required competencies

Coping strategy	Required competency	
	Internal	External
Negotiation	Communication, persuasive, collaborative	None
Mediation	Communication	Communication, neutrality, persuasive, participatory process
Arbitration	Communication	Neutrality, decision making
Adjudication	Communication	Neutrality, legal matters, decision making
Coercion	Power	None
Avoidance	None	None

Source: Yasmi and Schanz (2007)

De Jong et al., (2005) based on studies of the timber sector in the northern Bolivian Amazon, observed that the use of various strategies simultaneously and the adjustment of strategies as conflicts evolve, proved to be successful. The several peasant actors in conflicts, for instance, applied both forceful actions, like stopping the concession holder or the land titling team, but still continue dialogue with their opponents. Finding effective support from allies outside the conflict contributed importantly to a winning outcome.

Buckles and Rusnak (1999) asserted that although confrontation can lead to violence, avoiding and shunning conflict can be equally dangerous, as unresolved problems may flare up with renewed vigor. The author emphasized on the role of mediators in resolving problems that can lead to dependence on experts and the neglect of processes that lead to enhance local capacity to manage recurring conflicts.

However, when negotiation, mediation or any other strategy to cope with conflict fail, different consequences arise which have implications for the actors involved and for the environment. Buckles and Rusnak (1999) showed that the resulting conflicts from failed NRM management strategies often lead to chaotic and wasteful deployment of human capacities and the depletion of the very natural resources on which livelihoods, economies, and societies are based. De Jong et al., (2005) argued that in certain circumstances of struggles among community members and entrepreneurs over forest rights, communities themselves may turn to accelerated exploitation of resources, because they see a new economic opportunity without having firm trust that this will last or that benefits will be equally distributed. A lacking interest or competence among lower levels of government may contribute to those outcomes.

Finally, the escalation of conflicts related to natural resources may encourage actors to not comply with agreed rules, which in turn results in the further degradation of natural resources, and pose significant challenges to sustainable rural livelihoods (Hendrickson, 1997; Scott, 1998; Buckles, 1999; Means et al., 2002; Castro and Nielsen, 2003), a topic that is presented in Chapter 6.

### **1.5. General objectives, research questions and outline of the thesis**

The main issue presented in this research comes from a social context which underwent important structural changes affecting former legal conditions and social relationships related to land and forest resource tenure and management. The general objective of this study, therefore, is to investigate the new conflict scenarios derived from the impact of legal reforms on communal social frameworks, rights allocations, and strategies to forest resource access and use. Taking into account that the social contexts mentioned before are interrelated this study focused on the following research questions:

1. In what ways are former rural relationships and social frameworks been influenced by government decentralization, forest governance reform and land and forest resource ownership reform?
2. What are the new community arrangements for allocating agricultural land, timber and non-timber forest resources within a context of new individual and collective rights?
3. How do the new social relationships influence decision-making and monitoring related to valuable forest resources?
4. What kinds of conflicts arise in this context of reforms and communal responses to those reforms and how do communities deal with these conflicts?

This thesis is organized in seven chapters including this theoretical framework. Chapter 2 presents a description of the research area providing information necessary to understand its complex social, economic and political dynamics. Chapter 3 provides a description of the research methodology, emphasizing the particularities and innovations of the methods used, as well as the challenges faced during data collection and data validation and generalization.

Chapter 4 refers to the design of community rules related to land allocation and forest access and use. The chapter presents the background of Bolivia's decentralization and land and forestry reforms as drivers of structural changes in the northern Bolivian Amazon. Based on our findings we develop a basic typology of how rural people legitimize former rules and design new ones to distribute land within their community, and to secure access to valuable forest resources. We also underline the risk implicit in every model of community organization. Our data

allow a discussion of several theories related to property rights and common property dilemmas, contributing with new insight and suggestions for further research in other contexts.

Chapter 5 analyses *habilito*, a social and economic relationship based on the most important and traditional economic instrument of debt-peonage inherited from the rubber era. The chapter analyses the role of *habilito* in the past and its current role in rural communities in Bolivia. This analysis focuses on the factors determining changes in social relationships around *habilito* transactions. The chapter also presents an analysis of *habilito* functions from three perspectives. The first perspective focuses on livelihoods of peasant people, highlighting the critical moments in which *habilito* may be the only source to secure livelihoods. The second perspective emphasizes the influence of *habilito* in shaping commercial relationships, power and the flow of money within communities that rely heavily on Brazil nut collection and trade. The third perspective underlines the importance of *habilito* to deal with transaction costs and as a source of informal credits.

Chapter 6 focuses on conflicts based on the findings of the first and second chapters. We present a conceptual discussion on conflicts based on existing theory and our own empirical findings. Our results give us the opportunity to see conflicts from different perspectives. Based on this, chapter 6 presents a detailed description of conflict factors that lead to conflicts in the northern Bolivian Amazon, their linkages, relevant importance for various actors, and modes of escalation. It provides a deeper analysis of the dynamics of conflicts and the impacts for people and forests.

Finally, the chapter 7 presents a general discussion assembling the findings of chapters 4, 5 and 6 and fitting it within the theoretical frameworks of chapter 1, in a sequence of events which provides a general understanding of the processes of change in the northern Bolivian Amazon.



## **Chapter 2**

### **Context Description**

#### **The Northern Bolivian Amazon**

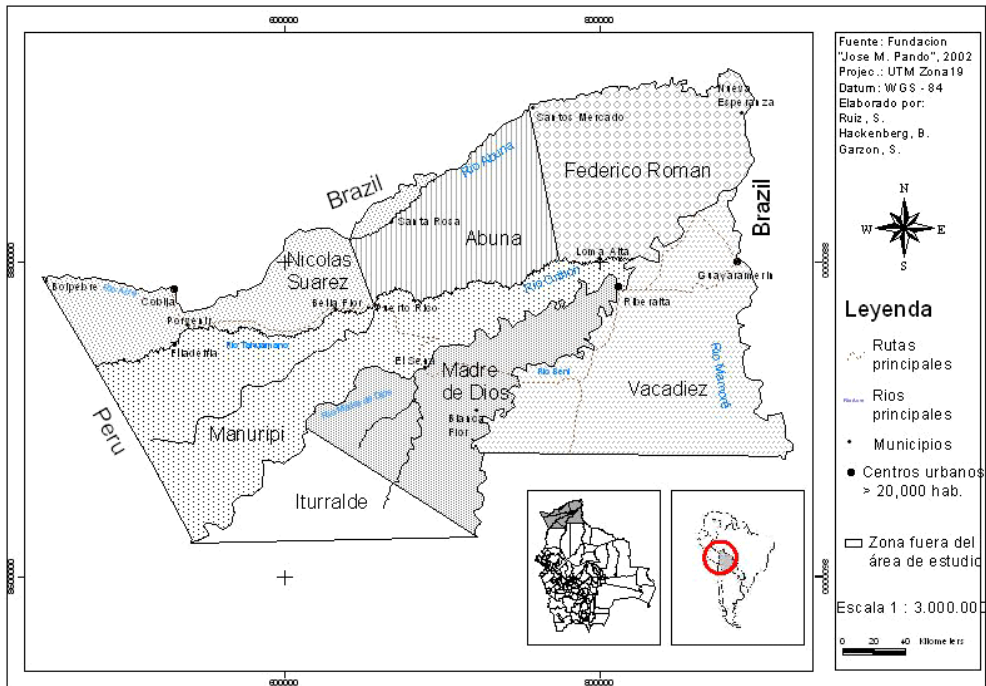
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## 2.1. General description of the region

### 2.1.1. General eco-geographical features

The research area is located in the northernmost part of Bolivia, in a region that forms part of the Amazon basin. The northern Bolivian Amazon covers 86,261 km<sup>2</sup> of tropical rain forest (DHV, 1993). This region is predominantly covered with moist forest. The political and administrative division of the northern Bolivian Amazon includes the five provinces of *Pando* department, the Vaca Diez province of *Beni* department and the northernmost part of the Ixiamas municipality (province of Iturralde in *La Paz* department). The region borders onto Brazil in the north and east and onto Peru in the west. (ZONISIG, 1997). The most important cities in the region are Cobija (in *Pando* department), *Riberalta* and *Guayaramerin* (in *Beni* department) (see Map 1).

Map 1. The northern Bolivian Amazon



The predominant climate in the region is warm humid tropical with an annual average temperature between 24°C and 26°C and an annual average precipitation between 1,834 mm and 2,774 mm (ZONISIG, 1997; Foronda, 2003). The altitude ranges from 289 m above sea level in the west to 90 m in the east. The dominant tree species in the region are the Brazil nut tree (*Bertholletia excelsa*), rubber (*Hevea brasiliensis*), mahogany (*Swietenia macrophylla*), tropical cedar (*Cedrela*

*odorata*), ísigo colorado (*Tetragastris Altisima*), ochoó (*Hura crepitans*), and palo maría (*Calophyllum brasiliensis*). Important non-timber forest products are also derived from various species of palms for human consumption and as a source of food for several animal species (Foronda, 2003; ZONISIG, 1997). The main rivers in the region are the *Beni*, *Madre de Dios*, *Tahumanu*, *Abuná*, *Orthon* and *Manuripi*, together forming one of the main secondary basins flowing to the Madeira river.

### 2.1.2. Political and macro-economical features

From 1900 until 1990 the region remained isolated due to the absence of a road infrastructure, and was largely abandoned by the central government. As a result, forest communities were poorly accessible especially in the rainy season. Since 1998 successive governments initiated a process of economic and political integration of the region to overcome these structural deficiencies, involving major investments in infrastructure. The construction of three important bridges over the rivers *Orthon*, *Yata* and *Acre* connected large areas with great potential of Brazil nut and timber harvest. Concurrent improvement of roads reduced transport cost to the city of *La Paz*, one of the most important commercial center in Bolivia.

An important feature of the region's economy is its dependence on the extraction and processing of forest products. This economy is highly dependent on a few external markets and therefore very vulnerable to price changes of the main commodities (Brazil nuts, timber or other forest products). This high degree of dependence may result in boom and bust cycles in the exploitation of forest products which occurred during the short economic history (Bojanic, 2001) and are typical for non-timber forest products (Homma, 1992). To this date, prices of Brazil nut and timber are still fluctuating quite strongly, affecting both the regional economy as a whole but also income and welfare at household level. Periods of high income at household level increase people's expectations and generate expectation about future income levels. The forestry sector also represents an important source of labour and revenues in the study region. However, despite the large economic potential of the forestry sector in the region, its contribution to the national economy has always been small (less than 3% of the gross domestic product - GDP) (Stoian, 2006).

According to Foronda (2003) and ZONISIG (1997), only 30% of the production potential of the forests is being realized, especially the extraction of Brazil nuts and timber have not been fully developed to date. Between 2000 – 2003 timber use represented 10% of the forest potential, estimated to be 14 m<sup>3</sup>/ha for valuable species such as mahogany or cedar and oak (roble), and 24 m<sup>3</sup>/ha if the lesser known species are included. Nevertheless, since 1997 the northern Bolivian Amazon has been the region with the highest gross domestic product per capita at national level (US\$ 1,345) and the biggest export index per capita, three times that

of the national average (Bojanic, 2001). This position can be explained by the rapid increase in export of Brazil nuts. Brazil nut sales increased from a few million dollars in the 1980s to above US\$ 53 million in 2004, and around US\$ 88 million in 2010 (IBCE, 2010). In the late 1990s, timber production contributed approximately US\$ 15 million per year to the regional economy, following an expansion in the 1990s (Bojanic, 2001). Even for the national economy, Brazil nut sales rank first in the national forest exports. At household and settlement level, extraction of non-timber forest products (NTFP) has been the main source of income, and therefore the engine of the regional economy.

At present, the most important economic activity continues to be the collection of Brazil nuts. Logging is considered the second most important activity, although the income derived from timber at household level is notably lower compared than that of Brazil nuts. Cattle ranging has shown rapid growth recently, but annual deforestation for pasture or agricultural lands is still relatively low, representing 0.53% in the department of *Beni* and 0.91% in *Pando*, between 1993 and 2000 (Rojas et al., 2003). At communal and family level, agriculture, hunting and fishing are also important for livelihoods and may constitute additional sources of cash income in communities near main urban centers (Stoian, 2006; Ruiz, 2005).

Other sources of income are palm heart extraction, small-scale gold mining, Japanese remittances and the public sector (Bojanic, 2001). Palm heart was particularly important until 1997 with an export value peaking at about US\$ 7 million per year. Presently the extraction of palm hearts in the northern Bolivian Amazon is an occasionally activity for domestic consumption or as small economic activity with temporary profit. Small-scale gold mining is currently considered a marginal activity for a small portion of the population. The boom of this activity in 1988 generated substantial revenues for the region (estimated to be US\$ 12.5 million), but nowadays only few signs of this wealth remain (Bojanic, 2001). In the last few years small-scale gold extraction was largely controlled by illegal Brazilian and Bolivian miners. In 2010, the Bolivian government carried out a campaign to control these miners, especially in the border region with Brazil. In the northern Bolivian Amazon this operation covered three important rivers, *Orthon*, *Beni* and *Madre de Dios* in which 450 barges operated illegally (Oro y Finanzas, 2010). Japanese remittances are still an important source of income for many people in the northern Bolivian Amazon. As descendants of Japanese migrants that settled in the region during the rubber boom, the Japanese government allows them to work in Japan for a few years. Bojanic (2001) estimated that 1,500 families received income from remittances. Finally, the public sector is an important source of employment in the region. Approximately US\$ 19 million were transferred to *Pando* department and Vaca Diez province of *Beni* to cover expenses in municipalities, education, health, infrastructure, recurrent costs of public offices,



etc. (Bojanic, 2001). Prefectures and municipalities in the area, mainly in *Pando* department, used to have a large staff of employees who were offered jobs if their political preference matched that of the local government.

### 2.1.3. Social features of the northern Bolivian Amazon

Bolivia is one of the least densely populated countries in the world, with an average population density of 7.6 inhabitants/km<sup>2</sup>, although estimations of population growth showed that this value may increase to 9.5 inhabitants/km<sup>2</sup> in 2010 (INE, 2007). The northern Bolivian Amazon's population density is even lower: In 2007 the total population in the Department of *Pando* and the Amazonian part of the Department of *Beni* was 211,572 (INE, 2007), resulting in a density of 1.6 inhabitants per km<sup>2</sup>. Due to the low population density, the limited access and the long distances to main markets, the pressure on forests and their resources is low relative to other regions and countries (Stoian, 2006).

The region's population mainly lives in the three larger towns. In 2001, the population of *Riberalta* was 93,620 inhabitants, that of Guayaramerin 45,525 inhabitants, while Cobija had 72,427 inhabitants (INE, 2008). It is important to note that population doubled between 1976 and 2001 (Pacheco et al., 2009) and continue growing so far. Before the legal reforms of 1996, the rural population mainly lived in *barracas* or private forest estates for the extraction of non timber forest products (NTFP). Stoian (2000) estimated that at that time there were 700 rural settlements, of which 300 were *barracas*. Ruiz (2005) reported similar estimates in subsequent research.

During the past century, the study region has experienced several periods of large-scale migration. The present high rate of population growth within cities and at regional level is due to the rapid flux of intra-regional (rural-to-city) and inter-regional migration of the last two decades. The regional population growth rate is 3.4 % per annum due to the rapid growth of the *Cobija* and *Riberalta*, which rank among the highest at the national level, 7.3% and 5% respectively (INE, 2002). Such large-scale migration occurred more often in the history of the region. Prior to the colonization period, the region was characterized by the existence of strong population movements of indigenous groups of *Esse Eja* and *Tacana*, who frequently crossed the borders between Peru, Brazil and Bolivia (Ruiz, 2005).

At the onset of the 20<sup>th</sup> century the population in the region increased due to the establishment of the *barracas* that recruited thousands of workers from other regions (inter-regional migration), mainly from the zones north of *La Paz*, and the departments of *Santa Cruz* and *Beni*. After the Second World War intra-regional migration increased due to the reorganization of the *barracas'* economy and the emergence of independent communities (Stoian, 2000). The seasonal migratory

flow of Brazil nut gatherers, who move from the peri-urban areas to the rural regions between December and March, is another feature of the local social dynamics. This phenomenon was quite common until 1970, before the last rubber crisis, in which 12.5% of the population of *Riberalta* city migrated temporarily to the rural areas to extract rubber and Brazil nuts (CIDOB, 1979). Until 2005 between 5,000 and 6,000 inhabitants from Riberalta still participate in the annual Brazil nut harvest, which represented 10% of the city's population at that time (Stoian, 2006) due to the growing importance of this activity which was based on the former rubber tradition. At the end of the Brazil nut harvest these seasonal workers return from the rural areas to the urban centers of the region (Ruiz, 2005) to find temporary jobs or attend schools.

Another social feature of the northern Bolivian Amazon is its high poverty rate, although this sounds contradictory compared with the amount of forest product that the region exported. According to UNDP (2003) more than 70% of the population lives below the poverty line, and nearly 30% finds itself in a situation of extreme poverty. INE's (2006) estimations of poverty at municipality level revealed an incidence of poverty of 66.7% in Cobija, 81% in *Riberalta* and 71.3% in *Guayaramerin*. In rural municipalities in both *Beni* and *Pando*, poverty indices are lower than those for these cities.

In general the region has long been isolated from the country's capital and political centre, La Paz, and to some extent continues to do so until now. Stoian (2006) attributed the political oblivion to three factors: 1) a white and partially Andean indigenous elite dominating the national politics; 2) the geographic isolation together with its low contribution to the gross domestic product attracted little political interest, and 3) the low population density was not an incentive for national politicians whose necessity of votes discourage them to participate in the local development. Similar to the majority of rural regions in Bolivia, not only the state representation is weak, but the public investment in education, health and communication is also poor (Ruiz, 2005), although in the last decade this situation gradually improved.

Finally, it is important to emphasize that the current social framework in the northern Bolivian Amazon is a legacy from the rubber era, when all the social relationships were linked and defined by the rubber estates or *barracas* that continued to be in force until the 1990s. The social classes of those days were established through a vertical social differentiation supported by economic and political power. According to Bojanic (2001) the society until the 1990s was divided in three different classes: the upper class was formed basically by the forest entrepreneurs of the time (owners of large *barracas* or *rubber estates*, Brazil nut traders and owners of Brazil nut shelling plants, sawmills, etc.), and the public

authorities appointed by the national government. The middle class was formed by the public administration employees (technicians and professionals), company management staff (heads of personnel, administrators), merchants, military officers, small businessmen, teachers, small and medium *barraca holders* and NGO technicians. Finally, the lower class was composed of three groups. The first group consisted of the urban labor force that was closely linked to the forest extraction activities (contractors, Brazil nut gatherers, timber retailers, chainsaw workers, Brazil nut shellers, etc.), as well as other social sectors concentrated in urban centers. The second group included members of the rural peasant and indigenous communities, groups that had gained strength by the legal reforms of the 1990s. The third group was formed by permanent inhabitants of *barracas*, and foreign (Brazilian and Peruvian) inhabitants living in Bolivia in areas with little access to service infrastructures who enjoy few privileges and very limited access rights to the forest, being the poorest of this social class.

Due to the lack of state intervention in the region and strong former local traditions, the three social classes developed social relationships that strongly depended on their socio-economic interactions. Nevertheless, the interactions between upper and lower classes were most important, as these linked two very different classes (*barraca* holders and rural communities) and forced them to collaborate (Ruiz, 2005). Both groups have a common history that has resulted in the development of specialized functions and positions. Entrepreneurs have strong links within the industrial sector, while the community members and indigenous people possess traditional knowledge useful for harvesting Brazil nuts. For many community members, working in the *barracas* meant alternative sources of revenue, while for the *barraca* holders indebted community members and indigenous people meant lower work costs because of the proximity of the communities to the production centers and the flexibility in the duration of the labor agreement. The decentralization process and the adoption of new laws on forestry and land tenure in the 1990s changed this situation. These developments allowed community members and indigenous people to gain more control over forest resources and forced both classes to collaborate in a new way in order of maintain access to valuable natural resources (Ruiz, 2005).

The labor relations in the region are embedded in a highly hierarchical class structure (Bojanic, 2001; Stoian, 2006), resulting in patronage-type relationships that are widespread in Bolivia and most Latin American cultures (Ruiz, 2005). This kind of relationship is asymmetric, reciprocal and personal, although it results in benefits for both parties and in the creation of natural dependencies (Ruiz, 2005). How both groups experience their dependence to the other depends on factors like social hierarchy, power, class identity, land tenure and property rights, which - to a great extent - affect their behavior and the establishment of collective agreements

and mutual social relationships. The latest is one way to explain the social changes experienced in the northern Bolivian Amazon, in which the redefinition of new social and economic roles among actors linked by patronage relationships until recently, adopted configurations never expected by the actors themselves. For instance, Ruiz (2005) observed that social change in the region led to the partial replacement and displacement of the traditional *patrones* (*barraca* holders) by regional politicians or new entrepreneurs in the forest sector (shelling plant and sawmill owners). However, the traditional structures and hierarchical dependences remained prevalent in the region (Stoian, 2006). The latest observations are the basis for the present study that support the main hypothesis related to the key role of the *barracas* in the reconfiguration of current social relationships.

## **2.2. The *barraca* regime: the evolution from the rubber to the Brazil nut activity in the northern Bolivian Amazon**

Stoian (2005) asserted that in Bolivia the first *barracas* were established in 1863, when the news about the value of rubber was spread through the country. People involved in the quina trade (*Cinchona* spp.) introduced the rubber estates or *barracas* in Bolivia, showing the continuity of people and companies in the commercialization of NTFP. On the other hand the establishment of the *barracas* resulted in a new mode of production in which capital and labor relations were more relevant than access to land and natural resources (Barham and Coomes, 1996). In 1881, Nicolas Suarez, pioneered the *barraca* system in northern Bolivia and was, at that time, seen as one of the most important entrepreneurs in the world (Fifer, 1970).

The economic dynamics of the rubber production and the consolidation of the wealthier families formed the basis of the local social framework in which all main actors in the productive chains were represented. At the top of the pyramid were the big rubber companies which controlled capital and market connections. The second level was occupied by the *patrons* owning small *barracas* (resources and labor force) but lacked operational capital. The third level consisted of service providers, people who had access to labor force but lacked capital and land. Finally, the last place was occupied by rubber tappers, independent workers and employees who entirely depended on patrons and *barracas* to gain income (Bojanic, 2001).

A distinctive characteristic of the *barraca* was its complex spatial organization. The basic production unit of a *barraca* was the *estrada*, a path in the forest that connected a certain number of rubber trees. The size of an *estrada* was related to the daily harvesting work of a rubber tapper starting and finishing at his home. Several *estradas* formed a higher level of territorial unit called *sub-centers* or *colocaciones*, which when grouped formed a production center. Pacheco (1992)

estimated that up to forty rubber tapper families lived in the larger production *centres*. This form of territorial and production planning inside the *barraca*, from top to bottom, was a key feature of the rubber production in the region. (Ruiz, 2005; Stoian, 2006; del Pilar Gamarra, 2007). The allocation of resources among rubber tappers was the responsibility of the *barraca* holders. They used to decide where each activity should be carried out and at what intensity. Their knowledge and experience about administration, infrastructure and the availability of natural resources, helped them to perform this task efficiently. In the *barracas*, subsistence agriculture was allowed around the houses, hunting and fishing took place at more distant locations and the extraction of rubber and – occasionally Brazil nuts - in the forest areas (Ruiz, 2005). The *barraca* holders or patrons were very powerful within their *barracas*. They had the freedom to design and apply rules based mainly on their own perspective, expectations and interests (Stoian, 2006; del Pilar Gamarra, 2007). No centrally organized regulatory system existed in the region.

The rules in the *barracas* ranged from the prohibition of movement into and out of the estate to the monitoring and control of different activities important for the livelihood of the rubber tappers. For instance, *patrons* controlled hunting, fishing and agricultural activities of all families. The strictness of the rules was entirely decided by the *patron* and varied greatly among *patrons*. In some cases, people were obliged to tap rubber trees without having any time available for other activities such as agriculture. According to some researchers the treatment of rubber tappers in such *barracas* resembled servitude. In other *barracas* with less strict rules rubber tappers were allowed to develop other productive activities for their own benefit. However, the latest strategy didn't mean that patrons were more conscious about people's rights. On the contrary they released themselves from part of their obligation with workers related to food supply (Fifer, 1970; del Pilar Gamarra, 2007; Pacheco, 1992).

An effective instrument used by the *patrons* in their attempt to have complete control of the labor force was a debt-peonage system, locally called *habilito* (see also chapter 5). Assies (1997) argue that rubber exploitation was organized in a highly repressive debt-peonage system. In this system goods were advanced in return for the future delivery of rubber. In most cases money hardly appeared in this chain of debts (Fifer, 1970; Barham and Coomesc, 1994; Assies, 1997; del Pilar Gamarra, 2007).

Between the end of the 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century, rubber production was booming and *barraca* holders enjoyed great economic and political influence in the northern Bolivian Amazon and even in national politics. According to Ruiz (2005) the basis of the *barraca* regime rested in the possession of state land, which granted entrepreneurs property rights over natural resources. These

rights included access to extensive forest areas for the extraction of rubber and Brazil nuts, and also incorporated the use of timber, land for cultivation and wild fauna. The central person in this system was the *patron*, who had the power to exclude third parties from the use of the resources (Ruiz, 2005; del Pilar Gamarra, 2007).

After several cycles of boom and bust the decline of the rubber production in the 1980s marked the end of an era in which year-round extraction of forest products could be conducted in the forests. As a result, many laborers migrated to the major cities in the region (Cobija, *Guayaramerin* and *Riberalta*). At the same time, the debt-peonage system contracted and the local stores in the *barracas* reduced supplies or were simply closed, leaving more room for river traders. As the capacity to import goods to the region decreased, agriculture increased as well as the harvesting of Brazil nuts. Thus the former rubber tappers engaged in subsistence agriculture following traditional slash and burn practices (Assies, 1997). In 1996 the new legal reforms determined the end of the *barraca* regime, bestowing land tenure and property right to peasant and indigenous communities as well as the exclusive right to use valuable natural resources (Ruiz, 2005; Stoian, 2005; de Jong, 2006; Pacheco et al., 2008).

Until today, the influence of the *barraca* regime still remains in the region. While in the past this regime influenced the formulation of many laws on extractive activities. At present that influence can still be observed within communities in the way their lands are distributed and is shaped by three important processes: (1) the decentralization process, (2) the new law on land tenure and (3) the new forest laws. These developments will be described in the following sections.

### **2.3. The Decentralization process**

Bolivia's first attempt of decentralization took place in the late 1970s, with the creation of the departmental development corporations. These corporations were made responsible for regional planning, although they were still controlled by the central government (Blanes, 1993). Since the mid-1980s, Bolivia radically changed to a neoliberal economic policy and implemented structural adjustment programs. The country then launched the so called second generation reforms, including the Popular Participation Law (*Ley de Participación Popular - LPP*) which transferred responsibilities and an important share of the national budget directly to municipal governments. The reforms also called for more social participation in public administration (Pacheco, 2010).

In 1994, after forty years of military coups interrupted by episodes of civilian rule, a new decentralization process was announced. The impact of this decentralization brought about considerable changes in resource flows and political power. The

Administrative Decentralization Law abolished the departmental corporations and transferred their tasks to the prefectural government. The core of the decentralization reform included four main points: 1) The share of national tax revenues to municipalities was doubled to 20% and funds started to be allocated on a *per capita* basis; 2) significant responsibilities over public services such as health, education, roads, irrigation, culture and sports were transferred to municipal governments and resources were provided to cover costs; 3) the establishment of local committees with the task to monitor municipal expenditures of LPP and reporting their findings directly to local grass-roots organizations, and 4) the creation of 198 new municipalities (Faguet, 2004).

The impact of the decentralization reform is perhaps best appreciated in monetary terms. Before this reform 308 municipalities throughout Bolivia shared 14% of funds while the three main cities took 86%. After the decentralization these proportions changed dramatically to 73% and 27% respectively. Likewise, investment priorities changed. Before the reform, central government invested most of its resources in transport, hydrocarbons, prospecting and feasibility projects, and energy. After the reform, local governments invested mainly in education, urban development, and water and sanitation (Faguet, 2004).

While the decentralization brought about important financial benefits for poor districts, neighborhoods and small municipalities, the secondary implications were quite complex and sometimes problematic (Pacheco, 2010). New responsibilities transferred to local governments not only can improve people's welfare more effectively, it also can reinforce asymmetric local power relationships, benefiting local elites to the detriment of marginalized social groups (Larson, 2003; Ferroukhi, 2003). For example, in northern Bolivia cattle ranchers have enormous influence in local politics and could in some cases influence municipal governments to build local alliances against indigenous land claims (Kaimowitz et al., 1999).

Other unforeseen consequences of decentralization reforms are observed in political level and the abuse of local power. The accountability of municipal governments depends on local political performance of representatives and the impact on voters. But in practice, voting does not necessarily reflect the quality of the administration (mayors and councilors), but rather their political intentions (Pacheco, 2010). On the other hand the democratization of decision-making on public investments has not been participatory due to the dependence on external expertise and oversight committees are not always functioning properly. According to Urioste (2001), these committees are often influenced or corrupted by local elites or political local parties.

The decentralization process has promoted the election of small farmers and indigenous people to the municipal administration for the first time in many

lowland municipalities (Pacheco, 2010). In some cases the implications of this new level of social participation in politics are linked to land and valuable natural resources claims. Indigenous people reinforced their claims on land, within small-scale and temporary logger negotiations, and modifying land use and forest regulations (Pacheco, 2010). On the other hand, municipal governments can become instruments to build local alliances if local elites have a large influence, which is clearly unhealthy for local democracy and governance (Kaimowitz et al., 1999).

In terms of administration of forest use, the decentralization process had little consequences for forest governance (Pacheco, 2010; Andersson et al., 2006; Kaimowitz et al., 1998). Municipalities had limited possibilities to monitor timber harvesting. This was regulated under a different legal regime. Although resources spent in the forestry sector have increased due to the decentralization process, several circumstances have constrained the efficient spending of these funds by municipalities. Pacheco (2010) argued that resources spent in the forestry sector increased to US\$ 2 million in 1998, but decreased suddenly in the next year because most concessionaires did not pay taxes. A decree issued in March 2003, stated that the companies with forest concessions have to pay for the area annually logged rather than for the total concession area. This measure substantially reduced the tax income that municipalities received from concessions. Urioste (2001) and Pacheco (2000) argued that these payments are unevenly distributed, with only 13 municipalities getting half of the total amount. By 2002, most municipalities in the lowlands had created their municipal forest units (in Spanish Unidades Forestales Municipales – UFM's), but a large proportion of these municipalities were forced to allocate all the financial resources from concessions to support these units due to the limited funding they received for this purpose. The limited budget of these units strongly hampered their functioning. On the other hand, municipal governments were unwilling to support the operational costs of the UFM's with their own budgets, and the municipalities that receive sufficient funds tended to spend part of these funds on other sectors (Flores and Ridder, 2000; de Urioste, 2001).

#### **2.4. The new Agrarian Reform in Bolivia**

In 1996, more than 40 years after Bolivia's first agrarian reform (1952), a new agrarian reform (INRA) was put in place, which intended to resolve the inequality of land distribution, to clarify land property rights, and to redistribute available land through a process of land title regularization (Ruiz, 2004; Cronkleton et al., 2009; Pacheco, 2010). The INRA law was approved on October 18<sup>th</sup>, 1996 after a heated political debate and after a major protest by Indigenous people and community members from August to October 1996 (Urioste and Baldomar, 1998).



An important aspect of the process that led to the approval of the law was the participation of a small group of actors in the discussion (not representative of the whole group of forest actors), which raised skepticisms among parties because none of them completely achieved what they hoped to gain (Urioste and Pacheco, 1999).

The INRA law ignored the socio-economic reality of the Bolivian population and the tense political situation with respect to land ownership. For instance, in the northern Bolivian Amazon the reforms were insufficiently discussed with and among *barraca holders* and peasant associations (Pavez and Bojanic, 1998). The government's lack of interest to deal with the problem in this remote and relatively unimportant region generated social disputes in the region, especially in areas claimed by some indigenous groups or forest concessionaries, which at that moment were occupied by *barracas* and peasant communities (Ruiz, 2005). The new agrarian law relied heavily on the concept of social-economic functions, implying that the legal title over land depended on the use of the land (Cronkleton et al., 2009). The law also foresaw communal land titles in locations like the Bolivian Amazon, as the only feasible option to regulate ownership in communities with complex swidden fallow and forest use practices (Stoian, 2006; Cronkleton et al., 2009).

In the new Agrarian Reform Law (2006), communal title has become the only option for peasant groups that colonize land abandoned by the former *barraca* holders after the collapse of rubber prices, and thus the extractive system practiced in the *barracas*. These reforms have emphasized collective ownership and resulted in a significant distortion from peoples' customary sense of ownership and legal tenure (Fitzpatrick, 2005). Specifically for the northern part of the country, Decree 25848 of the Bolivian government (2000) specified that households in forest territories and with livelihood strategies that included agricultural production and forest product collection required a minimum of 500 ha. Communal title in the region was granted over an area using the formula of number of families in the community times 500 ha, although in practice this differed widely within and among communities, and between regions (Ruiz, 2005).

Ruiz (2005) indicated that communities in the department of *Pando* in particular benefited from this decree. Arrangements were made for communities that did not have sufficient available land around their community, by providing them with additional lands nearby or even in other municipalities or provinces. Interestingly, land surface of the majority of communities in the province of Vaca Diez of the department of *Beni* was just sufficient to allocate individual plots of an average of 50 ha instead of the 500 ha that community members were entitled to receive (Ruiz, 2005). Until 2010, no compensation for many of these communities had

been arranged, probably leading to severe land availability problems for the next generation.

An important feature of the new land reform are the conditions for land transfer. Land of small holders may be transferred, but cannot be mortgaged. On the other hand, the transfer of communal property and TCOs is more strongly constrained as they are inalienable, indivisible, irreversible, imprescriptibly and they cannot be merged. The third type of transfer relates to medium-sized properties and agricultural enterprises. These legal land designations are highly transferable and are oriented towards structuring the land market (INRA Law, 1996; Ruiz, 2005).

As communities in the northern Bolivian Amazon highly depend on Brazil nut gathering, the shift in land tenure has resulted in a more favorable environment to develop their activities (Pacheco et al., 2008) and improved their livelihoods. However, in some cases the complex process of establishing land titles resulted in losses for indigenous groups as part of their land was given to large landowners and logging companies (Cronkleton and Pacheco, 2008).

Two important shortcomings of the law forced people to adopt different strategies in an attempt to obtain full right over land and natural resources. The first is precisely the conditions for land transfer. The second is the multiple scope of rights use to land, valuable natural resources and livelihood resources stated on land and forest law. In the present thesis both aspects are analysis based on the strategies adopted by peasant people to use the new rights over land bestowed by the government.

## **2.5. The new Forest Law in Bolivia**

Since the 1980s important transfers of forest tenure to communities and indigenous people took place in many tropical countries. Forest policies and legislation in those countries gradually adapted to this forest devolution (Pacheco et al., 2008). The new Bolivian Forest Law enacted in 1996, was designed within this worldwide trend. The law and its regulations aimed to democratize access to forests for community members and indigenous people who had been largely excluded from commercial forest use before (Pacheco, 2010; Barry et al., 2010; Kaimowitz et al., 1998).

The political discussions taking place in the design process of the new forest law revolved around three themes: the highly inefficient and corrupt institutional framework in charge of forestry regulation, the need to regulate the sustainable use of forest lands, and the need to regulate the different rights and ways of using forest resources to assure that they will be used sustainably (Bojanic and Pavez, 1988). The new law introduced important new forest management practices: 1) a

20 year cutting or rotation cycle, meaning that timber in only 5 % of the area can be logged annually and 2) a 40-year concession lease of forest land for timber to private logging enterprises.

Although the new law provided clarity on land tenure and secured tax incomes for the state, its implementation had several important consequences (Bojanic, 2001). First, allowing logging in just one-twentieth of the total concession reduced the volume of timber harvested per year. This encouraged the use of a wider array of timber species in order to increase harvested volume. Nevertheless, the higher and fixed tax level based on the total area of the concession could not be compensated by harvesting less valuable timber species (Bojanic, 2001). In the northern Bolivian Amazon users manifested a similar opinion related to the negative economic effects of the new forest regime. They argued that the few valuable species which yielded profits at that time were scarce and the new taxation regime would lead to higher costs compared to those incurred under the former regime (Bojanic, 2001). Secondly, among the most important changes prompted by the new forest regime is the modification of the structure and functioning of the forestry industry. The area allocated for timber extraction reduced from 20.7 million hectares to 6 million hectares after the reform was applied, but governmental revenues increased due to changes in the way taxes was calculated: from volume to area, therefore granting more revenue among local government and municipalities with ample forest resources (52% of the total collections are transferred to municipalities and prefectures). Finally, the new forest regime includes peasant and indigenous people as new actors with the rights to use forest resources available within the lands bestowed by the government (*Superintendencia Forestal*, 1999).

On the other hand, the new forestry regime also gave rise to a more complex institutional framework headed by an autonomous agency, the Forest Superintendent (*Superintendencia Forestal*). Recently, the land and forest agencies have been merged into the “Forest and Land Authority (ABT)”. The ABT operates in a similar way as the *Superintendencia Forestal*, with offices in all forested departments in Bolivia. The ABT is responsible for the implementation of the forest law. ABT is the only government agency with the authority to grant permits, apply sanctions and monitor taxes from forest licenses (*Patentes Forestales*). At departmental level the prefectures link national policies with municipal plans, and implement and conduct forest projects within their departmental jurisdiction (Bojanic, 2001). At municipal level, all rural municipalities with forest areas are allowed to set up municipal agencies to support the aims of the law (municipal forest units, or *Unidad Forestal Municipal*), but without the authority to enforce the law. Additionally, the new forest law introduced new elements to facilitate the integration of new actors and to promote equity to access and use of forest, as for instance: 1) Abolition of private forest property and the dominion of the state over

the forests; 2) New categories of forest tenure; 3) Historical reconciliation between agricultural and forest tenure, and 4) Granting access to forest resources for the groups of users that were previously excluded (Ruiz, 2005).

The forestry law put an end to the legal status of forests as private property, as was considered in the previous Decree of 1974, through authorizing felling (called in Spanish *derechos de monte*). Instead, the new law granted rights exclusively for using forest resources. The new forest law considered two legal alternatives to manage the commercial or traditional use of NTFPs: 1) the additional extraction of NTFPs is permitted within concessions granted, with prior approval of a Forest Management Plan (FMP). The concession holder can decide to use this right but can also pass this on to others, but following a set of legal procedures (Forest Law 1996: art. 29 II), 2) The forest concessions may be granted giving priority to the traditional users, rural communities and local social associations (ASL) (Forest Law 1996: art. 31 i). Nevertheless, according to Ruiz (2005), the concessionaires had little interest in being granted authorization to harvest these products and respected the traditional power of the *barracas* with respect to Brazil nut collection.

Additionally, the Forest Law establishes priority of forest use to the agrarian land owners, which means the direct exclusion of third parties from the utilization of the forests inside private and community properties. Finally, the Decree of 1974 established that any forest user who is not recognized as a forest entrepreneur is denied access to forest resources. Before the reform, 40% of the domestic forest area was in the hands of fifty forest companies, with less than 173 use contracts granted (Contreras and Vargas, 2001; Pacheco, 2000; Bojanic, 2001). Presently, 12% of the total Bolivian forest area is being used legally by new forest users (Ruiz, 2005). Until 2008, sixty six forest entrepreneurs managed 4.389.148 hectares of forest concessions, 21 local social groups were granted 484.875 hectares in concessions, 920.992 hectares were granted to indigenous territories as general forest management plan (PGMF), 1.800.394 hectares of PGMF in private properties, and 561.002 hectares of PGMF in communal properties (de Urioste et al., 2010). The increment of forest granted to other actors besides forestry entrepreneur is significant compared to ten years ago. Nowadays, the private sector manages almost the same area of forest that is managed by others actors.

Based on the above, the new forestry law gave forest owners the exclusive rights to use forest resources and reallocate enterprises to exploit timber in forest concessions (Pacheco, 2006). But smallholders still faced important hurdles to legally benefit from forests, for instance because the law required smallholders to comply with complicated and expensive formal procedures (Pacheco, 2010). Often, smallholders, who now hold legal communal tenure over extensive areas of forest,

have to negotiate with timber companies, because the latter have the capital, skills and administrative influence to exploit timber. It is important to mention that the Bolivian government is planning to revise the Forest Law, but it is unclear which parts of the current legislation will be modified or eliminated and what will be added.

## 2.6. The new communal regime in the northern Bolivian Amazon

Henkemans (2001) has provided a classification of settlements based on the relative importance of Brazil nut extraction, commercial agriculture, and wage labor, as well as ethnic composition and the infrastructure available. She distinguished the following categories: 1) Extractive communities, 2) Agro-extractive communities, 3) Agrarian communities, 4) Peri-urban communities, 5) Indigenous communities, and 6) Rural boom settlements (strategically located at the intersection of principal roads and rivers). Nowadays two categories are the most important in the region: extractive and agro-extractive communities, and these are the focus of the present research.

Extractive communities are located in areas occupied by the former *barracas* distant from urban centers. They are characterized by a high dependence on Brazil nuts extraction. In these communities swidden agriculture is practiced for subsistence only. Hunting and fishing occasionally provide some additional income (Henkemans, 2001). Additionally, extractive communities have a long *barraquero* tradition which held until the 1990s, when land and forest reforms begun, therefore the *barraca* regime is yet a very important reference for the definition of the new communal order (del Pilar Gamarra, 2007).

Agro-extractive communities are located near the main cities of the region. According to Henkemans (2001) and from our observations, agriculture is the main source of cash income and subsistence. Farmers in these communities supplement their incomes with Brazil nut collection in extractive communities or in the few *barracas* that still exist. Currently, it is difficult to estimate the total income obtained by these people from Brazil nut activity due to two factors: 1) The fluctuation in Brazil nut prices influence their decision to participate in the harvesting of this forest product, and 2) The circumstantial need for cash income of each family group (personal observations). In general agro-extractive communities belong to the group of communities which chose to become independent from the *barracas* after the collapse of the rubber production in the 1980s. Among these communities the influence of the *barraquero* regime is far less than in extractive communities (Henkemans, 2001; Stoian, 2005).

Both types of communities have an internal institutional framework based on the communal assembly, from which community members elect the community

council. The communal assembly is responsible for the design of communal rules, called bylaws. In some communities it is the communal assembly which enforces byelaws; in other communities that responsibility is transferred to the community council. This structure is considered within Popular Participation Law, and its definition within communities is a condition to achieve the legal recognition of a community by the government (Popular Participation Law, 1994: Art. 5). The different experiences of extractive and agro-extractive communities with achieving legal recognition, and shaping local institutions and communal organization are the main issues analyzed in the core chapters of the present thesis.

## **Chapter 3**

### **Methodology Approach**

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### 3.1. Why use qualitative approach?

In his attempt to differentiate between qualitative and quantitative approaches Dabbs (1982, p. 32) indicates that the notion of quality is essential to the nature of things, while quantity is essentially an amount of something. Focusing on the nature of things Dabbs argued that quality digs into the essence of something based on the 'what, how, when and where' of that thing. Therefore, qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things. In contrast, quantitative research deals with counting and measuring of things.

This becomes more complex when we start talking about people. The existence of human beings rests basically on the ability and necessity to find meanings, to interpret and reinterpret their surrounding reality in order to build up a collective context appropriate for them. This is what societies are. In this process, human beings developed an incredible amount of different relationships derived precisely from the context described above, giving rise to many questions of which the answers provide a wide and deep understanding of social relationships. Qualitative research seeks those answers by examining various social settings and the individuals who inhabit these settings. Therefore, researchers who use qualitative approaches are most interested in how humans arrange themselves and their settings and how inhabitants of these settings make sense of their surroundings through complex social codes (Berg, 1995; Malterud, 2001) which as far as being accepted collectively represent the references for the whole social group.

This is the main argument to support the qualitative approach taken in the present research. Our target group experienced important changes in their former social, economic and political context, which entails a reconfiguration process to find and interpret the new meanings derived from this new reality. In this context, the analysis of qualitative data allows us to find and discuss the various social contours and processes that people use to create and maintain their social realities (Berg, 1995; Marradi et al., 2007). To find the clues which gave us the necessary data related to those contours we focused on the interaction between people, from where the meaning of social process can be derived. A meaning that gives people the reference to produce various realities that constitute their real world. However, as those realities are related to how people create and reinterpret meanings, a reality is the outcome of an interpretation of various definitional options. Berg (1995) stated that the accuracy of the interpretation is not important: if people defined the interpretation as real their consequences will be real. These thoughts emerge from the symbolic interactions perspective whose followers state that: 1) the central source of data are human interaction; 2) the formulation of a theory of symbolic interaction rests on the empathy among



people and their perspective; and 3) how inhabitants of a setting define their situation determines the nature and meaning of their actions as well as the setting itself (Berg, 1995).

The new social, economic and political contexts in the northern Bolivian Amazon that developed after important legal reforms, forced people to bear narrowly spaced changes in a short period of time (less than 10 years, see Chapter 2). Understanding the implications of this new context requires a deep analysis of the social relationships from which the most important collective social arrangements, community rules, and common pool resources management strategies arise within forest communities. How people will be seen by other external actors or researchers will be a result of the research methods used to understand those new arrangements (Bogdan and Taylor, 1975). If people are researched in a quantitative study in which they are reduced to objects of study and units of replication, there is a risk that conclusions – although based on precise quantification - may fail to fit the realities as experienced by people (Berg, 1995). Researchers using qualitative techniques examine how people learn about and make sense of themselves and others. This is also the instrument which allows understanding radical social changes. Qualitative research also allows us to recognize and understand the factors that facilitated the acceptance and continuity of the new social, economic and political contexts.

An important and logic element in this statement is that in spite of the fact that qualitative and quantitative models are not incompatible, quantifiable outcomes not necessarily are the most important or more meaningful for actors who take part in the research (Brown, 2010). In a situation in which circumstances continuously change, qualitative methods are more capable of recognizing and analyzing the impacts of those changes, as for instance, the definition of rights to access and use of land and natural resources. The social dynamics determine the course of those situations (qualitative analysis), while the agreements achieved and its acceptance, determine the extent in which community members can get benefits using those natural resources (quantitative analysis). We resort to this complementarity to demonstrate an important social and economic dynamic related to the evolution of a former debt-peonage system in northern Bolivian Amazon. Thus, quantitative data helped us to understand and link the dependence and importance of the new debt-peonage in actors' strategies to achieve benefits and rights of use of valuable natural resources, which analysis was linked to a qualitative perspective.

### **3.2. Selection of community sample**

To select our research sample, data collection methods and analyzing methods, we spent one year to become familiar with the region, people, communities and

analyze the available literature on the region. During this period we also got in touch with formal institutions (NGO's, peasant union and community councils) and paid many visits to forest communities. Based on these preliminary assessments, we selected communities for this study. The dependence on non-timber forest resources was the most important criterion to select communities, and we also took care to include both agro-extractive and extractive communities (c.f. Stoian and Henkemans, 2000; see Chapter 2). We included both types of communities because of their distinct social evolution, which may be related to differences in their years of existence (see Chapter 2).

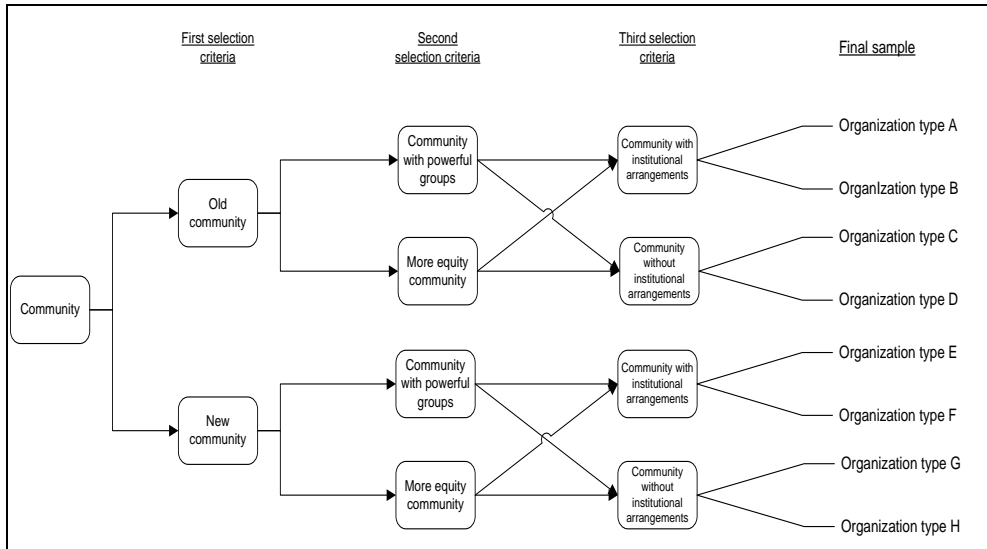
Within these two groups of communities we distinguished communities based on the social relationships and institutional arrangements within those communities. We chose these criteria as we observed that this influenced the ways in which communities have been organized since they achieved the status of communities. In the present research we called the latest communities as being the result of "social reconfiguration", which is reflected in factors such as power, social status and hierarchy within the new communities. Because social differentiation implies superiority and inferiority connotations (Durkheim, 1950; Foucault, 1982), in our selection scheme we separated this criterion in two components: "more equitable communities and communities with dominant groups". Based on the level of differentiation, our interest focused on the degree of social participation, equity and democracy within decision-making spaces related to the definition of land property rights and natural resources allocation, access and use.

Finally, the last relevant criterion involves the institutional arrangements. This criterion was devised to analyze how local institutions derived from collective deliberations are linked with the social relationships and seniority of the community as an independent social organization. Based on our previous observations, we realized that there are communities in which the organization rests on powerful groups who control the rules and decision-making. On the other hand, there are communities with wide levels of participation in internal issues of collective interest. Our interest focused on the different perspectives devised by communities to arrange collective affairs as well as the local social framework which has influence on conflicts emergence and strategies to manage them.

The combination of these three criteria resulted in eight probable different communal organizations as shown in Diagram 3.1. The process of selecting communities was carried out using a database prepared by Henkemans (2001) for her research in northern Bolivia, which included the date of the community's foundation. We used the year 1996 as a reference to divide Henkemans' samples in two groups. In that year the Bolivian government enacted laws of land and forest reforms, and the popular participation and decentralization laws. That moment

represents the collapse of the *barraca* and since 1996, all rural communities of northern Bolivia acquired a new legal status based on the new rights and accountabilities based on the legal reforms mentioned above. The communities with long *barraca* traditions had to break the old ties of dependence with Brazil nut estates without a history of real community experience.

**Diagram 3.1.** Scheme of community sample selection



In total we randomly chose eight communities for each group (old communities and young communities) to assure the representativeness of our sample, and then we moved on to verify the presence of second and third criteria in both groups through visits to each community. To verify the presence of dominant groups, we registered from interviewees the number of extended families with great influence within the communities, based on the opinion of people themselves. We defined a dominant group as a large, extended family with direct and indirect family ties and/or a family with a long history in the community. Based on our preliminary interviews and observations, dominant groups in old communities are often the first people who settled in the community and have claimed more rights in decision-making than the ones settling afterwards. In new communities, dominant groups were the persons with close links to the previous *barraca* holders (*patron*), who gave them more rights derived from patronage relationships (Pacheco, 1992; Henkemans, 2001; Stoian, 2006).

In the present research we considered a community dominated by dominant groups, when up to three of these groups coexist in the same community. When there are over three dominant groups, this may dilute the control of such groups over decision-making and may thus increase social participation and discussion.

To verify the presence of institutional arrangements, we focused on the number of agreements derived from collective discussions on any important community issue. Our first references about institutions were the community assembly and community council. Several communities showed that these institutions can be functional or simply legal formalities, depending on how seriously people consider their role. People's skills to self-organize which are related to the kind of social relationships, and its seniority as social organization, are factors that may have great influence over institutional agreements within communities. Therefore, how institutional agreements emerge in each community of our sample may be closely related to the first two main selection criteria. On the other hand, when the community assembly and community council are functioning well, a number of institutional agreements arise as a manifestation of wide social participation in decision-making.

Finally, to determine if the results from the two groups of eight sampled communities were representative, we also studied additional communities outside of the sample of eight main communities. We choose 12 communities located mainly along the roads and located in the neighborhood of our main sampled communities and used quick appraisal methods to verify the comprehensive social context in each community. We applied the three criteria used to select the eight main communities to include the 12 additional communities.

At this point it is important to clarify that our sample focused on peasant communities, excluding indigenous communities, because the latter are more common and demonstrate variability of social dynamics, institutional arrangements and processes of social differentiations that was of interest in our research.

All criteria described so far fit in the non-probability sampling methodology which is amply recommended for labor-intensive, in-depth studies of a few cases (Russell, 2006). Most studies of qualitative research are based on fewer than 50 cases which means that every case has to count. For this reason the cases in this thesis were deliberately chosen to be non-random. On the other hand, in-depth research on sensitive topics requires non-probability sampling, and everything can be a sensitive topic when researchers dig deeply enough into it.

The rules agreed by members of the community become a sensitive topic especially when we tried to assess how the community enforces those rules, how many people comply with the rules, and how many people benefit from the rules. In the same way, it is not a problem to talk about conflicts within the community, but this topic becomes sensitive when we inquire about the source of conflicts, the people involved, or the social strata who drive the conflict. We call this 'community intimacy', a space in which the sensitive topics are treated within a framework of secrecy, therefore restricted for outsiders. The only way to overcome this barrier

was constructing trust with the people directly linked with our research that is, the key informants, and through in-depth interviews carried out at several moments.

### **3.3. Selection of informants**

To select informants for our in-depth interviews we applied three criteria: 1) Seniority: a mix of old and new members; 2) level of knowledge about the community: people with and without involvement in community matters; and, 3) level of trust in the community. This decision was supported by our preliminary inventory about people's behavior related to community matters and collective spaces, and by the type of information that we prioritized for our research. The latter means that the initial sample of people had to be deliberately selected on the basis of their ability to provide relevant and reliable data related to our research subject (Horsburgh, 2003) and to initiate our network sampling (see below).

We included old community members in order to obtain information about the social relationships before land and forest reforms took place. The data provided by these informants was the basis for comparative analyses with the data provided by new members. Both groups would provide clear differences of perceptions related to social relationships within communities before and after the legal reforms. That was useful information to analyze the changes of the social framework and the new balance of power related to the former debt-peonage system. The criterion on level of knowledge was applied because not all the members of a community have enough knowledge about the community in general, which is closely linked to individual behavior related to a low level of socializing with the rest of community members, and with the lack of interest to get involved in communal tasks. The criterion about trust related to the necessity to achieve accurate and reliable information, which was assured through selecting people who are trusted and respected by the others and could therefore talk on behalf of others with the confidence that they will tell the truth. In selecting informants, we relied on community members' knowledge about themselves.

The procedure to select informants was based on chain referral or network sampling (also known as the snowball method). This method is recommended to studying hard-to-find or hard-to-study populations (Russell, 2006). Three reasons support the use of the snowball method: 1) The sensitive topics make it difficult to find people able to talk about it; 2) the general lack of interest among community members about community issues; and 3) the presence of powerful groups within communities.

Following the snowball technique, we used key informants to locate other key informants, who at the same time listed others among community members. In

this way we obtained a list of potential interviewees and selected those persons recommended by several of the people we already interviewed. In this way we went from one informant to the next, thus increasing our sample size. Eventually, the sample becomes saturated –that is, no new names were offered (Russell, 2006), or the latest interviewees did not provide new relevant information.

In order to validate our data, we applied the triangulation method, which is recommended to obtain a better, more substantive picture of the same reality; a more complete array of perspectives and concepts; and a means of verifying many of these elements (Berg, 1995; Malterud, 2001; Anfara et al., 2011). The informants selected to complete the different perspectives of the triangulation method were actors outside of communities but closely linked to them. NGO staff members and traders who are permanently in contact with communities in different periods of time were a good choice in our case. These actors provided us with different perspectives to understand the changes that are the main subject of our study and their impacts on the sampled communities.

### **3.4. Data collection**

The combination of the three criteria discussed above resulted in eight groups of different communal organizations. From each of these groups we chose to study two communities and treated every community as a case study, in order to obtain a deeply and complete picture of each of them. For that reason it was relevant to choose the appropriate data collection methods in order to facilitate three important stages of the field work: 1) To gather correct and reliable data in an efficient way; 2) to facilitate the data structuring process; and, 3) to provide additional elements and references in the validation of data. This means that the research strategy needed to be coherent and the data collection methods efficient to ensure that coherence (Miles and Huberman, 1994). On the other hand the data collection method in our research combined three instruments: 1) Application of semi-structured interviews (Berg, 1995; Russell, 2006); 2) direct observation; and, 3) application of focus group dynamics.

We applied semi-structured interviews in each community according to a time schedule that included the most critical moments in various productive activities. Direct observation was applied according to the circumstances and opportunities to attend different social dynamics in each community. Focus groups were conducted to the extent that people were available and committed to participate. In order to build trust with community members and due to the difficulty to schedule our participation in social spaces like communal assemblies and communal training events, each community was visited multiple times during one and a half year. This meant that an important number of events we attended in all the communities of the sample were coincidental, and not the result of careful

planning. This forced us to be prepared to apply any of the methods mentioned above in any moment.

In the sample of 12 additional and neighboring communities (located along the roads) we applied rapid rural appraisal tools (Pido, 1995; Maalim, 2006). We did so to assess if among these communities similar social dynamics observed within the main sample were also present, and if the three criteria of selection applied to the main sample behaved in the same way.

Table 3.1 shows detailed information about the number of interviews applied, the number of communal events attended and the number of focus group conducted in each community of the sample. Table 3.1 also includes the number of visits to each community, which is linked with the difficulties to access each community due to transportation, distance, or way of access (by road or by river). Agro-extractive communities are mainly located close to Riberalta, therefore making it relatively easy to access these communities at any time, carrying out visits of one to two days. Extractive communities were located far away and we had to compensate the fewer visits by longer stays in each community (on average four days).

**Table 3.1**

Number of interviews, visits, communal events attended and focus groups conducted in 16 communities in the northern Bolivian Amazon

Community name	Number of interviewees	Number of visit to each community	Number of communal events attended	Number of focus groups conducted
<b>Agro-extractive and old communities</b>				
Candelaria community	10	4	1	2
Campo Central community	10	5	0	1
Cachuela Mamoré community	12	4	2	2
12 de Octubre community	15	5	3	0
Rosario del Yata community	8	5	0	0
San Lorenzo de Pampa community	8	3	0	1
Miraflores community	9	4	1	1
Warnes community	13	3	0	2
<b>Extractive and new communities</b>				
Las Mercedes community	11	3	2	1
Remanso community	7	3	2	1
Peninsula community	5	3	0	0
Ingavi community	14	3	0	2
Santa Fé community	9	5	3	3
Fortaleza community	10	3	0	1
Exaltación community	7	4	0	0
Contravaricia community	9	4	0	1
<b>Other actors interviewed</b>				
Number of traders interviewed	5			
Number of NGOs staff members interviewed	9			
<b>TOTAL</b>	<b>171</b>	<b>61</b>	<b>14</b>	<b>18</b>
<b>Additional communities outside the main sample</b>				
<b>Extractive communities</b>			<b>Agro-extractive communities</b>	
Pallar			Santa Teresa	
Ingavi II			San Jose	
San Ignacio			La Paz	
San Luis			Loma Velarde	
Derrepente			Las Amalias (Indigenous community)	
Palestina				
Cocal				



### 3.4.1. Semi-structured interviews

Semi-structured interview was the main data collection instrument applied during the field work, and our decision to use it rested on: 1) Semi-structured interviews combining the advantages of unstructured and standardized interviews; and, 2) semi-structured interviews which allow the control of the process through an application of a systematic and consistent order of questions, but at the same time permitting interviewees to probe far beyond the answers to those questions (Berg, 1995; Russell, 2006).

Considering the relationship and lifestyle of the target population, a semi-structured interview provided us the opportunity to develop an appropriate conversation focusing on the information we needed, but leaving time for the interviewee to develop their own thoughts around the answers. On the other hand, in order to prevent the disruptions in the interviewees' daily routines (Russell, 2006) the questionnaires had to be designed to get people's attention quickly and obtain the information fluently. We didn't use payment to compensate interviewees, and due to the difficulties to arrange travels to the studied communities, we had to develop and/or to adapt the application of semi-structured interviews to people's availability.

Due to the amount of information from the interviews and the circumstances described above, we opted to divided interviews into several sessions. This prevented that people would lose interest to participate in our study. We could treat one subject at a time (respecting the daily priorities of interviewees), and we build trust with our interviewees. The necessity to split our interviews in different sessions is one of the reasons why we visited the communities several times during a period of one and a half year.

At the beginning of the research period, we planned to apply 15 interviews in each community. Nevertheless, the final number was lower because in most of the cases the network sample became saturated and there were no new names of potential reliable interviewees and because the additional interviews produced little or no new information (Guest et al., 2006).

The interview was designed on the basis of five relevant social contexts. The first one related exclusively to the recent history of the communities before the legal reforms were implemented in the region. The information obtained from this context helped us to rebuild and to understand the former social relationships, the type and level of organization of population settlements inside and outside of previous *baraccas*, the former social and economic mechanism to allocate and use land and natural resources, and the Brazil nut production chain, including the links between actors within the chain. This information was used in all the research

chapters of this thesis (Chapter 4-6), but mainly for Chapter 1 on the debt-peonage system.

The second part of the interview focused on information related to land and natural resources management. The questions in this part dealt with the use of valuable natural resources, the current way of allocation of land and natural resource within communities, the local arrangements to define land tenure rights (including the definition of plots), and the control over natural resources. The information provided by this section allowed us to understand the social agreements to manage natural resources within communities. We obtained this information from different perspectives.

The third part of the interview encompassed two closely linked communitarian domains. Social relationships and community organization are reflected in the communal assembly and the community council as core elements of collective action and self-organization. The interviews focused on how people elect their representatives, the performance of those representatives, the legitimacy of the electing process and of the representatives themselves. The interviews also focused on the design of local rules and their enforcement and assessed the factors that motivate or force people to develop rules, and the role of the community council and community members.

Finally, this part focused on social relationships, observed within the new different scenarios in which people are somehow obliged to participate in order to arrange collective rights and assure individual rights to land and natural resources. A comparative analysis between this data and the data obtained from the first part of the questionnaire, allowed us to recognize the main drivers of changes in social relationship before and after legal reforms.

The fourth part of the interview dealt specifically with the topic of institutional arrangements. The questions aimed at obtaining data related to the kind of institutional arrangements within communities. This involved the factors influencing the emergence of these arrangements as well as the usefulness of the arrangements to regulate the use of community goods, the behavior of people, and the benefits provided by the institutional arrangements. Finally, an important part of the research focused on how people commit their participation and allocate responsibilities within the institutional arrangements, meaning, who is in charge of implementing new institutional arrangements and in what conditions. For the present thesis we understand the institutional arrangements as collective agreements settled by community members, and solely focus on those that regulate the access and use of any natural resource relevant for the community, either to assure livelihoods or to achieve monetary income. All the information obtained from the interviews have provided elements to understand the nature

and the aim of the institutional arrangements and to define if the arrangements are the community's initiative or influenced by other organizations (private enterprises, NGOs, or government institutions).

Finally, the fifth part of the interview tackled the topic of conflicts. The previous period of assessment revealed that conflicts within and between communities are not just matters of incompatible objectives or opposing of interests among people. Although resistance is an intrinsic characteristic of conflicts, there are circumstances which constrain its manifestation, remaining symptomatic. In other circumstances, we observed that conflict management is not necessarily the decision of dealing with the conflict. Sometimes the strategy is simply to avoid the conflict which entails a complex social framework and social interaction to make this option feasible. The questions in this study captured the main factors which make conflicts something more complex than the principle of resistance or impairment which is a common feature within conflict theory (Glasl, 1997, 1999; Yasmi, 2007) and therefore to some extent unpredictable in its development. This information has allowed to link circumstances considered as conflict by the target population, to specific social contexts within the community. Land distribution, natural resource allocation and use, community council performance, communal assembly performance, social differentiation and the combination of some of these represented the core to collect information related to conflicts.

#### **3.4.2. Focus groups**

Focus groups composed of several participants discussed a topic of mutual interest to themselves and the researcher. Focus group participants are usually led through the discussion by a moderator who is often the researcher. The data collected from focus group sessions are typically analyzed qualitatively (Morgan and Spanish, 1984). Although focus groups received little attention in social sciences, they are commonly used in different qualitative research as for instance sociology, economy and anthropology (Morgan and Spanish, 1984; Morgan, 1996). Focus groups do not replace surveys or interviews, but rather complement them with detailed information about important topics that emerge from the research (Calderón et al., 2000; Russell, 2006).

Focus groups are organized to discuss certain aspects of the everyday life of communities. For the present research the usefulness of focus groups was to improve, widen and verify the data collected through semi-structured interviews (Morgan, 1997). We applied this tool mainly to know the causes of conflict, the position of people in relation to conflict, the perception of the people in relation to consequences and impact of unsolved or avoided conflicts over the individual and the collectivity. To achieve reliable information we have somewhat modified the traditional way to run focus groups. As conflicts always involve at least two parties,

we held focus groups to discuss the point of view of each party related to the conflict. That meant organizing homogenous groups of each party (Russell, 2006). Once we collected the particular opinion of each group, we applied a different strategy. We put together members of each party which resulted in tense meetings, in order to disclose the views over the conflict among them. Although this kind of focus group was possible to do just a couple of times, they provided most important information on conflicts.

We also organized focus groups in an improvised way to take advantage of the situation in which several people were around and agreed to participate. For instance, when we were interviewing and other people just passed by and entered the conversation, we held spontaneous focus group sessions. This happened often during the long-term fieldwork in small communities, where all people know one another (Russell, 2006).

A focus group typically included six to twelve community members. Some academics argue that seven or eight people is the preferred size. If a group is too small, it can be dominated by one or two participants, while groups of ten or twelve are hard to manage when many people wish to talk about the same topic, a problem that becomes larger when discussing sensitive issues. Therefore, in these circumstances smaller groups are better to get really in-depth discussions about sensitive issues (Morgan 1997). In our case groups of six to eight participants were common, mainly due to the distances between households and the places of the meetings, and due to domestic chores which prevented people to attend the meetings. On the other hand, dealing with sensitive issues in a context of close social ties, requires small groups to prevent discrepancies among participants and/or the triggering of internal struggles.

### **3.4.3. Direct observation**

Interviews, focus groups or surveys are important ways to learn about people, their surroundings and their behavior. Nevertheless, there are circumstances in which this kind of data are not enough to really know what people *actually* do in relation to what people *say* they do (Russell, 2006). Watching them or studying the physical traces that their behavior leaves behind becomes a very good and accurate way to know people.

However, the direct observation process has social implications if a researcher does not apply the right methods. Frequently, these implications have to do with ethical questions and social obtrusive circumstances which is part of the risk of adopting this kind of social science tools (Russell, 2006). In the present research, direct observation was necessary to understand individual behavior in collective spaces and within social interactions related to bargaining over valuable natural resources.

Our interest focused on three activities: 1) The communal assembly; 2) Communal training events; and, 3) The selling of Brazil nut and negotiation of *habilito* among community members and traders. While observing the community assembly we tried to compare individual behavior in a collective discussion to the individual's opinions and ideas outside this context. This provided us with valuable information to analyze the collective dynamics around communal rules design and enforcement, and the dynamics and patterns related to conflicts. We observed that very often the discussion around topics of communal interest adopts ways sometimes quite different in relation to the point of view of the participants, however the outcomes, although contrary to what people have expected, becomes accepted as communal arrangement. From this activity we tried to find the explanation to this phenomenon and others related to conflicts.

Observations of communal training events shed lights on the benefits from community training processes among members related to natural resources management. This information helped us to understand the usefulness of local rules to constrain individual behavior related to the access and use of valuable natural resources. This activity provided us with valuable information to recognize and understand the factors that influence the emergence of collective action, to achieve institutional arrangements and to define individual and collective rights over land and natural resources, even if the arrangement would be contrary to the legal reforms. These issues were discussed in chapter 4 of this dissertation. Finally, participating in events of selling of Brazil nuts and negotiations of *habilito* gave us the opportunity to observe how people negotiate *habilito* within the new social and economic changes, and land tenure and forest legal reforms.

### 3.5. Data analysis

The purpose of data analysis is to give order, structure and meaning to data gathered by any data collecting tool, either qualitative or quantitative (Anfara et al., 2002; Berg, 1995). Several academics argued that the great amount of information produced by qualitative methods makes it difficult to make sense of what has been learned and what researchers want to communicate to the reader (Van Maanen, 1988; Denzin, 2000). The latter argument suggests that qualitative data analysis is not a rigid instrument, but rather an eclectic process in which researchers try to make sense of the information. There is not one way to analyze qualitative data (Creswell, 2002).

Considering that we designed the research methods based on information obtained and analyzed during one previous year, data collection took place in a way that facilitated its ordering and structuring. The latter enabled us to apply a combination of different data analysis methods in order to find the most efficient and accurate way to obtain reliable outcomes (Burnard, 1991). Thus the main

analysis method was based on the technique referred to as constant comparative analysis (Anfara et al., 2002), which works better when data is collected and analyzed simultaneously to generate categories and building theories (Merriam, 1998). We complemented the latter method by techniques adopted from the grounded theory approach. Grounded theory is a method that enables researchers to generate systematically a substantive theory grounded in empirical data, thus providing the capacity to create rich descriptions and understandings of social life (Walker and Florence, 2003).

The semi-structured interview of the present research was designed so that every section of the questionnaire is part of a sequence of events put together in a simultaneous format of data collection. Although the application of the interview required several meetings with the same interviewee, this did not represent an obstacle to a simultaneous analysis. We used five categories of coding, one for each section of the semi-structured interview explained above. We compared the responses within categories and between categories, a process called "iteration" (Anfara et al., 2002). Once we had the first round of coding, we moved on to make comparisons between interviews of different people with similar experiences which in our research are the social changes and the new life experiences in the communities. As the main purpose of the present research was to find evidence about common patterns and themes within communities the process described above continued with comparisons of each new interview until all had been compared with each other (Thorne, 2000). After the analysis was done in every community of the study, we repeated the same procedure with outcomes obtained in the other communities to find clear general patterns to discriminate between groups of communities.

For the present dissertation a theme is a dynamic affirmation, which controls behavior or stimulates activity. The activities, prohibitions of activities, or references which result from the acceptance of a theme are its expressions (Ryan and Russell, 2003). To find the main patterns or themes we started with some general themes derived from the previous assessment period and added more themes and subthemes as we went along. During the field work and the analysis process, the general themes were those prioritized in each section of the semi-structured interview, but we allowed new themes to emerge from the texts as we went along (Miles and Huberman, 1994; Jacelon and O'Dell, 2005).

We used the relations among categories to build theories and explanations about what people understood related to our research subject, constantly checking both against the data, particularly against negative cases. Finally we presented the results of the analysis using examples, that is, quotes from interviews that

illuminate the statements, which were provided during the interviews, focus groups and direct observations.





## **Chapter 4**

# **Diverging Regulatory Responses to a New Forestry Regime in Forest Communities in the Bolivian Amazon**

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**With Wil de Jong, Rene Boot and Pieter Zuidema**

## **Abstract**

Over the last decade, important decentralization processes and agrarian reforms have taken place in many tropical countries, with the purpose of transferring rights and responsibilities to forest communities. These reforms have resulted in an intensive academic debate on governance and management of forests and how actors should be involved in this task. An important but understudied element in this debate is the way in which communities cope with new legislation and responsibilities. An important element of the latest inattention is that principles of property rights bestowed by the government constitute themselves some kind of obstacle to cope with formal legislation and to devise local principles of access and allocation natural resources and authority to control those processes. To evaluate how forest communities develop and control local rules for resource access and use, we studied 16 communities in the northern Bolivian Amazon, in which we interviewed 171 people and attended 14 communal meetings and manage 18 focus groups. We found that the first requirement to community rule design, enforcement, and effective forest management is the opportunity to, and equity of, access to forest resources among members. In this context, important factors are the lack of collective traditions, forest resources that used to be of common access and the presence of contradictions among new reforms. In the latest circumstances defining boundaries and granting legal land property rights to community members are insufficient to manage forest resources properly. Community responses to the above ambiguities is to develop their own rules based primarily on rights of access and tenure definition, changing their perspectives according to social expectations and new opportunities for forest resource use. We suggest that the latest is the basis for the dynamism of informal local institutionalism and overlapping of modes of forest governance.

**Key words:** Informal institutions, forest governance, community, rules, collective action, property rights, open-access resources, common-pool resources, equity, norm regime.

#### **4.1. Introduction**

The latest round of government decentralization, which has taken place in many countries over the last two decades, aimed among others to involve users of natural resources in their planning, management, control and monitoring. New institutional perspectives and levels of accountability have emerged as a consequence of these changes. Various researchers have been skeptical about the relevance and effectiveness of decentralization of natural resource governance for various reasons, including the limited transfer of power and rights (Andersson et al., 2006; Ribot, 2003), the limitations or unwillingness of local governments to involve citizens in political decision-making (Agrawal and Ostrom, 2001; Blair, 2000; Pacheco, 2000), the limited overall performance of local governments (Andersson, 2004), problems arising from the need to address equity and accountability at the same time as natural resource use decisions (Nygren, 2005), and overlapping authorities between different tiers of government (Andersson and Ostrom, 2008).

Some researchers have suggested analyzing the shortcomings of decentralization in order to improve our understanding of its effectiveness. Agrawal and Gibson (1999) argued that greater local autonomy provides incentives to devise and implement local rules, while Agrawal and Ostrom (2001) argued that without local control to design and implement such rules, the impact of decentralizing natural resource governance remains limited. Andersson (2004) suggested it is necessary to widen the units of analysis, from local governments to the local governance system, in order to assess decentralization outcomes. Andersson and Ostrom (2008) argued that institutional arrangements at other governance scales often have important influences over natural resource governance regimes, hinting at the weaknesses of local actors and institutions. These different and sometimes contradictory views leave the question *“how to govern forests well”* (Agrawal, 2007), largely unanswered.

In Bolivia, the experience of far reaching decentralization reforms and the simultaneous land and forest reforms led to confusion, discontent and uncertainty in forest communities (Pacheco et al., 2009). Several authors observed that the new property rights require the adaptation of the local institutional environment to overcome barriers to smallholders and communities to manage forest to best meet their needs or economic expectations (Pacheco, 2009; Pacheco et al., 2008; Pacheco, 2007; Luoga et al., 2005; Barry and Leigh, 2008). As part of these reforms, the recognition or adaptation of customary property rights to the new legal framework constitute an important constraint and source of institutional conflicts (Cronkleton et al., 2007). In cases where the new regime defines inadequate or contradictory rights or governmental agencies are ill-prepared to implement new regulations, rural people develop their own solutions to prevent conflicts around

valuable forest resources. There is enough evidence that smallholders are able to define private property rights or subject resources to common pool management (Ostrom, 2009, 2003, 2002; Dietz, et al., 2003; White and Martin, 2002). But what happens, when the legal norms themselves generate uncertainty and confusion between land property rights and forest resources access and use rights?

We hypothesize that where those contradictions happen, people will choose one of two alternative options: to keep existing customary tenure or to develop local rules that fit within the new legal framework. The northern Bolivian Amazon is a good example to study the dynamics of the above process. In the region, cooperation among users seems to have resulted in improved forest resource governance (Rist et al., 2007), either by adapting customary rules to the new regime, or by persuading government to recognize customary rules, even if they contradict the new legal regime (Fitzpatrick, 2005; Gibson et al., 2005). Larson (2003) described the above adaptation in some other countries as an implicitly process.

In this chapter, we answer the following questions: (1) How do people allocate individual or collective *de facto* rights about the use of valuable forest resources under collective *de jure* land and forest rights? (2) Do the legal reforms facilitate or hamper the process of setting individual and collective rights? (3) In what extent do people rely on their customary rules to increase benefits from new collective rights granted by law? Answers to these questions provide insights into the ways at which forest communities deal with and adopt changes in forestry legislation. These insights can assist to successfully implement formal and informal institutions and rules within a context of ambiguous and controversial legal reforms. To explain those adaptations, we draw on modes of governance theory (Kooiman, 2003; Arnouts et al., 2010) -mainly on self-governance- and informal institutions, as the main theoretical framework to fit our empirical findings (see also Chapter 1).

The chapter has six sections including this introduction. The second section presents the background to Bolivia's decentralization, and agrarian and forestry reforms of the last fifteen years and signals some contradictions among related legislation and policies (see also Chapter 2). The third section presents the research methods used to gather and analyze data (discussed in detail in Chapter 3). The fourth section provides a basic typology of how rural people legitimize former rules and design new ones to distribute land within their community, and to secure access to valuable forest resources. The fifth section suggests some theoretical implications of the empirical findings. Finally, the sixth section presents conclusions.

## 4.2. Legal reforms and communities in the northern Bolivian Amazon

### 4.2.1. Decentralization and democratization reforms

Bolivia's government launched in 1996 the so called second generation reforms, including the Popular Participation Law (*Ley de Participación Popular - LPP*) which transferred responsibilities and an important share of the national budget directly to municipal governments, and promoted social participation in public administration (Pacheco, 2010).

Following the LPP, the Administrative Decentralization Law abolished the departmental corporations and transferred their functions to the prefectural government. The two laws gave municipal governments significant responsibilities over public services like health, education, roads, irrigation, culture and sports and allocated resources to pay for those services. The laws established local oversight committees, and created many new municipalities (Faguet, 2004). However, the early decentralization laws had little consequences for forest resource governance (Pacheco, 2010; Andersson et al., 2006; Kaimowitz et al., 1998). Municipalities had limited possibilities to monitor timber harvesting as this was regulated under a different legal regime, and were not allowed to promote local forest initiatives (see also Chapter 2).

### 4.2.2. Land reforms

The new land regime considered communal land titles in locations like the Bolivian Amazon, as the only feasible option to regularize ownership in communities with complex swidden fallow and forest use practices (Stoian, 2006; Cronkleton et al., 2009). In the new Communal Redressing of Agrarian Reform Law (2006), communal title has become the only choice for new settlements in the former Brazil nuts estates or *barracas*. These reforms emphasized collective ownership and resulted in a significant distortion of peoples' customary sense of ownership and tenure (Fitzpatrick, 2005). Specifically for the northern part of the country, decree 25848 of the Bolivian government (2000) imposed that the communal title in the region was granted over an area using the formula of number of families in the community times 500 ha, although in practice there were significant differences among users and regions (Pando department vs. Beni department; Ruiz, 2005).

The government recognized the need of local distribution of land and forest, but established that this should be done according to local uses and customs (*usos y costumbres*). However, these guidelines never considered the social and cultural background of communities, or their lack of skills to deal with the tasks emerging from the reforms. The communities, however, had no other option but to comply with the new legislation. However, comply with the new legislation was influenced

by the prevalent social and power structures within communities, emphasizing about who had the legitimate authority, power or capacities to implement communal land distribution, while assuring equity and democracy of individual and collective rights, which were the main objectives of the agrarian reform.

### 4.2.3. Forestry reforms

The new Forest Law and its implementing regulations aimed to democratize access to forests for community members and indigenous people who had been largely excluded before (Pacheco, 2010; Barry et al., 2010; Kaimowitz et al., 1998). The new forestry law gave forest owners the exclusive rights to use forest resources and obliged enterprises to exploit timber in forest concessions (Pacheco, 2006). But smallholders still faced important hurdles to legally benefit from forests, for instance because the law required smallholders to comply with complicated and expensive formal procedures (Pacheco, 2010). Often, smallholders, who now hold legal communal tenure over extensive areas of forest, have to negotiate with timber companies, because the latter have the capital, skills and administrative influence.

In the northern Bolivian Amazon, the formal rights, supported by law concur simultaneously with a mosaic of local perceptions and practices regarding land property rights, autonomy to use forest resources, and community members' expectations. This poses the question, to what extent statutory rights allow or guide people to generate forest-based livelihoods and conserve forests (Larson et al., 2010) and to what extent they promote urgent needs either to adjust customary rules or to develop new ones to meet community members' expectations.

### 4.3. Research methods

The research for this chapter was carried out in the northern Bolivian Amazon in the Beni and Pando departments, in which main economic activities are Brazil nut harvesting and timber extraction. Until recently the social relationships in the region were reminiscent of the *barraca* system, (de Jong and Evans, 2005), a social and spatial organization of rubber and Brazil nut exploitation (Ruiz, 2005), and continue to do so in the more remote areas in the region. A *barraca* was an area of forest that used to be controlled by a wealthy entrepreneur, to which a labor force was attached to provide services under debt-peonage arrangements (Chapter 2 Chapter 5; Stoian, 2006).

We carried out a case study in 16 communities in the study region. Communities were selected on the basis of two criteria: the main forms of forest resource use and the year that the settlement became independent. (agro-extractives and

extractives communities; cf. Stoian and Henkemans, 2000). The agro-extractivist communities were spread near the most important cities of the region (Riberalta and Guayaramerin). The extractivist communities were located in the former *barraca* areas, along the Orthon and Manupare rivers (see map 1 in Chapter 2). Additional information on the communities is shown in table 4.1.

From October 2008 until April 2010 we applied semi-structured interviews in each community to provide answers to the following questions:

- What was the land distribution before and after communities received legal title to their land?
- How was access to valuable forest products (non timber and timber) assigned before and after the new land and forest law came into effect?
- What were the processes of design and enforcement of community rules related to land and forest resources?
- What governing institutions are in place in the communities, and what is their performance?
- What is the influence of social structure and power relationship in each of the issues mentioned above?

We planned to interview 15 persons in each community, but in the field the number of interviews was determined by the principle of information saturation, (Guest et al., 2006; Chapter 3). In addition, we also interviewed nine professionals and five traders with ample knowledge about the region or about specific communities, resulting in a total of 171 in-depth interviews. Simultaneously to the interviewing, we attended important communal events, for instance, communal assemblies, training events about rules design, and communal natural resource allocation events when they takes place as a result of collective agreements, and manage 18 focus groups.

The information was analyzed based on Qualitative Data Analysis principles (Guest et al., 2006; Brown, 2010; see chapter 3). Our goal was not only to identify patterns and salient themes related to the subject of the research, but also to demonstrate the variation in how social phenomena related to natural resource allocation are framed, articulated, and experienced within institutions formation and rules design. The analyses of the relationship within and between particular elements of such phenomena were of particular importance. We sought to understand the traditional social dynamics of local people to integrate or overlap formal and informal institutions and rules in order to achieve forest resource access and use.

**Table 4.1.** Main characteristic of the 16 forest communities related to population, previous organization type and productive activities

Community name	Number of families	Number of dominant families*	Type of organization before second agrarian reform	Distance to main town	Main economic activities related to forest resource use
<b>Agro-extractive and old communities</b>					
Candelaria	50	3	Independent settlement	1,5 hours by road	Timber and Brazil nut sale, swidden agriculture
Campo Central	26	2	Idem	30 min by road	Timber and Brazil nut sale, swidden agriculture
Cachuela Mamoré	53	No dominant families	Idem	20 min by road	Commercial agriculture
12 de Octubre	70	2	Idem	30 min by road	Timber and Brazil nut sale, swidden agriculture
Rosario del Yata	200	No dominant families	Idem	1 hour by road	Commercial agriculture
San Lorenzo de Pampa	23	3	Idem	45 min by road	Commercial agriculture
Miraflores	73	No dominant families	Idem	2 hour by road	Brazil nut sale, swidden agriculture
Warnes	70	No dominant families	Idem	30 min by road	Agriculture, timber sale and a some Brazil nut sale
<b>Extractive and new communities</b>					
Las Mercedes	70	3	Former <i>barraca</i>	5 hours by road and 7 hours by boat	Brazil nut sale
Remanso	36	2	Idem	6 hours by road and 6 hours by boat	Brazil nut sale
Península	13	1	Idem	5 days by boat	Brazil nut sale
Ingavi	23	1	Idem	3 days by boat	Brazil nut and timber sale
Santa Fé	25	1	Idem	5 hours by boat	Brazil nut sale
Fortaleza	27	1	Idem	2.5 days by boat	Brazil nut sale
Exaltación	30	1	Idem	12 hours by road	Brazil nut sale
Contravaricia	36	1	Idem	5 hours by road	Brazil nut and timber sale

Source: Field notes

\* Dominant family is a large group of community members linked by acquired or direct family ties. Its strong influence on community issues and decision-making come from having being the first in arrive the community or power given by the patron in the *barraca* period.



#### **4.4. Results: modalities of land distribution and forest resource rights assignment**

In our 16 studied communities, we could distinguish three modalities to distribute land and grant forest resource rights after receiving communal land tenure. Table 4.2 summarizes the three modalities and where they were observed.

##### **4.4.1. Free access forest resource management**

Under the *free access forest resource management* modality, land distribution is guided by the principle of equitable access to valuable forest resources. Two subtypes of this modality can be distinguished. In the first subtype, the concentration of valuable forest resources in a limited number of locations was the main constraint, and an equal division of land would not guarantee equal access to resources. In the second subtype a more equal distribution of the valuable forest resources occurred, but the resource levels were insufficient to ensure access to equal amounts of resources for all community members. In both subtypes, community members opted for a common land tenure arrangement, and resisted partitioning or assigning forest areas to individual households. Communities developed rules to regulate equal access. Land property rights were held by the entire group, which guaranteed access security for everybody. Individual rights could only be alienated in favor of other community members, but not outsiders, unless there were more resources than the group needed or was able to manage. The rights subject to alienation were over forest resources and not over land per se.

Communities that adopted the *free access forest resource management* modality developed their own procedures to assign rights. In communities that hold common land tenure in the strictest sense, decisions on access rights were made by the entire community. Access to Brazil nut trees, for instance, followed three simple but consistent rules. First, the community define every year a common starting date to harvest Brazil nut, and nobody is allowed to start harvesting prior to that day. Second, the amount of Brazil nuts to be harvested depends on a family's capacity. Families that have fewer members than the average family are allowed to hire workers or resort to relatives for help. Third, the allocation of harvest areas to individual families is also decided collectively and can vary from year to year. In some cases there is no allocation of harvest areas and families can choose their own area and trees they want to harvest. In other cases, harvesting areas are being assigned but they rotate randomly between families every harvest season.

When the opportunity to sell timber occurs, community consensus is required. Without such a consensus, no one takes the initiative. The benefits from timber

sales were divided equally and logging is often negotiated with a private timber enterprise that also takes care of the legal procedures. The communal assembly assigned a committee to monitor timber extraction, but most people took part in actually monitoring, sometimes for short periods of time as assigned by the communal assembly. In other cases when the assembly decided to select a permanent monitoring committee, community members helped the committee members with their daily chores, for instance, Brazil nut harvesting or agriculture. Only in case of an economic emergency can community members sell timber independently without communal approval. However, they have to inform the community leaders about the sale.

For other forest products, for instance palm heart, different rules were applied. Everybody is allowed to harvest palm heart for their own consumption or sale. In the latter case, community members are expected to communicate their plans to the communal assembly. They are only allowed occasionally to engage in the collection and sale of any forest product, to assure that resource stocks in the communal forest are not exhausted.

#### **4.4.2. Common-access and individual natural resource management**

The *common-access and individual natural resource management* modality of assigning land and forest resource access rights is linked to a single valuable forest product, Brazil nut and to agriculture which seems to need different forms of tenure for its access and use. The communities which adopted this modality used to be part of a previous *barraca*, and *barraca* workers were assigned a specific Brazil nut forest area for harvesting. The *barraca* holder assigned those areas considering the estimated amount of Brazil nuts the area could yield, and the distance of the area to the village. The *barraca* holder favored some workers during this allocation, to create a social hierarchy among workers as a mechanism to maintain control over the workforce (Stoian, 2006). Despite the 500 hectares decree (which provide more land to people who rest on extractive activities in the northern Bolivian Amazon; see Chapter 2) , which has influenced land and forest resource distribution in most communities, Brazil nut extractive communities with a *barraca* history opted for this modality of forest access rights. Under this tenure modality there are no locally defined land property rights, only temporary allocations of Brazil nut centers. These centers are the locations where Brazil nuts are temporarily stored during the harvest season. In these communities, politically powerful families continue to dominate.

In five communities studied, several family clans within a single community dominated an area that had been part of a different *barraca* in the past. After the agrarian reform in the 1990s, family clans exercised land rights over communal lands as stipulated by the various laws, but each clan managed its domain

following its own rules. Under this modality, rights over Brazil nuts located in a delimited area can be transferred to community members or outsiders, and the current owner takes an autonomous decision to that extent, although the final decision is subject to the communal assembly's deliberations.

For other non-timber forest resources there are often rules to constrain or to control the amount and purpose of their use. Because Brazil nuts are the most important source of income, people have the right to collect and sell them, sometimes without restrictions, sometimes limiting the quantity of trees that can be harvested by a family and hired collectors, or limiting the number of people who are permitted to collect Brazil nuts to the family members only. This rule intends to prevent conflicts when collectors hired from outside the village trespass into areas with Brazil nut trees belonging to others, or to prevent community members from invading neighboring Brazil nut areas. The productive potential of each Brazil nut center and a family's labor reserve are the main factors taken into account when Brazil nut areas are assigned, restriction imposed, or compliance with the rules is assessed.

The second agrarian reform and the 500 hectares decree initially were a hindrance for the *common-access and individual natural resource management* modality of land distribution and resource access. Observing that a distribution of land into 500 ha plots for each family did not ensure equitable access to Brazil nut trees, few communities were motivated to initiate a new local land distribution based on former rules. The new approach not only implied a fair natural resource distribution, but also the overcoming of a social power imbalance from the past. In other cases, however, family clans tried to hold on to their power, and control of larger areas of Brazil nut forest, and tried to prevent the innovative local distribution that assured equal access. In some communities more than one family clan struggled to hold on to power and control of land and forest, dividing the community into a number of sub-communities each regulated by their respective dominant clan rules.

In five communities that adopted the *common-access and individual natural resource management* modality of land and forest resource rights allocation, selling other forest products is not allowed unless it benefits all community members. Collection of forest products for personal consumption is allowed from the area over which rights are held. However, when the opportunity to sell timber occurs, but the village does not come to an agreement, village members often turn to non-authorized selling of timber.

As a rule, however, in these villages timber is only sold collectively, because the spatial distribution of timber stocks does not allow for a distribution that assures equitable access to all. The communities are also concerned with the legally

required procedures to sell timber. Some of the communities that sell timber prepared the required forest management plan with the assistance of an NGO. The communities also form committees to monitor timber extraction which is contracted out to a timber company. Committee members usually receive some training but the engagement of other community members is minimal. The timber's income is equally distributed among community members, but due to the low collective engagement, the community's bargaining power is limited and this also weakens the monitoring capacity.

#### **4.4.3. Individual tenure and natural resource management**

*Individual tenure and natural resource management* modality was common within communities that engage in both agriculture and extractive activities, but were established long before the second agrarian reform, and had adopted individual tenure over land and forest areas with valuable forest products (Stoian and Henkemans, 2000). After the reforms, the communities maintained individual tenure, with clearly defined boundaries between neighboring parcels. Before these communities were legally recognized as a consequence of the second agrarian reform, there were no rules that regulated land acquisition. Interviewees assert that in that time newcomers or residents could freely colonize new land, as long as land belonging to others was respected. These principles were essentially maintained after the communal land titling. While legally the communal land belongs to all community members, there is a marked differentiation of family assets. Currently we found that in some communities family holdings may vary between more than 1000 hectares to only 10 hectares, and yield varies between more than 3000 kg (\$US 2040) of Brazil nut per year to no Brazil nuts at all. Thus land tenure security rests on the imminent necessity and capacity of individual owners, and is supported by a strong private property rights perception. The sale of land is at the discretion of the owner who communicates any decision to that extent to the community leadership, but not the community assembly. The rights in this case are given for a predefined area of land and for all its natural resource.

Communities with an *individually owned natural resource management* modality exercised individual property rights, and the distribution of valuable natural resources is subject to land right tenure. The distribution of land and forest resource ownership reflects residence time, because people who arrived first in the community had the opportunity to select their parcel with valuable forest resources. The right to harvest Brazil nuts or any other kind of non-timber forest product is held by the owner of the land and not the community. The right to log timber for sale, however, is arranged differently.

Because of the legal status of communal lands, community members in principle need to pursue commercial logging collectively. For that they need to prepare a

communal forest management plan. Well organized communities prepared and implement such a plan under a solid communal administration, although equity and democratic decision making is much defined by local power differences fueled by powerful groups. Benefits, however, are distributed equally and monitoring is effective. Indeed in some cases, communities blocked unauthorized timber extraction, and forced the company engaged in the extraction, to pay when it had infringed on the agreement. Communities that had more difficulties to cooperate internally did elaborate the required forest management plan, but the share of benefits to each community member depended on the timber stock on people's individual plots of land.

In the case that communities could not agree to elaborate a collective forest management plan, people used "clearing plans" to log and sell timber. A clearing plan is a permit to cut the forest on an area of land, and sell the timber in the process. Clearing permits are given to individual holders up to two hectares per year. In communities where this option to sell timber was common, people had a stronger tendency to disregard legal procedures for harvesting timber.

**Table 4.2a.** Rules for land distribution and forest resource access and use among the three modalities observed in the studied communities

Modality	Community	Inner land distribution		
		Land tenure	Forms of land alienation	Agricultural plots allocation
Free access forest resource management	Contravaria/ Exaltación/ Fortaleza/ Miraflores	Collective tenure	Land transaction (transfer) only or preferably among members is a collective agreement	Collective area to agriculture, assigned randomly every year based on individual criteria
Common-access and individual natural resource management	Remanso/ Las Mercedes/ Santa Fé/ Península/ Ingavi/ 12 de Octubre	Individual and collective tenure	Land transaction among member or outsiders with the permission and approval of the community assembly	Randomly allocation within a defined collective area or within individual Brazil nut centers/ Collectively and individual plots of agroforestry
Individual tenure and natural resource management	Warnes/ San Lorenzo de Pampas/ Campo Central/ Candelaria/ Cachuela Mamoré/ Rosario del Yata	Individual tenure	Land transaction among member or with outsiders with or without the approval of the community assembly	Families define agricultural plots within their own parcel based on own criteria

**Table 4.2.b.** Rules for land distribution and forest resource access and use among the three modalities observed in studied communities

Modality	Community	Inner valuable natural resources access and use allocation				
		Allocation of brazil nut harvest plots	Formal modality of timber use	Informal modality of wood use	Modality to use other non-timber forest products	Rules to land use change for livestock
Free access forest resource management	Contravaria/ Exaltación/ Fortaleza/ Miraflores	Collective area with annual allocation of Brazil nut centers	Forest management plan collectively managed or not to sell timber are collective agreements	Timber sales only in case of emergency	Any time and any resource for domestic use or few times for economic purposes	No livestock is a collective rule
Common-access and individual natural resource management	Remanso/ Las Mercedes/ Santa Fé/ Península/ Ingavi/ 12 de Octubre	Allocation of individual Brazil nut harvest based on the former <i>barraca</i> system	No clear agreements to sell timber collectively/No large-scale commercial timber sale/Not to sell wood as collective agreement	Sale of a few trees annually from individual Brazil nut centers leaving a contribution to the community/ The dominant groups normally monopolize timber sales	Any resource for domestic purpose within individual Brazil nut plots only or for commercial purpose paying taxes to the community	Livestock is allowing within individual Brazil nut centers. There is no rules to constrain this activity
Individual tenure and natural resource management	Warnes/ San Lorenzo de Pampas/ Campo Central/ Candelaria/ Cachuela Mamoré/ Rosario del Yata	Brazil nut harvest only within individual parcels when this resource is available <sup>a</sup>	When timber is available in this communities the common way to use it is through two hectare clearing plans	Anyone can sell timber individually without assembly approval	Any time and any resource for domestic or commercial purposes without any permission	Livestock is allowing within individual parcels. There is no rules to constrain this activity

<sup>a</sup> In these communities the existence of brazil nuts is exceptional and naturally poorly distributed.

## 4.5. Discussion

Our results suggest that the new land and forest regulations provided an opportunity for communities in the northern Bolivian Amazon to learn about and take collective action and self-organization. Nevertheless, it also forced people to start designing their own communal land and forest resource rights. Under the new reforms, there was less threat of outsiders exploiting communal resources. The threat is now in what extent community members respects or manipulates formal and informal rules to capture benefits negotiating forest products with outsiders, which may or may not be favorably for the community and to comply with formal rules. Community members themselves may also be tempted to use unauthorized or illegal means to harvest and sell forest products for their own advantage, essentially harming the entire community. Informal timber extraction is a clear example of this. While the new regime imposes constraints on forest resource use, at the same time it provides opportunity and incentives to self-organize. The distribution of land, under different use rights within communities, was the first serious self-organizational step based on local customs, although not always to favor all the community members in the same way, and not always in accordance with formal rules principles.

Our findings suggest that the social and political structure of *barracas* provided the customary mold on which land distribution under the reform was based, largely influenced by the natural distribution of valuable forest resources. The previous *barraca* system appears to have influenced the equity and democracy in the distribution of land and access rights to forest resources in communities. An important shortcoming of the Bolivian reforms has been that they did not sufficiently take into account the relevant previous experiences of the people affected (Cronkleton et al., 2007) and the power involved in social differentiation within communities. At present, rural people of the region are defining customary rules. The process is very dynamic and so far seems to have both positive and negative outcomes, when considering the level of democracy, equity and sustainability of the resulting community rules.

Under the *free-access forest resource management* modality, the individual rights became evident only after people arrange collective rights to land and forest resources. Collective rights are defined to make sure that everybody has the same opportunities. In these communities providing equal conditions to each family group is the single most important standard that defines social relationships, and thus land and forest resource tenure and governance. This modality suggests that people are able to deal with negative consequences of open-access natural resource appropriation, which is in accordance with what was argued by Ostrom (2002). The key principle is that all community members have the same rights and



the only way to assure those rights is by limitations, which force community members to adjust their own benefit expectations in relation to the resources available and the rights of others.

The *common-access and individual forest resource management* modality was adopted because the presence of valuable forest resources (Brazil nut and timber) is difficult to manage using one single strategy. The only way to assure rights related to both timber and non-timber forest products was to define collective and individual rights. The experiences with the former *barraca* system probably determined why these communities could not easily agree on a singular community forest resource management. Depending on the presence of dominant family groups, this modality can lead to effective forest resource governance or subject collective and individual rights to the manipulation of powerful groups. In the latter case, when the vertical social structure does not allow for democratic decision-making, especially dominant group members benefit from opportunistic access to valuable forest resources.

In communities in which *individual natural resource management* prevailed, individual rights were the guiding principle. Although these communities pursued collective forest resource management, this only took place after people have assured their individual property rights. The better these rights were defined, the more likely community members pursued some kind of collective action related to valuable forest resources that are difficult to privatize. When private rights were less clearly defined, people turned to opportunistic behavior, for instance through attracting seasonal harvesters from elsewhere or use forest resources without complying with rules. People also tend to adhere to formal regulations, while ignoring collectively established community rules.

According to the above analysis, there appear to be three important elements that shape communities' institutions and the formulation of rules and their enforcement in the northern Bolivian Amazon. The first element constitutes the legal reforms and related policies that define land and forest governance. The second element is the people's need to respond to the reforms within the sphere that is for them to govern and that has changed from a scenario with no rights to one with new rights and opportunities. The third element constitutes the multiple factors that explain or determine how single communities respond to the opportunities and the necessity to define natural resource governance within their communal territory after the implementation of the legal and policy reforms.

The first and second elements mentioned above led us to the main argument supported by several authors indicating that the new statutory rights do not automatically deliver rights in practice and therefore there is an important hurdle that prevents communities from translating those rights into real benefits using

forest resources (Larson et al., 2008). Although this phenomenon is a common feature in several countries (Nicaragua, Guatemala, Brazil; Pacheco et al., 2009), our findings suggest that in specific circumstances people themselves can find ways to fully exercise the rights bestowed by the government. The strategy rests largely on individual and collective behavior arising from the perception of those rights, which is the result of the opportunity given by the government to community members to organize themselves. The three modalities observed in northern Bolivia are the manifestation of the process of self-organization based on the specific features of social frame changes.

The third element refers to the community as an organization that shapes and enforces the strategies mentioned before. Larson et al. (2008) suggest that forest reforms from the last two decades entail the recognition of preexistent customary rights within communities. Our findings suggest that in Northern Bolivia, the shortcomings of former customary arrangements from the time of *barracas* do not result in recognition of customary rights, nor other social frameworks, because they are currently not accepted anymore by the people. However, these pre-reform arrangements still shape the formation of new community social frameworks, like property rights, other rights or rules, or decision making arrangements (manifested as the consolidation of dominant groups, principles of land distributions and valuable forest resource allocation). The influence of the latest factors may explain the dynamism of rule design and enforcement and the different configurations of individual and collective choices. The latter is closely related with the confusion generated by the new land and forest reforms, which led people to idealize and even exaggerate the new rights they had received. This poses the question whether regulations hinder (Kaimowitz, 2003) or facilitate (Ostrom, 2002) local productive and sustainable forest management. Our findings suggest that it is necessary some level of concordance and compatibility between formal and informal institutions and rules to achieve an effective formal rules enforcement and accomplishment. That concordance may entail different levels of flexibility on formal rules that allows target population to develop adequate informal rules, which might have a positive influence within the definition and scope of individual and collective rights within communities.

The above case studies describing the different forms how communities dealt with the influence of laws, former traditions and the new bundle of rights, represent an important contribution of this work related to the possibilities and factors influencing people's self-organization around common pool resource governance (Ostrom, 2009, 2003, 2002). Among the most important aspects observed are the link between self-organization and the ways the new rights related to land and forest become manifest. When in practice the exercise of those rights at an individual level has difficulties to reach recognition at the collective level, self-

organization is unlikely and the focus of people is on benefiting as much as possible from their share of the collective rights. In this case sustainability, equity and democracy are matters of power and social relationships hierarchy, outlining scenarios opposite to those expected with community forest management. In certain cases, this may lead to a new kind of tragedy of the commons. On the other hand, when the new rights find acceptance among people, self-organization takes place in order to arrange rules and obtain benefits from collectively managed forest resources, with greater prospects for sustainable exploitation.

Each of the cases of community land distribution and forest rights assignment described above, suggest that in the northern Bolivian Amazon there is an ample range of conditions that enable communities to develop local institutions and rules based primarily on their own needs and individual and collective expectations. Formal rules may operate mainly as a reference for the scope of individual and collective rights rendered as collective arrangements to use land and valuable forest resources. In these circumstances, the new bundle of rights, the weakness of formal institutions to enforce formal rules, the duality of formal rules and the former traditions of land and forest resources distributions and social frameworks, operated as driving forces for the development of local institutions and rules design. The latest may be also considered as the engine of the evolution of forest self-governance. On the other hand, it is striking how contrasting formal and informal rules (sometimes quite different in the way that allows people access and use valuable and livelihood forest resources), end up coexisting within a single area, and even within a single community where the opportunities to use valuable forest resource and the exercise of the new bundle of rights depend on such coexistence.

The above dynamic between the development of informal rules to comply with formal rules and at the same time match individual and collective rights exercise allows us to suggest a new type of informal institution. We call this new type "*catalysts of informal institutions*". These enable the emergence or the merger of informal institutions (Helmke and Levitsky, 2004), based on people's interests and needs. We define *catalysts of informal institutions* as: "informal institutions that enable collective agreements that allow for the achievement of individual and collective goals, by accommodating positive and negative aspects of existing formal and informal institutions". According to our findings, catalysts of informal institutions operate to aid people to reinforce or constrain individual and collective legal rights, and to legitimize customary rights alike, manifested as the different types of local arrangements to allocate land and use natural resources. Where this happens, written formal and informal rules can be effectively enforced to regulate valuable natural resources use to the extent that rights are recognized and met, or else, formal rules are being broken and informal local institutions become a

collective pattern, even when they are contrary to formal rules. The intrinsic agreement to use timber illegally, or the allocation of land based on social status, are some proof of the latter.

How people devise and accommodate local rules aids the existence of this type of informal institution, and feeds the local institutional dynamism supported mainly by the duality of formal rules and the new rights. The dominant role of the state therefore, due to government deficiencies, necessarily is restricted to rule design and enforcement, but leaving room to communities to devise optimal ways to adopt and comply with official rules. While the government continues to ignore or overlook the social and economic features of the target population and the natural features of valuable forest resources, there will be a permanent push and pull between those who have the authority to make the decision and design the rules, and those who can enforce the rules. This can be understood as the coexistence of two modes of governance, hierarchical governance, with a government struggling to position non-governmental actors in a subordinate role, and a malleable self-governance with non-governmental actors striving to limit the intervention of government within their domains (see also chapter 1).

#### **4.6. Conclusions and implications for forest policies**

In a process of regulatory reform, including the objective to grant formal tenure and forest resource use rights, it is important first to assess the previous social conditions before defining the new rights. If there is no understanding of existing forest governance practices, the implementation of the new regimes turns into a trial and error exercise (as is happening in northern Bolivian Amazon) until people achieve a social balance of individual rights, collective rights and respecting everybody's rights and opportunities. Although the process of individual and collective right definition continues until today in the northern Bolivian Amazon, there is sufficient evidence that communities have the potential to deal with complex and dynamic regulatory reforms. A good example is the more or less effective arrangements made by people to find novel solutions to rights definitions in a diffuse and contradictory regulatory atmosphere. The critical point here is how people choose a social reference. When people's interests dominate the rights definition process, for instance, land property rights or valuable forest resource use, it is less likely that communities will be effective in making collective arrangements, and instead just look for short term benefits.

For the process of land and forest devolution to local people under a communal ownership arrangement, it is important to be sure that the legal mechanism are sufficiently clear to help people define their own property rights within community boundaries. To allow for the two possible options, it is recommended to adapt customary rules or develop new rules and fit them into the new legal regime,

require that legislating and regulating agencies consider the social background of the people who will be affected. If this does not happen, there is a serious chance that the new legal regime will face obstacles when implemented. In such circumstances, people will focus foremost on developing rules to secure access and use of land and forest resources, without caring about the democratization of natural resource governance aspect of the new legislation. On the other hand, the least encouraging scenario of community rules can reinforce social power imbalances instead of community organization. In such cases, well-defined boundaries and legal rules that favor forestry communities are not sufficient to achieve proper natural resource management. The evolution of a social framework and the design and enforcement of local rules under new regulatory regimes can follow common, individual, or mixed property rights strategies, emerging from the same legal basis, that is, communal ownership of territory. In northern Bolivia the process of rights definition is still immature and communities are, somehow, forced to be flexible and reshape their internal rules in order to accommodate expectations and new opportunities to use natural resources under a new legal regime.

Finally, the local initiative to develop informal rules is often contradictory to formal rules. This is due to the lack or ill-defined integration of governmental and non-governmental actors to co-govern. On the one hand, the government tries to neglect the importance of an integrative mode of governance, operating as a hierarchical entity. On the other hand, non-governmental actors struggle to gain social representation and power decision within governmental domain from which they gained new rights and in which decision are made but not appropriately socialized. Therefore, this confusion forces people to pursue self-governance supported by their rights, while ignoring to the extent possible the role of the state in enforcing the rules within their domains. The present research is timely in Bolivia due to the permanent legal changes experienced during the last decade and the new plans of the present government led by Evo Morales to modify the forest law in order to fit it within the new constitutions and norms.



## **Chapter 5**

# **The New Face of the Debt-Peonage: Social Networks and Bargaining Instruments in the Bolivian Amazon**

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**With Wil de Jong, Rene Boot and Pieter Zuidema**

## Abstract

Debt-peonage is an agreement between patrons and laborers in different economic activities worldwide. A common feature is social exploitation of laborers that generate profits for actors that have control (*patrons*), thus maintaining inequity. Recently, it has been argued that debt-peonage can be economically sound and secure the needs of participating actors. The present research evaluates to what extent traditional debt-peonage in communities in the Bolivian Amazon has evolved into an economic mechanism that secures the needs and economic interests of the debt-peonage actors. We conducted case studies in 16 communities to obtain qualitative information on debt relations, debt dependence, rights to access and use of valuable natural resources and the trading of rights between community members (resource owners), and traders and former patrons (capital owners). We observed that debt-peonage changed from a mechanism to keep workers indebted to assure labor supply, towards new social relationships and more equitable commercial links. For instance former workers have now rights over resources controlled by patrons in the past, and can negotiate them in more equitable circumstances based on the market price of the product and not as labor. Modern debt-peonage in northern Bolivia creates opportunities to access work capital and production chain diversification. Important drivers of these changes are recently established communal land ownership and access to forest resource.

Keywords: *Habilito*, debt-peonage, Brazil nut *barraca*, community forestry, labor negotiations, dependence.



## **5.1. Introduction**

Debt-peonage is a form of labor agreement still in use worldwide today, and rooted in the social, cultural and economic heritage in some countries (Stackley, 1999, Barham and Coomes, 1994b). The practice was reported in the Amazon basin during the rubber boom (Fifer, 1970; Burberi, 2007; Assies, 2002), in Central America on post-colonial haciendas (Brown, 2003; Meyers and Carlson, 2002; Parrish, 1982), in New Mexico in the arrangements between the Spanish-speaking population and the English-dominant society (Knowlton, 1962) and in India on the estates that remained from the colonial period (Bhandari, 2009).

Although the authors cited above considered debt-peonage a form of inhuman treatment, others interpreted it as: (1) social relations of pre-capitalist production (Weinstein, 1986), (2) livelihood strategies based on power imbalances between oppressor and oppressed (Knight, 1986; Brown, 2006), (3) a relatively effective mechanism to leverage resources difficult to access, or (4) a more efficient type of contract (Barham and Coomes, 1994a). A common element among these different interpretations is its importance to provide for and control workers, according to the requirements of productive activities where labor was needed (Washbrook, 2006; MacDonald and McWhiney, 1980; Bales, 2000).

In all contexts where debt-peonage persists, it operates as a social space for individual and collective decision-making (Bojanic, 2001; Stoian, 2006; Sears and Pinedo-Vazquez, 2011). This suggests a consolidation as part of a production model, integrating the conditions of subjugation imposed by a powerful group in response to a workforce's needs and the opportunities of alternative work available. The acceptance of debt-peonage could be based on its comparative advantages in terms of the worker's welfare (Martinez-Alier, 1977; Bauer 1979; Knight, 1988), influenced by the type of relation between laborer and patron. Cases confirming the gradual and systematic acceptance of debt-peonage were reported in several regions. For instance, in Central America, community members opted for a feudal system instead of wage labor (Knight, 1986). In the Amazon basin during the rubber boom, people accepted debt-peonage to retain the advantages of individual work autonomy characteristic of an extractive model (Barham and Coomes, 1994c; Weinstein, 1986). And finally, in the northern Bolivian Amazon during the *barraca* or Brazil nut estate period, debt-peonage was seen as a necessary condition to initiate productive work in the field (Bojanic, 2001), as well as an easy way to access credit and reduce transaction costs of extracting and transporting the harvested product (Stoian, 2006; Barham and Coomes, 1994b; Barzel, 1989).

In the northern Bolivian Amazon, debt-peonage (*habilito*) evolved particularly among social actors linked to the productive sectors of rubber, Brazil nut and timber, affecting the former levels of dependence between them. After the agrarian reform in the 1990s, property rights of land and natural resources were transferred from patrons to communities (see also chapter 2 and chapter 4). This change brought about a new role to the traditional function of debt-peonage. Thus, socio-economic ties between patron and forest workers transformed into relations of reciprocity, although notably uneven, providing a sense of security to workers but largely ensuring a steady supply of raw materials. There is little information suggesting that during this period the social subjugation typical before the 1990s *barraca* continued, suggesting that joining a Brazil nut extraction workforce in the 1990s was an individual decision enticed by the security offered to community members and their families. The coexistence of people who worked under a *habilito* arrangement and people who choose not to do so at the same time confirms this (Henkemans, 2000; Stoian, 2006).

In this new context the following questions emerge: What happens with debt-peonage agreements when resources and means of production are not owned or exclusively controlled by a single person or group (Rutledge, 1975)? What happens when the opportunity to produce and benefit from the sale of such production depends on negotiation between actors who control independently the means of production and access to the resource? How do early forms of debt-peonage change among former employers and employees under a new regime of property rights and use rights? To what extent did these actors learn to capitalize on these new features to maximize their profits, negotiating the sale of forest products? What factors continue the dependence between indebted and creditors even in situations in which indebted have the means to end the bondage?

In this chapter we answer the above question for the northern Bolivian Amazon. Based on our results, we suggest a new vision based on debt-peonage adapted to different contemporary social contexts. The change of land and forest property rights between debt-peonage actors represents an overlooked aspect within contemporary debt-peonage theory, which is largely influenced by changes on social relationships and former feudal traditions.

This chapter consists of seven sections including this introduction. The second section describes the methods used to collect and analyze data. The third section presents an analysis of debt-peonage during the time of rubber exploitation, and the role it acquired during changes of social relations and the emergence of independent peasant communities. The fourth section deals with the contemporary function of *habilito* from the perspective of livelihoods of the rural population. Section five presents the influence of *habilito* on trade relations, power

and cash flow into the community related to Brazil nut production. Section six provides an analysis of the benefits of *habilito* in managing transaction costs of Brazil nut production. Finally, section seven and eight present the discussion and conclusions respectively, highlighting and analyzing the most important aspects of the new culture of *habilito* from a local and international perspective.

## 5.2. The evolution of the *habilito*: from the *barraca* to the community context

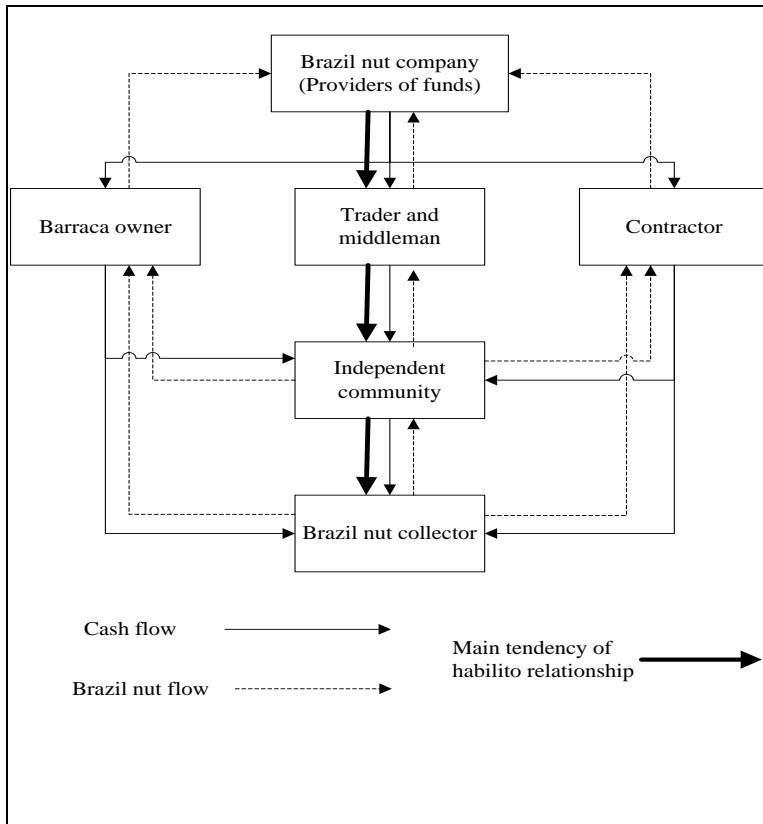
The current literature available about *habilito*, states that it emerged in the Amazon during the rubber boom. In Bolivia it was the product of a merger between the coercive system of labor control of servitude practiced in the west of the country, and the system of advanced payments during the period of quinine extraction in the northern Bolivia Amazon before the rubber boom (Stoian, 2006; del Pilar Gamarra, 2007). In the *barracas*, workers were required to maintain long daily work routines, which compelled them to acquire daily necessities at the company stores, resulting in the debts that needed to be repaid. The employer controlled the land and resources, and set the prices for goods sold at the stores, giving the workers no opportunity to negotiate any of the terms. During that time, the relationships patron/workers acquired different perspectives which emphasize the inception of a change of the former debt-peonage mechanism. Stoian (2000) asserts that in the early rubber era, rubber tappers received fixed monthly wages, and that therefore, they should be considered proletarians in a context of primitive capitalism. Henkemans (2001), based on her studies of some *barracas* in northern Bolivian, argued that the inhabitants who decided to stay in the region after the collapse of rubber boom, develop new ties of mutual support and social security with landlords who had become the regional merchants. Stoian (2000) also argues that the survival of debt-peonage until recently is due to their productive and economic functional significance for people involved, and this still keeps the system alive.

After the definite decline of rubber production around the late 1980s (Stoian, 2000), many forest laborers migrated to the major towns in the region (Cobija, Guayaramerin and Riberalta) and *habilito* became less prominent among patrons and laborers. The increased international demand for Brazil nuts since early 1990 resulted in a resurgence of the *barraca* and with it *habilito* (Stoian, 2000). The organization of labor, however, became different as fewer workers resided inside *barracas*, as they used to do before. Instead, most collectors migrated from the regional towns to the forest during the time of Brazil nut harvest, late November – early March. The patrons again controlled the means of production but this time had less control over forest workers from the regional towns and independent communities (Henkemans, 2001). The revitalized *habilito* became again a mechanism of patrons to control workers, but also the price of Brazil nut that the

workers needed to deliver to pay their debts (Barham and Coomes, 1996; Weinstein, 1986; del Pilar Gamarra, 2007). In this new period of the *barraca – habilito* organization of Brazil nut production, previous coercive means were replaced by an ideological discourse that helped to consolidate the bonds between forest workers and patrons (Barham and Coomes, 1994a; c.f. Abercrombie and Turner, 1978) often reinforced by godfather ties between them (Lyons, 2006).

During the 1990s the actors involved in *habilito* arrangements related to Brazil nut extraction declined significantly (Bojanic, 2001). Since that time, the Brazil nut production chain started with a private company who managed capital and the market. The second link was composed mostly of traders. The last link constituted independent communities and finally the Brazil nut collectors (Fig. 5.1). The *barraca* was transformed from a basic operative unit of forest product exploitation (Pacheco, 1992, p.126) into an area over which Brazil nut entrepreneurs held exclusive harvesting rights (Stoian, 2000). Relations of subordination that characterized the performance of roles for each link evolved to capitalist trade relations governed by the new features emerging from the reallocation of rights. Thus, the new basic unit of forest exploitation became the independent peasant community, where, as explained below, *habilito* serves to negotiate rights to access resource in exchange of capital.

As a result of the modifications of the former *habilito* all the actors in the Brazil nut production chain now have several opportunities to access and negotiate advanced payments regardless if they are resource owners or not. Before, every actor in the *habilito* scheme was subjected to a chain of command and control in which the actor higher up in the chain established the rules, assigned roles and delegated power (Pacheco, 1992; del Pilar Gamarra, 2007). In the field, being the owner of a *barraca* (*barraquero*) was the only way to obtain advanced payments and to effectively be able to exploit Brazil nut areas. With the modifications of the *habilito* scheme, a community member, or any Brazil nut collector has the opportunity to negotiate advanced funds with traders, *barraca* holders, few of which remain after the mid 1990s land reforms, or directly with a Brazil nut company, respecting different conditions based on the collaterals of each actor. The work commitment in the case of Brazil nut collectors and community membership in the case of a community member constitute the collaterals, which are based on trust that has been built on successful negotiations from previous years.



**Figure 5.1.** The new scheme of *habilito*.  
Modified from Pacheco (1992)

### 5.3. Materials and methods

We conducted research in 16 rural communities located in the departments of Pando and Beni in the northern Bolivian Amazon. The sample was randomly selected, using the basic criterion of dependence on non-timber forest resources, and distinguishing between agro extractive and extractive communities (c.f. Stoian and Henkemans, 2000). The 16 communities were divided in those with high Brazil nut production (100 to 300 boxes of 25 kilos per year) and related labor demands and communities with lower Brazil nut production (less than 100 boxes).

We conducted semi-structured interviews with key informants who were permanent residents in the community, but who we selected according to their time of residence, knowledge of community issues, and involvement with Brazil nut extraction. We also interviewed traders and *barraca* holders before, during and after the harvest season. We explored *habilito* bargaining and sales through direct observations of interactions between sellers and buyers. Informal interviews with

representatives of NGOs operating in the region supplemented the above information, obtaining a total of 171 in-depth interviews.

Interviews yielded qualitative information on changes of social relations, and the dependence and changes of the terms of *habilito*, since its early use until today. Data analysis focused on the management of risk involved in the negotiations of *habilito*, power relations in those negotiations and the use of an ideological discourse to define the form of repayment. The results emphasized the control of labor, and the emergence of new economic relationships. Qualitative information was complemented with quantitative data on the ratio of income and expenditures channeled through *habilito*, and with estimates of the population involved in different set of communities within the same area. Because *habilito* is a commercial mechanism widespread in all of our research area, we used quantitative data to support some of our qualitative findings from communities with similar characteristics. The latest data were analyzed using the statistical program SPSS based on percentage difference among households depending and not-dependending on *habilito*. It is important to clarify that the study of the new role of *habilito* focused on the dynamics that takes place within the community, including actors directly linked to forest product extraction, and less on the role of *habilito* at other levels of economic exchange.

## 5.4. Results

### 5.4.1. The function of *habilito* in community livelihoods

The *habilito* nowadays plays an important role in the livelihoods of remote forest dwellers, mainly among river bank communities (Assies, 1997 and from field interviews). Through *habilito*, rural people of northern Bolivia obtain numerous consumables that are not otherwise available (i.e. oil, sugar, tobacco, flour, clothing, medicine). However, there are several particularities of the Brazil nut extraction process that also explain the continuing use of *habilito* (McDonald and McWhiney, 1980).

At the beginning of the Brazil nut harvest (November) a family's food reserves are limited. This period coincides with the completion of the planting season in northern Bolivia and products of the annual harvest are not available yet (DHV, 1993 and field interviews). Thus, the negotiation of the *habilito* started as advances in the form of food and other daily necessities and may have varied substantially depending on how a prospective Brazil nut collector had managed his agricultural plots. Families who managed their agricultural plots for continued food supply may have reduced significantly the amount they borrow through *habilito* in relation to families who relied on cash advances already of the previous years. In monetary

terms, this may represent a difference of \$US 14 to \$US 100 that a family might need at the beginning of the Brazil nut harvest season.

According to Zenteno (forthcoming), of a sample of 239 surveyed households in the same area of research, 45% negotiated *habilito* during 2008, when the Brazil nut prices were one third of the value reported from the previous year (Table 5.1). This result suggests that the principle purpose of receiving *habilito* is to buy food. The group that negotiated *habilito* obtained more than 31% of their rice consumption not from their own fields, and had 21% less agricultural crops and 56% fewer pigs than families who do not rely on *habilito*

**Table 5.1.** Economic and productive differences between households depending and not-depending on the *habilito*. Statistical test results (p-values) are based on two-sample t-tests.

Parameters	Sample without <i>habilito</i> (A)	Sample with <i>habilito</i> (B)	Percentage difference, (B-A)/A*100 of B with respect to A	p
Total revenue from Brazil nut sales (Bs.)	4020	6510	38	<0.001
Number of harvested Brazil nut boxes per family	70	123	43	<0.001
Price received per Brazil nut box, 2008 (Bs.)	57.4	52.3	-9	<0.01
Effective days of Brazil nut harvesting, 2008	29	38	23	<0.001
Agricultural crops, 2008 – 2009 (has)	2.07	1.62	21	<0.001
Rice bought, 2008 (arroba)*	8.2	12	31	<0.05
Food used for animals (arroba)	47	20	57	<0.05
Number of pigs per family	1.63	0.71	56	<0.05
Benefits from timber sales from forest management plans (Percentage of family total income)	14.7	19.0	22	n.s

Source: Modified from Zenteno (forthcoming).

\*About 15 kg.

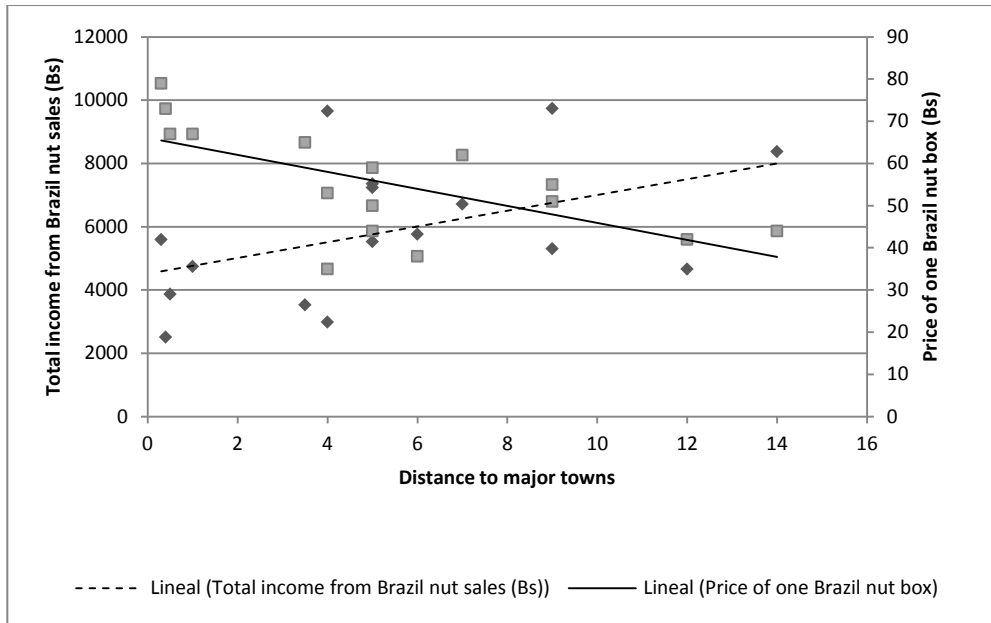
The households with *habilito* showed a 43% higher harvest of Brazil nuts, a 38% higher income from Brazil nut sales and 22% higher earnings from the sales of timber, than those without *habilito*. This suggests that households that received *habilito* at the time of the survey, had been doing so for a longer time. Hence, the dependence on *habilito* seems to be a lasting commercial relation. This relation is likely to be maintained as long as the receivers of *habilito* continue delivering the raw material that motivates the merchant to assume the risk of investment. The larger volume of product gathered by families with *habilito* indicates that they indeed are complying with the terms of the agreement.

#### 5.4.2. **Habilito in the commercial relations of power and monetary flow within the community**

Nowadays, Brazil nut collection is carried out by people living in remote communities and by people residing in the peri-urban neighborhoods of Cobija, Riberalta and Guyaramerin, the region's major towns. From our data, peri-urban residents can earn between \$US 1000 and \$US 2000, during a year with good Brazil nut prices when employed as Brazil nut collectors in communities or in the few areas that are still exploited as *barraca* (from interviews of Brazil nut collectors). A rural family that controls 500 hectares of land (which is the effective area allocated to single families during Bolivia's latest agricultural reform, see also chapter 4) can at a price of \$US 17 per box, obtain over \$US 2550 for 150 boxes of Brazil nut. Information obtained in 2008 on income from Brazil nut sales in communities with variable distance from urban centres (from 10 km to more than 100 km measured in hours of travel to the community) , revealed the notable margin of benefits channeled through *habilito*, in spite of the low prices registered that year (Fig. 5.2). According to this information, the price of Brazil nut tends to decrease when access to the community becomes more difficult, because of large distance or poor road connections. On the other hand, communities with this limitation can often compensate this by collecting larger volumes as they may have access to a larger number of Brazil nut trees (Zenteno, forthcoming).

Our findings suggest that nowadays community residents and peri-urban residents in northern Bolivia obtain economic surplus because of an interaction of three factors: (1) the increase of the Brazil nut price; (2) the change of *habilito* as an instrument to impose or accept debt and commitments to assure benefits, into an economic alternative option that is available even for people who do not reside in the forest; and (3) the reassignment of property rights over land and access to forest resources.





**Figure 5.2.** Variation in revenue from Brazil nut sales related to community access. (Lines are based on data regressions)

The benefits are captured under new commercial and power relations that are reflected in the negotiation of the *habilito*, and the negotiation of access to Brazil nut stocks. We observed that the negotiations between community members and Brazil nut collectors followed three modalities: (1) the owner of the land provides food and buys the collected Brazil nuts for a value of between 10% to 15% less than the regional market price (70% of the total sample); (2) the owner of the land enables the Brazil nut collector, part in kind and in cash, and discounts the total value of the *habilito* from the amount to be paid for the final product (28% of the total sample); (3) the owner of the land contracts the Brazil nut collector as laborer, provides food and pays him for the number of days worked (not a very common modality in the region, roughly 2% of the total sample). The Brazil nut collector and the owner can break their agreement at any time, because there are no signed documents that confirm the terms. This suggests that between the two parties engaged in such transactions a prior labor relation or some other link exists, which forms the basis for the mutual trust necessary to ensure compliance.

We observed that the negotiation of the *habilito* between community members and traders has changed. Currently traders cannot access the Brazil nut stocks belonging to communities if they fail to establish good relationships with community members. These relationships are largely channeled, using *habilito* as an incentive. If a trader has sufficient capacity to ensure *habilito* during the harvest

season, the more likely he is to develop strong social and commercial ties. That includes the provision of *habilito* during periods of low Brazil nut prices, when expected benefits may be negative, and even out of the harvest season. Under such an agreement, the trader makes a risky investment in exchange for a monopoly access to Brazil nuts in a particular area.

We also observed cases in which the trader established a working agreement with dominant community members, often belonging to a single family or small group of families (the latest is the case of eight communities of the total sample). The trader provided substantial amounts of cash or in kind as an advance payment to these members. The recipients reinvested these funds or goods among other community members, according to their own social rules. The dominant group captured benefits when transferring *habilito* interest to other community members. We call this mode "second-tier *habilito*", as the first level of *habilito* is between the trader and dominant community members.

However, the benefits obtained by the dominant group have a cost, since the recipients assume a commitment to control the Brazil nut extraction and the enforcement of the *habilito* in the community. The dominant group members were perceived as the new patrons as they also controlled the means of production and the rules of access to land and natural resources in general. Some strategies derived from this form of management of power are, for example, charging a sort of tax as a right to access to harvest Brazil nuts, or demand a given volume of Brazil nut without compensation, or finally marginalize community members who oppose the group's rules regarding the use of Brazil nut stocks. We observed the latter in 25% of the studied communities which is consistent with the presence of strong dominant groups with great influence on community matters.

We heard about a rather common practice that dominant groups who engage in second-tier *habilito* offer to sell the Brazil nut collected in the community to a different trader than the one who provided the advance payment. The objective to do so is mainly to accumulate capital to increase the capacity to trade inside the own or neighboring communities. In other circumstances, dominant groups accumulate exaggerated debts with traders for the mismanagement of second-tier *habilito*. The way to avoid payment or prolong the debt was by negotiating of exclusive access to Brazil nut stocks. The trader then acquired a virtual harvesting monopoly in exchange for flexibility or forgiveness of existing debts. Interviewees revealed that some traders may have unpaid debts of up to \$US 20.000 under schemes described above.

The above description reveals the variety of circumstances in which the use of *habilito* can influence the social and power relationship, which lead to the achievement of some benefit to some of the actors involved. Establishing working

arrangements, Brazil nut collectors and community members, who are owners of the resource, get additional incomes from an efficient transaction, in which the workforce is valued in terms of money accumulated instead of production per se. The difference emerges if we consider that the benefits for the Brazil nut collector increase if Brazil nut prices increase, therefore, their motivation will be always the amount of money and not the amount of product, based on the Brazil nut price fluctuation. According to Marxist theory, in a traditional arrangement between wage laborer and contractor, there is a fixed economic remuneration for a fixed amount of raw material manufactured, even if the market price of the final product increases and contractors try very hard to get a surplus value from the laborers. In this relationship the wage laborers are always in disadvantage and with less opportunity to improve their conditions, unlike the labor arrangement through the *habilito* in which the Brazil nut collector can receive substantial amounts of money and has the liberty to decide how long he will stay working for the Brazil nut owner.

The new modes to manage and negotiate *habilito* have changed power structures within communities and between community members and traders. A proof of the latter is the emergence and/or consolidation of dominant groups after legal reforms, and the negotiations processes that former patrons and traders have to face in order to get access to valuable forest resources, rather than to impose access conditions and prices as used to be in the past. These power relationships can be understood in different ways. In the northern Bolivian Amazon power relations between rural people and the local elite (debtor/creditor from the perspective of *habilito*), until recently represented a stigma of debtor's citizenship condition, distinguishing them from the rest of the social strata. The new power relations seem to be focused on changing that social status. They challenge the power and authority of the former patrons in the *habilito* negotiations. But at the same time dominant groups keep reproducing former power relations within communities in order to establish a social differentiation giving room to the so called small *barraqueros* (from field interviews). The dominant groups who are involved in this initiative are at the same time somehow subjected to traders and dependence on productive and livelihoods resources, in the attempt to achieve power and status. The division of productive means and the specialization of actors in the Brazil nut production chain play a key role in this complex definition of power. In fact the devolution of rights to land and forest in favor of communities and the capital in control of traders, *barraca* holders and Brazil nut companies, introduced a factor of interdependence among actors. Nowadays, the power of one depends on the ability to make others commit to business through the imposition of his own rules, but not necessarily to harm or hinder the other's opportunity of profit.

### 5.4.3. *Habilito* and transaction costs of the Brazil nut production chain

The breakdown of the former *barraca* structure led to the reconfiguration of local powers and social relations. In addition, it triggered the emergence of specializations in the Brazil nut production chain, and specific rules to regulate performance of each link. In addition to the reasons given above, this also explains why northern Bolivian forest dwellers continued to depend on *habilito* still controlled by the old patrons. It also partly explains why old patrons stopped their efforts to regain the power that gave them de facto tenure over land and valuable forest products. The adaptation of *habilito* to the new reality of the Brazil nut sector contributed to this diversification and specialization, and recognition of the importance of each actor. We observed and collected information related to how the diversification and specialization cited above took place in our research area, from the point of view of traders and community members.

For example, community members have always had the ability to undertake extractive activities. Under the new reality, however, traders and intermediaries, many of who were former patrons, developed the ability to trade. The change in property rights over land and forests forced these actors to master those skills, including seeking mutual cooperation. The experience of both has now become an important instrument that is required with the negotiations that the Brazil nut sector demands these days.

The *habilito* has become an important mechanism to organize the investment of capital and time that actors must apply in their respective tasks in the production chain. This is especially the case in remote communities. For instance, one month before the start of the Brazil nut harvest, community members must clear trails, repair roads and fix temporary storage facilities (*payoles*), activities that require at least one month on average (from field interviews). Without *habilito*, the opportunities for exploiting Brazil nut would decrease substantially. Community members are not eligible for bank loans, and even if they were, it would take a prohibitively amounts of time and resources to negotiate such loans. The security of having the *habilito* ensures a proper organization of the early stages of Brazil nut harvesting. In addition to pre-harvest investment, *habilito* greatly facilitates continued Brazil nut collection. The Brazil nut harvest demands for extended stays in the forest. When daily necessities are exhausted, Brazil nut collectors only make a short trip to restock from the trader, without worry of having to find another source of supply.

Once Brazil nut collection has finished, the collector faces the challenge of moving his product to any Brazil nut company located in the regional towns. Under the new modality of *habilito*, the debt that the collector has incurred can easily be repaid with the amount of nuts collected. Nevertheless, in riverside communities

the movement of 150 boxes of Brazil nut of 25 kg might cost about \$US 700. With the 2009 price \$US 17 per box, this leaves a positive balance of \$US 1850. The cost of taking the product out of the forest to the factory is approximately 27% of its total value. Because the collector delivers the Brazil nuts to the trader, he does not have to find resources to pay for transportation.

Finally, a critical stage in the process of commercialization is the quality control. This consists of collecting a random sample of the entire Brazil nut harvest to determine *aflatoxin* contamination. The trader applies this control in the field but not with the same diligence as the company. The company also undertakes this test, and according to the result modifies the purchase price. The company often uses this testing for *aflatoxins* to reduce the price as much as possible and it is the trader who must anticipate this reduction, resorting to the *habilito* to anticipate an adequate compensation. The negotiation of the *habilito* allows to cushion and to distribute the reduction in income resulting from this quality control which is ultimately imposed by the standards of the international market.

## **5.5. Discussion**

Our investigation demonstrates how an anachronistic mechanism of debt-peonage can - under certain circumstances - develop into an economic instrument that plays an essential role in an economic sector that has adapted to new political, social and economic realities. Worldwide, evidence exists on how debt-peonage has evolved from a mechanism of social submission to a mechanism that is used in transactions under an economic rationality where partners need to determine priorities and needs in order to capture benefits that they are seeking (Washbrook, 2006; Barham and Coomes, 1994a; Weinstein, 1986; Knight, 1986). In all the cases studied these changes were not the product of accidental circumstances, but rather resulted from strategies of adjustment to changes in economic factors that connected the various actors through labor and other productive relations. Nevertheless, in all the same cases to some degree and during variable periods, some elements of the mechanism's original exploitative nature persisted, as a consequence of how the governing classes (patrons) applied the mechanism in practice. The more resource-endowed and powerful actors continued to seek hegemony of the productive chain in which they participated, a situation that often could materialize due to weak government commitment to democratize the access and utilization of natural resources or other means of production.

According to our research, in the northern Bolivian Amazon property rights over land and the exclusive right to use valuable forest resources triggered transcendental changes in the balance of power among actors linked to the former modality of debt-peonage. In spite of the social tensions at the onset of these changes, a certain degree of awareness was reached among actors with regard to

their comparative advantages, stimulating a conduct of cooperation to preserve the new niches of power that resulted from that rebalance of power and assure access to valuable resources. A clear evidence of this is the reconfiguration of rights among actors who control the means of production (former patrons, traders and businessmen) and those who control the resources (rural communities). The former labor relationships that marked the pre reform forest product sectors in northern Bolivia have become a commercial/capitalist relationship adapted to the limits of access and use of forest products. Thus, the current *habilito* might be conceptualized as: *An economic instrument which allows the flow of economic benefits through the negotiating of access and sales of natural resources, assuring the necessary means needed by actors in a value chain to carry out their functions in order to make feasible the exchange of natural resources, cash and/or consumables, and to assure binding rights and responsibilities among actors related to the resource of interest for a variable time.*

The new conditions in which *habilito* is applied in northern Bolivia seems to be the consequence of modified social, economic and labor relations. Nowadays, labor is not the main item that is negotiated (Barham and Coomes, 1994a; Stoain, 2006; Washbrook, 2006) , but the valuable forest resource that some control and want to sell, and others want to buy, and which prices are arranged among representatives of the various social sectors linked to the production chain, Brazil nut companies, the union of the Brazil nut collectors and representatives of the government (Bojanic 2001). Traders in the field use this as guidance but adjust the price they pay, depending on their cost benefit assessment, however, without diverting too much from the official price. Work efficiency, therefore, is not a function of the *habilito* payment any more (Pacheco, 1992; Assies, 2002, but of the earnings that are obtained later.

Defaulting on the commercial obligations by one of the actors in a *habilito* agreement, which does happen frequently, can be understood from different perspectives: as immoral behavior, as a legal infraction, or as a manifestation of the rights and prowess of each of the parties involved in the negotiation process. However, negotiations take place in an atmosphere of mutual tolerance, and not, as in previous times, as an imposition of the powerful patron towards the forest workers (Brown, 2006; Burberi, 2007; Bhandari, 2009). But how can this change of attitude be explained in both groups of actors, for some towards a tolerance previously unacceptable while for others overstepping the limits of socially acceptable behavior? Beside the spontaneous agreements that arose around the common interest in a particular resource, it seems to be that the opening of spaces of social individual and collective participation, as well as the exercise of the civil rights in the political arena (see also chapters 2 and 4) contributed to these changes.

Because of the political changes of the 1990s, the communal assembly is where the democratization and socialization of the communal decision-making is manifested (Popular Participation Law and Municipalities Law). These political changes modified former social structures and also stimulated the individual and collective awareness of the value to participate and to express an opinion. Another context of participation and opportunity to exercise the right of political representation is in the municipal administration. These days, leaders are democratically elected and communities can participate in municipal planning. This has generated spaces of social collective interaction never exercised in the past (from field interviews). Both changes in the social conduct of the individual broke suddenly with former rules of submission and subordination, which is reflected in the negotiation of the new modality of the *habilito* and a new perception of power relations.

The division between property rights over the resources and the means of production, however, seems to reduce class differences when both actors have an interest to negotiate economic benefits from the use of forest resources. In these circumstances, the difference of class can turn simply into a reference of residence without evidence of class struggle (Marx, 1887; Parsons, 1949). In spite of the antagonism between social classes in the past, the duality of the conflict concerning the economic interests that motivated the above mentioned struggle changed focus radically when a division took place in the control of the means of production, and specializations within the different links of the production chain. The result of this process is an increased respect and interdependence between classes because of the links that they hold to their material means of production.

However, in circumstances of extreme fluctuation of Brazil nut prices households may increase the dependence on *habilito*, which may result in a vicious circle. When Brazil nut prices are high, people begin to overly depend on *habilito* to secure the provision of food stuff which they used to produce themselves in swidden fields. When the Brazil nut prices drop, people begin to rely even more on *habilito* to assure daily necessities, as they have abandoned much of their agricultural production for household consumption. The relationship of debtor/creditor might then turn into some form of economic serfdom, because of the dependence of the debtor on the support of the creditor. In this condition, the debtor loses the opportunity to negotiate the price of the Brazil nuts he collects and delivers to the creditor. He also has no other choice than to accept the consumables at the price posited by the creditor. In times of good Brazil nut prices this accumulated excessive dependence might be hard to overcome by debtors because the creditor have the opportunity to use an ideological discourse to exaggerate his beneficial role during difficult times. With this behavior he consolidates the debtor's dependence ties.

The new forms of dependence of Brazil nut collectors on the providers of *habilito* credit are more evident in isolated areas where traders and former *barraqueros* are the principle suppliers of consumables, while their only opportunity to obtain income is by selling Brazil nuts and a few other forest products. The means of former serfdom to bind a person to live and labor on land belonging to another person and to render some services rests on the ownership or control of the productive means by the creditor (Welch, 2009). Nowadays, the creditor becomes the proprietor of the debtor's requirements for consumables, which may allow the former to impose the conditions to negotiate the debt, forest resources prices and to manipulate the levels of dependence. This remains common across the northern Bolivian Amazon and it is one way to explain the continuation of *habilito* in this region.

A key aspect in this discussion is the valuable forest resources themselves. The debt-peonage (and its variants) arrangement is intrinsically tied to a great dependence on a particular resource, which partly allowed for the arbitrary control of the patrons over their laborers (Parrish, 1982; Meyers and Carlson, 2002; Brown, 2003). Our research suggests that the mechanism can evolve towards more profitable scenarios for both actors, which is directly related to the productive diversification of actors in the production chain. However, it can be argued that the process of adaptation of *habilito* to a transformed Brazil nut production chain is conditioned by only one valuable forest product. Therefore, what can be expected in the future if this link changes radically due to a dramatic decrease of Brazil nut price? The dependence on one valuable resource which is the mainstay of the local economy represents an important risk to the society of the region. The development of new productive activities could entail a new accommodation of the social, economic and power balance linked to the current productive activities based on the use of valuable forest resources. It is difficult to predict how the new social relationships and economic dependence will be. However, taken into account the evolution of the *habilito* and the influence of legal reforms and economic changes in that process, those new relationships might possibly be based on new forms of debt-peonage.

In our view, the study of the evolution of the *habilito* in the northern Bolivian Amazon demonstrated the multiple alternatives of a mechanism of submission destined to achieve the control and exploitation of a human group (Fifer, 1970; MacDonald and McWhiney, 1980; Bales, 2000; Assies, 2002; Washbrook, 2006; Burberi, 2007), towards a social mechanism of opportunities for economic benefit of the classes structured under the new social order. This particular area has shown important factors which notably influence the evolution of the former debt-peonage. From being a mechanism to negotiate labor, the new *habilito* has become a mechanism to negotiate access to resources where the new form of



ownership requires new forms of negotiation. This evolution raises some questions regarding the role of this economic mechanism when the control of the means of productions and property rights change between actors.

However, this change has affected substantially not only the way how debt-peonage is applied, but also the equations dominating/dominated or superior/inferior that supported social relationships among actors. This allows us to explain how the conditions of oppression and coercive labor based on social classes differences, can evolve into an economic relationship where two parties make a profit through more equitable opportunities of negotiation. Under the contemporary form of debt-peonage, money or products that are owed become mechanisms to force mutual dependence without coercion, servitude or exploitation, and they enable actors to cover expenses that have to be made in the production process. These innovations characterize the *habilito* in the northern Bolivian Amazon, and are a result of the reassignment of rights between actors linked to the *habilito*, through which new relations of power and property conditions are established that define limits, benefits, powers and responsibilities.

## **5.6. Conclusion**

The debt-peonage modality can be considered as an extraordinary phenomenon worldwide, due to the exceptional characteristics that its process of evolution adopted in a short period of time. In northern Bolivia, some transcendental aspects that influenced this evolution were the normative changes linked to the civil condition and readdressing of land property rights and access to natural resources in favor of rural populations. The processes unleashed by these changes concerned not only the former patron relations, but they motivated the emergency of more equitable commercial links, easier access to work capital and the specialization of every social sector within the most important production chain of the region. A notable element is the course of these events in a context of relative social tolerance among actors linked to the resources of interest, but in a new context of proprietary rights. This fact suggests the prevalence of an economic rationality between actors valuing the benefit of *habilito* within a production chain on the basis of its respective costs of production.

The present research showed important factors which influence the evolution of the former debt-peonage. The social actors who control debt-peonage, in countries in which it still exists, continue to view it as a tool for social and productive hegemony. In those circumstances the evolution of this mechanism towards more equitable economic conditions are low, and the national and local contexts seems to aid to the continuity of this status quo. It is important to develop and apply comprehensive policies which help to integrate social sectors linked by social exploitative relationship giving each of them the means to counterbalance that

condition without entering in a long, hard struggle of power, which is largely the case of the Northern Bolivian Amazon. The new horizon of those policies should be to capitalize actors' advantage which could help them to counterbalance their disadvantages within a rational individual and collective decision instead of an imposition of one party by inequality of opportunities or resources.

## **Chapter 6**

# **Forest Resource Conflicts and New Community Rights**

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**With Wil de Jong, Rene Boot and Pieter Zuidema**

**Abstract.** Conventional wisdom holds that natural resource-based conflicts are the result of different parties competing for natural resources as a consequence of confusion, distortions, misunderstandings, and inadequate policies and rules related to the realities of the people who are targeted by the policies and rules, and by ill-defined property rights. In the latest context, a common trend is to link conflicts with differences/incompatibilities, frustrations, or impairing circumstances among actors, which somehow emphasize the unavoidable presence of resistance within the process of conflict formation. Despite the amount of research on conflicts, a more fundamental understanding is needed of the nature of forest conflicts, in particular of the factors, processes or conditions that are the basis of conflicts or can influence how conflicts evolve. We carried out a qualitative study among 16 communities in northern Bolivia to evaluate causes, development and consequences of resource-related conflicts between community members. Our results suggest that conflicts do not necessarily arise from the imminent condition of opposition, which is assumed to be the root of the conflict. Contrary to this view we found that social factors and individual behavior can convert a positive collective condition in a course of conflict, and an evident conflict in an instrument of a social model based on power.

**Keyword.** Rights, self-organization, collective, individual, precursor factor communal organization, cognitive, rules.

## **6.1. Introduction**

The growing interest in tropical forests resources and environmental services has increased conflicts related to forests management and tenure (Kyem, 2004; Marfo, 2006; Yasmi, 2007). Tropical forest conflict research is guided by two main themes. One of them is presented as a question, “why does conflict over the use of natural resources occur?” (Buckles and Rusnak, 1999). This question has guided much early academic research on natural resource conflict. The second theme “conflicts are inevitable and ubiquitous when natural resource use intensifies” (Buckles and Rusnak, 1999; Yasmi, 2007; de Koning et al., 2008), appears as a logical and unequivocal answer to that question.

Considering the variety of circumstances under which conflicts arise and evolve, academics have developed concepts related to the specific context of conflict, and suggested a continuum from negative to positive outcomes for the people and natural resources. On the negative side of the continuum, conflicts are seen as a negative stage of social interaction when there is no mutual agreement and parties view each other as adversaries, assuming hardened stands to reach their goals (Castro and Nielson, 2001; Kriesberg, 1998; Bailey, 1997).

Another set of conflict studies views conflicts as a transformative and sometimes necessary component for positive changes related to natural resources governance (Buckles and Rusnak, 1999; Doornbos et al., 2000; Yasmi, 2007; Sanginga et al., 2007; Gomez-Vázquez et al., 2009). Authors observed that conflicts lead to collaboration (Buckles and Rusnak, 1999), or to positive conditions (Doornbos et al., 2000), based on the way conflicts are addressed (Bailey, 1997; Yasmi, 2007; Gomez-Vázquez et al., 2009).

While there is a considerable theoretical background on conflicts, a more fundamental understanding is needed on the particular origin of forest related conflicts. This implies a better understanding of the factors, processes or conditions that are the basis of forest conflicts or can influence the nature of forest conflicts. Examples of the latter are a lack of clarity of access to forest products and benefit sharing (Engel and Korf, 2005), contradictions between local and introduced management systems (FAO, 2000a), changes in legislation and policies affecting the relationships between forest users, property relations and modes of use (de Jong et al., 2005; Ibarra and Hirakury, 2007; Puppim de Oliveira, 2008; Gomez-Vázquez et al., 2009; Vanhanen et al., 2010). We have termed this “the structural source of conflict”.

Another dimension of conflict emerges from the actors involved. Conflicts make sense precisely because how actors interpret their common reality and the factors which are of interest to each of them. Viewing conflicts from this perspective

results in a great range of possibilities, which make conflicts a complex phenomenon to understand and to manage, and even more complex when more people are engaged. There are widely differing views on the actor perspective in conflicts, the notion of power and conflicts (Kriesberg, 1998; Marfo and Schanz, 2009), the different values held by groups and individuals as a source of conflict (Cocklin, 1988), the ethics to define what conflict is and the moral behavior of those involved (Turner, 2004), or the culture as a driving factor in producing and managing environmental conflicts (Hellström, 2001).

Although most of the notions presented above have specific theoretical and empirical bases, from our point of view the various dimensions can be connected when three important social factors are present, in the following terms. The first factor is the individual cognitive style to live collectively (which is part of social relationships), from which the first stage of conflict formation derives. The first stage focuses on the contradictions or distortions between individual and collective behavior. The second factor is the institutional sphere (local and national rules that constrain the individual and its collectivity), in which the contradictions and distortions of the first factor become obstacles in achieving collective agreements. The third factor relates to the use of public goods in which the first two factors meet (for instance access rights and use of natural resources). When the designed rules cannot achieve balance between the collective sphere and individual behavior related to forest resource use, a conflict may develop. When certain circumstances cause changes in any of the three factors, they may affect the others and this may cause changes in the balance of the entire community organization, resulting in possibly modifications of individual strategies to meet goals which influence collective behavior.

The mode of access to resources can, therefore, be considered a source of conflict, when inconsistencies exist in the definition of rights among users. This situation becomes more evident when different individuals or groups like indigenous people, community members, timber companies or government are involved. However, when rights, boundaries, rules and scope of action are clearly defined but conflicts still arise, what is happening then? The answer to this question rests on how the individual, as part of a collectivity, exercises rights over specific natural resources when others have the same rights.

In this study we hypothesize that there are important social factors and individual behavior that can convert a positive collective condition into a complex course of conflict, and an evident conflict in a subtle element of social coexistence or a part of the tradition of a local social model based on power. Thus, conflicts do not necessarily result from the imminent condition of opposition, differences or impairments, which academics highlight as the causes of conflicts. In this context

conflict escalation does not mean necessarily the clash of parties involved and the eruption of violence. We analyze cases of community forest management in Bolivia in which a specific social disruption became a status quo of the process of achieving individual and collective objectives and what can in other circumstances be an open conflict may be interpreted as the final stage of conflict. In this stage the important contextual elements of interest are: the level of legitimacy of local bylaws, recent decentralization and forest and land reforms, the variation in the evolution of communal social structures and their history as autonomous social organizations. These factors were amply addressed by researchers (Bartos and Wehr, 2002; Engel and Korf, 2005; de Jong et al., 2005; Ibarra and Hirakury, 2007; Puppim de Oliveira, 2008; Gomez-Vázquez et al., 2009 but not within a context in which they are interconnected and can render different circumstances of conflict.

This chapter is organized in five parts including this introduction. The second part presents a brief conceptual discussion on conflicts based on existing theory and our own empirical findings and a description of the methods of data collection and analysis. The third part includes a detailed description of conflict factors that lead to conflict in the northern Bolivian Amazon, their linkages, relevant importance for various actors, and modes of escalation. The fourth part provides a deeper analysis of the dynamics of conflicts and the impacts for people and forests. Finally, the fifth part suggests recommendation to deal with factors identified as weakness of community forest management.

## **6.2. Methodology**

### **6.2.1. Revisiting the theoretical foundations of conflict**

Most definitions of conflicts assume some form of opposition between actors involved in a given situation. We cite the definition suggested by Kriesberg (1998, p.2): *A social conflict exists when two or more persons or groups manifest the belief that they have incompatible objectives.* Our interest focuses on the word “incompatible”, which appears in other studies of conflict (Dahrendorf, 1958; Deutsch, 1973; Ruiz, 2005), and changes among other groups of authors in for instance “contradictory” (Fisher and Ury, 1991), “divergence” (Rubin, 1986), “clash” (Ezzine et al., 2010), “frustration” (Thomas, 1992), or “impairment” (Glasl, 1999 ; Yasmi, 2007). Nevertheless, all of them admit the existence of different levels of resistance between actors to reach their own goals based on the appropriation or use of some common good, or at least a good to which each actor has some kind of right.

The legislation that established communities in the northern Bolivian Amazon during the mid-1990s aimed to guarantee democracy and assure equal access to and use of forests. The implementation of forest access principles was left to be

decided by the communities themselves (Chapter 4). Forest conflicts in the region shifted from the interests of different users in valuable natural resources with ill-defined property rights (de Jong et al., 2006), to conflicts among the same group of users with clear property rights. The main issue now is how to exercise rights over resources in a way that generates benefits while not competing for the use of the same resources. Differences, incompatibilities, divergences, contradictions, impairments or frustrations appear according to how the collectivity arranges the ways to exercise rights. Common sources of resistance are when an individual does not find a more advantageous way of doing this, or when individual perceptions related to what is right and wrong to exercise rights does not take into account collective interests. Consequently, for the present work we propose a conflict definition as: *The obstacles a person or a group need to overcome to achieve goals from both individual and collective perspectives in a context of common property rights.*

### **6.2.2. Data gathering and analysis**

The present work was carried out from October 2008 until April 2010, 13 years after important land and forest governance reforms were implemented in Bolivia. We conducted 16 case studies among extractive and agro-extractive communities of northern Bolivia (Stoian and Henkemans, 2000; Stoian, 2006), randomly selected between the departments of Pando and the Amazon region of Beni. In extractive communities livelihood activities are concerned with the use of valuable forest resources (mainly Brazil nut and timber), and hold collective tenure over extensive communal forest lands. Agro-extractive communities have less valuable forest resource available and their main productive activity is agriculture.

We planned to interview 15 persons in each community, but in the field the number of interviews was determined by the principle of information saturation (Guest et al., 2006; Chapter 2). In addition, we also interviewed nine professionals with ample knowledge about the region or about specific communities, resulting in a total of 171 in-depth interviews. We complemented the above information through focus group discussion (see also Chapter 2) and attending important communal events, for instance, communal assemblies, training events about rules design, customary events of natural resources allocation and communal meetings to deal with internal conflicts related to natural resource misuse. More information about the community sampling is provided in table 6.1.



**Table 6.1.** Main characteristic of 16 forest communities in the northern Bolivian Amazon related to community rules and land and forest distribution

Community name	Number of families	Number of dominant families <sup>1</sup>	Land tenure	Allocation of Brazil nut/timber resources	Type of local rules available/applied
<b>Agro-extractive</b>					
Candelaria	50	3	Individual tenure	Collective/FMP <sup>2</sup> or 3 has clearing plan	Bylaws/Unwritten rules
Campo Central	26	2	Individual tenure	Individual/3 has clearing plan	Bylaws/Unwritten rules
Cachuela Mamoré	53	No dominant families	Individual tenure	Individual/3 has clearing plan	Bylaws
12 de Octubre	70	2	Individual and collective tenure	Individual and collective/FMP	Bylaws
Rosario del Yata	200	No dominant families	Individual tenure	No Brazil nut trees available/No timber sale	Bylaws
San Lorenzo de Pampa	23	3	Individual tenure	Individual Brazil nut center/No timber sale	Bylaws
Miraflores	73	No dominant families	Collective tenure	Collective Brazil nut harvest area/No timber sale	Bylaws/Eventual written agreements
Warnes	70	No dominant families	Individual tenure	Individual Brazil nut center /3 has clearing plans	Bylaws
<b>Extractive</b>					
Las Mercedes	70	3	Individual and collective tenure	Individual Brazil nut center /No large-scale commercial timber sale	Bylaws
Remanso	36	2	Individual and collective tenure	Individual Brazil nut center /No large-scale commercial timber sale	Bylaws
Península	13	1	Individual and collective tenure	Individual Brazil nut center /No timber sale	Unwritten rules
Ingavi	23	1	Individual and collective tenure	Individual Brazil nut center /No large-scale commercial timber sale	Bylaws and unwritten rules
Santa Fé	25	1	Individual and collective tenure	Individual Brazil nut center /No timber sale	Bylaws
Fortaleza	27	1	Collective tenure	Collective Brazil nut harvest area /No timber sale	Bylaws
Exaltación	30	1	Collective tenure	Collective Brazil nut harvest area /No timber sale	Unwritten rules
Contravaricia	36	1	Collective tenure	Collective/FMP	Unwritten rules

Source: From field notes

<sup>1</sup>Dominant family is a large group of people linked by acquired or direct family ties. These families have gained a strong influence within the community as they were the first to arrive in the community or have been given power by the *patron* when the community was a *barraca*.

<sup>2</sup> Forest Management Plan

The main issues addressed in the interviews were the evolution of social relationships, access to forest resources, distribution and use, and the influence of institutional and normative frameworks before and after land and forest governance reforms were implemented. The analysis of data was based on a modification of Gritten et al. (2009) methodology of ethical analysis. Instead of mapping the interests, values and principles of conflicting parties, we identified individual and collective patterns of behavior linked to specific individual interests that we called *conflict precursors*. When individual patterns do not find recognition, legitimatization and acceptance in the collective sphere the conflict precursor becomes a *problem factor*. Finally, when rule design threatens individual goals related to access and use of natural resources, both conflict precursors and problems factors become an open conflict. We observed the forms of conflict precursors and problem factors, the influence of particular conditions in shaping those forms, and the circumstances that triggered the conflict. Due to the variety of perceptions among individuals and differences among communities, a broad number of conflict precursors were identified. Thus we opted for measuring the importance of conflict factors, problems factors and conflicts based on the influence of each from the perceptions of interviewees, rather than to quantify the conflicting events themselves.

### **6.3. Results: The process of conflict formation**

#### **6.3.1. Social relationship-based conflict precursors**

Conflict precursors relate to individual behavior in response to profound changes in the traditional social framework of the northern Bolivian Amazon. In the former social model based on *barraca*, the estate owner or *patron* held power and social control by enforcing rules of social coexistence meant to subject the people living inside the *barraca* to the patron's control (Pacheco, 1992; del Pilar Gamarra, 2007). Since the decentralization of government and the legal establishment of communities in the mid-1990s, local people quite suddenly obtained new rights and a new social status based on communal ownership of land and forest. Nevertheless, a heritage from the *barraca* system was the individualistic pattern typical of extractivist activities, which influenced the emergence of the new community social framework. The social process to live collectively developed in this context and seems to have been influential over individual perceptions and expectations of the exercise of rights related to land and valuable forest resources.

During our field interviews, we found that conflict precursors derived from the patterns mentioned above. These patterns are of peoples' interest in the process of establishing the foundation of coexistence in collective spaces. We distinguished three precursors closely linked to individualistic patterns common in the entire study sample: individualistic behavior, avoiding to assume the position and

responsibilities of authority, and temporal migration. *Individualistic behavior* gives priority to family matters and interests, much more than to collective interests. As a result the motivation to assume responsibilities in collective spaces turns into a mere formality which allows members to keep vigilance that their individual rights are not threatened when collective decision-making takes place. Members are interested in securing individual rights without getting involved in collective accountability, observed most of the time as a *pattern to avoid positions in community council*. Without serious commitment with the administration of communal issues, the elections of the community authorities become an empty formal act which assigns little authority to enforce local rules. In some cases community members had no respect for authorities. Community members watched over their own interests, while viewing the community as an instrument to achieve personal goals, but not as a social ideal. An indication of the last is the *temporary migration* of members between urban centres and rural communities staying in the latter only during the Brazil nut harvest season or when there is the opportunity to achieve easy incomes using other valuable forest resources.

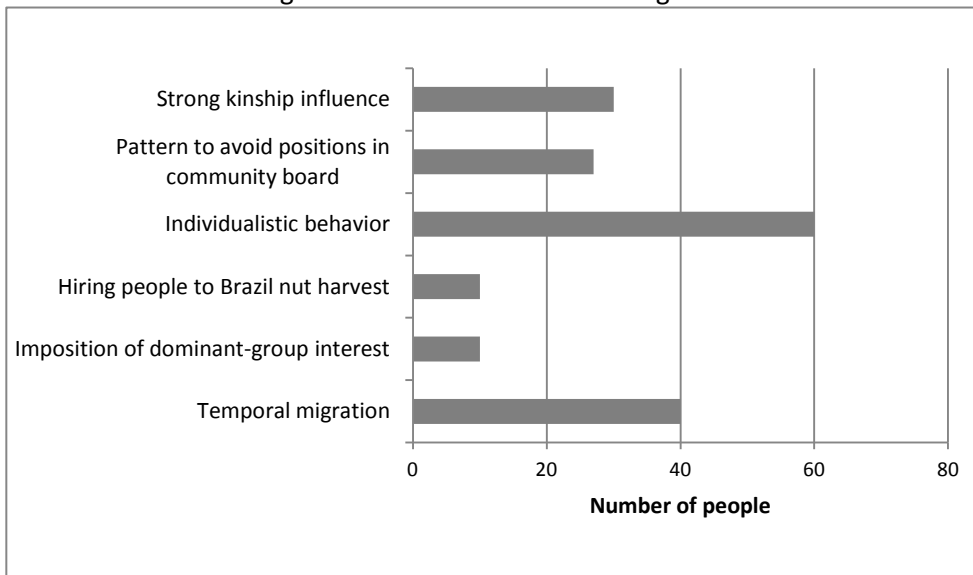
The conflict precursors related to the social framework that could be inherited from the *barraca* system, rest on the presence or consolidation of family clans or other powerful groups with family ties. The social differentiation as a powerful group is in some cases linked to a self-attribution of rights based on having been the first settlers in the community, mostly in the case of agro extractive communities. In the case of extractive communities the social framework conflict precursor is linked to the social attributes which were granted by a patron to certain groups living in a *barraca* and the former *barraca* inhabitants continued this tradition. In both cases the powerful groups acted with the objective to occupy the decision-making space in order to maintain power by assuming local authority. People perceive these strategies as *strong kinship influence in collective spaces*, or as the *imposition of dominant-group interests*. A very common manifestation of such use of power is hiring people from outside of the community to harvest Brazil nuts, when the collective arrangement actually forbids this, and others are obliged to adhere with this arrangement.

The results from the interviews allow estimating the relative importance of each conflict precursor, based on the number of people who consider one or more of them as the most important for the relationships within a community. *Individualistic behavior*, *temporal migration* and *strong kinship influence* were the most important conflict precursors (Fig. 6.1). The individualistic behavior became a problem factor when the ambition to manage natural resources individually is imposed on the interests to manage natural resources collectively, and individuals seek their personal preferences, based on perceived rights derived from customary land and forest resource allocation. Based on the above, it seems that the sense of

individual property derived from the rights bestowed over land and forest resources, evolved into an individual necessity to establish the space which makes the individual free to exercise that right as a form of decision-making primarily focused on personal interest. Thus, the social relationship-based conflict precursors are based on the individual expectations to exercise new rights, because each community member experienced largely the same and seeks the same goal, that is to make individual decisions, which others have to recognize and respect. This could start competing social relationships to the extent that community members can or cannot achieve this goal within the collective space.

**Figure. 6.1.** Level of importance of relationship-based conflict precursors in 16 forest communities in the northern Bolivian Amazon region.

Note: Percentage of each item observed among 171 interviewees



### 6.3.2. Natural resource use-based problem factors

The second stage of our conceptual model of conflict formation begins when people perceive the collective space as an obstacle to reach their individual goals. We observed that these perceptions were linked mainly to individual rights over land access and valuable natural resource use, and they became manifest as a problem depending on different circumstances. The most common was related to the decision of how to use land. After the completion of the land titling, property rights became collective, but people’s perceptions and land use expectations presumed individual tenure. Many communities in the region divided collective land into individual parcels, sometimes based on size, sometimes based on individual Brazil nut production area (Chapter 4). This guaranteed de facto

individual land tenure and family profits, but which was conditioned by rules established under the agrarian law, which limits transfer rights (Land Law modified by Law No 3545). We found that most of the people are aware that they are not allowed to sell their land, but intra-communal arrangements resemble private ownership of land and resources.

The *de jure* collective ownership of land and forests is subject to particular local arrangements. In extractive communities, unwritten rules exist which limit swidden forest clearings to not more than two hectares, the area considered sufficient to secure a family's agricultural production needs. In agro extractive communities the unwritten rules constrain conversion of land for livestock purposes. However, people act in a contradictory ways when they start to exercise individual rights. Individual land transfer starts to become a pattern between agro extractive communities and takes place without considering communal collective agreements. In one case an agro-extractive community inhabitant sold his land to a rancher without informing the communal authorities who have the function of assessing whether a person who land is transferred to, meets the requisites of community membership. The matter was discussed at communal meetings which were also attended by the rancher. After repeated speeches the rancher was eventually accepted as a formal member of the community, which subsequently legitimized the land transfer.

After being accepted in the community, the rancher hired people from within the community to clear forest for pasture even invading plots belonging to other villagers. Because community members were helped by the rancher in other ways, there is no collective agreement to stop the rancher's activities that go against the village unwritten rules. Inside the community, one group supports the rancher, while the other tries to stop him. People who occasionally benefit from working for the rancher support him during communal assemblies. Community members who tend to live longer in the city and go to the community only during the productive season supported the rancher, and in turn were helped to circumvent the written rule which compels members to live in the community permanently. Since a majority supported the rancher in the communal assembly, no steps were taken against him.

In other cases which occur slightly more frequently than the previous one, people decide on land use based on their own interests and perceptions on their individual rights. Establishing pastures for livestock production is a common strategy. We found that in seven communities of the studied sample there is at least one family with a cattle ranch. In some cases the area used for this activity was more than 50 hectares. Zenteno (forthcoming) found that 68% of 85 communities in the same study area had pastures for livestock ranging between 40 and 100 hectares.

Although people disagree with this recent change in land use they do accept this change and give low importance to them as a problem factor (Fig. 6.2).

The problem factors derived from social framework conflict precursors are closely related to individual strategies of natural resource use. Among extractive communities the first and often permanent problem is the uneven land distribution. Family clans tend to monopolize the best lands, or control larger areas than other families (Chapter 4). Community members not belonging to these families resent this situation, but do not act to change it because it is perceived as a customary right. Another manifestation of power abuse is, for instance, Brazil nut and crop theft by members belonging to a powerful family clan. In years with relative high Brazil nut prices, theft of Brazil nut already harvested by others becomes quite common. When Brazil nut prices drop, theft of other people's crops emerges. If the people who steal are from the community, this behavior is tolerated as a demonstration of respect to the internal social and power order. However, when the perpetrator is from outside the community, all the members start to organize in order to sanction such behaviour.

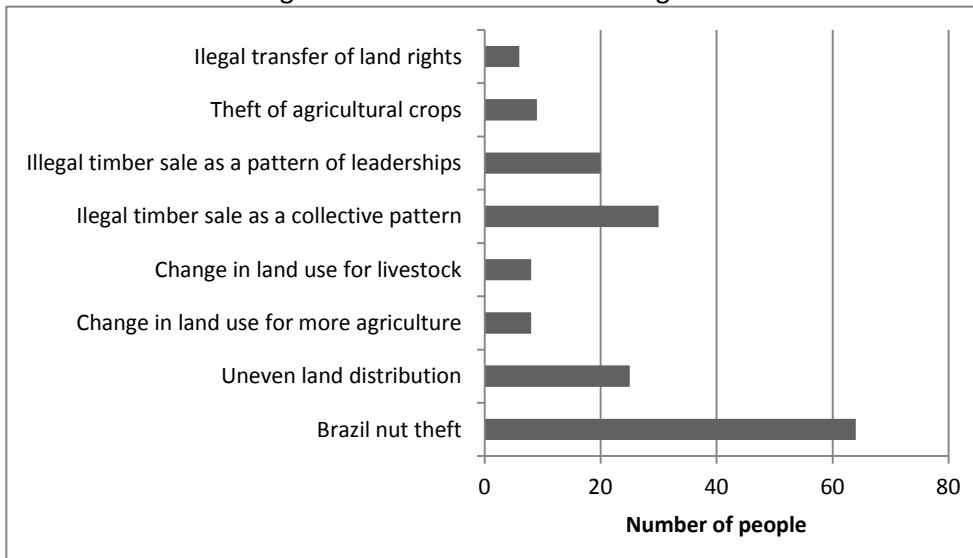
Related to the sales of timber, we found two clear types of problem factors. The first linked to the authority's position, and the second related to the lack of authority and individual performance. The first pattern is often observed in extractive communities, when the community's leadership is under a powerful group's control. Ten of 16 studied communities show *illegal timber sales as a pattern of authority position*. This means that achieving a position in the community council may represent an opportunity to get profits from selling timber illegally with impunity. Based on statements of our interviewees, this becomes common behaviour among community members who are elected on the community council. This recurring behaviour among authorities in these communities, usually linked to powerful groups, may explain the level of acceptance among members of illegal timber extraction. The lack of self-organization to sanction authorities is probably related to the strategy of community members to wait for the moment to become a village authority and engage in the same behaviour, although all of the interviewees seem to reject that behaviour. The second pattern was observed in communities with a lack of authority performance and strong individual patterns, in which people find a way to profit from *illegal timber sales*, which eventually becomes a *collective pattern*. We observed a power struggle led by a family clan during the elaboration of a forest management plan in order to hamper the process, because they were engaged in illegal timber sales. People had knowledge of the fact but the great influence of the clan discouraged any action against the clan leader. In this case the local social order was imposed by the group and became accepted behaviour.

People show concerns about these events that are perceived as an impediment in the process of collectivity construction, according to what is established in the legal reforms related to property rights and forest resource use. However, it is difficult for people to recognize the real extent of these events when collective decisions on natural resource use are made. Figure 6.2 reflects the importance people assign to problem factors discussed above.

When the perceptions of the events like a conflict precursor or a problem factor changes, and they are perceived as threatening to individual and collective rights, the need to establish rules arises and the real conflict begins. This happens precisely when people realize two important realities. Individual behavior represents an obstacle to the community when the opportunity to use valuable natural resources arises. Individual illegal timber sale eliminate the possibility to elaborate forest management plans from which the whole community may profit. On the other hand, informal ways to use valuable natural resources often become a consolidated procedure to achieve easy individual benefits. To cope with this counterproductive circumstance the community resorts to the collective sphere in which rules have to be designed to coerce people to accept collective decisions.

**Fig. 6.2.** Frequency of each problem factor based on people’s perceptions.

Note: Percentage of each item observed among 171 interviewees



An important phenomenon that deserves attention in this section is the individual-collective primacy (Chen et al., 1998), which refers to whether people give more weight to their personal interests rather than to group’s interests when forced to choose between the two. Our data suggest that the natural resource use-based problem factors results from the lack of definition between the individual and

collective sphere, due to a chaotic individual behavior focused on personal decisions over land and natural resource use. Self-interest becomes a key element and drives people to use their membership as a means of personal self-enhancement. On the other hand, when that individual behavior spreads among other members a new collective trend appears between people who support the collective primacy against people who support individual primacy, but are collectively engaged to do so. The latest showed how the individual and collective vision might be a problem factor when constituencies are not able to define the limits of both, and that both factors coexist within the community and deserve equal attention when building the communitarian basis of coexistence. Our data suggest that the consolidation of the communitarian vision will be unlikely if the individual space is not well rooted within the collective space.

### **6.3.3. The consequences of conflict precursors and problem factors**

As a consequence of the social behavior explained above, we observed that two of the most important spaces of collective deliberation were the arenas where real community conflicts start. Due to the individualistic behaviour few communal assemblies that are planned are realized. Thus *low frequency of communal assemblies* is a common conflict in at least 30% of the sample. The latter is the result of low attendance of assemblies that are scheduled once or twice a month. The common justifications used by people for not attending communal assemblies are: the distance from their own house to the place of the meeting, the family chores that prevent people to attend, the recurrence of issues discussed which discourage people to attend, the meetings are too long, or simply because the meetings are spaces of collective struggle. In these circumstances people agreed on fines to everybody who do not attend the meetings or even for latecomers to motivate engagement, but the strategy does not work and low frequency of assembly meetings constitute a permanent conflict and a threat to the community organization.

Although the circumstances mentioned before are stronger in communities where this pattern affects the collective sphere, they are present in the entire sample and represent the explanation of "*low communal assembly attendance*". It seems that the lack of motivation makes people attend meetings just to comply with some community rules, but not because the collective issues are of interest. We observed this attitude in every communal assembly in which we participated. As a consequence, two secondary conflicts arise: *low community council performance* because of a lack of help and support from the community members (explanation of illegal timber sale as a collective pattern) and *corruption within the community council*, because the lack of participation often gives authorities the opportunity to



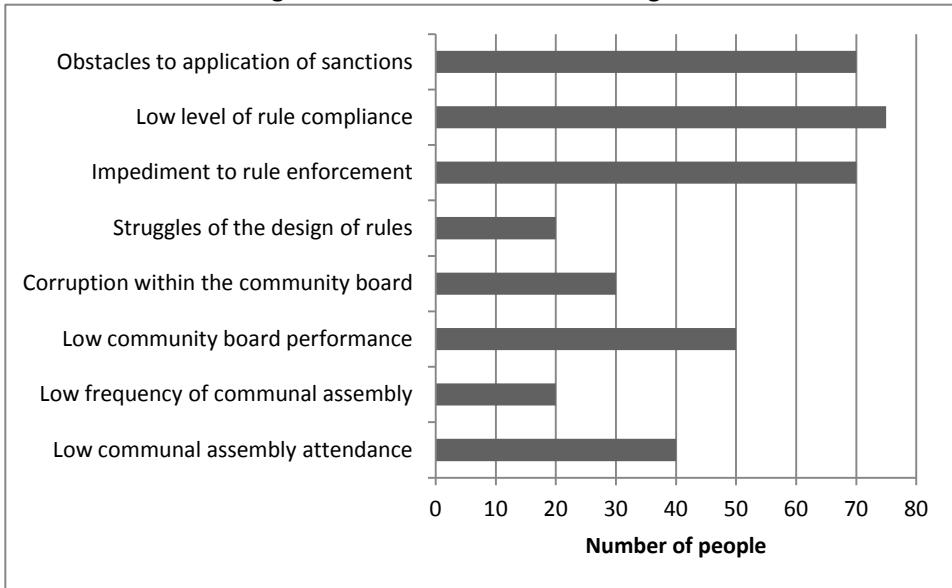
make profits with impunity (explanation of illegal timber sale as a leadership pattern).

Finally, the continued lack of agreement among community members causes misunderstanding in the design of rules. Two elements fuel this circumstance: differences of individual vested interests and bylaws that are legally recognized but not communally legitimized. The latter is the basis of the *struggles of the design of rules*. Nevertheless, when a community reaches an acceptable level of consensus related to local rules design, people have to face another challenge, the *impediments of rule enforcement*, precisely when the consequences are perceived as an obstacle to reach individual goals, which were settled spontaneously according to the explanation of sections 6.3.1 and 6.3.2.

The final stage of this conflict sequence represents the common solution people find to deal with the repercussions of the collective domain in the individual space. Both are conflicts, sometimes permanent and sometimes temporary, with strong influence in community organization. *Low level of rule compliance* is the main individual and collective strategy to avoid formal rules observed in the entire sample. As a manifestation of the low interest in rules, more than 70% of interviewees know that they exist but do not have sufficient knowledge about them. *Obstacles to the application of sanctions* is the last type of conflict and the relationships within communities are the responsible factor. Figure 6.3 shows the level of importance of the set of conflicts presented and analyzed here.

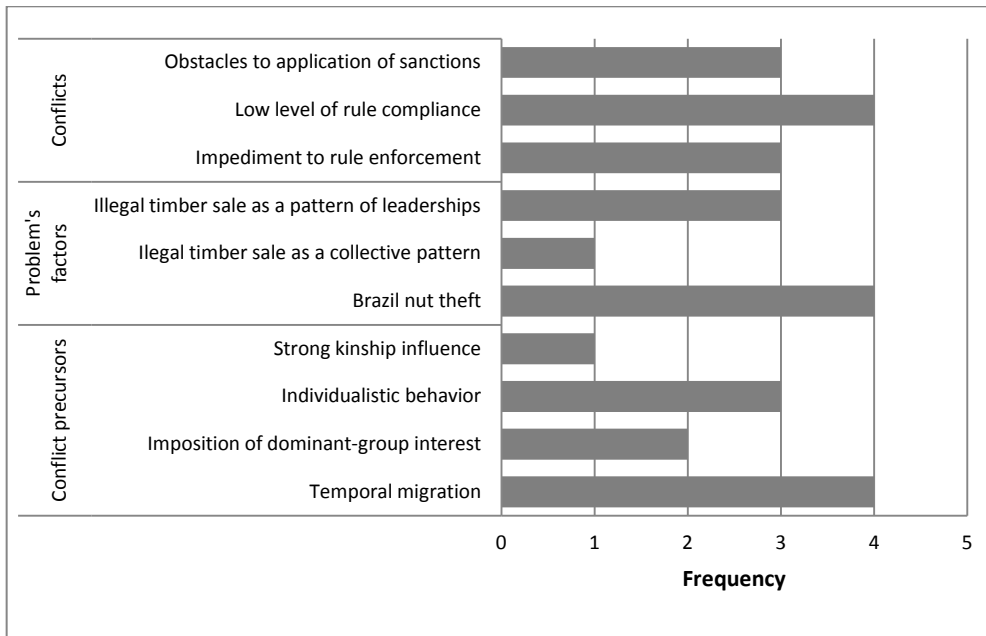
Within this final stage of conflict formation, the interest and individual behavior have dual influence in the collective sphere: as a dissuasive of collective sensitivity, when an individual shows predisposition to sacrifice his own interests, and as a mechanism to prevent constraints in the achievement of such interests, when community members do not engage to enforce rules or to comply with rules. This can be called a strategy of conflict avoidance, which becomes an open conflict when the interests of one group are severely restricted by another with more power. With equal influence among members, avoidance can be a way to manage conflicts and make them socially bearable and hold the status quo as a social way of coexistence.

**Fig. 6.3.** Frequency of each conflict based on people’s perception.  
Note: Percentage of each item observed among 171 interviewees



A comparison of the most relevant conflict precursors, problems factors and conflicts summarizes the results presented in the above three sections (Fig. 6.4). This comparison shows how the need to constrain and regulate people’s behaviour becomes a conflict when individual and collective rights serve as a mechanism to take advantage from the stock of natural resources that are collective ownership. Individual behavior, temporal migration and dominant group interest trigger illegal conduct to use valuable forest resources, which becomes the real conflict at the moment that community members decide to define local rules, or to comply with formal rules. In all the cases observed, individual rights were the point of departure of community members to launch arguments in order to justify their outlaw behavior or to support their interest to use regulated resources (mainly timber) without the intervention and/or authorization of the community.

**Figure 6.4.** Frequency of the most important conflict precursors, problem factors and conflicts in 16 forest communities in the northern Bolivian Amazon.  
 Note: Frequency relates to the number of times that each item was observed in 16 communities.



### 6.4. Discussion

The conventional perspective to understand natural resources-based conflicts has the implicit assumption of opposition among parties who are competing over particular forest resources and that there are imperfections related to the formal rights over these resources. The formalization of rights and rules design and enforcement represent an important step to prevent conflicts (Engel and Korf, 2005; de Jong et al., 2005; Ibarra and Hirakury, 2007; Puppim de Oliveira, 2008; Gomez-Vázquez et al., 2009). However, based on our findings we argue that property right definition and the rules for access and use of natural resources are not enough to prevent conflicts when the collective sphere of the community is not completely established as the basis to achieve individual rights. In this context the important and still recent changes in the region may have different outcomes, based on how community social relationships are shaped. Frequently there are important social differences among members (presence of family clans or powerful groups), that represent an obstacle to reach collective agreements. The absence of agreement allows people to reach individual goals, taking advantage of the situation, usually with dominant groups as the main beneficiaries (conflict precursors). Community members tend to ignore this to avoid direct confrontation,

or to keep the status quo in order to continue to take advantage of their own (problem factors). In this context community members are not aware of the implications of not complying with the rules or not having rules. This means also a lack of awareness of the scope of conflicts and a permanent condition based on the conflicts precursor management to fulfill individual interest. In certain circumstances the latter becomes evident when people agree to not formalize local rules, but continue to self-regulate through unwritten rules, to avoid constraining decisions over land and resources perceived as private (the conflict).

A critical point is that communities have local bylaws to regulate issues collectively or issues that should be managed in a collective way. Nevertheless, the lack of recognition and legitimization of bylaws prevents people to obey them. An important reason to explain this phenomenon rests on the gestation of bylaws. There were no collective deliberations to shape them when communities were founded. Governmental, non-governmental institutions and instances of social representation (Peasant union of Beni and Pando departments) support communities to design bylaws based on experiences outside the region and adapted to each community considering only fundamental issues related to social relationships and membership conditions. Natural resource rules of access and use are unwritten agreements. Consequently, rules without local deliberation may well be understood as decisions made for the group but not by the group (Bartos and Wehr, 2002), conditions that create misunderstanding of the rules themselves and distortions of the collective sphere around them.

This situation becomes worse when national norms influence local people's individual perceptions of property rights and their expectations related to the use of valuable natural resources. How is it possible to talk about ownership rights if legal and customary rules in natural resource use contradict? How can people design local rules to regulate natural resource use if national laws are ambiguous? The general expectation related to the new rights over land and forest is the freedom to make collective and/or individual decisions related to when and how to use valuable natural resources in general. That is precisely one source of conflict, because resources important for livelihoods usually do not have rules and are not considered in formal rules (swidden agriculture, hunting, and fishing), while valuable natural resources do (mainly timber). Both groups of resources contribute to people's welfare in different ways and their use have different legal and customary constraints. Livelihood resources are mainly for individual use while valuable resources can be managed individually (i.e. Brazil nut, not legally regulated) and collectively (i.e. timber, legally regulated and even in communities with individual land tenure; see Chapter 4). Those circumstances generate confusion among people who are searching to exercise their new rights over forest resources and are compelled to respect national forest regulations which constrain

their expectations. A sensible option is to achieve benefits from natural resource use by exercising individual rights to developing ways to do so, and the design of community rules often represents an impediment. To cope with that impediment people start to hinder processes of rule design, resulting in illegal timber sales as a collective or leadership pattern, the strengthening of powerful groups that take control of the definition of natural resource rules and their enforcement, increasing changes in land use, and the weakening of community organization which is responsible for rules enforcement and sanctioning.

In this sense, conflicts are not related to struggles for resource use, rather they arise when the options available to use them are perceived as impediments to reach individual goals that should be the outcome of individual or collective processes of decision-making. The development of self-organization capabilities is part of CFM objectives (Ostrom, 1999; Pagdee et al., 2006). CFM initiatives have mainly focused on the use of timber resources and the design and implementation of forest management plans (FMP) (Sabogal et al, 2008; Zenteno, forthcoming). Local people were involved in that process and have self-organized around FMP administration. Specific rules were designed and enforced, and forest committees were formed with members elected by the community. Trained people developed accountability and started to respect rules that became recognized and enforced. Nevertheless, the interest continued as long as the FMP yielded profits. The impact of CFM at the organization level is still weak because social capabilities to self-organize were not consolidated and the focus particularly on timber obscured the real scope of exercising property rights and resource management.

We observed an assembly meeting organized by an NGO to design community rules (called self-regulation mechanism). When people thought about forests as a whole, they rated each natural resource as equally important for people's livelihoods (timber or non-timber forest resources, hunting, fishing, etc.). The cognitive process of designing rules needs to include all relevant natural resources at the same level of consideration. The individual perception of legality and formality in a collective context of ownership and/or tenure seems to be supported in two opposite perspectives. One with full formalized rules designed and enforced within a strong process of collective deliberation. On the other hand in a context without rules with a strong pattern of individual behavior, individual tenure rights might be the mechanism to prevent natural resource use-related conflicts. Nevertheless guaranteeing individual rights and attributes generally entail detrimental consequences for the community organization as we observed above. Something in-between brings about a great variety of complex social dynamics, rooted in the need to use the new conditions of natural resource property rights, leading to circumstances from which people try to build mutual understanding to reach that goal.

Based on our findings the process of conflict formation presented in this study can be understood as the process of constructing community foundations by balancing between exercising individual rights and the collective engagement and accountability, which is the basis to secure individual rights in a wise and equitable way. However, despite the clarification of property rights and boundaries within and between communities, new conflicts have appeared in northern Bolivia, focusing on the interest to use natural resources based on the faculties given by the new rights that fed individual primacy. People assume that they can make their own decision without considering collective interests and principles related to valuable natural resources. Lack of clear and legitimized local rules and distortion of social behavior regarding the exercise of rights triggered a race to find forms to reach individual goals. In the process to fit local strategies in new reforms, communities have been facing obstacles to comply with and secure rights of community members related to natural resource use. The construction of local rules by communities themselves does not seem to work properly. The existing lack of self-organization skills results in a coexistence with conflict precursors and problem factors (avoidance to cope with the factor), or living with the conflict (conflict acceptance) which feed individual and/or powerful group interests. CFM is the most successful strategy of forests use but has yet insufficient mechanisms to cope with conflicts that have emerged when forest use changed from an individual to a collective action.

Based on the above analysis, the process to find ways to exercise individual rights over land and natural resources within a collective property regime, under an ill-defined collective sphere, becomes a new common dilemma. Each member has the same rights but those who have more influence and/or power find opportunistic ways to use valuable natural resources (as timber) seizing any opportunity to do so without collective agreements and affecting others' right to profit using the same resources. Our field observations suggest that within communities with strong communal engagement, the latest is unlikely to happen because individual interests are subsumed to collective interest, and even formal rules are not necessary because collective traditions are enough to constrain individual behaviour. On the other hand, in communities with dominant groups, these groups access and use valuable natural resources as an open-access resource, but constrain others to do the same.

The above analysis suggest that under the influence of individual and collective rights to land and natural resources, conflict could not arise due to differences, clash of interest, incompatibilities, divergences or impairment between conflicting actors (Fisher and Ury, 1981; Pruitt and Rubin, 1986; Enzzine et al., 2010; Glasl, 1999; Yasmi, 2007). Rather, a conflict may turn a push and pull to exercise those rights within a social struggle to constrain individual rights for the benefit of the

collective rights, and of the communal organization. If individual and collective rights may achieve mutual recognition and harmonic coexistence within a community, that may represent a tool to foster constructive aspect of a conflict and to prevent destructive ones (Yasmi, 2007). Related to the discussion over access to natural resources in which the empirical focus is on who does and who does not get to use what, in what ways and when (Neale, 1998), our research suggest that it can be a matter of ability and power to capture the share of the communal right on communal goods, over the interest of the rest of the community members. In the latest context the former social traditions have influenced the new social status of land and natural resources ownership that result from the devolution of rights over land and forest resources. Thus, these factors became background factors (Adams et al., 2003) that created new individual and collective perceptions and meanings related to rights, which drove conflicts toward positive and negative circumstances. Therefore, the conventional discussion about imminent conflict escalation when there is a lack of agreement (Glasl, 1997; Yasmi, 2007), may be complemented by a discussion that considers strategies of conflict avoidance, coexistence with conflicts, and the management of factors that trigger conflicts in advantageous directions, without necessarily entering into confrontational situations.

## **6.5. Conclusion**

The process of self-organization to design and enforce local rules (called also self-regulation mechanism) needs the consolidation of collective institutions. Assuring high social participation in this event is possible to achieve an efficient, equitable and autonomous social organization capable to use natural resources sustainable and complying with formal regulations. In this process of self-regulation conflicts are inevitable and ubiquitous for two reasons. First because the cognitive process to learn what is right and wrong seen from an individual perspective of rights within a context of collective coexistence, always comprises conflict. Second, because the process of self-limitation of individual rights needs time to recognize rights held by others. This means that the consolidation of the collective sphere of community organization should be rules that accommodate adequately individual and collective rights.

However, there is a particular context in which conflict management becomes part of a social coexistence experience that can be successful in a horizontal social framework, securing individual and collective rights related to natural resources access and use. The opposite scenario, in which the outcomes are new social relationships and collective arrangements to use natural resources individually and collectively, can be understood as collective opportunistic behavior. In these circumstances, all the advances in CFM and the communitarian model can be

reduced only to the individual sphere in which the opportunity costs dominate decision-making. The consequences afterwards may converge in a complete lack of community forest governance capability, leaving open the opportunities for other users to achieve advantages when accessing community forest resources from the individualistic perspective prevalent within the community.



## **Chapter 7**

### **General discussion**

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## 7.1. Introduction

Over the last decade, community forest management (CFM) has received ample attention in discussions on forest use and the distribution of its benefits. After forests were recognized for their key role in improving the wellbeing of forest inhabitant (Sabogal et al., 2008), academic inquiry into CFM has seen repeated shifts in focus. Approaches have varied from the role of forests in livelihoods to topics like forest governance (Agrawal and Gibson, 1999; Andersson, 2004; Andersson and Ostrom, 2008), forest conservation, and forest management strategies (Coomes and Barham, 1997; Murali et al., 2006). Scientist also have given special attention to national and international processes such as government decentralization and forest and land reforms (Pacheco, 2010; Andersson et al., 2006; Kaimowitz et al., 1998; Cronkleton et al., 2009), which have stimulated the democratization of access and use of forest resources.

In the context of our research on CFM in the northern Bolivian Amazon, we adopted a general reference to CFM from the perspective of the people involved in the practice. According to Pacheco and Cronkleton (2005) CFM is locally and collectively organized. Both aspects are closely related to the community sphere, involving a group of people holding claims to a defined area based on local traditions, a claim that is sometimes, but not always recognized by the state. Additionally, the people who engage in CFM impose collective accountability and benefit sharing as an important aspect of their relationships. This means that communities practicing CFM are characterized by long time collective coexistence in which social relationships and values have developed, which are the basis of traditions and customary rules (Cocklin, 1988; Schäfer, 2000) and the definition of rights over forest resources including access and use (Ostrom, 2009, 2003, 2002).

Over the last 20 years three processes have had a great influence on CFM worldwide, including in Bolivia: (1) Government decentralization, (2) reforms in forest governance and, (3) land tenure and property rights reforms (Larson et al., 2010; Pacheco and Barry, 2009; Larson, 2008; Larson et al., 2008). Each of these three processes has vastly increased opportunities for CFM, but their implementation has in many locations not always been without complications. Our research findings in the northern Bolivian Amazon, reported in chapters 4, 5 and 6 of this dissertation, suggest the most important aspects in the general discussion related to the latest topics are the following: 1) Decentralization, forest governance reforms, and property rights reforms influenced important social realities in the target areas; 2) the reforms tended to influence former social and economic relationships, which used to be the basis of local economic production; 3) the reforms also changed individual and collective rights, which needed new social

agreements to adapt it within the new legal frameworks, faculties and responsibilities that accompany the new rights; and 4) the shortcomings, contradictions and incompatibilities of the multiple reforms manifested themselves as conflicts, when they transcended to the collective space where communal forest users tried to accommodate local forest governance to the new legal and institutional realities. We refer to faculties as rights with legal and customary acceptance and the outcomes derived from the manipulation of those rights beyond the collective agreements and legally recognition. While there is a support of the share of land property rights and forest resource access and use, people have the possibility to impose their individual right over collective spaces or manipulate the real scope of that right. Moreover, if the support cited above also has legal support by the government, a faculty might be a matter of power and social deliberation to define its scope related to the rest of the people.

In our fieldwork we observed that after decentralization, and forest governance and property rights reforms, people in northern Bolivian communities began to face new legal framework imposed by the new laws when using forest resources. Several factors have influenced the way people achieved agreements and dealt with conflicts within this new legal and institutional reality:

- (1) The dissolution of former ties to a *barraca*, or customary forest estates, where rules were imposed and monopolized by patrons and obeyed by laborers.
- (2) The beginning of a process of communal social relationships formation, which may entail social differentiation and power rebalancing.
- (3) The transition from a situation in which the local population had no rights to a situation in which they have multiple rights.
- (4) The process of collective self-organization and social learning to design and enforce rules.

These factors importantly shaped how communities accommodated land distribution and forest resource allocation, and at the same time tried to comply with the new legal reality. Furthermore, in the process of defining rights, confrontations occurred between individual and collective spheres. In this context, conflicts emerged, related to how community members defined and pursued individual and collective rights, rather than conflicts related to contested resources.

The chapters in this dissertation analyzed the effects of political, social and economic changes on CFM in the northern Bolivian Amazon. The changes that the region has experienced are reflected in the social scenarios of each forest user in a new local order related to forest management. The accumulated outcomes of accommodations to these recent changes have provoked numerous different social adjustments, including in social and economic relationships among forest users.

Chapters 4, 5 and 6 of this dissertation focus on three processes of change that have important bearing on how local communities deal with their forest and forestry issues. The first process of change refers to how *habilito*, the locally used term for debt-peonage, evolved since the mid 1990s, from a tool used to control forest workers to a tool that favors economic exchange between communal forest owners, former forest workers, traders, and former patrons. A second process of change occurred in the individual and collective behavior of and among community members to fit community customary rules within the framework of legal reforms related to land and valuable forest resources. When those agreements cannot be reached, conflicts emerge, which is the third process of change cited above. The following sections present the analysis and discussion of these three processes from the perspective of property rights, institutions and conflict theory, and their implications for CFM worldwide (Ostrom, 2009, 2003, 2002; Dietz, et al., 2003; White and Martin, 2002).

## **7.2. Implications of the Bolivian experiences for CFM**

### **7.2.1. Local institutions and rules to limit the new property rights**

What is known about forest governance from the literature is that the notion of mode of governance depends on how much governmental and non-governmental actors are integrated in governing vis-à-vis each other (Treib et al., 2005). Since the last wave of decentralization and land and forest reforms in many countries worldwide, forest communities were forced and/or being encouraged to comply with legal reforms and develop their own local institutions and rules to implement communal land and forest governance. Scholars perceive governance as who have the authority, advantage, or conditions to makes decision and how decision are made through a process of recognition and validation at different levels of public administration (Cotula and Mayer, 2007; Sandbrook et al., 2010; Larson and Petkova, 2011). Self-governance became an alternative for communities to deal with government with a centric tradition of governance. Self-governance, however, has only quite recently been recognized as subject to steady changes (van Tatenhove, 2000). Self governance dynamics are affected by factors like local traditions and former social relationships, and are manifested to a different extent in rules design and enforcement.

Several important general questions related to the above-mentioned process of change still remain unanswered: How do different actors achieve governance integration, what are the conditions of the integration, and what represents the integration for each actor, when non-governmental actors were granted common property rights over resources? The specific aspects that deserve attention within the latest general questions are, to what extent does the introduction of ownership solve the dilemmas derived from the use of open-access common-pool resources?

What are the new factors that encourage people to self-organize to govern common-pool resources properly under new legal status of land tenure and forest reforms? What kind of local institutions are suitable for self-governance within the circumstances cited above? What happens when the new governance arrangements are implemented within social contexts in which several types of informal institutions coexist? If informal rules compromise the interests of the social organization, because of its incompatibility with formal rules, what factors encourage people to support an informal institution?

We hypothesized that the implementation of new governance arrangements triggered by decentralization and changes in land and forest resources tenure introduces a new level of complexity to the self-governance of common pool resources, which heavily disrupts traditional informal institutions and influence the development of new formal and informal ones, triggering a constant overlapping and subsequent friction between the two. Thus, the factors and motives that encourage people to develop informal institutions acquire a new sense, unleashing a new dynamic, meanings and interests related to the design, enforcement and compliance with formal and informal rules. The present research analyzed the informal rules that emerged among people who were targeted by the new formal rules but who also had received new rights that allowed them to challenge the new rules. Based on the above, legal and illegal activities deployed by rural people to achieve benefits using commercial and livelihood forest resources were more related to the empowering and exercising of individual and collective rights, rather than this being a matter of complying with formal regulations imposed by the government. People complied with formal regulations, but tried to avoid them to the extent possible. In this case the collective action can become a mechanism to assure natural resources access but based primarily on the definition and the exercise of rights to those forest resources. All these aspects are analyzed below.

An important theoretical aspect stressed among academics is that property rights can only be achieved in practice when the holder of the right finds the way to capture benefits using natural resources over which rights were given and exclude others that do not have the same rights (Ostrom, 1999c, 2010). However, the consequences of exercising new rights depend largely on the previous circumstances of the people affected. Important factors that outline the previous circumstances are: former arrangements for the allocation of land and forest resources, and the influence of former social traditions and social stratification (Cronkleton et al., 2009; Larson et al., 2008). A sudden break with a former social order through bestowing new rights to land and forest has consequences that affect a wide range of different social strategies that emerged from the development of new individual and collective behavior closely related to exercising new rights. The different ways in which communities arranged the allocation of

land and forest reported in several countries can be seen as an expression of the latter influenced by the specific social, economic and political contexts (Larson et al., 2007; Larson, 2008; Pacheco, 2009).

The new social and power relationships somehow triggered by the process of accommodation to the new legal circumstances play a key role in how communities arranged the use of land and forests. Our findings suggest that indeed, the strategies deployed by communities are largely determined by individual and collective behavior that arises from the perceptions of the new rights. The process explains the dynamism of rule design and enforcement and the different configurations of individual and collective choices. Another factor that might have important influence are the ambiguities and confusions generated by the reforms themselves if there was not enough planning and support to implement the changes. The latter may have led people to idealize and even exaggerate the scope of the new rights they had received.

That idealization becomes evident when collective and individual spheres are contradictory. When the exercise of rights at an individual level is not recognized at the collective level, self-organization is unlikely to take place and the focus of people remains on benefiting as much as possible from their share of the collective rights. In this case sustainability, equity and democracy become a matter of power and vertical relationships, suggesting scenarios opposite to those expected from CFM and potentially resulting in a new kind of tragedy of the commons. On the other hand, when the new rights find acceptance among people, self-organization might take place in the form of designing and enforcing rules to obtain benefits from the management of forest resources collectively, but based primarily on individual interests. However, if rules entail shortcomings, self-organization might take place with a different aim, to assure the exercise of rights in the process to seek decision-making power related to valuable natural resources use, rather than to comply with formal rules, if they affect those rights in any form. In these circumstances, self-organization may experience successes and failures within communities respectively. At first communities may secure collective rights in a struggle against government imposed restraints. However, the subsequent definition of rights among community members may falter when the expectations related to individual rights exercise do not allow collective agreements.

Thus, within certain circumstances it is possible that the main interests of people to get involved in building informal institutions, and designing and enforcing of local rules is the fulfillment of individual and collective rights. The latest might motivate a self-organization and collective action that include feasible ways to satisfy individual expectations related to forest resources access and use, even though the arrangements are against formal rules. However, when the perceptions of property

rights are tilted more to the individual spheres, the new rights themselves become a threat to CFM, and land and forest resource management by community members starts to resemble private ownership. Thus, community rules or any other kind of rule that try to constrain individual expectations represent an obstacle that will be rejected, overlooked or merged with local rules by community members and compliance will be minimal.

The above analysis suggests that in situations of steady changes within communities provoked by new legal frameworks to regulate natural resources, there might be a wide range of conditions that enable communities to develop local institutions and rules if they have obtained legal rights to such resources. In this context, the risk might be that formal rules become relegated as a reference for the scope of individual and collective rights, rather than as an operative instrument of regulation if they are inconsistent and contradictory. From our field research, the coexistence of formal and informal rules -contradictory in several aspects- within a single area and even within a single community is an example of how ambiguous a rule can become. This is the basis to propose a new informal institution: "*catalysts of informal institutions*", which enable the emergence or the merger of informal institutions (Helmke and Levitsky, 2004), based on people's priorities. With *catalysts of informal institutions*, written formal and informal rules can be effectively enforced and valuable natural resources affectively regulated, such that rights are honored. If this does not happen, breaking the rules and diversifying informal local institutions to by-pass official rules become a collective pattern.

Such new institutional dynamism makes that the dominant role of the state is restricted to rule design and enforcement, but leaving room to communities to devise optimal ways to adopt and comply with official rules. This however, may also lead to opportunistic responses to favor certain actors' interests. This can be understood as the coexistence of two modes of governance, hierarchical governance, with the authority to design and enforce formal rules, and a malleable self-governance with the advantage to readdress formal rules through local informal institutions. This contradiction forces people to pursue self-governance supported by their rights, while ignoring to the extent possible the role of the state in enforcing formal rules.

Summarizing, the devolution of rights to land and forest entail important social, institutional and governmental challenges if those rights are not accompanied by the necessary formal institutions and rules to aid target population to understand the limits to exercise those rights and to develop informal local rules to achieve an equitable and effective way to do so, counterbalancing individual and collective goals. The consideration of previous social frameworks and local arrangements in

this process plays a key role to prevent the distortion of individual expectations which may trigger an ambiguous and weak self-governance and lack of integration among governmental and non-governmental actors to govern forests. Otherwise, the possible outcomes can be the design of informal institutions and rules of land distribution and valuable forest resources access, which effectiveness might be based on the balance resulting from the process of social reconfiguration, which at the same time is largely affected by former social relationships and power imbalances. Thereby, individual rights become the primary factor to address collective agreements to manage valuable natural resources in a context of devolution of rights to land and forest as collective property. To the extent that individual rights achieve recognition and a balance in the collective sphere, it is possible to constrain counterproductive manifestation of individual right exercise and to achieve an effective CFM.

### **7.2.2. Analyzing debt-peonage evolution**

Related to the study of the evolution of debt-peonage (*habilito*), our starting point is that debt-peonage is recognized as a mechanism closely linked to particular economic and labor circumstances in which debtors and creditors seek to benefit from each other (Barham and Coomes, 1994a; Washbrook, 2006). However, this view is based on studies of former debt-peonage practices where the creditor had power over the debtor, situations much influenced by cultural and social conditions (Knight, 1988; Servet, 2004). Based on the above, researchers reported debt-peonage cases ranging from very oppressive debtor-creditor relationships to very relaxed conditions in which debts might be understood as credit instead of a bond and the reduction of the creditor's control over the debtor's mobility (Knight, 1988; Welch, 2009; Pacheco, 1992; Bojanic, 2001). Thus, there is a debate whether if getting involved in debt-peonage is an economically rational decision or is still the outcome of strategies to attract and bind workers.

One additional factor overlooked by most researchers is how property rights over land and valuable natural resources influence debt peonage arrangements. The questions that we tried to answer in chapter 5, related to this topic are the following: What happens when debt-peonage agreements, as the opportunity to produce and benefit from the sale of valuable natural resources, depend on negotiations between actors who control independently the means of production and access to the resource? How do early forms of debt-peonage change among former employers and employees under a new regime of property rights and use rights? To what extent did these actors learn to capitalize on these new features to maximize their profits, negotiating the sale of forest products? What factors continue the dependence between debtors and creditors, even in situations in which the indebted have the means to end the bondage? The current theory on



this topic has no clear explanation of why indebted laborers who have achieved new advantages like land property rights or exclusive rights to use natural resources accept more or less the same deal of debt-peonage to work and get benefits from those resources.

We hypothesized that the type of social relationships between debtor-creditor in the practice of debt-peonage, which is conditioned by the control over valuable forest resources, plays a key role in its evolution. Thus, when the former social structures of dominating/dominated changes due to the reallocation of rights, this affects the strategies of each social actor to obtain benefits or the most advantageous conditions when engaging in debt-peonage agreements. The latter explains the evolution of the debt-peonage from an arrangement that could emerge under conditions of oppression and coercive extraction of labor based on superiority/inferiority perceptions of the social actors, to an economic relationship where two parties negotiated the exchange of labor and natural resources for remuneration.

We refer to the discussion of section 7.2.1 above, to emphasize that under certain circumstances it is possible to exercise new rights through former debt-peonage procedures to access and get benefits from valuable forest resources. If actors involved in debt-peonage achieve rights over production means that used to be under the control of one of them (the creditor), the reallocation of new rights motivated new forms of negotiation of work and natural resources based on the particular advantages of each actor to achieve benefits from the other. The new social arrangements can be observed in several aspects: (1) more equitable commercial links, (2) a permanent source of credit while there is a tradable forest resource, (3) specialization of actors within the production chain based on users' advantages and productive capabilities, and (4) a new social order and power relationships. These aspects may be considered as the new evolution of the former debt-peonage in northern Bolivia.

If workers achieve rights over valuable forest resources which were negotiated through debt-peonage arrangements, but do not have access to the other means of production, the dependence between both actors entails the risk that any of them might have the opportunity to develop mechanisms to identify more advantageous ways to negotiate valuable forest resources and incomes. Nevertheless, if the definition of rights establishes clear boundaries between the rights of both actors with unavoidable interdependence in order to be productive, debt-peonage may provide better sale and profit conditions than in former times, democratizing a relationship that used to be oppressive and unequal.

The specialization of actors within a production chain based somehow on former debt-peonage conditions is another important consequence of the exercise of

communal rights linked to the negotiation of an advanced payment or debt. The transfer of property rights permitted the actors in the production chain to assume new responsibilities and adopt new strategies in order to cope with the new conditions. Thus, the productive efficiency of the former debt-peonage system achieved through imposition, oppression and coercive means, to get benefits for the creditor and to secure the subsistence of the debtor, may now depend on the economic interests based on the negotiation of valuable forest resources.

On the other hand, when some actors can hold on to some powers or privileges of the former feudal relationship that featured debt-peonage in the past, this might severely affect the economic arrangements, giving the dominant group more advantageous means to capture benefits from the other actors. Thus, in the latter case, the social relationships may resemble the former oppressive system, subjecting powerless actors to a chain of command and control held by powerful actors.

In a democratic and more equal context, however, any of the actors linked to debt-peonage has the opportunity to negotiate advanced funds with creditors directly and based on the ownership of the valuable natural resource or previous economic links. This opportunity can be understood as a new mutual dependence that reinforces links which influence each actor's welfare and which benefits the entire production chain. When the needs of the actors who depend on advanced payments rest too much with the creditor, the latter can impose the conditions of the debt and prices of forest resources. When the debtor is not the owner of the valuable resource but a worker who offers his labor, the new labor arrangements are likely to be based on the amount of the resource that can be produced, and not on the amount of work that is to be exchanged. In that case, the worker can influence the amounts of money obtained by deciding on how long he will stay working for the owner of the resource or creditor, and this will not be an imposition anymore. Thus, the former labor relationships characteristic of the former debt-peonage arrangement have become a commercial/capitalist relationship adapted to the limits of access and use of forest products. The latest is an issue which in other countries where there still exists debt-peonage remains in different extent as a mechanism to recruit and bond workers through debts to fulfill the needs of emerging productive activities. In other cases debt-peonage become an alternative source of job for unemployment people concentrated in urban centers (Sears and Pinedo-Vasquez, 2011), which still leaves room for speculations of debts repayment and different levels of social exploitation.

The empirical evidence on diverging cases of debt-peonage (Barham and Coomes, 1994b; Assies, 2002; Brown, 2003; Stoian, 2006) supports our interpretation of the circumstances that led to the evolution of debt-peonage in northern Bolivia. For

that evolution to take place the changes of the social balance between the dominating and dominated due to changes in land property rights and rights of natural resource use are fundamental. Our findings also suggest that this also includes a redistribution or reallocation of the advantages and disadvantages between the two, as well as the search of new arrangements based on their new perspectives and needs. Those arrangements also include the assignment and reassignment of rights between actors through which new relations of power and property conditions are established, that define limits of action, benefits and responsibilities. Thus, the actors' interactions are somehow dictated by the advantages and disadvantages of each one linked through debt-peonage, in which the levels of dependence are analyzed from the perspective of economic rational choice, instead of labor exploitation. In this circumstances therefore, the free choice to accept debt is with the objective to obtain optimal terms for both creditors and indebted, more as a relationships of trade than a relationship of labor exchange.

### **7.2.3. The conflicts emergent from changes on individual and collective rights and local institutions**

The combination of the above studied topics produces new references to understand natural resources related conflicts. The literature suggests that conflicts derive from social structures rather than the positions or interests of actors (Dahrendorf, 1958). Also conflicts can be the outcome of interconnected spaces where the action of one individual or group may generate off-site effects, due to the scarcity of natural resources, or due to the influence of cultural, symbolic and traditional characteristics of the competing actors (Buckles and Rusnak, 1999). On the other hand, conflicts may be seen as a transformative component of positive changes related to natural resources governance, and therefore, beneficial to forest users and forests alike in the process to built up cooperation, institutionalism and integration (Bailey, 1997; Doornbos et al., 2000; Yasmi, 2007). A common trend is to link conflicts with differences/incompatibilities, frustrations, or impairing circumstances among actors, which somehow emphasize the unavoidable presence of resistance within the process of conflict formation (Fisher and Ury, 1981; Thomas, 1992; Wehr, 2002). As part of the new wave of decentralization and forest right devolution, many conflicts nowadays are caused by confusion, distortions, misunderstandings, and inadequate policies and rules related to the realities of the people who are targeted by the policies and rules, and by ill-defined property rights (de Jong et al., 2006; Puppim, 2008; Gomez-Vázquez et al., 2009).

Despite the amount of research on conflicts, a more fundamental understanding is needed of the nature of forest conflicts, in particular of the factors, processes or

conditions that are the basis of conflicts or can influence how conflicts evolve. For instances, how to explain that cases in which the status quo of a specific social disruption related to individual and collective objective achievements can be interpreted as the final stage of conflict; or when rights, boundaries, rules and the scope of collective action are clearly defined but conflicts still arise? Additionally, there are few references about how the surrounding context and the external factors may have great influence in the processes cited above.

We hypothesized that property rights play a relevant role and can or cannot have concordant and positive consequences at the moment of defining access to resources. Thus, rights might be used to develop, change and enforce rules, to moderate people's behavior, and may have enormous influence over conflicts and other factors that are involved or are the forerunner of conflicts. In this sense, conflicts do not necessarily results from the imminent condition of opposition, differences or impairments, which academics highlight as the causes of conflicts (Fisher and Ury, 1981; Thomas, 1992; Wehr, 2002). On the contrary, there are important social factors and individual behavior that can convert a positive collective condition into a complex course of conflict, and an evident conflict in a subtle element of social coexistence or a part of the tradition of a local social model based on power. In the latter scenario, values play a key role over the configuration of new individual and collective perceptions within changing social, economic and political contexts. The idea of the present dissertation was to scrutinize the gaps and ambiguities between the moments with and without conflict and the space within which the factors that contribute to the emergence of conflict begin to take shape.

Important factors of our analysis are the formation of informal institutions, rules design and enforcement, and the achievement of new rights, which interplay results in different circumstances that might be interpreted in different ways. Within the CFM, that interplay may be understood as the accommodation of several contexts that have influence on communal issues, and people have to assess the importance of each context to address them within their traditional social structure. In the latter case, what resembles a conflict might rather be a process of social deliberation to achieve a common agreement in order to fit all the important contexts cited above. If people are conscious about the relevance of the collective sphere to achieve a common benefit, a collective agreement is likely to arise. Otherwise, when there are problems to achieve a common agreement, the new bundle or communal rights related to natural resources might begin to operate as the main driver of individual behavior. In such circumstances, community members may start acting individually, seeking to secure maximum benefits from their individual rights over forest resources through the manipulation of new formal and informal institutions, and local rules.

It is common in many countries that one legal reform considers a few valuable resources and not the forests as a whole. Communities usually do not make such a distinction, and attribute comparable values to a much wider range of forest resources, or forests as a whole. If that is the case, conflicts are the outcome of the contradictions and constraints imposed by the reforms over the use of natural resources, which used to be allocated based on traditional principles. However, under the umbrella of the new rights, local social dynamism may acquire different connotations, leading to a wide range of individual decisions to manage regulated or unregulated natural resources based on individual strategies and expectations, or merging formal and informal procedures in order to force their use. Hence, the conflicts are not strictly about the valuable natural resources themselves, but rather the conflicts are about who finds better options to access and use forest resources. The latest is somehow the reality in several countries which are carrying out process of decentralization or the modification of land and forest laws aimed at the integration of forest actors within forest governance (Mitchel, 2006; Larson and Ribot, 2007).

At individual level, the above circumstances generate confusion related to the new rights over forest resources and related to the compliance of legal rules which intrinsically limit each other. The logic response is to secure individual rights and achieve maximum benefits from natural resource use, if there is the space to misunderstand or manipulate the rule and the scope of the individual right, supported by the right itself. Thus, a community member with that expectation may see legal reforms as an impediment to personal efforts and may try to manipulate local rules in order to restrict or eliminate the constraints imposed by formal rules. The notion that everybody is owner of the resources results in each member claiming the right to exploit valuable natural resources at any time. The latest reflects the different levels of resistance that characterizes social relationships and conflicts over common use resources which are accessible for all the interested actors who bear the same right over the resource. In this way, actors also might compete to try to legitimize actions that will give them a larger share of the resources, which is justified by the right of all, but that not everybody can take advantage of that right.

In a context of change of individual and collective rights and/or rights devolution, it seems that the sense of individual property derived from the new bundle of rights over natural resources implies the necessity to establish primarily the individual space to exercise those rights as a form of decision-making to fulfill individual interests. This suggests that the individual expectations to exercise new rights becomes a key conflict precursor factor and a subsequent collective pattern, when within a community all the members are seeking the same goal, that is to make individual decision which others have to recognize and respect. The above behavior

feeds competing social relationships based on the possibility to achieve this objective within the collective space. The latter stresses the dominance of personal interests, as opposed to the group's interests, when people are forced to choose between the two. Thus, a precursor factor becomes a problem factor when there is a lack of definition between the individual and collective sphere, a definition which must emphasize both, individual and collective rights. In such a case, individual rights should be achieved when the collective space considers it as a priority to define collective rights in a context of mutual coexistence. Otherwise, self-interest becomes a key element and drives people to use the collective space as a means of personal self-enhancement. In these circumstances, a confrontation arises between people supporting the collective primacy and people who support individual primacy, but are collectively engaged to do so.

Our data suggest that the consolidation of the communitarian vision will be unlikely if the individual space is not well rooted within the collective space. If that is the case, but actors depend on the communitarian structure to achieve individual benefits in a context characterized by lack or difficulties to achieve collective agreement, the interest and individual behavior have dual influence on the collective sphere. To avoid conflict avoidance, community members find ways to support the collective rights, but at the same time become involved in open or disguised activities to secure and exercise individual rights. The latter might become an open conflict when the interests of one person or group are severely restricted by others with more power. With equal influence among members, however, avoidance can be a way to manage conflicts and make them socially bearable and keep the status quo as a social way of coexistence.

Within circumstances in which strong communal engagement prevail, it is possible that individual interests become subsumed to collective interests, and formal rules will not be necessary, because local traditions are enough to constrain individual behavior. On the other hand, in communities with power imbalances, the allocation and use of valuable natural resources become an open-access process, but probably constraining others to do the same, leading to a new form of tragedy of the commons. It seems that in a context of right devolution to land and forest resources, individual and collective behavior and goals represent the main factors of a new form of conflict escalation, which may reach an open conflict when it is not possible or feasible to counterbalance individual and collective spheres.

Thus, the exercise of individual rights to push the collective agreements to favor individual expectations might be the forerunner factors, on the use of which depend the denouement of collective agreements. If people make concessions within the collective sphere, which means affect to some extent their individual rights and expectations, the forerunner factors based on individual behavior

become subsumed to the collective interests. Otherwise the latter becomes a matter of power which might escalate to a problem factor and subsequently a conflict, possibly leading to a status quo condition as a mean to avoid the conflict, to a tense social coexistence with permanent efforts to manage the forerunner factors of conflict, and a conflict situation in which the struggle of power might represent a way to take advantage of the conflict.

### **7.3. Final considerations**

From the above analysis, to prevent the distortions of formal rules over the scheme described along the present dissertation, government have to provide forests actors the necessary means and support them to shape their own local perspectives and forest institutions, which must be considered by formal institutions and within formal rules, if they are expected to achieve a comprehensive forest governance. Bestowing new rights to land and forests without defining the rules of the game to exercise them and with ambiguities among different legal reforms, make it difficult that communities will be able to make appropriate political decisions related to land and forest use without the intervention of external actors (Ostrom, 2010). In response, people will turn to individual efforts to achieve as much benefits as possible from those rights.

The three contexts observed in the research reported in this dissertation provide new insights to recognize and better understand key factors that are relevant to CFM, which are to some extent the consequence and have been influenced by legal reforms which were planned to provoke deeper changes in former social and economic structures related to land and forest tenure and use. However, the way in which those legal reforms took place in practice caused a number of different circumstances as a result of the process to fit customary strategies to access and use of natural resources in the new legal scenario. The latest is due to land and forest laws that do not take into account the previous condition of the people affected by the process of rights transfer. On the other hand, the faculties bestowed by the legal reforms of land property rights and forest use, cause confusion related to the real meaning and practice of individual and collective rights.

In those circumstances peasant people have to exercise their new rights related to land tenure and forest resources use, seeking for the best social configuration to fit individual and collective expectations related to the new opportunities to use valuable forest resources. The latest is a common phenomenon in countries in which the transfer of land and forest resource rights took place or is still ongoing and they are facing different consequences due to the lack of a good social and political planning to assure equity and efficiency in this process (Larson et al., 2008; Pacheco, 2009; Palmer, 2010). In other cases, the contradictions between laws

trigger social events in which the new rights themselves might be a matter of collective discussion and sometimes become a source of forest resource-based conflicts. When that happens, even defined property rights, and formal and informal rules are not enough to prevent distortions derived from the new social scenarios around valuable forest resources. Therefore, in order to promote the success of CFM, it seems important that the configuration of local institutions becomes enabled to protect individual rights and at the same time to motivate engagement with the collective sphere which is the basis and the support of individual rights.

Finally, a weak self-governance represents a threat to the success of important initiatives related to forest conservation and sustainable management. In the case of REDD+ for instance, research suggests that communities play a central role in its implementation (Hayes and Persha, 2010). Also researchers argue that in order for REDD+ to be effective, its implementation must respect the rights and livelihoods of forest communities. However, the negative scenarios presented in this work show that it is necessary to further research important aspects of communities that rely on the development of capabilities to deal with new opportunities that improve forest management and governance. Community rules, individual and collective accountability suitable with those rules, and right definitions still represent an important weakness under certain social circumstances. The lack of clarity of rights and rules can feed individual interests and opportunistic behavior, leaving aside the democratic and equity principles of CFM.



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## Summary

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In the last decades, community forest management (CFM) has become an alternative and therefore a strategy to reach important objectives related to forests sustainability and the improvement of forest dwellers' wellbeing. Despite CFM being relatively new to science, there is enough evidence to suggest that forest management by rural dwellers has been a very old practice, often influenced by social, economic and ecological local conditions. In many countries the recognition and development of specific CFM models has been closely related to social struggles for new rights or the recognition of traditional rights over land and forest in which forest dweller groups have been residing since long time ago. This poses a new perspective of CFM as locally and collectively organized, and therefore, related to the communitarian social model and the traditional rules and collective arrangements of local governance. The present thesis focuses on factors that have affected the development course of CFM in the northern Bolivian Amazon. This region's dominant forest exploitation model for more than one century was the *barraca*, a semi-feudal dominance by the local political and economic elite over extensive forest estates that were exploited for rubber or Brazil nuts, and a labor force attached to those estates. The forestry sector in this region has experienced important governance reforms, which have profoundly modified forest access and forest resource use.

In order to understand the sequence of changes of CFM in the course of its recognition in Bolivia and particularly in the northern Bolivian Amazon, we considered three important social processes that deeply affected or even triggered these changes. The first social process relates to community devised distribution of land and forest resources in response to agricultural and forestry government reforms. In this process are included social dynamics seeking to consolidate, adapt and develop community rules to cope with the new legal reforms. The second

social process relates to the debt-peonage system called “*habilito*” in the region, which *barraca* holders used to control their workforce and assure an adequate labor supply to exploit rubber and Brazil nuts, but also to exercise influence over social relations and the local economy. The third process relates to the consequences of the first two, observed most of the time as some kind of conflicts, which result from the difficulties of community members to adapt to the changes.

The first process of interest analyzed in the present thesis relates to the strategies developed by communities to cope with the new legislation and new responsibilities, and focusing on individual and collective rights as driving factors in the process of development of community rules. Principles of property and rights granted by the government constitute themselves some kind of obstacle to people devising local principles of access and authority. Our findings suggest that the first step to community rule design, enforcement, and effective forest management is the opportunity to, and equity of, access to forest resources among members. In this sense, to deal with processes to secure individual and collective rights suitable to meet people’s expectations and to conform to legal reforms, require specific communal agreements. However, if rights are not fulfilled somehow, defining boundaries and granting legal land property rights to peasants and indigenous groups are insufficient to properly manage forest resources. Additionally, the missing of collective traditions related to social organization and contradictions among new reforms can play a key role in this context.

To cope with the latter, communities have adopted different modalities of land distribution and forest resources allocation. We found three modalities in which the importance of individual and collective rights overlap. In a “free-access of forest resource management” modality, the individual rights become evident only after people arrange collective rights to land and forest resources. In a “common-access and individual forest resource management” modality, the only way to assure rights related to both land and forest products was to define collective and individual rights. Under an “individual natural resource management” modality, collective forest resource management takes place only after people have assured their individual property rights. Nonetheless, each modality creates different social contexts, which represent obstacles to achieve individual and collective agreements related to forest management, and these are reflected in the design and enforcement of community rules.

Nevertheless, the rupture of the former dominant social relationships, the transfer of land property rights and forest resource access to peasants and indigenous people, and the legal recognition of communities have triggered different social contexts related to individual and collective behavior linked to the exercise of rights, which is observed within the negotiation of *habilito*.

The study on *habilito* (*second social process*) assesses its role as an economic mechanism, and that way support a different understanding of debt-peonage than the traditional notion held until recently. The *habilito* emerged in the Amazon basin during the rubber boom. In Bolivia it was the product of a merger between the coercive system of labor control of servitude practiced in the west of the country, and the system of advanced payments implemented during the period of quinine extraction in the northern Bolivia Amazon before the rubber boom. Through *habilito* workers in the *barracas* incurred debts and maintained long daily work routines to repay those debts. Patrons used *habilito* to control labor and other parts of the productive chain, applying social rules over the workforce that lived in the *barracas* year round. *Patrons' de facto* rights over extensive forestlands also supported the power of the elite in the region. After government decentralization, and land and forest legal reforms, the region's peasant and indigenous population received land property rights and rights to use forest resources. Since then, *habilito* became a new instrument among the actors closely linked to forest resource use. To peasant and indigenous people *habilito* is a source of easily accessible credit, and negotiations over *this* arrangement are influenced by the rights over the land and valuable forest resources. *Habilito* constitutes a source of livelihoods during the extractive activities and especially during negative fluctuations of the prices of valuable forest resource, because through *habilito* traders and forest are committed to buy collected forest products at a previously established price. Finally, *habilito* nowadays is an instrument used by family clans or powerful groups to hold on to control within their communities, whenever the *habilito* they received is engaged in subsequent *habilito's* agreements with community members.

To traders and forestry companies, which have no rights over the land and forests resources according to the new reforms, *habilito* is an instrument to get access to valuable forest resources and to manage the productive chain in more advantageous ways. To get valuable forest resources traders and forest companies negotiate access to forest stocks with the owners, which starts with the advanced payment in kind or cash. When both actors fulfill their *habilito* agreements, the advanced payment means that the current owner of the resource transfers property rights over the resource to the trader or forestry company. The complete transfer of rights over the negotiated resources takes place when the product is fully delivered in exchange of final payment. Regarding the management of the productive chain, *habilito* prompted the distribution of transaction costs among actors when each one has to bear the production costs of his respective activities in order to achieve profits, thus promoting the division of the productive chain and the distribution of responsibilities.

When uncertainties and contradictions arise during the definition and application of new rules, conflicts emerge, and these conflicts encompass both individual and

collective spheres. The process of rights definition in the northern Bolivian Amazon is still immature and communities are forced to be flexible and reshape their internal rules to accommodate expectations and new opportunities to use natural resources under a new legal regime. However, an important factor that has influenced this scenario is the legacy of the *barraca* system, manifest in the individual behavior within the process to establish the bases of community's social relationships.

The new rules to define rights to use land and valuable forest resources implied renouncing previously held individual rights that brought benefits from forest resources use. This could represent an important obstacle to take proper advantage of the new legal opportunities to use valuable forest resources collectively. When the collective rights of the community are not adequately defined, and these collective rights are not adequately considered when defining individual rights, the definition of property rights and the rules for access and use of natural resources will not work properly.

We identified individual behavior that constitutes a source of conflict. For instance, individualistic behavior that gives priority to individual goals, rather than collective goals, is identified as "conflict precursors". A conflict precursor becomes a "problem factor" when individual behavior represents an obstacle to reach collective agreements. This phenomenon is linked to the individual perception that the collective sphere represents a problem to individual expectations related to forest resource use. This is precisely the consequence of the different management and legal rules between livelihoods and valuable natural resources, and the confusion it represents for community members. If peasants or indigenous groups try to apply the same decision to any natural resource, this constitutes an infraction related to valuable forest resources from a legal perspective. Natural resource-based conflicts then, are not a matter of competing for resources among community members anymore, but they rather become a matter of who has the ability to use the resource in the most advantageous way.

When there are no collective agreements to manage forest resources properly, community members start acting individually, seeking to secure maximum benefits from their individual rights over forest resources. To the community the latter represents a very important damage for any possible initiative to use valuable forest resources (mainly timber) following the legal procedures. If there is no local governance, and therefore local rules enforcement and compliance, individual behavior may become accepted within the community as a collective strategy to profit using forest resources regardless of any rule and criteria of sustainability.

This confirms the argument that rules, their implementation and sanctioning need full support from the entire community. If the process of local rules design does



not have the full support of all community members, it is likely that rules do not achieve the expected legitimacy within the community.



# Resumen

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## Introducción

En las últimas décadas, el manejo forestal comunitario (MFC) se ha convertido en una alternativa y por lo tanto, en una estrategia para alcanzar importantes objetivos relacionados con la sostenibilidad de los bosques y el mejoramiento del bienestar de las poblaciones que los habitan. A pesar de que el MFC es relativamente nuevo para la ciencia, hay suficiente evidencia para sugerir que la gestión forestal llevada a cabo por dichos habitantes ha sido una práctica muy antigua, a menudo influenciada por las condiciones sociales, económicas y ecológicas locales. En muchos países, el reconocimiento y desarrollo de nuevos modelos de MFC ha estado estrechamente vinculado a luchas sociales demandando nuevos derechos o el reconocimiento de derechos tradicionales sobre la tierra y el bosque en el que estas poblaciones han estado residiendo desde hace mucho tiempo atrás. Esto plantea una nueva perspectiva del MFC como organización colectiva local, y por consiguiente, relacionado con el modelo social comunitario, con el ámbito de reglas tradicionales y acuerdos colectivos de gobernanza local. La presente tesis se centra en los factores que han afectado el curso de desarrollo del MFC en el norte amazónico boliviano. En esta región el modelo dominante para la explotación del bosque durante más de un siglo fue la barraca, un dominio semi-feudal de la élite política y económica local sobre extensas áreas forestales utilizadas para la explotación de goma y castaña, así como sobre la fuerza de trabajo vinculada a dichas áreas.

En la última década el manejo forestal comunitario (MFC) ha recibido amplia atención en los debates internacionales sobre el uso del bosque y la distribución de los beneficios provenientes del uso de recursos forestales. Después de que los bosques fueron reconocidos por su rol clave para mejorar el bienestar de los

habitantes del bosque (Sabogal et al., 2008), la investigación sobre MFC ha experimentado repetidos cambios de enfoque. Dichos cambios consideran desde el papel de los bosques en los medios de vida, hasta temas relativos a su gobernanza (Agrawal y Gibson, 1999; Andersson, 2004; Andersson y Ostrom, 2008), conservación y estrategias de manejo forestal (Coomes y Barham, 1997; Murali et al., 2006). Dentro de estos enfoques también se ha prestado especial atención a importantes procesos nacionales e internacionales tales como la descentralización gubernamental y las reformas legales a la tenencia de la tierra y bosques (Pacheco, 2010; Andersson et al., 2006; Kaimowitz et al., 1998; Cronkleton et al., 2009), que han estimulado la democratización del acceso y uso de recursos forestales.

A fin de comprender la secuencia de cambios que afectaron el curso de reconocimiento del MFC en Bolivia y particularmente en el norte amazónico del país, consideramos tres importantes procesos sociales que influyeron profundamente e incluso provocaron dichos cambios. El primer proceso social se refiere a la iniciativa comunitaria para idear formas de distribución de tierras y recursos forestales en respuesta a las reformas agrícolas y forestales del gobierno. En este proceso se incluyen las dinámicas sociales que buscan consolidar, adaptar y desarrollar normas comunitarias para hacer frente a dichas reformas. El segundo proceso social se relaciona con el sistema de deuda por peonaje denominado en la región como "habilito", que los titulares de las barracas utilizaban no solamente para controlar a los trabajadores de sus establecimientos y asegurar una oferta de trabajo adecuada para explotar goma y castaña, sino también para influir en las relaciones sociales y la economía local. El tercer proceso se refiere a las consecuencias de los dos primeros, observado la mayoría de las veces como formas de conflictos derivados de las dificultades que los miembros de las comunidades deben encarar para adaptarse a los nuevos contextos emergentes.

Estos cambios, por otro lado, se reflejan, en buena medida, en la condición social de cada usuario del bosque que se expresa en un nuevo orden local relacionado con la gestión forestal. Dichos usuarios tuvieron que acomodarse a los cambios políticos, económicos y sociales que les fueron impuestos sin la posibilidad de poder influir en su curso. No obstante, absorbieron nuevas facultades concedidas por las propias reformas legales relativas al acceso y utilización de los recursos forestales. En algunas ocasiones dicha adaptación ocurrió de manera espontánea y armónica, en tanto que en otras sólo transcurrió a través de procesos de confrontación entre la población local e instancias de representación gubernamental. La acumulación de experiencias sobre la adaptación a estos cambios recientes ha dado lugar a diferentes escenarios sociales y han afectado de diferente forma las relaciones sociales y económicas entre los usuarios de los bosques, aspectos que son objeto de análisis de la presente tesis.

## **Nuevas reglas, nuevas relaciones sociales y nuevos conflictos en comunidades del norte amazónico de Bolivia.**

### *La necesidad de nuevas reglas comunitarias*

Bolivia promulgó nuevas e importantes reglamentaciones en la década de 1990, varias de las cuales tiene importantes consecuencias para las comunidades en el norte amazónico de Bolivia (Cronkleton et al., 2009; Pacheco, 2010; Stoian, 2006; Ruiz, 2005). Los cambios más importantes que afectaron a las comunidades y al sector forestal en la región son: las reformas de descentralización, mayores atributos y participación municipal en la administración gubernamental nacional, el reconocimiento formal de las comunidades que hasta entonces no tenía ningún valor jurídico, una participación específica de las comunidades en el ámbito municipal, una segunda reforma agraria que otorgo a las nuevas comunidades el título formal sobre sus tierras y, finalmente, reformas forestales de largo alcance (Kaimowitz et al., 1998; Pacheco et al., 2008a; Pacheco, 2010; Barry et al., 2010).

Las nuevas regulaciones implementadas en el norte amazónico de Bolivia proporcionaron oportunidades pero también obligaron a la población local, a incursionar en el aprendizaje de la acción colectiva y la auto-organización, requeridos para el diseño de normas relacionadas con el uso de la tierra y recursos forestales. Al respecto, el derecho propietario de la tierra y el acceso y uso de bosques es legalmente de índole comunitario, no obstante, se dejó al libre albedrío de las comunidades la decisión de cómo organizar su distribución internamente. De esta forma las comunidades procedieron a definir los criterios de distribución de la tierra y asignación de recursos forestales, no obstante, las relaciones sociales prevalentes en la comunidad determinaron, en buena medida, el carácter y la consistencia de las reglas a ser diseñadas. Este proceso tuvo un impacto directo sobre las comunidades respecto al desarrollo de habilidades para negociar recursos de importancia económica con actores ajenos a la comunidad (comerciantes y empresas forestales).

En muchas circunstancias miembros de la comunidad serían seducidos por terceras personas para recolectar y vender productos forestales sin la autorización de la comunidad, que en la mayoría de los casos, tiene la atribución de decidir sobre estos temas durante una asamblea comunal. La venta no autorizada de madera, por ejemplo, es un fenómeno común en muchas comunidades que a menudo es visto como una violación flagrante de las reglas locales de reciente creación, pero también es el resultado de la confusión y ambigüedades generadas por el propio proceso de reforma jurídica. A las comunidades se les otorgo la oportunidad de definir los derechos individuales sobre la tierra y los bosques según acuerdos internos. Sin embargo, frecuentemente miembros de la comunidad, a los que se les concedió o quienes demandaron derechos privados sobre áreas de bosque,

asumieron que contaban con derechos exclusivos y de libre disponibilidad sobre los recursos existentes en dichas áreas. La nueva legislación permite la concesión de derechos privados de uso exclusivo, no obstante, la madera no forma parte de estas facultades, a diferencia de ciertos recursos forestales no maderables como la castaña que cuenta con un amplio margen de decisión individual. De esta forma, la castaña disponible en los bosques puede ser recolectada y vendida de forma privada, en tanto que el aprovechamiento individual de madera tiene estrictas restricciones formales.

Una característica importante de este proceso es que la estructura social y política de las barracas proporcionó el molde tradicional para la distribución de tierras bajo el contexto de la nueva reforma y determinó el nivel de democracia y equidad en la definición de derechos dentro de las comunidades. Una deficiencia importante de las reformas de gobernanza de la tierra y de los recursos forestales, ha sido que no tomo suficientemente en cuenta la experiencia previa de la población afectada sobre los temas en cuestión y el poder involucrado en la diferenciación social influenciada por el sistema de la barraca. Esto último explica en gran medida, por qué el diseño de nuevas normas consuetudinarias para encarar reformas legales, ha tenido resultados positivos y negativos y continúa siendo un proceso muy dinámico.

Ciertamente, la influencia de las experiencias previas en el diseño de normas se evidencia en las tres modalidades de distribución de tierras y asignación de recursos forestales observadas entre las comunidades del norte amazónico de Bolivia. Estas modalidades son: (1) gestión de recursos forestales de libre acceso, (2) gestión combinada de recursos forestales con acceso común e individual, y (3) gestión individual de recursos forestales. Estas modalidades representan un avance muy importante para las comunidades en el proceso de auto-organización y acción colectiva en torno al diseño de reglas para la gobernanza forestal. Cada modalidad refleja la forma en que la población campesina configura formas viables de acceso a la tierra y la asignación de recursos forestales de importancia económica que cumplan con sus expectativas, pero sustentadas en buena medida, en el marco social predominante y arreglos colectivos. La existencia de enfoques individual, colectivo/individual e individual para la asignación de tierras y recursos forestales refleja el dinamismo de este proceso, ya que pueden estar presentes incluso entre comunidades vecinas. Por otro lado, en función a la forma en que estos nuevos atributos consuetudinarios son aceptados y legitimados entre los miembros de la comunidad, emergen nuevas incertidumbres y contradicciones que representan nuevos retos que deben encarar.

*El origen de las nuevas relaciones sociales vinculadas al habilito*

La evolución de la antigua práctica de la deuda por peonaje, denominada en la región como habilito, es un ejemplo de cómo un instrumento arcaico de explotación social puede convertirse en un instrumento económico para diferentes actores del sector forestal que coexisten en un mismo ámbito de acción. En lo que se refiere al MFC, la evolución del habilito represento no solamente el cambio en el modo de aplicación del habilito, sino también la evolución de las relaciones sociales que aportaban a la continuidad de la antigua modalidad del habilito en el pasado y el cambio en las modalidades de tenencia de la tierra y uso de recursos naturales. Además de las importantes reformas relativas a la tierra y bosques que favorecieron a la población desventajada, existen otros factores que permiten explicar la evolución del habilito. La continuidad del habilito en el norte amazónico de Bolivia y de diferentes variantes de la deuda por peonaje en otros países, estuvo vinculada a factores de orden económico (Caballero, 1986; Barham y Coomes, 1994a, 1996; Stoian, 2000; Bojanic, 2001). Uno de los más significativos es el costo de oportunidad vinculado a las necesidades sociales y los requerimientos de mano de obra, que resultan ser más evidentes en países en desarrollo con sistemas productivos deficientes y debilidades en sus estructuras políticas. El mismo principio que determino la dependencia entre trabajadores y patrones en el pasado, determino las relaciones entre la población campesina (antiguamente sometidos por el habilito), y comerciantes y empresas forestales (la mayoría de ellos ex-patrones) en el presente. Pese a que campesinos e indígenas son propietarios de la tierra y tienen el derecho a utilizar los recursos forestales existentes en ella, existen limitaciones económicas que obstaculizan su oportunidad de beneficiarse de una manera más provechosa. Por otra parte, los comerciantes y las empresas forestales que solían detentar la tenencia de la tierra y recursos forestales, hoy en día tienen la ventaja económica pero carecen de derechos sobre los recursos forestales de los que depende su economía empresarial. De esta forma, el mecanismo del habilito, que en el pasado se enfocaba a mantener a los trabajadores endeudados y por lo tanto obligados a permanecer en la barraca explotando recursos forestales, actualmente se ha convertido en un instrumento de negociación a través del cual comerciantes y empresas forestales pueden acceder a recursos de importancia económica, en tanto que las comunidades campesinas e indígenas tienen la posibilidad de vender dichos recursos.

En su nueva modalidad el habilito se negocia en función del precio de la castaña y no del trabajo que demanda su recolección, como solía ser en el pasado. Los distintos actores con interés económico en este recurso, definen los precios locales de compra y venta de manera colectiva (Bojanic, 2001), lo cual asegura el logro de beneficios para cada actor involucrado en la cadena. En el campo, el habilito sigue

siendo negociado en base a las necesidades de productos comestibles requeridos por el campesino y a la expectativa del volumen de castaña a ser entregado. La liquidación de cuentas se lleva a cabo una vez que la castaña recolectada por el propietario ha sido transferida al comprador. Esta negociación tiene lugar en función a los precios establecidos previamente, lo cual asegura derechos de acceso a recursos forestales de importancia económica para comerciantes y empresas forestales, en tanto que para los campesinos es una forma de garantizar mercados de venta para sus productos y una fuente de crédito por el tiempo que dure el acuerdo comercial.

Por lo tanto, el nuevo habilito se vincula a una cadena de actores con autonomía de acción que dependen unos de otros para obtener beneficios. Estos actores son autónomos en el sentido de que tienen la libertad de negociar las condiciones del habilito, así como de acordar y aceptar el precio que debe pagarse por el producto y el adelanto ofertado, que puede ser en efectivo o en especie. Sin embargo, los resultados positivos o negativos derivados de dicha negociación representan al mismo tiempo nuevas oportunidades para obtener beneficios, lo cual de alguna manera, se relaciona al nuevo orden social y relaciones de poder emergentes de dicho orden.

### *Nuevos conflictos*

Cuando el proceso de definición y aplicación de nuevas reglas está caracterizado por la presencia de incertidumbres y contradicciones surgen conflictos que afectan tanto a la esfera individual como a la colectiva. El proceso de definición de derechos en el norte amazónico de Bolivia es todavía prematuro y las comunidades se ven obligadas a ser flexibles y reformar sus reglas internas para acomodar sus expectativas y nuevas oportunidades para utilizar recursos naturales bajo el nuevo régimen jurídico. La población campesina tiene que discutir y resolver estos temas en el ámbito colectivo, pero con un patrimonio cultural poco favorable para enfrentar este nuevo desafío. Esto ha dado lugar a una nueva serie de conflictos y un nuevo tipo de reacciones sociales para hacerles frente.

Las nuevas reglas para definir derechos de uso de la tierra y recursos forestales de importancia económica implican renunciar a los derechos individuales ejercidos previamente, que proporcionaban beneficios provenientes del uso de dichos recursos. Esto podría representar un obstáculo importante para aprovechar adecuadamente las nuevas oportunidades legales para el uso colectivo de recursos forestales. Cuando los intereses colectivos de la comunidad no están adecuadamente definidos y no están adecuadamente considerados en la definición de los derechos individuales, la definición de los derechos de propiedad y las reglas para el acceso y uso de los recursos naturales no operan correctamente. Esto concuerda con el argumento de que las reglas, su aplicación y sanción requieren el



apoyo pleno de la comunidad en su conjunto, de lo contrario, es probable que no alcancen la legitimidad esperada.

Sin embargo, si la comunidad se encuentra bajo el control de clanes familiares o grupos de poder, las reglas son útiles siempre y cuando favorezcan los intereses de estos grupos, independientemente de los derechos de los demás. Por último, cuando las reglas no expresan la voluntad, las expectativas y la aceptación de la mayoría, se convierten en una mera formalidad escrita para sustentar el reconocimiento legal de la comunidad, en lugar de operar como un instrumento para guiar y regular el comportamiento de sus miembros. En consecuencia, las reglas sin deliberación local pueden entenderse como las decisiones tomadas para el grupo pero no por el grupo (Bartos y Wehr, 2002), condición que genera un malentendido de las reglas y la distorsión de la esfera colectiva en torno a ellas.

Adicionalmente, cuando las reformas legales no toman en cuenta las normas consuetudinarias o no crean un ambiente propicio para que las personas puedan desarrollar normas consuetudinarias adecuadas (Fitzpatrick, 2005; Gibson et al., 2005; Cronkleton et al., 2007), las reglas consuetudinarias previas podrían llegar a ser reafirmadas, incluso a pesar de contradecir las nuevas reformas legales. En estas circunstancias, el logro de derechos individuales se convierte en una prioridad para los miembros de la comunidad. Las personas empiezan a preocuparse principalmente en garantizar su subsistencia y la adquisición y tenencia de tierras y de recursos forestales en la medida en que los acuerdos colectivos se los permita. También están principalmente motivados por el logro de beneficios económicos tanto como sus derechos individuales se los permita, o en la medida en que los derechos colectivos sean posibles de manipular.

Nosotros identificamos que el comportamiento individual constituye una fuente de conflicto. Al respecto, al comportamiento individualista que otorga mayor prioridad a los objetivos individuales que a los objetivos colectivos, lo denominamos como "precursor de conflicto". Un precursor de conflicto se convierte en "un factor de problema" cuando el comportamiento individual representa un obstáculo para alcanzar acuerdos colectivos. Este fenómeno está vinculado a la percepción individual de que la esfera colectiva representa un problema para las expectativas individuales relacionadas con el uso de recurso forestal. Esta es precisamente la consecuencia de las diferencias entre las modalidades de gestión y normas legales desarrolladas para el uso de recursos de medios de vida y recursos naturales de importancia económica, y la confusión que esto representa para los miembros de la comunidad. Si los campesinos tratan de aplicar la misma decisión sobre cualquier recurso natural, el hecho constituye una infracción desde el punto de vista legal cuando se trata de recursos forestales de importancia económica. Consecuentemente, el conflicto por recursos naturales no es una cuestión de

competencia por el recurso en si mismo entre miembros de la comunidad, sino más bien una cuestión de habilidad para aprovecharlos de la manera más beneficiosa.

## **Implicaciones de la experiencia boliviana para el manejo forestal comunitario**

### **Instituciones y reglas locales para limitar los nuevos derechos de propiedad**

Lo que se sabe acerca de la gobernanza forestal en la literatura, es que la noción sobre el modo de gobierno depende de la cantidad de actores gubernamentales y no gubernamentales integrados en gobernar vis-à-vis (Treib et al., 2005). Desde la última oleada de descentralizaciones y reformas agrarias y forestales en muchos países del mundo, las comunidades forestales se vieron obligadas y/o motivadas a cumplir con reformas legales y al mismo tiempo desarrollar sus propias instituciones y normas locales para implementar un modelo de gobernanza forestal comunitario. Desde esta perspectiva, los investigadores asumen la gobernanza como quien tienen la autoridad, la ventaja o condiciones para tomar decisiones y como se toman dichas decisiones a través de un proceso de reconocimiento y validación en los distintos niveles de la administración pública (Cotula y Mayer, 2007; Sandbrook et al, 2010; Larson y Petkova, 2011). De esta forma el autogobierno se ha convertido en una alternativa para las comunidades, para enfrentar un gobierno con una tradición centralista de gobernanza. Sin embargo, solo recientemente se ha reconocido que el autogobierno está sujeto a cambios constantes (van Tatenhove, 2000), cuyas dinámicas se ven afectadas por factores como las tradiciones locales y antiguas relaciones sociales, que se manifiestan en distinta medida en el diseño y aplicación de normas.

Varias preguntas generales de importancia relacionadas con el proceso de cambio antes mencionado siguen sin respuesta, como por ejemplo: ¿Cómo lograr la integración gubernamental de los diferentes actores, cuáles son las condiciones de dicha integración, y que representa para cada actor en circunstancias donde a los actores no gubernamentales se les concedió derechos de propiedad común sobre recursos naturales? Los aspectos específicos que merecen atención dentro de la anterior pregunta son: ¿En qué medida la introducción de la propiedad resuelve los dilemas que se deriven del uso de recursos comunes de acceso libre? ¿Cuáles son los nuevos factores que motivan a la gente a auto-organizarse para manejar correctamente recursos comunes bajo un nuevo estatus jurídico de tenencia de la tierra y reformas forestales? ¿Qué tipo de instituciones locales son adecuados para el autogobierno dentro de las circunstancias citadas antes? ¿Qué sucede cuando los nuevos arreglos de gobernanza son implementados dentro de contextos sociales en los que conviven varios tipos de instituciones informales? ¿Si las reglas informales comprometen los intereses de la organización social, debido a su

incompatibilidad con las normas formales, que factores estimulan a la gente para apoyar una institución informal?

En el presente trabajo se sustenta la hipótesis de que la aplicación de los nuevos arreglos gubernamentales provocadas por la descentralización y los cambios en la tenencia de la tierra y los recursos forestales introduce un nuevo nivel de complejidad a la auto gobernanza de los recursos comunes, que en gran medida altera las tradicionales instituciones informales y desencadena el desarrollo de nuevas instituciones formales e informales, provocando una superposición y roce constante entre ambas. Por lo tanto, los factores y motivos que incentivan a la gente a desarrollar instituciones informales adquieren un nuevo sentido, desencadenando un nuevo significado, nuevas dinámicas e intereses relacionados con el diseño, aplicación y cumplimiento de reglas formales e informales. El presente estudio analiza las reglas informales que surgieron entre la población que fue el objetivo de las nuevas reglas formales, pero que también recibieron nuevos derechos que les permitió desafiar la nueva normativa. En base a lo mencionada antes, las actividades legales e ilegales desplegadas por la población rural para lograr beneficios con los recursos forestales comerciales y de subsistencia estaban más relacionadas con el empoderamiento y el ejercicio de derechos individuales y colectivos, en lugar de ser una cuestión de cumplimiento de las regulaciones formales impuestas por el gobierno. La gente cumplía con las regulaciones formales, pero trató de evitarlas en la medida de lo posible. En esta circunstancia, la acción colectiva puede convertirse en un mecanismo para asegurar el acceso de los recursos naturales, pero partiendo principalmente en la definición y el ejercicio de los derechos a dichos recursos. Todos estos aspectos se analizan a continuación.

Un aspecto teórico importante destacado entre los académicos, es que los derechos de propiedad sólo se puede lograr en la práctica cuando el titular del derecho encuentra la manera de obtener beneficios utilizando los recursos naturales sobre los que le fue concedido derechos y excluir a otros que no gozan del mismo beneficio (Ostrom, 1999c, 2010). Sin embargo, las consecuencias del ejercicio de nuevos derechos dependerá, en gran medida, de las circunstancias previas de las personas afectadas. Los factores relevantes que describen dichas circunstancias previas son: antiguos arreglos para la asignación de los recursos de tierra y bosques, y la influencia de tradiciones vetustas y formas de estratificación social (Cronkleton et al, 2009; Larson et al, 2008.). Una ruptura repentina del orden social anterior a través de la otorgación de nuevos derechos a la tierra y bosques, tiene consecuencias que afectan a una amplia gama de diferentes estrategias sociales emergentes del desarrollo de nuevos comportamientos individuales y colectivos estrechamente relacionados con el ejercicio de nuevos derechos. Las diferentes formas en que las comunidades dispusieron la asignación de tierras y bosques en diversos países puede ser visto como una expresión de esto último

influido por contextos sociales, económicas y políticas específicos (Larson et al, 2007;. Larson, 2008; Pacheco, 2009).

Las nuevas relaciones sociales y de poder provocadas de alguna manera por el proceso de adaptación a las nuevas circunstancias jurídicas, juegan un papel clave en cómo las comunidades establecen acuerdos para el uso de la tierra y bosques. Nuestros hallazgos sugieren que, en efecto, las estrategias desplegadas por las comunidades dependen en gran medida, del comportamiento individual y colectivo que surgen de la percepción de los nuevos derechos. El proceso explica el dinamismo del diseño y aplicación de reglas, y las diferentes configuraciones resultantes de las elecciones individuales y colectivas. Otro factor que podría tener una influencia importante son las ambigüedades y confusiones generadas por las mismas reformas si no hubo suficiente planificación y apoyo para la aplicación de cambios. Esto último pudo haber llevado a la gente a idealizar e incluso exagerar el alcance de los nuevos derechos recibidos.

Tal Idealización se hace evidente cuando las esferas individual y colectiva son contradictorias. Cuando el ejercicio de los derechos a nivel individual no es reconocido a nivel colectivo, es poco probable que la auto-organización tenga lugar y la atención de la gente se enfoca en beneficiarse tanto como les sea posible, de la parte de los derechos colectivos que les corresponde. En este caso, la sostenibilidad, la equidad y la democracia se convierten en una cuestión de poder y de relaciones verticales, lo que sugiere escenarios opuestos a los esperados con el CFM y, resultando potencialmente en un nuevo tipo de tragedia de los comunes. Por otro lado, cuando los nuevos derechos logran aceptación entre la población, la auto-organización podría tener lugar bajo la forma de diseño y cumplimiento de reglas para obtener beneficios de la gestión conjunta de los recursos forestales, pero basado principalmente en los intereses individuales. Sin embargo, si las reglas conllevan deficiencias, la auto-organización podría llevarse a cabo con un objetivo diferente, para asegurar el ejercicio de los derechos en el proceso de búsqueda de poder de decisión en relación con el uso de recursos naturales de importancia económica, en lugar de cumplir con las reglas formales si estas afectan de alguna forma esos derechos. En estas circunstancias, la auto-organización a nivel comunitario puede experimentar éxitos y fracasos respectivamente. En el primer caso las comunidades pueden asegurar derechos colectivos en su lucha contra las limitaciones impuestas por el gobierno. Sin embargo, la definición posterior de derechos entre los miembros de la comunidad puede empañarse cuando las expectativas relacionadas con el ejercicio de los derechos individuales no permiten arreglos colectivos.

Por lo tanto, en ciertas circunstancias es posible que el interés principal de la gente a participar en la construcción de las instituciones informales, y el diseño y

ejecución de las normas locales, sea el satisfacción de los derechos individuales y colectivos. Esto último podría motivar una auto-organización y acción colectiva que incluyan formas viables para satisfacer las expectativas individuales en relación con el acceso y uso de los bosques, a pesar de que estos acuerdos se opongan a las reglas formales. Sin embargo, cuando la percepción de los derechos de propiedad se inclina más a la esfera individual, los nuevos derechos se conviertan en una amenaza para la MFC, donde la administración de la tierra y de los recursos forestales por miembros de la comunidad empieza a asemejarse a la propiedad privada. Por lo tanto, las reglas comunitarias o cualquier otro tipo de norma que trate de limitar las expectativas individuales, representaran un obstáculo que será rechazado, pasado por alto o fusionado con las normas locales por miembros de la comunidad y su cumplimiento será mínima.

El análisis anterior sugiere que en situaciones de cambios constantes a nivel comunitario, provocado por un nuevo marco legal para regular recursos naturales, puede haber una amplia gama de condiciones que permitan a las comunidades desarrollar instituciones y normas locales si es que estas han logrado derechos legales sobre dichos recursos. En este contexto, el riesgo podría ser que las reglas formales sean relegadas a una simple referencia para el ámbito de los derechos individuales y colectivos y perder su función de instrumentos operativos de regulación, si es que son inconsistentes y contradictorias. A partir de nuestra investigación de campo, la coexistencia de normas formal e informal, contradictorias en varios aspectos, dentro de una misma área e incluso dentro de una misma comunidad, es un ejemplo de cuan ambigua puede llegar a ser una regla. Esta es la base para proponer una nueva institución informal: "instituciones informales catalizadoras", que posibilitan la aparición o la fusión de instituciones informales (Helmke y Levitsky, 2004), en función a las prioridades de la población objetivo. A través de este tipo de instituciones las reglas formales e informales escritas pueden ser aplicadas de manera efectiva y lograr, así mismo, una efectiva regulación de recursos naturales de importancia económica, sin perder de vista el respeto a los derechos. Si esto no sucede, infringir las reglas informales y diversificar las instituciones locales para evadir normas oficiales puede llegar a ser un patrón colectivo.

Este nuevo dinamismo institucional influye en que el papel dominante del Estado se limite al diseño e implementación de reglas, pero dejando espacio a las comunidades para idear formas más adecuadas de adoptar y cumplir con dichas reglas. Sin embargo, lo anterior también puede dar lugar a respuestas oportunistas para favorecer los intereses de ciertos actores. Esto puede ser entendido como la coexistencia de dos modos de gobernanza, una gobernanza jerárquica que cuenta con la autoridad para diseñar y hacer cumplir las reglas formales, y un autogobierno maleable con la ventaja de redireccionar reglas formales a través de

instituciones locales informales. Tal contradicción obliga a la gente a perseguir formas de autogobierno con el apoyo de sus derechos, haciendo caso omiso, en la medida de lo posible, del papel del Estado en la aplicación de las reglas formales.

En síntesis, la devolución de derechos a la tierra y bosques implica importantes desafíos sociales, institucionales y gubernamentales, si esos derechos no están acompañados por las instituciones formales y normas necesarias para ayudar a la población objetivo a entender los límites para ejercer dichos derechos y para desarrollar normas informales locales que faciliten dicho fin de manera equitativa y efectiva, balanceando objetivos individuales y colectivos. La consideración de marcos sociales y arreglos locales previos juega un papel clave en este proceso, para evitar la distorsión de las expectativas individuales que pueden dar lugar a un autogobierno débil y ambiguo y así como la ausencia de integración entre actores gubernamentales y no gubernamentales para la gobernanza forestal. De lo contrario, un posible resultado puede ser el diseño de instituciones informales y reglas para la distribución de la tierra y el acceso a recursos forestales de importancia económica, cuya eficacia podría depender del equilibrio resultante del proceso de reconfiguración social, que al mismo tiempo, es afectado en gran medida, por antiguas relaciones sociales y desequilibrios de poder. De esta manera, los derechos individuales se convierten en el factor principal para direccionar acuerdos colectivos relativos a la gestión de recursos naturales comerciales en un contexto de devolución de derechos a la tierra y bosques bajo la modalidad de propiedad colectiva. En la medida en que los derechos individuales logran reconocimiento y equilibrio en el ámbito colectivo, es posible limitar la manifestación contraproducente de ejercer dichos derechos y lograr un efectivo MFC.

### **Analizando la evolución de la deuda por peonaje**

En relación al estudio de la evolución de la deuda-peonaje (habilito), nuestro punto de partida asume que el mismo es reconocido como un mecanismo estrechamente relacionado con las circunstancias económicas y laborales en que los deudores y los acreedores buscan beneficiarse a partir del otro (Barham y Coomes, 1994a; Washbrook, 2006). Sin embargo, esta opinión esta basada en los estudios de antiguas formas de deuda por peonaje en las que el acreedor tenía poder sobre el deudor, situación que además estaba muy influenciada por condiciones culturales y sociales (Knight, 1988; Servet, 2004). En base a esto último, los investigadores reportaron casos de deuda por peonaje que van desde modos muy opresivos entre deudores y acreedores hasta condiciones muy relajadas donde las deudas podrían ser entendidas como crédito en lugar de una imposición, así como la reducción del control del acreedor sobre la movilidad del deudor (Knight, 1988; Welch, 2009; Pacheco, 1992; Bojanic, 2001). Por lo tanto, existe un debate respecto a si

involucrarse en deuda por peonaje es una decisión económicamente racional o sigue siendo el resultado de las estrategias para atraer y amarrar a los trabajadores a los centros productivos.

Un factor adicional pasado por alto por la mayoría de los investigadores, se refiere a cómo los derechos de propiedad sobre la tierra y recursos naturales de importancia económica influyen en los acuerdos relativos a la deuda por peonaje. Las preguntas que tratamos de responder en el capítulo 5 de la presente tesis respecto a este tema son las siguientes: ¿Qué sucede cuando los acuerdos sobre deuda por peonaje, como la oportunidad de producir y beneficiarse de la venta de recursos naturales de importancia económica, depende de las negociaciones entre actores que controlan de forma independiente, los medios de producción y el acceso a los recursos? ¿De qué manera las primeras formas de deuda por peonaje cambiaron entre los antiguos empleadores y empleados bajo un nuevo régimen de derechos de propiedad y derechos de uso? ¿En qué medida estos actores aprenden a capitalizar estas nuevas características para maximizar sus ganancias, negociando la venta de productos forestales? ¿Qué factores continúan la dependencia entre deudores y acreedores, incluso en situaciones en las que el deudor tiene los medios para poner fin a la servidumbre o esclavitud a las que conduce, en muchos casos, la deuda por peonaje? La teoría actual sobre este tema no tiene una explicación clara de por qué los trabajadores endeudados que han alcanzado nuevas ventajas, como los derechos de propiedad de la tierra o los derechos exclusivos para utilizar recursos naturales aceptan más o menos el mismo trato de la deuda por peonaje para trabajar y obtener beneficios de dichos recursos.

En la presente tesis sostenemos la hipótesis de que el tipo de relaciones sociales entre el deudor y el acreedor en la práctica de la deuda por peonaje, la cual está condicionada por el control de los recursos forestales comerciales, juega un papel clave en su evolución. Por lo tanto, cuando las antiguas estructuras dominante/dominado cambian debido a la reasignación de derechos, esto afecta las estrategias de cada actor social para obtener beneficios o las condiciones más ventajosas al participar en los acuerdos de la deuda por peonaje. Esto último explica la evolución de este mecanismo de un acuerdo que pudo haber surgido en condiciones de opresión y de la extracción coercitiva de trabajo basada en las percepciones de superioridad / inferioridad de los actores sociales, a una relación económica en la que dos partes negocian el intercambio de mano de obra y recursos naturales a cambio de una remuneración.

Nos referimos a la discusión de la sección 7.2.1 para destacar que en ciertas circunstancias es posible el ejercicio de nuevos derechos a través de los antiguos procedimientos de la deuda por peonaje, para acceder y obtener beneficios de recursos forestales de importancia económica. Si los actores involucrados en la

deuda por peonaje logran derechos sobre los medios de producción que solían estar bajo el control de uno de ellos (el acreedor), la reasignación de los nuevos derechos motivado nuevas formas de negociación del trabajo y recursos naturales sobre la base de las ventajas particulares de cada actor para lograr beneficios a partir del otro. Estos nuevos acuerdos sociales pueden observarse en varios aspectos: (1) relaciones comerciales más equitativas, (2) una fuente permanente de crédito, mientras exista un recurso forestal negociable, (3) la especialización de los actores de la cadena productiva basada en las ventajas de los usuarios y sus capacidades productivas, y (4) un nuevo orden social y relaciones de poder. Estos aspectos pueden ser considerados como la nueva evolución de la antigua deuda por peonaje en el norte de Bolivia.

Si los trabajadores logran obtener derechos sobre los recursos forestales de importancia económica que eran negociados a través de acuerdos de deuda por peonaje, pero no tienen acceso a los medios de producción, la dependencia entre ambos actores conlleva el riesgo de que alguno de ellos logre tener la oportunidad de desarrollar mecanismos para identificar maneras más ventajosa de negociar dichos recursos y mejores ganancias. Sin embargo, si la definición de los derechos establece límites claros entre los derechos de ambos actores con su interdependencia inevitable para ser productivos, la deuda por peonaje puede proporcionar una mejor venta y condiciones de lucro que en tiempos pasados, democratizando una relación que solía ser opresiva y desigual.

La especialización de los actores dentro de una cadena productiva basada de alguna manera en antiguas condiciones de deuda por peonaje, es otra consecuencia importante del ejercicio de los derechos comunales vinculados a la negociación de un pago por adelantado o deuda. La transferencia de los derechos de propiedad permite a los actores de la cadena productiva, asumir nuevas responsabilidades y adoptar nuevas estrategias con el fin de hacer frente a las nuevas condiciones. Por lo tanto, la eficiencia productiva del antiguo sistema de deuda por peonaje logrado a través de medios impositivos, opresivos y coercitivos, para obtener beneficios para el acreedor y asegurar la subsistencia del deudor, actualmente puede depender de los intereses económicos basados en la negociación de recursos forestales de importancia económica.

Por otro lado, cuando algunos actores pueden aferrarse a ciertos poderes o privilegios de antiguas relaciones feudales que caracterizaron la deuda por peonaje en el pasado, esto puede afectar seriamente los acuerdos económicos, otorgando al grupo dominante medios más ventajosos para capturar beneficios de otros actores. Por lo tanto, en este último caso, las relaciones sociales pueden parecerse a los del sistema opresivo previo, sometiendo a los actores sin poder a una cadena de comando y control en manos de los actores más poderosos.



En un contexto democrático y más igualitario, sin embargo, cualquier actor vinculado a la deuda por peonaje tiene la oportunidad de negociar anticipos directamente con los acreedores, sustentándose en la propiedad del recurso natural o vínculos comerciales previos. Esta oportunidad puede ser entendida como una nueva dependencia mutua que refuerza vínculos que influyen en el bienestar de cada actor y benefician a toda la cadena productiva. Cuando las necesidades de los actores que recurren a los pagos por adelantado dependen demasiado en el acreedor, éste último tiene la posibilidad de imponer las condiciones de la deuda y los precios de los recursos negociados. Cuando el deudor no es el propietario de dichos recursos pero cuenta con la oferta de su mano de obra, los nuevos acuerdos de trabajo es probable que se basen en la cantidad de los recursos que pueden producirse y no en la cantidad de trabajo que se va a intercambiar. En ese caso, el trabajador puede influir en la cantidad de dinero obtenido al decidir el tiempo que permanecerá trabajando para el dueño del recurso o del acreedor, en lugar de ser una imposición. Por lo tanto, las relaciones de trabajo previas características de la antigua deuda por peonaje, se han convertido en una relación comercial/capitalista adaptada a los límites de acceso y uso de productos forestales. Esto último es un tema que en otros países, donde todavía existe la deuda-peonaje, permanece en diferente medida, como mecanismo para reclutar a los trabajadores y amarrarlos a través de deudas en el fin de satisfacer las necesidades de las nuevas actividades productivas. En otros casos, la deuda por peonaje llegó a ser una fuente alternativa de trabajo para personas desempleadas de centros urbanos (Sears y Pinedo Vásquez, 2011), que aún deja espacio para la especulación del pago de deudas y diferentes niveles de explotación social.

La evidencia empírica sobre casos diversos de deuda por peonaje (Barham y Coomes, 1994b; Assies, 2002; Brown, 2003; Stoian, 2006) apoya nuestra interpretación de las circunstancias que llevaron a la evolución de este mecanismo en el norte de Bolivia. Para que esta evolución tenga lugar, son fundamentales los cambios en el equilibrio social entre dominantes y dominados debido a cambios en los derechos de propiedad sobre la tierra y sobre los derechos de uso de recursos naturales. Nuestros hallazgos sugieren también que esto incluye una redistribución o reasignación de las ventajas y desventajas entre ambos actores, así como la búsqueda de nuevos acuerdos sobre la base de las nuevas perspectivas y necesidades emergentes. De igual manera, estos acuerdos incluyen la asignación y reasignación de derechos entre actores a través de los cuales se establecen las nuevas relaciones de poder y condiciones de propiedad, que definen los límites de sus acciones, beneficios y responsabilidades. De esta forma, las interacciones entre los actores son, de alguna manera, dictadas por las ventajas y desventajas de cada uno vinculados a través de la deuda por peonaje, en el que los niveles de dependencia se analizan desde la perspectiva de una elección económicamente

racional, en lugar de ser un mecanismo u oportunidad de explotación laboral. Por lo tanto, en este caso la libre elección de aceptar la deuda es con el objetivo de obtener condiciones óptimas para los acreedores y deudores, bajo la modalidad de relaciones de intercambio comercial en lugar de relaciones de intercambio laboral.

### **Los conflictos emergentes de cambios en los derechos colectivos e individuales y cambios en el ámbito de las instituciones locales**

La combinación de los temas estudiados anteriormente, genera nuevas referencias para entender los conflictos relacionados con los recursos naturales. La literatura sugiere que los conflictos se derivan de las estructuras sociales en lugar de las posiciones e intereses de los actores (Dahrendorf, 1958). También los conflictos pueden ser el resultado de espacios interconectados, donde la acción de un individuo o grupo puede generar efectos fuera del sitio debido a la escasez de los recursos naturales, o debido a la influencia de las características culturales, simbólicas y tradicionales de los actores en competencia (Buckles y Rusnak, 1999). Por otro lado, los conflictos pueden ser vistos como un componente de transformación hacia cambios positivos relacionados con la gobernanza de los recursos naturales, y por lo tanto, beneficioso para los usuarios de los bosques y para los bosques por igual, en el proceso de construcción de cooperación, institucionalidad e integración (Bailey, 1997; Doornbos et al., 2000; Yasmi, 2007). Sin embargo, una tendencia común es vincular los conflictos con diferencias/incompatibilidades, frustraciones, circunstancias que perjuicio entre los actores, que de alguna manera destacan la presencia inevitable de oposición en el proceso de formación de los conflictos (Fisher y Ury, 1981; Thomas, 1992; Wehr, 2002). Como parte de la nueva ola de descentralización y desconcentración de los derechos forestales, hoy en día muchos conflictos son causados por confusiones, distorsiones, malos entendidos, y políticas y normas inadecuadas relacionadas con las realidades de las personas que son objetivo de dichas políticas y normas, y por la mala definición de derechos de propiedad (de Jong et al., 2006; Puppim, 2008; Gómez-Vázquez et al, 2009).

A pesar de la cantidad de investigación sobre conflictos, es indispensable una comprensión más fundamental sobre la naturaleza de los conflictos forestales, en particular sobre los factores, procesos o condiciones que constituyen la base de los conflictos o pueden influir en su evolución. Por ejemplo, ¿cómo explicar aquellos casos en los casos el status quo de una perturbación específica de las relaciones sociales en torno a objetivos individuales y colectivos, puede ser interpretado como la etapa final del conflicto; o cuando los derechos, límites, reglas y el alcance de la acción colectiva están claramente definido, pero los conflictos aún persisten? Además, hay pocas referencias acerca de cómo el contexto circundante y los factores externos pueden influir en los procesos citados antes.

Nosotros sostenemos la hipótesis de que los derechos de propiedad tienen un papel relevante y puede o no tener consecuencias positivas concordantes al momento de definir el acceso a recursos naturales de importancia económica. Por lo tanto, los derechos pueden ser utilizados para desarrollar, modificar y hacer cumplir las reglas, para moderar el comportamiento de las personas, y pueden tener una enorme influencia sobre los conflictos y otros factores que están involucrados o son los precursores de los conflictos. En este sentido, los conflictos no son necesariamente el resultado de la condición inminente de oposición, diferencias o impedimentos, que los académicos destacan como las causas de los conflictos (Fisher y Ury, 1981; Thomas, 1992; Wehr, 2002). Por el contrario, existen importantes factores sociales y el comportamiento individual que pueden convertir una condición colectiva positiva en un curso complejo hacia el conflicto, y un conflicto evidente en un elemento sutil de la convivencia social o una parte de la tradición de un modelo social basado en el poder local. En este último caso, los valores juegan un papel clave en la configuración de nuevas percepciones individuales y colectivas en contextos sociales, económicos y políticos cambiantes. La idea de la presente tesis fue examinar las lagunas y ambigüedades entre los momentos con y sin conflictos y el espacio en el que los factores que contribuyen en su aparición empiezan a tomar forma.

Entre los factores importantes de nuestro análisis están la formación de las instituciones informales, diseño y ejecución de reglas, y el logro de nuevos derechos, cuya interacción provoca diferentes circunstancias que pueden ser interpretadas de diferentes maneras. Dentro del MFC, dicha interacción puede ser entendida como el ajuste de diversos contextos que influyen problemas colectivos y la población se ve en la necesidad de valorarlos para direccionarlos dentro de su estructura social tradicional. En este último caso, lo que se asemeja a un conflicto puede ser un proceso de deliberación social para lograr un acuerdo colectivo para poder adaptarse a todos los ámbitos importantes citados antes. Si los actores están conscientes de la importancia de lo colectivo para lograr un beneficio común, es probable que emerja un acuerdo colectivo. De lo contrario, cuando hay problemas para lograr un acuerdo colectivo, el nuevo paquete o derechos comunes relacionados con los recursos naturales podrían comenzar a funcionar como el principal motor de la conducta individual. En tales circunstancias, los miembros de la comunidad pueden empezar a actuar de forma individual, tratando de obtener los máximos beneficios de sus derechos individuales sobre los recursos forestales a través de la manipulación de las nuevas instituciones formales e informales, y las reglas locales.

Es común en muchos países, que una reforma legal considera solo algunos recursos de importancia económica y no los bosques en su conjunto. Por lo general, a nivel de las comunidades no hace tal distinción, atribuyendo valores comparables a una

gama mucho más amplia de recursos forestales o a los bosques en su conjunto. Si ese es el caso, los conflictos son el resultado de las contradicciones y las limitaciones impuestas por las reformas sobre el uso de recursos naturales que solían ser asignados en base a principios tradicionales. Sin embargo, en el marco de los nuevos derechos, el dinamismo social local puede adquirir connotaciones diferentes, dando lugar a una amplia gama de decisiones individuales para manejar los recursos naturales regulados o no regulados, sobre la base de las estrategias y expectativas individuales, o la fusión de los procedimientos formales e informales con el fin de forzar su aplicación. Por lo tanto, los conflictos no son estrictamente por los recursos naturales en sí mismo, sino más bien respecto a quién encuentra las mejores opciones para acceder y utilizar dichos recursos. Esto último es, de alguna manera, la realidad en varios países que están impulsando procesos de descentralización o la modificación de leyes de tierras y bosques destinados a integrar a los actores forestales dentro de la gobernanza forestal (Mitchel, 2006; Larson y Ribot, 2007).

A nivel individual, las anteriores circunstancias generan confusión en relación con los nuevos derechos sobre los recursos forestales y en relación con el cumplimiento de las normas legales que intrínsecamente se limitan entre sí. La respuesta lógica es asegurar los derechos individuales y lograr los máximos beneficios de la utilización de los recursos naturales, si existe el espacio para malinterpretar o manipular la norma y el alcance del derecho individual, apoyándose en el mismo derecho. Por lo tanto, un miembro de la comunidad con esa expectativa, puede ver las reformas legales como un obstáculo a sus esfuerzos personales y tratar de manipular las reglas locales con el fin de restringir o eliminar las limitaciones impuestas por las reglas formales. La idea de que todo el mundo es dueño de los recursos resulta en cada uno de sus miembros reclamando el derecho a explotar recursos naturales de importancia económica en cualquier momento. Esto último refleja los diferentes niveles de resistencia que caracterizan las relaciones sociales y conflictos por recursos de uso común que son accesibles para todos los actores interesados que tienen el mismo derecho sobre el mismo. De esta manera, los actores también podrían competir para tratar de legitimar acciones que les dará una mayor proporción de los recursos, lo cual se justifica en el derecho de todos, pero que no todos pueden beneficiarse de su ejercicio.

En un contexto de cambio de los derechos individuales y colectivos y/o de devolución de derechos, parece que el sentido de la propiedad individual derivado del nuevo paquete de derechos sobre recursos naturales, implica la necesidad de establecer el espacio individual para ejercer esos derechos bajo la forma de toma de decisiones para satisfacer intereses individuales. Esto sugiere que las expectativas de los individuos para ejercer nuevos derechos, se convierte en un factor precursor clave de conflictos y en un patrón colectivo ulterior, cuando en

una comunidad todos los miembros están buscando el mismo objetivo, es decir, tomar decisiones individuales que los demás deben reconocer y respetar. El comportamiento anterior alimenta relaciones sociales de competencia basado en la posibilidad de lograr este objetivo en el espacio colectivo. Este último aspecto hace hincapié en el predominio de intereses personales en oposición a los intereses del grupo, cuando los individuos se ven obligados a elegir entre ambos. Por lo tanto, un factor precursor se convierte en un factor de problema cuando hay un vacío en la definición entre la esfera individual y colectiva, una definición que debe hacer hincapié en los derechos tanto individuales como colectivos. En tal caso, los derechos individuales deberían alcanzarse cuando el espacio colectivo los considera como una prioridad para definir los derechos colectivos en un contexto de convivencia mutua. De lo contrario, el interés propio se convierte en un elemento clave y conduce a la gente a utilizar el espacio colectivo como medio para el bienestar personal. En estas circunstancias surge una confrontación entre la gente que apoya la primacía colectiva y personas que apoyan la primacía individual, pero comprometidos colectivamente para hacerlo.

Nuestros datos sugieren que la consolidación de la visión comunitaria será poco probable si el espacio individual no está bien enraizado en el espacio colectivo. Si ese es el caso, pero los actores dependen de la estructura comunitaria para lograr beneficios individuales en un contexto caracterizado por la falta o dificultad para alcanzar un acuerdo colectivo, el interés y el comportamiento individual tienen doble influencia en el ámbito colectivo. Por un lado, para evitar la prevención del conflicto los miembros de la comunidad encuentran formas de apoyar los derechos colectivos, pero por otro lado, se involucran en actividades abiertas o encubiertas para asegurar y ejercer los derechos individuales. Esto último podría convertirse en un conflicto declarado cuando los intereses de una persona o grupo se encuentran severamente restringidos por otros con más poder. Sin embargo, en condiciones de igualdad de influencias entre miembros, la evasión puede ser una manera de manejar conflictos y hacer que sean socialmente soportables y mantener el statu quo como una forma de convivencia social.

En circunstancias en las que prevalece un fuerte compromiso comunitario, es posible que los intereses individuales lleguen a subsumirse a los intereses colectivos y que las reglas formales sean innecesarias debido a que las tradiciones locales son suficientes para restringir el comportamiento individual. Por otro lado, en comunidades con desequilibrios de poder, la asignación y uso de recursos naturales de importancia económica puede convertirse en un proceso de libre acceso pero restringiendo a otros de hacer lo mismo, dando lugar a una nueva forma de tragedia de los comunes. Parece ser que en un contexto de devolución de derechos a los recursos de tierra y bosques, la conducta individual y colectiva así como las metas, representan los principales factores de una nueva escala de

intensificación del conflicto, que puede llegar a ser un conflicto abierto cuando no es posible o viable contrabalancear las esferas individual y colectiva.

Por lo tanto, el ejercicio de los derechos individuales para impulsar acuerdos colectivos para favorecer expectativas individuales, podrían ser los factores precursores de cuyo uso depende el desenlace de los acuerdos colectivos. Si la gente hace concesiones en el ámbito colectivo, lo que significa afectar en cierta medida sus derechos y expectativas individuales, los factores precursores basados en el comportamiento individual se subsumen a los intereses colectivos. De lo contrario dicha dinámica puede llegar a ser una cuestión de poder que podrían convertirse en un factor de problema y, posteriormente, en un conflicto que puede dar lugar a una condición de status quo como un medio para evitar el conflicto, a una convivencia social tensa con esfuerzos permanentes para controlar los factores precursores del conflicto, o a una situación de conflicto en el que la lucha por el poder podría representar una forma de sacarle provecho al conflicto.

### **Consideraciones finales**

Del análisis anterior, para evitar las distorsiones de las reglas formales en los esquemas descritos a lo largo de la tesis, el gobierno debe proporcionar a los agentes forestales, los medios y el apoyo necesarios para dar forma a sus propias perspectivas locales e instituciones forestales, mismas que deben ser consideradas por las instituciones formales y dentro de las reglas formales, si se espera lograr una gestión forestal integral. Otorgar nuevos derechos a la tierra y los bosques sin definir las reglas del juego para su ejercicio y en medio de ambigüedades entre las diferentes reformas legales, hacen que sea difícil que las comunidades tomen decisiones políticas adecuadas relacionadas con la tierra y el uso de los bosques sin la intervención de actores externos (Ostrom, 2010). Como respuesta, las personas recurrirán a sus esfuerzos individuales para lograr beneficios de esos derechos tanto como les sea posible.

Tres elementos importantes observados en la presente investigación proporcionan nuevas referencias para reconocer y comprender mejor los factores clave relevantes para el MFC. Todos ellos tienen resultados positivos y contraproducentes para la dinámica social y económica en torno a la práctica del MFC y para la obtención de beneficios utilizando recursos forestales de importancia económica. Los tres elementos son, en cierta medida, la consecuencia y/o han sido influenciados por las reformas legales que fueron planeadas para promover cambios más profundos en las antiguas estructuras sociales y económicas relacionadas con la tenencia de la tierra y uso de los bosques. Sin embargo, la forma en que dichas reformas se implementaron en la práctica, ocasionó una serie de diferentes circunstancias resultantes del proceso de adaptación de las estrategias consuetudinarias para acceder y utilizar recursos

naturales al nuevo escenario legal. A pesar de que las reformas agraria y forestal consideran la transferencia de importantes derechos sobre la tierra y los bosques a campesinos e indígenas, el proceso de transferencia en sí mismo no tomo en cuenta la condición previa de la población objetivo. Por otro lado, los derechos de propiedad y uso de los bosques otorgados por las reformas, generaron confusiones en torno al verdadero significado y ejercicio de los derechos individuales y colectivos.

En estas circunstancias la población campesina tuvo que ejercer sus nuevos derechos de tenencia de la tierra y uso de recursos forestal, buscando la mejor configuración social para lograr acomodar sus expectativas individuales y colectivas, a las nuevas oportunidades legales de uso de dichos recursos. Una lección importante del anterior escenario, es que las contradicciones entre leyes desencadenaron contextos sociales donde los nuevos derechos propiamente son materia de discusión colectiva y a veces se constituyen en una fuente de conflictos. Cuando esto sucede, incluso los derechos de propiedad y reglas formales e informales ya definidas, no son suficientes para prevenir distorsiones derivadas de los nuevos escenarios sociales en torno al uso de recursos forestales de importancia económica. De esta forma, la confusión relacionada con el ejercicio de derechos legales se convierte en un proceso para demandar y legitimar derechos individuales, en base al reconocimiento de derechos consuetudinarios que se sustentan en tradiciones y marcos sociales costumbristas. Por lo tanto, con el fin de promover el éxito del MFC, parece ser importante que la configuración de las instituciones locales posibilite la protección de los derechos individuales y al mismo tiempo promuevan el compromiso con el ámbito de lo colectivo, que es la base y el fundamento de los derechos individuales. Sin embargo, en determinadas circunstancias, como las observadas en la presente investigación, la configuración de la esfera colectiva puede representar un impedimento para el desarrollo de instituciones locales relacionadas con la distribución de tierra y uso de bosques dentro de la comunidad, toda vez que la comprensión de los derechos refleja una variabilidad importante.

Para definir los derechos de una población que ha experimentado importantes cambios sociales, las reformas legales deben prever los instrumentos operativos necesarios con el fin de ayudar y facilitar este proceso, de lo contrario, pueden surgir diferentes circunstancias probables. Una de ellas se relaciona con la forma en que la población campesina logro establecer los medios para ser incluidos y participar en la toma de decisiones relacionadas con la tenencia de la tierra y el uso de los recursos forestales, lo cual era el objetivo del proceso de descentralización y del nuevo régimen agrario y forestal. Sin embargo, el proceso de rebalanceo del poder social parece necesitar un nuevo impulso con el fin de promover un MFC eficaz. De lo contrario la distribución de la tierra y el acceso a los recursos

forestales podrían relacionarse más con la gestión del poder local, que por lo general alimenta procesos de diferenciación social. En este escenario el conjunto de derechos otorgados por el gobierno o logrados por las manifestaciones y luchas sociales, podría convertirse en un juego para buscar la manera más ventajosa de ejercer derechos individuales, limitando o incluso atropellando los derechos de los demás.

Lo anterior se hace evidente entre las diferentes estrategias utilizadas por los campesinos, para adaptar derechos individuales y colectivos a través de acuerdos sociales que podrían responder a las expectativas de la mayoría de la gente, pero afectando negativamente los principios democráticos y de equidad entre los miembros de la comunidad. Esta última posibilidad está estrechamente relacionada con el poder local, que es posible lograr a partir de diferentes escenarios. La presencia de grupos de poder es una forma y está generalmente vinculado a la influencia de antiguas relaciones sociales dominantes. Sin embargo, en otras circunstancias, la falta de participación social en el ámbito de lo colectivo puede ser una fuente de poder y la oportunidad de que unos pocos logren beneficios exagerados con el uso de recursos naturales de la comunidad. Otra de las consecuencias negativas derivadas del entendimiento y ejercicio distorsionado de los derechos individuales, afecta a la organización comunitaria propiamente. La falta de gobernanza local se deriva de la falta de acción colectiva, que también puede entenderse como un comportamiento individualista para beneficiarse con los nuevos derechos.

Desde el comportamiento individualista resulta más difícil para una población reconocer y menos aún aceptar los conflictos que los afecta. En estas circunstancias el objetivo principal del grupo, al comprometer su apoyo para la definición de límites claros entre parcelas individuales y reglas claras de acceso a recursos naturales, es el interés individual. Por otro lado, los conflictos se hacen evidentes sólo cuando la gente no cumple con aquellos acuerdos, pero no necesariamente cuando la opción elegida es el camino de la ilegalidad. En este caso, los derechos individuales son protegidos, pero las instituciones colectivas y la organización en sí misma es gradualmente debilitada.

La falta de gobernanza local representa una amenaza para el éxito de iniciativas importantes relacionadas con la conservación de los bosques y la gestión sostenible. En el caso de REDD+ (reducción de emisiones de la deforestación y degradación de bosques en países en desarrollo), por ejemplo, las investigaciones sugieren que las comunidades juegan un rol central en su implementación (Hayes y Persha, 2010). Asimismo, las investigaciones sostienen que para que REDD+ sea eficaz, dicha implementación debe respetar los derechos y medios de subsistencia de las comunidades forestales. Sin embargo, los escenarios negativos que se



presentan en este trabajo, muestran que es necesario seguir investigando aspectos comunitarios de relevancia que dependen del desarrollo de capacidades para encarar nuevas y mejores oportunidades de gestión y gobernanza forestal. Reglas comunitarias, responsabilidad individual y colectiva adecuada a dichas normas, y la definición de derechos, todavía representan una debilidad importante en determinadas circunstancias sociales. La falta de claridad de dichos derechos y reglas puede alimentar intereses individuales y comportamientos oportunistas, dejando de lado los principios democráticos y de equidad del MFC.



## Samenvatting

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Gedurende de laatste tien jaar is communaal bosbeheer (CBB) uitgegroeid tot een alternatieve strategie om duurzaam bosbeheer te verwezenlijken en tegelijkertijd het welzijn van dorpsgemeenschappen in bosgebieden te verbeteren. Hoewel CBB een relatief nieuw onderzoeksterrein is voor de wetenschap, bestaan er voldoende aanwijzingen dat lokaal bosbeheer een eeuwenoude praktijk is, die vaak is beïnvloed door specifieke sociale, economische en ecologische factoren op lokaal nivo. In veel landen is de erkenning en de ontwikkeling van specifieke CBB-modellen nauw verbonden met de sociale strijd om nieuwe rechten of de erkenning van traditionele rechten op het gebruik van land en bos waar lokale groepen al lang leefden. Dit geeft aanleiding tot een nieuwe definitie van CBB, gebaseerd op de lokale en collectieve eigenschappen van CBB en dus gerelateerd aan het sociale model, de traditionele regels en het collectieve bestuur van dorpen.

Dit proefschrift besteedt aandacht aan de ontwikkeling van het communaal bosbeheer (CBB) in het noordelijke Amazonegebied van Bolivia. Dit gebied wordt gekenmerkt door een specifieke organisatie van bosexploitatie, het zogenaamde *barraca* systeem. Dit systeem heeft zijn oorsprong in de exploitatie van rubber en paranoten, die ruim honderd jaar geleden begon. Het lokaal bosgebruik is sinds de jaren negentig sterk beïnvloed door belangrijke nationale beleidshervormingen, die de toegang tot het bos en het gebruik van economische belangrijke bosproducten sterk hebben veranderd.

Om de veranderingen in CCB in het noordelijk Amazonegebied van Bolivia te begrijpen heb ik drie verschillende sociale processen bestudeerd. Het eerste betreft veranderingen in de zogenaamde *habilito* arbeidsovereenkomst, waarin arbeiders grote voorschotten op hun arbeidsloon ontvangen van grootgrondbezitters. Dit *habilito* systeem (ook wel patronagesysteem of schuldhorigheid genoemd) werd sinds het begin van de 20<sup>ste</sup> eeuw gebruikt om voldoende arbeiders te trekken voor de exploitatie van rubber en paranoten, maar ook om de algemene sociale en economische omstandigheden te handhaven die exploitatie mogelijk maakten. Het tweede sociale proces betreft de communale verdeling van land en bos na de nationale beleidshervormingen van de jaren negentig van de 20<sup>ste</sup> eeuw. Hieronder valt ook de aanpassing en ontwikkeling van communale regels die werden opgesteld binnen het kader van de nieuwe wetten. Het derde sociale proces dat ik analyseer in dit proefschrift zijn conflicten die ontstaan als gevolg van de twee hierboven vermelde sociale processen. Lokale aanpassingen aan nieuwe wet- en regelgeving en verandering van het *habilito* systeem kunnen moeilijkheden met zich meebrengen voor de bewoners van dorpsgemeenschappen.

Mijn analyse van het eerste proces van sociale verandering in het *habilito*-systeem, probeert een antwoord te geven op een aantal vragen over de rol van deze arbeidsovereenkomst als economisch mechanisme. Het *habilito*-systeem werd voor het eerst algemeen toegepast tijdens de hausse van rubberexploitatie in het Amazone gebied. In Bolivia ontstond het *habilito*-systeem uit de traditionele controle van dienstbaarheid die in het Westen van het land gemeengoed was en het gebruik om voorschotten te verstrekken in het Amazonegebied voor de oogst van kinine in de 19<sup>de</sup> eeuw. In dit oude *habilito*-systeem moesten arbeiders in de exploitatiecentra voor rubber (*barracas*) blijven omdat ze grote schulden aangingen. Die schulden dienden te worden afbetaald met toekomstige arbeid. Dit systeem hielp de grootgrondbezitters (*patrones*) om controle uit te oefenen op hun arbeidskrachten en zelfs om de gehele keten van rubberproductie te controleren. In de *barraca* golden strikte sociale regels voor de arbeiders die er het hele jaar woonden.

Al sinds het begin van rubberexploitatie hadden de *patrones* onofficiële eigendomsrechten over omvangrijke bosgebieden waaraan zij hun machtsbasis ontleenden. De gebruiksrechten van een groot deel van deze bossen zijn – als gevolg van de verregaande decentralisatie en hervorming van land- en bosbouwwetten in de jaren negentig van de vorige eeuw –teruggeven aan lokale dorpsgemeenschappen. Sindsdien is het *habilito*-systeem sterk veranderd: het is een nieuw instrument geworden in de exploitatie van bosproducten, en vervult daarin verschillende nieuwe functies. Voor de lokale dorpsgemeenschappen is *habilito* een bron van gemakkelijk toegankelijke kredieten geworden. De onderhandelingen over die kredieten wordt tegenwoordig sterk bepaald door het

gebruiksrecht van bos door dorpsgemeenschappen en hun toegang tot waardevolle bosproducten. Kredieten verkregen via *habilito* zijn een belangrijke inkomstenbron tijdens perioden waarin bosproducten worden geoogst, en hebben ook een belangrijke betekenis voor de lokale bevolking als de prijzen van bosproducten sterk fluctueert. Ten slotte houdt *habilito* tegenwoordig de machtsverhoudingen binnen de lokale dorpsgemeenschappen in stand, wanneer machtige familieclans of groepen binnen een dorp *habilito*-betalingen ontvangen van handelaren en die vervolgens gebruiken om *habilito*-betalingen te doen aan anderen binnen de dorpsgemeenschap.

Handelaren en bedrijven die bosproducten verwerken zijn afhankelijk van waardevolle bosproducten maar hebben na de landhervormingen slechts beperkte rechten op bossen. Voor deze bedrijven zijn *habilito*-betalingen een instrument geworden om toegang te krijgen tot die bosproducten. Ze kunnen de betalingen ook gebruiken om een groter deel van de productieketen te beheersen. Handelaren en bedrijven onderhandelen dus over de toegang tot bosproducten met de nieuwe eigenaren van het bos, veelal de dorpsgemeenschappen. Deze onderhandelingen beginnen met het betalen van een eerste voorschot, in de vorm van geld of in natura. Als beide partijen akkoord gaan en de overeenkomst nakomen, wordt een deel van de eigendomsrechten overgedragen aan de handelaren of bedrijven, voor zolang als de overeenkomst duurt. De volledige overdracht van het recht over het geoogste product vindt plaats als deze producten worden overhandigd tegen betaling van de eerder overeengekomen prijs. Het uitkeren van *habilito* betalingen leidt tot een verdeling van de transactiekosten omdat elk van de betrokkenen in de productieketen zijn eigen productiekosten draagt, en kan op die manier winst leveren voor alle partijen. Ook leidt het tot de verdeling van verantwoordelijkheden en verplichtingen.

Het tweede sociale veranderingsproces dat ik in dit proefschrift behandel, heeft betrekking tot de strategieën die dorpsgemeenschappen hebben ontwikkeld om om te gaan met de nieuwe wetgeving en de nieuwe verantwoordelijkheden, waarbij individuele en collectieve rechten een essentiële rol hebben gespeeld. Een belangrijk element van dit veranderingsproces is dat de beginselen van eigendom en rechten overgedragen door de regering een belemmering vormden voor het formuleren van lokale afspraken over de toegang tot bosproducten. Mijn resultaten suggereren dat de toegang tot bosproducten en de gelijke verdeling van die toegang voor dorpsbewoners een eerste vereiste is voor het ontwerpen van dorpsgemeenschapsregels en de handhaving daarvan. Specifieke collectieve afspraken binnen dorpsgemeenschappen zijn vereist om de individuele en collectieve rechten op bosgebruik in de praktijk te brengen en om aan wettelijke verplichtingen te voldoen. Echter, als de rechten niet op de een of ander manier worden gerespecteerd, dan is het trekken van grenzen of het vastleggen van

juridische grondeigendomsrechten een onvoldoende basis om goed bosbeheer te verwezenlijken. Het ontbreken van tradities van sociale organisatie in dorpsgemeenschappen en tegenstellingen tussen wetten kunnen de ontwikkeling van CBB in de weg staan.

Dorpsgemeenschappen in Noord-Bolivia hebben verschillende manieren ontwikkeld om landrechten en toegang tot bosproducten te verdelen, waarbij de heersende sociale kaders in dorpsgemeenschappen een belangrijke rol hebben gespeeld. Ik onderscheid drie belangrijke modaliteiten voor afspraken rondom bosgebruik in de dorpsgemeenschappen waar ik het onderzoek uitvoerde. De eerste modaliteit gaat uit van vrije toegang tot bos en bosproducten. Hierbij worden de individuele rechten voor bosgebruik pas duidelijk als afspraken zijn gemaakt over de collectieve rechten. De tweede modaliteit combineert gemeenschappelijke toegang en individueel bosbeheer. Hierbij worden collectieve en individuele rechten gelijktijdig gedefinieerd. De derde modaliteit gaat uit van individueel beheer van natuurlijke hulpbronnen. Hierbij worden afspraken over collectief bosbeheer pas gemaakt nadat individuele eigendomsrechten zijn verzekerd. Elk van deze drie modaliteiten kent zijn eigen obstakels om te komen tot communaal bosbeheer.

Onzekerheden en tegenstrijdigheden bij het opstellen en toepassen van nieuwe regels binnen dorpsgemeenschappen kunnen leiden tot conflicten. Deze conflicten hebben zowel individuele als collectieve kenmerken. Het proces van het definiëren van rechten in het noordelijke Amazonegebied van Bolivia is nog in een vroeg stadium. Dit betekent dat bewoners van dorpsgemeenschappen bereid moeten zijn om hun interne regels aan te passen aan de nieuwe verwachtingen en de mogelijkheden van de nieuwe wetgeving. Dit proces van aanpassing van interne regels wordt in the regio sterk beïnvloed door de erfenis van het *barraca* systeem, dat zich weerspiegelt in individueel gedrag en in het ontstaan van nieuwe sociale relaties.

De nieuwe gebruiksrechten voor bos en bosproducten betekenen dat eerdere individuele gebruiksrechten zijn komen te vervallen. Dit kan een belangrijke hindernis zijn om de nieuwe mogelijkheden voor collectief gebruik van waardevolle bosproducten te benutten. Als de collectieve belangen van het dorp niet duidelijk zijn omschreven, en de collectieve belangen onvoldoende in overweging worden genomen bij het vaststellen van de individuele rechten, dan zal het definiëren van eigendomsrechten en het stellen van regels voor bos gebruik moeilijk zijn.

Ik heb geprobeerd de bronnen van conflicten binnen dorpsgemeenschappen te identificeren door te kijken naar gedrag van individuen. Ik heb gedrag als een conflict-voorloper gedefinieerd als het prioriteit geeft aan de individuele doelen en niet aan collectieve doelen. Zo'n conflict-voorloper wordt een probleem-factor als het individuele gedrag een belemmering vormt voor het bereiken van collectieve

overeenkomsten. Dit fenomeen is gekoppeld aan de individuele perceptie dat de collectieve sfeer een probleem betekent voor individuele verwachtingen over bosgebruik. Dit is precies het gevolg van de verschillen in regels over bosgebruik voor het zeker stellen van bestaansmiddelen en bosgebruik voor het verkrijgen van inkomsten. Als boeren proberen op dezelfde manier waardevolle bosproducten te gebruiken voor geldelijke inkomsten als wanneer het eigen gebruik betreft, dan vormt dit een overtreding. Conflicten over natuurlijke hulpbronnen zijn dan niet een kwestie van concurreren om middelen tussen leden van dorpsgemeenschappen, maar eerder een kwestie van wie de beste mogelijkheid heeft om de bosproducten te gebruiken op de meest voordelige manier.

Wanneer er geen collectieve afspraken zijn om bossen goed te beheren, dan gaan leden van een dorpsgemeenschap individueel handelen, op zoek naar een maximaal voordeel van hun individuele rechten over bosproducten. Dat laatste betekent voor het dorp een belangrijke schade voor eventuele initiatieven om waardevolle bosproducten (voornamelijk hout) volgens rechtelijk voorgeschreven procedures te gebruiken. Als er geen adequaat lokaal bestuur is, en dus geen lokale regelhandhaving en -naleving, dan wordt individueel gedrag geaccepteerd als een collectieve strategie om winsten te behalen uit het bos, ongeacht regels en criteria van duurzaamheid. Dit bevestigt de stelling dat de regels en de uitvoering en sanctionering ervan de volledige steun nodig hebben van de gehele dorpsgemeenschap. Als het proces van het ontwerpen van lokale regels niet de volledige steun van alle leden van de dorpsgemeenschap heeft, is het waarschijnlijk dat de regels niet de verwachte legitimiteit vinden binnen de dorpsgemeenschap.





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## Curriculum Vitae

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Walter Cano Cardona was born on May 20, 1972 in Cochabamba, Bolivia, where he completed his primary and secondary education between 1977 – 1989. He did the Bachelor Degree in agronomy at the “Universidad Mayor de San Simon”, Cochabamba, Bolivia, between 1990 – 1995. In 1997, he followed a Masters Program in Agroecology and Sustainable Rural Development at the “Universidad de La Rabida”, Andalucía, Spain, and received the M.Sc. early 2000. From the end of 1998 until 2004 he worked in the northern Bolivian Amazon as a consultant in sustainable development and conservation with governmental and non-governmental organizations. In 2002, he followed a second Master program in Environmental Management and Monitoring at the “Universidad de las Palmas de Gran Canarias”, Gran Canarias, Spain, and received the M.Sc. in 2004. From early 2007 until September 2008 he worked with the Bolivian Constitutional Assembly, as support staff on natural resource and environmental topics. He started a Ph.D. research in the northern Bolivian Amazon in October 2008 with PROMAB and the Ecology and Biodiversity Group, Utrecht University.

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