Decentralization of Forest Management in Bolivia: Who Benefits and Why?

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Abstract

This paper reviews the Bolivian experience of decentralization and the involvement of municipal governments around issues that have some direct or indirect influence on forest management and forest users' livelihoods. While the Bolivian model of decentralization of forest management moves seriously towards building democratic decentralization, some of the key decisions regarding forest resources allocation and use are still made at the central level, though municipal governments have more room than in the past to intervene in forest management. Decentralization has reshaped the institutional mediations influencing natural resources use, but in turn its outcomes have been influenced by some social and economic conditions operating at the local level, such as local power relationships and property rights, which have been little challenged by decentralization. Decentralization has contributed to improving social equity in access to forest resources, distribution of economic benefits from such resources, and reinforcing sustainable practices of forest management, though this does not happen in all cases. The challenges to move the process of decentralization forward have to do with adjusting the design of the model of decentralization itself, as well as with overcoming other political and economic factors influencing it.

1. Introduction

Decentralization of forest resources management in Bolivia is well known because a more aggressive model has been adopted in this country in comparison to other ongoing initiatives in Latin America. In the early 1990s, diverse countries around the world initiated a process of transferring some responsibilities regarding social services to local governments. In Latin America, the municipal governments (elected bodies with
jurisprudence over the countries’ smallest political-administrative units) were granted gradually new responsibilities and authority on social services provision. The process of transferring responsibilities to municipal governments progressively incorporated natural resources, and specifically forest resources. Nevertheless, the pace and characteristics of decentralization has varied significantly between countries (Ferroukhi 2003).

The motivations behind decentralization of forest management were diverse. In a broader context, consolidation of democracy in the countries of the region allowed for greater space for institutionalizing social participation, reinforcing existing demands of local actors to influence local politics in the municipal arena. This move towards participation was strengthened by arguments claiming that involving local governments could improve the efficacy of territorial planning and monitoring forest resources use. Furthermore, from the local actors’ perspectives, the interest in decentralization was justified by the likelihood of capturing some economic rents from logging activities carried out by companies based outside the municipalities. Hence, issues of distribution of benefits from forest resource use, social participation in decision-making, and property rights were all key to decentralization in Latin America.

Expanding municipalities’ authority around forest management has led to different outcomes, which depend on a diverse range of factors. Some findings suggest somewhat straightforward relationships between attributes of the local systems of government (such as motivation of the mayors, availability of trained human resources, and of financial resources), and successful municipal involvement in forest management (Andersson 2003). Gibson and Lehoucq (2003) suggest that local authorities’ involvement is explained by community pressures and central government support. Others have suggested that more complex factors explain successful decentralization. Ribot (2002) argues that accountability of local governments to their constituents is a critical factor determining the outcomes, and Agrawal and Ostrom (2001) link outcomes to the role of collective action and property rights. From a broader perspective, it has been noted that there are some contextual factors that contribute to shaping the outcomes of
decentralization such as the local economy’s dependence on forest resources, the nature of social pressure, and the strength of local elites (Larson 2003; Pacheco 2004).

The model that the various governments in Latin America employed to decentralize forest management decision-making differed somewhat in each country, varying in relation to the political economy of natural resources use in each country, the existing institutional systems linked to forest management, along with existing power relationships and government priorities (Larson 2003). The outcomes of decentralization are diverse, and they do not just depend on the type of responsibilities municipal governments have been granted, but on a range of social and economic factors such as local power relationships, transparency in policy decision-making, and dominant property regimes. While decentralization tends to challenge some of the institutional mediations influencing natural resources use (such as the sources of authority for forest management monitoring), it barely challenges other conditions influencing natural resources management (such as property regimes). In spite of that, the higher level of democracy that decentralization promotes, tend to have multiplier effects on natural resources management. I will support this argument using the Bolivian case.

In Bolivia, decentralization of forest management was strongly linked to two ongoing processes initiated in the mid-1990s. The first sought to institutionalize social participation as part of a broader process of institutional reform of municipalities, and the second was aimed at reforming the forest regulations dating from the mid-1970s. Although these two processes were quite different in the nature of their goals, both have been interlinked through promoting a larger involvement of municipal governments in a wide range of forestry-related issues since the second half of the 1990s. While prompting popular participation led to increases in the responsibilities of municipal governments in social services provision, and expanding the influence of social actors in local planning, the forestry regulations involved municipalities as a strong emergent actor with the ability to mediate conflicts, and to produce and deliver forestry services to those actors. This paper is aimed at explaining the contextual factors influencing the path of Bolivian decentralization, and in determining its main implications for local forest users.
It is divided in seven sections, including this introduction. Section two introduces the forest situation in lowland Bolivia, while section three address the factors shaping the design of the decentralization model adopted in Bolivia. The fourth part of the paper describes the functions transferred to the municipal governments related to forest resources management, and analyses some of their limitations. Sections five and six focus on analyzing the implementation process of decentralization policy, and on offering a balance of the outcomes of forest management decentralization, whether indirect (i.e., shifts in power relationships, social participation, political involvement) or direct (i.e., forest resources allocation, revenues transfers, investments in the forestry sector). The last part presents the main lessons that can be derived from the Bolivian experience.

2. Forest and Forest Users in Lowland Bolivia

Bolivia is a country comprising an area of 1,098,581 square kilometers (sq km), of which about 70 percent is located in areas below 500 meters above sea level, corresponding to what is labelled the Bolivian lowlands. The country’s two other natural regions are the altiplano and the valleys. The country’s total forest area is equivalent to 534,000 sq km (48.6 percent of the country’s total area). About 85 percent of the total Bolivian forest is located in the lowlands (MDSMA 1995). Most of the forest occurs in the lowlands east and northeast of the Andes, and ranges from humid evergreen forest in the north to dry deciduous forest in the south (Montes De Oca 1989). The species abundance for timber production is higher in deciduous forest, while the estimated logging potential volume is greater in the evergreen forest (Dauber et al. 1999). In 1999, about 43 percent of total timber extraction was still concentrated in five species, out of a total of 200 (STCP 2001).

By the first half of the 1990s, a time when the state still held the rights over all forest areas in both public areas and private properties, about 20.7 million hectares (ha) of the 76 million ha that comprise the Bolivian lowlands, had been granted to forest companies through a system of short- and medium-term contracts, although only 3 million ha were actually harvested every year (Hunnisett 1996:7). That system led to excessive forestlands concentration in the hands of a few. After the new Forestry Law was issued in
1996, 89 timber companies reduced their concession areas to 5.8 million ha, mainly because of the change from a volume to an area-based forest fee ($US 1/ha). By 2002, the portion under forest concessions had declined even further to 5.3 million ha, due to the devolution of three forest concessions back to the state control (Table 1).

Table 1. Lowlands Bolivia: Land Tenure and Forest Use Rights

<table>
<thead>
<tr>
<th>Property rights and areas under forest management</th>
<th>(000 ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Lowland Area</td>
<td>76,300</td>
</tr>
<tr>
<td>Forested Area</td>
<td>44,500</td>
</tr>
<tr>
<td>Medium- and large-scale farmers (a)</td>
<td>22,853</td>
</tr>
<tr>
<td>Small-scale farmer colonists (b)</td>
<td>3,192</td>
</tr>
<tr>
<td>Indigenous territories (TCOs) (c)</td>
<td>22,303</td>
</tr>
<tr>
<td>Forest concessions (d)</td>
<td>5,300</td>
</tr>
<tr>
<td>Municipal forest reserves (e)</td>
<td>2,200</td>
</tr>
<tr>
<td>Long term contracts and research concessions</td>
<td>488</td>
</tr>
<tr>
<td>Protected areas</td>
<td>14,700</td>
</tr>
<tr>
<td>Forest area managed by indigenous groups (f)</td>
<td>540</td>
</tr>
<tr>
<td>Forest area managed by ASLs (f)</td>
<td>387</td>
</tr>
<tr>
<td>Forest area managed by smallholders (f)</td>
<td>27</td>
</tr>
<tr>
<td>Forest managed by private landholdings (f)</td>
<td>544</td>
</tr>
</tbody>
</table>

Notes: a) Land distributed by CNRA (1955-1993); b) Lands distributed by INC (1961-1994), includes land with titles, and pending titles; c) Conceded lands from 1990-1993, those titled in April 1997 and immobilized for titling; d) forest concessions by Dec. 2002; e) claimed by municipalities as of march 2000; f) areas with approved forest management plans; g) correspond to areas approved with forest management plans.


A portion of the areas that the forest companies handed back to the state had overlapping rights with indigenous people’s land claims and protected areas. Since the early 1990s indigenous people have been granted indigenous territories for a total area of 22 million ha, with only 3 million ha titled. A total of 540,000 ha have a forest management plan approved by the Forest Superintendence (Superintendencia Forestal, SF). Furthermore, the government has allocated 23 million ha to large-and medium-sized farms, and 3 million ha were distributed to small-scale farmers or colonists. The last areas have also
been an important source of timber, and still supply some, mostly coming from areas to be converted to agricultural uses. By 2002, only 544,000 ha within small- to large-scale private landholdings had a formal forest management plan. By 2002, 2.2 million ha were claimed as municipal forest reserves, but only 492,000 ha of these were assigned to 18 groups, of which 387,000 ha have an approved forest management plan (Cronkleton and Albornoz 2004). The latter data shows that about 1 million ha of forest are under community forestry management, which constitutes an important change with respect to the past.

The rise of environmental concerns has led the Bolivian government to declare about 15 million ha as protected areas in the lowlands, though only a small proportion has effective protection. The information presented above suggests that 71 million of the 76 million ha that embrace the lowlands of Bolivia have some type of property rights. Nevertheless, this estimate does not account for overlapping property rights or for areas in which there are uncertain property rights, the latter often devoted to non-timber forest products extraction. Furthermore, there is no reliable data about how much area still remains as public forest, though conventional wisdom suggests that it would be only a small portion of the entire Bolivian lowlands.

The mid-1990s constitute a dividing line in the way in which forest resources were both allocated and used in the Bolivian lowlands because new opportunities were created for indigenous people, small farmers and small-scale loggers to expand their benefits from forest resources use. Firstly, indigenous people’s rights over their territories were formally recognized. Secondly, private landholders were granted rights over the forest resources located within their properties, and hence they were allowed to develop logging activities within their landholdings. Finally, small-scale loggers, who were used to working informally within forest concessions and protected areas because they had no legal rights to access forested areas, also gained access to some forest resources within municipal forest reserves, as will be described in the next section. These events have prompted the development of initiatives of community forestry management, leading to increasing cooperation among the different forest resources users.
The potential production of timber in Bolivian forests is estimated as 20 million cubic meters per year (STCP 2001), but only a small portion of this potential is currently utilized. Annual timber extraction was about 560 thousand m$^3$ in 2001. Although there are no reliable estimates of illegal extraction, some mention that it could be around 50 percent of the total. Additionally, the total volumes of timber extraction have grown little in the last two decades, considering that it was equivalent to 445 thousand m$^3$ in 1980. Nevertheless, the type of species harvested has changed dramatically because of over-harvesting of the most valuable species (i.e., mahogany, cedar and roble), and because it became most profitable to increase their harvesting rates (Dauber et al. 1999). At this stage, about half of the total legal timber production originates in forest concessions, and the rest comes from individual private properties, indigenous territories and small forest concessions within municipal reserves (Superintendencia Forestal 2003).

About 40 percent of the total timber production is exported, and 60 percent is consumed within the domestic market (CFV 2002). The export values of forest products have declined from US$119.0 million in 2000 to US$100.7 million in 2001, although equivalent values were lower in 1994 at US$97 million. Forest exports have grown little between 1994 and 2001. There is a growing trend of non-timber forest participation within forest exports reaching a total of US$30 million in 2001 (USAID 2002:31). Most of the timber export decline has been associated with the contraction of the international markets which the Bolivian companies supply—mainly in Argentina—and to oscillations in the international timber prices. Besides that, the timber industry in Bolivia has been deemed under-competitive, which is due to the high transportation costs it faces (STCP 2001).

3. Decentralization, Social Participation and Forest Policy

This section addresses the main antecedents of decentralization in Bolivia focusing on the factors at the core of this process, mentioned earlier in the introduction. Then, it discusses the implications of decentralization in social participation dynamics, and analyses the
contents and implications of the forestry regulations on democratization of forest resources access to local users.

**Main antecedents of decentralization**

Bolivia has a long tradition of centralized government, and before decentralization most decisions were made at the central level\(^1\). The prefects, the main political authority of departments, were appointed from above. Mayors were also appointed for a long time, and their decisions were confined to a limited scope of actions, most linked to the provision of urban services. Mayors were accountable to the prefects because the prefects had chosen them to occupy such positions. Furthermore, the municipalities had quite limited resources to operate, and little influence in policy-related decisions, even those directly affecting the development of their municipal jurisdictions.

The Bolivian lowlands region, which embraces most of the forest area, was largely marginalized from the political center in La Paz, where most political decisions were made. That situation shifted in the early 1960s when that region was integrated progressively into the national economy through the expansion of natural gas extraction, agriculture and logging. Those factors all fostered the growth of a regional elite, expanded the contribution of that region to the national income, and increased its influence on development programs. In the 1970s, the government took its first step towards decentralization by establishing corporations for regional development in charge of planning and investing in regional development. Incomes from such corporations came from fees charged for natural gas extraction. This was closer to an administrative attempt to transfer some investment decisions to the departmental level but the central government still appointed the presidents of such entities, and most of the decisions had to be negotiated at higher levels (Kaimowitz et al. 1998).

Regarding forest resources, the “civic committees” (entities grouping diverse local social organizations) had been claiming greater access to forest revenues, and greater participation in the formulation of forest policies since the mid-1970s. In the 1980s,
legislation was approved establishing the collection of a forest fee of 11 percent to be used in regional development projects, though such funds did not accomplish their original purpose. By the late 1980s the national forestry service was deconcentrated. This move towards deconcentration, however, did not make the forestry service a more efficient and less corrupt institution. In contrast, the regional civic committees were getting more involved in the debate about the contribution of forest resources to regional development.

In 1985 a Law of Municipalities was issued that established a system of public elections for mayors. This, however, did not include any mechanism to make municipal authorities accountable to their constituents. Hence, they continued to respond to the leaders of their respective political parties. It was in the mid-1990s that decentralization became central in the agenda of political reforms. This was a result of increasing pressure from civic committees seeking to have greater control over natural resources, the general trend toward decentralization in neighboring countries, and the relevance that decentralization assumed in donors’ agendas (Kaimowitz et al. 1999).

Decentralization was prompted through approval of Popular Participation Law (No. 1551) and Administrative Decentralization Law (No. 1654), both passed by Congress in 1994. The first altered the responsibilities of the municipal governments, while the second modified the responsibilities of prefectures or departmental governments. In 1996 a new Agrarian Reform Law was issued, as well as a new Forestry Law. The Agrarian Reform Law had as its objective defining the legal basis to develop a system of titling and land regularization, and redefining the conditions to access and maintain access to rural property. The Forestry Law, in turn, attempted to redefine the conditions under which it was possible to obtain forest rights, and to determine the regulations to maintain such rights. Both had relevant implications for the way in which landholders and forest users can access and maintain their rights for forest resources use.

Social participation in public investment decisions
The Popular Participation Law, among its main contents, expanded the municipal government’s jurisdiction beyond the urban centers to its entire territory, then covering the whole rural area within the municipal borders. It made municipalities responsible for local schools, health facilities, roads maintenance, and water systems. To finance these new responsibilities, the central government allocated 20 percent of the national budget in favour of the municipal governments, to be distributed among municipalities in proportion to their populations. Both, rural and urban property taxes were earmarked for the municipal governments, who now administer their collection (SNPP 1994).

The Popular Participation Law has strengthened municipal governments and made them more democratic. It has contributed to rural populations—mainly smallholders and indigenous people—gaining the right to participate in municipal elections, and also to run for election for the Municipal Council for a five-year period. Nonetheless, national political parties still appoint individual candidates, which allows political parties to maintain their control over local political agendas, and to reproduce a system of political patronage with local leaders. Local candidates who want to run for office have to negotiate their agendas within the priorities of the political parties, and if they are elected they are accountable to those parties. This system is currently under strong criticism.

Furthermore, the above-mentioned law sought to introduce community control over municipal governments by recognizing local social organizations (i.e., local farmer organizations, neighborhood committees, and indigenous groups) as territorially based grassroots organizations. These are permitted to influence municipal investment decisions through a process of participatory planning conducted by the municipalities, which should result in the formulation of a medium-term Municipal Development Plan. Every year, the municipalities have to develop a participatory operational plan.

In addition, local organizations are allowed to constitute a community-based vigilance committee in each municipality, which oversees municipal financial management and can request Congress to ‘freeze’ a municipal account if there are suspicions of fraud or severe
mismanagement (Rojas 1996). Nevertheless, these committees’ representatives are exposed to continuous pressures of political parties.

Rules and regulations for forest resources use

In 1996, as was mentioned earlier, the Agrarian Reform and Forestry Law both were reformed. The new agrarian regulations focused primarily on moving forward a process of title regularization and titling. The new forest legislation defined a set of regulations for forest use, somewhat differentiated according to forest user, under the premise that sustainable forest management is feasible under the right practices.

The forest regulations established a new system for monitoring forest management, enforcement and sanctions to illegal logging, as well as introduced some market-oriented regulations and taxes to discourage unsustainable forestry operations. The forest policy’s explicit goal is that sustainability of forest management can be achieved through progressive incorporation of less valuable timber species and the application of extraction techniques allowing the natural regeneration of the forest. Furthermore, it seeks to define clear rights over forest resources in part to increase investments in forest management, to eliminate forest crime and illegal logging, and to define rules for forest management according to certain technical criteria.

The whole public institutional system of the forest sector was substantially altered. The Ministry of Sustainable Development and Planning (MDSP) is now constituted as the ruling entity. The Forestry Superintendence (SF) is the regulation entity, and the National Forestry Development Fund (FONABOSQUE) is the financial entity. The SF is a central piece of this system because it is in charge of the following: granting forest concessions; authorizing logging permits; approving management plans and raw material supply and processing programs; monitoring forest products transportation; confiscating illegal timber; and supervising the activities of forest management.
The key new forestry provisions are: 1) new rules for the state to allocate public forest areas as concessions; 2) a new forest tax system; and 3) new criteria regulating sustainable forest management. Regarding the first point, the SF can grant public forest to private companies through a system of long-term forest concessions for a period of 40 years, renewable every five years. In relation to the second issue, forest users all have to pay a forest tax (US$1/ha/yr), which applies to annual logged area, though in the past it applied to the whole forest concession area. The law states that delays in a forest concession’s tax payments should result in turning the concession back to the government (BOLFOR 1997). However, the SF has been extremely flexible when some concessionaires did not comply with their payments during the last two years. Since March 2003, this system has been amended to reduce the rate per unit area.

Regarding the third point, according to the legal framework, non-commercial forest uses do not require authorization, and a forest management plan is an essential requirement for all types of commercial forest activities. Hence, forest concessionaires as well as private landholders are obligated to design management plans as an instrument to regulate commercial logging activities, including forest inventories and mapping. Forest management plans have to comply with many technical requirements. Forest management, when based on selective management, must respect a minimum cycle of 20 years between logging operations on the same area, and a minimum cut diameter must be respected. Furthermore, annual operations plans are required. The regime to be applied to non-timber forest products (NTFP) is quite similar to that defined for timber products, with the exception that harvesters have to pay a lower fee (BOLFOR 1997).

The ways to democratize access to forest resources

The new forestry regulations have included two provisions that have had some impact in democratizing access to forest resources. The first refers to the exclusive right of indigenous peoples to use the forest resources within their indigenous territories, recognized legally since the new Agrarian Reform Law was passed. According to this law, indigenous claims over land are considered to be titled after completion of a process
of land regularization. Currently, a total of 19 million ha have been claimed for titling as indigenous territories, but it is not known how much will ultimately be effectively titled in this way. Stocks (1999) estimated 5 million ha to be the area with commercial logging potential in areas claimed as indigenous territories.

Another provision, contained in the new Forestry Law, states that local forest user groups can benefit from forest concessions within areas to be declared as municipal forest reserves, which represent up to 20 percent of public forest within each municipal jurisdiction. As we will see below, municipalities are in charge of suggesting the limits of the areas to be declared as municipal reserves, and developing forest concession plans within them. In order for the local forest users to be granted a forest concession they have to be recognized as a local user association, Asociación Social del Lugar (ASL), by the MDSP, who makes the final decision. This mechanism was conceived as a way to formalize the access to forest areas of local forest users or small-scale loggers who were previously conducting forestry operations informally within forest concessions or protected areas, because they had no legal right to access forest resources (Kraljevic 1996).

The requisites for small-scale loggers to create an ASL are as follow: 1) their members have to reside in the same municipality where they are claiming forest concessions; 2) the organization should have been in existence for a minimum of five years; and 3) at least 20 people must be affiliated with the organization (BOLFOR 1997). The condition for local forest users to access forest resources is that a municipal reserve has to be created where some public forest is still available within the municipal jurisdiction. This does not happen in all cases.

4. **Powers Transferred to Municipal Governments**

According to Ribot (2001), much of the outcomes of decentralization depend on the type of powers that are transferred to lower levels, and on who receives such powers. In Bolivia, as well as in most countries of Latin America, decentralization has followed a
top-down format, and municipalities have been the main recipients of authority transferred from the central level. This section describes how this works in the Bolivian case.

A top-down model of delegation of responsibilities

Although the Popular Participation Law did not grant municipal governments any new explicit function related to natural resources management, it contributed indirectly to motivating some municipal governments, as a result of their larger political authority, to become involved in natural resources issues, such as controlling transportation of timber, payments of forest fees, and others. The municipal authorities’ motivation was to capture part of the benefits of timber extraction within their municipalities. Because mayors became relatively more powerful, the central government and the international donors began to consider them more seriously as partners in environmental projects (Kaimowitz et al. 1999). The increasing political power of municipalities led the government to consider them for dealing with some problematic issues arising around forest management such as social monitoring of illegal logging, and the formalization of forest rights for small-scale loggers, and other local users (Table 2).

The new Forestry Law handed over a number of powers to prefectures (departmental governments) and municipalities, as stated above. Prefectures’ responsibilities include implementing programs and projects of public investments related to the forestry sector, and developing programs for strengthening municipalities’ institutional capacities. The functions of municipal governments include monitoring logging activities, and inspecting raw material supply and processing programs. They are also in charge of delimiting municipal reserves to be assigned as community concessions for local forest users in up to 20 percent of the total public forest within their jurisdiction, and to provide technical assistance to ASLs working within such reserves (BOLFOR 1997).
Table 2. Bolivian Public Institutions’ Competences Regarding Forest And Forestry

<table>
<thead>
<tr>
<th>Organization</th>
<th>Competence functions</th>
</tr>
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</table>
| Ministry of Sustainable Development and Planning (MSDP) | ✐Formulates forest policies, strategies, and norms  
 ✐Land classification and evaluation of forest potential  
 ✐Demarcation of concession areas for timber companies and local groups  
 ✐Prices for concession fees and volume-based taxes  
 ✐Promotes research, extension, and education  
 ✐Looks for technical assistance and funding for forestry projects |
| Superintendencia Forestal (SF)     | ✐Supervises technical compliance with the forestry regime  
 ✐Grants management rights to eligible forest users  
 ✐Approves forest management plans for different forest rights  
 ✐Enforcement of forest regulations and sanctioning illegal forest users  
 ✐Registration of concessions, authorizations, and logging permits  
 ✐Requests external forest audits of forest operations  
 ✐Collects concession fees and volume-based taxes and distributes them |
| Prefectures                        | ✐Formulate forest development departmental plans  
 ✐Develop forest research and extension programs  
 ✐Promote programs of rehabilitation of degraded forest systems  
 ✐Develop programs for strengthening UFM institutional capacities |
| Municipal Governments              | ✐Propose the delimitation of municipal forest reserves  
 ✐Protect and conserve the reserve areas until they are conceded to ASLs  
 ✐Inspect and control all forest activities within their territorial jurisdiction  
 ✐Report violations of forest regulations to the SF  
 ✐Provide support to the ASLs in implementing their management plans  
 ✐Establish the registry of forest resources in their jurisdiction  
 ✐Develop soil use plans corresponding to the departmental use plans  
 ✐Organize training events for local forest users  
 ✐Facilitate and promote social participation in local forest development |

*Source:* Adapted from Andersson (2002), and Pacheco (2003), based on Bolivia Forestry Law.

In order to carry out their new responsibilities, municipal governments are expected to create municipal forestry units or *Unidades Forestales Municipales* (UFMs). The law
allows municipalities to form consortiums with other municipalities to create such units. In theory, the entire system should be entirely financed with the revenues coming from both concession and clear cutting fees. Prefectures receive 35 percent of the concession fees and 25 percent of the fees charged for clear cutting operations. Municipal governments get 25 percent of both types of fees. The FONABOSQUE receives 10 percent of the concession fees and 50 percent of the clear-cutting fees. The SF gets 30 percent of the concession fees. The reduction of forest concession fees in March 2003 has, as mentioned earlier, has implied a drop in financial resources going to prefectures and municipalities.

*Decentralization with restricted powers for municipalities*

Municipal governments are autonomous political bodies but, in spite of that, they have to comply with national regulations regarding property regimes and forest regulations. Hence, their autonomy to make decisions about natural resources depends largely on decisions made at the central level with little room to modify them, even if local authorities are permitted some latitude in implementing the rules. The legislation, thus, regards municipal officials as rule followers rather than rule makers, as implementing agencies for policies defined at the central level. In short, the new institutional forest system has not delegated some key responsibilities to municipalities.

Delegation of functions related to forest resources has, therefore, not led to dramatic changes with respect to the past when the forest service made most of the formal decisions regarding forest resources. The central level reserved for itself some key decisions regarding allocation of forest resources rights, granting forest concessions, approving forest use regulations, and collecting taxes from forest resources use. Municipalities have little to say these areas and all informal actions of municipalities for collecting forest taxes and controlling timber transit are considered illegal.

Although decentralization policy makes municipal governments key actors in controlling forest crime, promoting community forestry, and other forest-related actions, they still
have restricted powers to take autonomous decisions regarding the allocation and use of forest resources within their jurisdictions. For instance, they can decide how to allocate the forest resources within the municipal reserves but do not decide about the size of such reserves. The latter reflects the tension between the central level, which defends the strong role of the national forestry service, and those that support a more active and autonomous role for municipal governments.

*Decentralization with limited autonomy for local forest users*

The situation of indigenous groups has improved compared to the past. Indigenous communities have gained the rights to exclusive access to their forest resources within their territories, which has represented a notable gain with respect to the past when they were exposed to encroachment from illegal loggers, though this still persists in some cases (Roper 2000). However, in situations where indigenous people want to take advantage commercially of forest resources they have to develop forest management plans following some regulations approved by the forestry service, and they have little scope to adapt such norms to their own management practices (BOLFOR et al. 1997).

Nevertheless, despite the fact that specific regulations for forest management in indigenous areas have been approved, the importance of local knowledge and its variations have been ignored in much of the forest policy. Enforcement of indigenous property rights depends on some institutional arrangements made at the departmental and regional levels, and indigenous people have little influence on this, while they have, in some cases, attempted to use local arenas to negotiate them. This issue is, however, linked to a more complex bureaucratic process of land use planning and titling with poor overall outcomes.

The other social actors who have benefited from access to forest resources such as small-scale timber extractors and other local forest users also have no autonomy to make decisions about the way in which they use the resources, and all of them have to comply with forestry regulations if they want to keep their access to public forest resources.
through forest concession systems. The latter has led to command-and-control mechanisms from the SF to enforce the implementation of what are considered appropriate practices of forest management among local forest user groups and small landholders. Yet those practices have to a large extent been devised with large-scale forest concessionaires in mind, and to some degree they operate as barriers for small-scale forest users to enhance their benefit from forest resources use (Pacheco 2001).

5. Implementation of Decentralization Policies

There are always failures in the implementation of policies, and decentralization is no exception. In Bolivia, transferring responsibilities to municipalities implied initiating a process of building local capacities in municipal governments for them to deal with changing natural resources management issues, as well as for municipalities to interact with a set of diverse actors with disparate incentives and interests to use the forest within the new institutional context. Many of the outcomes did happen as expected, but others did not. This section reviews such situations, and discusses how closely actual decentralization implementation matched the original plans.

Building institutional capacities in the municipalities

Municipalities with forest resources began to receive their share from forest taxes in 1997, the year that they also started to set up their UFM. Nevertheless, the resources transferred to municipalities have tended to decrease over time due to the fact that forest concessionaires did not comply with the forest fees payments. In 1998, municipal governments received a total of $US2 million, falling to $US463 thousand in 2001 (Superintendencia Forestal 2003). In 2002 the system of forest taxes was changed. The new system formally reduced the amount of taxes collected by the state from forest operations to almost half of what was originally expected, formalizing the reduction of transfers from the central government to municipalities.
By the end of 2001, almost all municipalities with forest resources (about 109) had created their UFMs, and had at least one employee, either forest or agricultural technician, working on it. In municipalities with difficult access and little population, the forest units are the only units providing local technical functions. Although that leads to increasing demands on such units from local users, it also leads governments to tend to value more their role in local planning, and proposals formulation in support of local groups. The main limitation, though that is not a surprise, is the lack of technical skills of such staff. Even more, UFMs’ personnel are not trained to face social issues such as local negotiation for conflict resolution, which often confront them (Andersson 2002).

Building technical capacities in UFMs, with all the deficiencies that process may have, constituted an important step forward in relation to the past. Nevertheless, the situation of such units is not uniform. Much of the differences are explained by how much financial support they receive from the municipalities. The latter depends on how much money they receive from forest fees, and what proportion of it goes to supporting the UFMs’ operational budgets. A significant portion of municipalities consider it enough to provide minimum resources to the UFMs from their share of forest fees, and to spend the rest, if any, on other activities. It is worth mentioning that local government priorities are providing social services and infrastructure, and they have little motivation to support productive projects (Faguet 2001), though this is changing over time.

*The actors’ disparate incentives in conforming to decentralization policies*

The new institutional system resulting from both decentralization and the shift in forest policies has modified the incentives for municipalities and forest stakeholders to continue doing what they were used to doing, or to adapt their social and financial strategies to the new conditions. The main incentive for municipalities to engage with the new decentralized order of things was the likelihood of getting a share of the forest taxes, as well as the possibility of administering the municipal forest reserves. Municipalities also are interested in penalizing illegal clear-cutting due to the fact that they get a portion of the fines, but this does not happen in relation to illegal logging. Furthermore, municipal
governments have been interested in being active players on forest issues in the cases where local forest users have political influence on local decision-making, or in cases where forest-dependent people represent important votes to keep them in office.

The incentives of local forest users to engage in the process are diverse. Indigenous people have received important benefits from forest policy reform and decentralization. They have gained rights to make exclusive use of their forest resources within their territories, and have the chance to expand their influence to participate in municipal decision-making. In this context, forest management might increase the social legitimacy of indigenous people’s claims to land. In turn, local small-scale timber extractors’ main incentive has been to get formal access to forest resources through the forest concession system, and to benefit more from formal markets. Furthermore, this group should benefit from the technical assistance provided by the UFM$s, which, as mentioned earlier, are receiving resources from the forest taxes to support such activities. Both groups have benefited from several forest projects (i.e., BOLFOR) and NGOs, which have increased their interest in supporting community forestry over time.

In the short run, the main losers under decentralization were absentee forest concessionaires because they have had to negotiate with the forestry service about what areas to keep as forest concessions. Furthermore, a forest tax has been imposed that they will never agree with, and they have had to acknowledge indigenous people’s demands. The situation changed through time. The main incentive for forest concessionaires to adapt to the new conditions was their interest in keeping their forest areas, and an implicit commitment from the central government to support them to overcome their extremely difficult financial situation originating in the timber crisis in regional markets. Municipalities reacted in contradictory ways regarding forest concessions. While some are critical of concessions’ activities within their jurisdictions, others considerethem to be sources of economic growth and employment (Pacheco and Kaimowitz 1998).
**Homogeneous solutions for heterogeneous municipal realities**

The Bolivian model of decentralization, as mentioned in the previous section, does not account for regional variation, and its design considers that all municipalities are homogeneous bodies, with the ability to react uniformly to the challenges arising from the new conditions. This was a big assumption, with reality proving to be rather different. This section reviews some of the emerging issues that decentralization implementation has had to face. The main ones are: uneven distribution of resources to municipalities; the minimal availability of public forest to be declared as municipal forest reserves; and the differentiated interests of municipalities regarding forest-related activities.

In relation to the uneven distribution and allocation of financial resources, the amount of financial resources allocated by the forestry superintendence to municipalities has been quite heterogeneous. In the period ranging from 1997 to 1999, only 30 municipalities benefited, with more than 80 percent of the total resources transferred to them. In the case of richer municipalities, not all resources from forest taxes are spent on forest-related activities because their interests are in other sectors. In turn, the poorest municipalities that also get such resources have other urgent demands that also are outside the forestry sector (de Urioste 2000; Flores and Ridder 2000).

On the second point, the minimal availability of public forest for municipal forest reserves establishment, even though the law defined that up to 20 percent of public forest would be declared municipal forest reserves, in practice such areas were not available in all municipalities for that purpose. That was due to the existence of overlapping claims over public forest, or because they were merely maintained as forest concessions. The fact is that in some municipalities there were no areas to declare as municipal reserves to allocate as concessions to small-scale loggers. By early 2001, from a total of 2.4 million ha demanded by municipalities as municipal reserves only 681,000 ha had been declared as such (Pacheco 2003).
The priorities of municipalities about what to accomplish from the menu of their new responsibilities vary from one place to another. Only a few UFM:s have been able to seriously pursue and attempt to accomplish all the functions they have been granted. The latter is explained in part by how municipalities prioritize their investment, which in some cases is in response to social pressures, and in others to local authorities’ political motivations. The level of municipal engagement is also related to the incentives the municipalities have to respond to their constituents, or to inform the authorities to whom they are accountable about their actions (Andersson 2003). For instance, while some municipalities are interested in allocating resources to establish a system of forest concessions within municipal reserves, others prefer to look at controlling illegal clear-cutting, or trying to make forest management viable for small farmers.

6. The Uneven Outcomes of Decentralization

This section explores the outcomes of decentralization on some key issues that reveal the extent to which transferring responsibilities to municipalities has modified the political and institutional arrangements for forest management, and their implications on people and forests. The issues assessed below refer to: 1) the dynamics of social participation in local politics; 2) changes in the structure of rights and how that has benefited local forest users; 3) impacts of decentralization in forest management; and 4) institutional arrangements and tension among different levels.

Social participation in local politics

In many lowland municipalities, small farmers, indigenous people, and small-scale loggers have been elected to office for the first time since decentralization. In those cases, indigenous groups have been able to obtain political support from the municipal councils to reinforce their land claims, small-scale loggers have obtained support to negotiate temporary logging authorizations, and small farmers have obtained support favoring their efforts to modify land-use and forest regulations. Thus, municipal governments have contributed to politically supporting some local actors’ claims around resources access.
This is also the case where these groups have strong organizations with capacity to influence the municipality’s decisions or where they represent the majority of voters. In these cases, municipal governments may amplify the demands of social actors.

In other cases, however, transferring responsibilities and resources to municipalities has led to the reinforcement of pre-existing local elites, particularly in municipalities of northern Bolivia, and where cattle ranchers and timber companies are highly influential in local politics. These local elites have, in some cases, influenced municipal governments to build local alliances against indigenous land claims. In these cases, strengthening local elites has directly reinforced their power position in the local governments regarding use of resources. The local elites of these municipalities often benefit from activities based on mining of natural resources, and promote concentration of benefits in a few hands. Decentralization, in these cases, produces undesired results.

In some cases the social composition of local government is more complex, and local elites have to struggle with small farmers and indigenous people, and often have to negotiate with them (Pacheco and Kaimowitz 1998). It is not unusual to find that alliances are built among the different social groups within municipalities around agreed local development agendas such as infrastructure development and basic social services. Those social agreements are, however, difficult to arrange with respect to natural resources management, though in some cases alliances have been established to protect conservation areas against encroachment of foreign timber and mining companies (i.e., municipalities of Rurrenabaque and San Ignacio de Velasco).

Much of the impact of decentralization on reconfiguring the social participation in local politics depends on the local political economy and on the social capital of marginalized groups. In other words, more democratic municipalities are those where there has traditionally been more equitable access to resources, instead of those in which local elites have imposed their interests. The latter is, however, affected by the extent to which local groups have been able to build social capital. Local groups with stronger social
articulations, and who have crafted institutional rules, are able easily to build their way to improve their social representation within the municipal governments.

Property rights and benefits of forest-dependent people

One of the most striking features of decentralization in Bolivia is that, even though the social composition of municipal governments is more diverse, it has little influence on how forest rights are allocated and to whom, because such decisions still remain at the central level. In this regard, municipal governments only become institutional platforms for stimulating negotiations among different local actors in cases of social conflict, and for representing local demands to the national level. Indeed, municipal governments were active players in making some forest regulations more flexible, which benefited small-scale loggers and small landholders.

The reinforcement of some property rights that came along with decentralization, such as indigenous territories and municipal forest reserves, had significant implications for local forest users, though the pace of such changes was extremely slow. Titling of indigenous territories has become a bureaucratic and slow process, and indigenous people cannot benefit fully from their forest resources because they do not fulfill the conditions to formulate and implement forest management plans (Stocks 1999).

The case has been somewhat similar in relation to forest concessions for small-scale loggers. While the process of identification and demarcation of municipal forest reserves was relatively quick, conducted by the municipalities, the approval of such areas by the MDSP was slow. Besides bureaucratic procedures, one of the factors limiting the formal creation of municipal reserves was an extremely slow process identifying public forest, which is a pre-condition for establishing such reserves (Pacheco 2000). Much of the claimed areas, as noted earlier, was not available, and about 26 demands of ASLs were not even processed. The latter has left open the door for such groups to persist in illegal logging activities.
The impact of municipal forest reserves is still small: only 13 groups with 387,000 ha had an approved forest management plan by early 2003. Unfortunately, there are no assessments of the extent to which such groups have improved their incomes from their logging operations. The ASL members have no tradition of collaboration because they were used to working independently of each other, and have faced internal conflicts of leadership (Cronkleton and Albornoz 2004). Furthermore, these groups emerged with little clarity about organizational procedures and mechanisms for distribution of profits from their logging operations (Kraljevic 2002). Building social capital in these groups might be more important in the long term than improving their practices of forest management.

Impacts of decentralization on forest crime

Much of the changes of forest management practices can be related to the shift of forest policy. Indeed, the SF has been more active in monitoring forest crime, both illegal logging and clear-cutting, though it was not able to reduce the rates of illegal activities due to the limited institutional capacity to enforce the forestry regulations. There are no reliable estimates of illegal logging, and those of clear-cutting suggest that illegal deforestation would be around 80 percent of total deforestation (Contreras 2001). Most of the monitoring activities were oriented first to enforcing small landholders’ and illegal forest users’ compliance with the forest regulations (Pacheco 2001). Thereafter they focused on municipalities in which there was stronger presence of informal activities.

Although the SF carried out most monitoring activities by itself after decentralization, gradually it looked for some help from the UFM. Its main interest was taking advantage of the resources transferred to municipalities to develop monitoring activities, as well as the need to justify their actions before the local population. Nevertheless, the answer of municipalities to forest crime monitoring was ambiguous. One group did not want to get involved in controlling illegal forest activities because that would affect some politically influential people within the municipal governments. Another group had no actual capacity or resources to spend on activities with little financial return and high political
cost. That institutional behavior has created ambiguous signals about the role that municipalities play in forest crime monitoring.

Municipal governments are more motivated by controlling the operations of large-scale forest concessions. In a few cases, municipalities have taken over machinery of timber companies and intervened when forest concessions were logged in areas outside their boundaries. Additionally, local authorities have strong criticism against the system of auctioning confiscated illegal timber because they do not benefit from it. Furthermore, the role of municipal governments, as was suggested previously, is more active in controlling illegal clear-cutting because of the direct benefits they obtain from it. They have been active players in temporarily resolving uncertainty over property rights, primarily of small landholders, by issuing land ‘possession certificates’, though with no legal value.

Institutional tensions and collaboration across levels

It has taken some time for the municipalities and the SF to build partnerships to improve forest management monitoring at the local level. The SF was, at the beginning, a bit skeptical regarding the capacities of municipalities to intervene in forest-related issues. Its main concern was that most decisions over forest resources are taken considering political criteria. Hence, in the SF’s view, it would be difficult to have politically neutral interventions from the UFM s in controlling forest crime. The municipal units view the SF as undermining the livelihoods of local forest users who have undergone severe difficulties to adapt their practices to the new forestry regulations. This has changed to some degree with a larger involvement of SF in building collaboration agreements with UFM s around specific issues on regulations enforcement.

In some cases, the SF has made progress in establishing good relationships with municipal forest units around specific issues of collaboration. The driving principle has been to enhance the operational capacity of the entities involved and the need to make more legitimate decisions at the local level. This has led to the establishment of formal
agreements of collaboration through which the SF delegates some responsibilities to the UFM. In other cases, however, the SF is relatively distant from the UFM. There is no motivation to collaborate due to the lack of communication and trust among the personnel involved and some previous negative experiences (Flores and Ridder 2000).

It is worth mentioning that NGOs have become key players helping UFM to overcome their institutional deficiencies and building local capacities of monitoring, planning, and proposal elaboration. In this vein, some forest projects like the BOLFOR project working with ASLs, and the UNDCP-FAO project working with colonists, attempted to build capacities for forest management through training in the elaboration of forest management plans, implementation, and development of market skills, and in some cases establishing partnerships with timber companies. In most cases, however, forest projects have not included municipal governments, working directly with forest users. That has had some positive effects, but more actively including municipal units could have contributed better to the effort of developing technical skills within municipalities.

The missing link in the whole system is at the level of the departmental governments. Even though they receive resources from a portion of the forest taxes, they have resisted spending them on the items they were supposed to, such as forest research and extension, and strengthening UFM. Instead, those resources were diverted to cover other expenses. An exception to highlight is an isolated project aimed at strengthening UFM developed by the Prefecture of Santa Cruz between 1998 and 2000, which has been documented elsewhere (Flores and Ridder 2000). There is an ongoing debate questioning the role of prefectures within the forest institutional system.

7. **A Balance: What Is Needed to Achieve Success?**

Decentralization contributes to the success of municipal forest management in cases where: 1) it promotes more equitable access to forest resources for the different local forest users who depend to some extent on forest resources to make their living; 2) it stimulates the growth of financial resources invested in forestry initiatives with multiplier
effects in the local economies; and 3) it facilitates the development of actions to plan better management of forest resources and natural resources conservation. Yet, all these conditions are hard to achieve simultaneously in practice, and trade-offs inevitably occur favoring one against the others. This section seeks to assess the trade-offs resulting from decentralization in the lowlands Bolivian case, with emphasis on looking at the benefits that the different actors have obtained from the process so far.

Decentralization has had positive outcomes on equity because it has expanded the influence of previously marginalized social groups (mainly indigenous people and small landholders) in decision-making. The latter was due to the fact that rural populations gained the right to run for office, and began to make use of the mayors’ mechanisms of social control. This did not happen everywhere. The factors that helped to extend social participation in decision-making were strongly related to the pre-existence of social networks that enable collective action, and that kept municipal authorities accountable to local social organizations (e.g., indigenous municipalities, and municipalities dominated by coca growers in Chapare). These sorts of situations are more likely to take place in municipalities in which there is more democratic access to land, and where local groups have crafted institutional rules to ensure their rights of access to forest resources. Decentralization has, broadly speaking, helped to ensure such rights by strengthening indigenous claims over land, and by allowing for the creation of municipal reserves.

The impact that greater equity has on local development is not yet clear. Most decisions on allocation of forest rights lie outside the competence of municipal governments, and they even have little voice about forest concessions allocation within municipal forest reserves. Furthermore, increasing influence of marginalized groups on municipal government decision-making does not automatically lead to influence on natural resources allocation decisions, though it often constitutes a platform for them to pressure the central government from the bottom in influencing some decisions. In general, municipalities where local grassroots organizations influence municipal decisions are more empathetic to the recognition of forest rights for local user groups. The fact of ensuring property rights has undoubtedly led to enhanced livelihoods for small-scale
loggers and indigenous people from forest resources use. Yet, in some cases forest regulations have made life difficult for indigenous people, small farmers, and small-scale loggers. Indirect impacts of decentralization and growing pressures from the local actors have meant that making forest regulations more flexible has been a slow process.

Expanding local control on monitoring of forest resources use has inevitably a two-sided effect. On the one hand, control of forest crime is avoided in the cases when it increases the political cost of overseeing illegal practices if local politicians are part of corruption schemes. On the other hand, it stimulates greater interest of local populations to protect natural resources from absentee landholders or companies without local roots. The same logic, more or less, applies when protected areas come into play. Protected areas are resisted in situations in which they may affect negatively either local people’s livelihoods or local elite interests, but accepted when they may bring some resources to municipalities (i.e., projects of biodiversity conservation, tourism, etc.). Reinforcing property rights, and increasing mechanisms of social control have, in some cases, contributed to making municipal decisions on monitoring more politically neutral.

In short, the Bolivian experience shows that the top-down move towards decentralizing forest management is matched by different social forces emerging from the bottom. A diversity of political economic contexts and local power relationships have led to diverse outcomes of decentralization for improving livelihoods of local forest users and sustainable forest management. Nevertheless, by redefining the local democracy, decentralization has created new conditions under which local actors can participate in politics, and influence territorial local development. The power of municipalities regarding forest resources is still limited, but there are in place dynamics of local capacities development that might challenge such a situation in the future.

Building democratic decentralization in Bolivia demands more democracy in order for municipal governments to hold more meaningful powers over how forest resources are allocated, property rights maintained and violators penalized. Similarly, local forest users’ existing institutions need to be enforced with more rights to manage and use their
forest resources. The latter means that a better balance in the distribution of competences has to be built among the central government, municipal governments, and local institutions, accounting for local variations, and taking seriously the disparate incentives and interests of the local actors. In this light, I will argue that there are three issues that demand higher attention:

- Building horizontal systems of monitoring, in which trust is at the core of collaborative actions; to enhance social capital of local forest users;
- Supporting municipal governments to become more transparent and participative;
- Developing pathways to improve the contribution of forests to poverty alleviation and local development strongly rooted in local capacities and capabilities.

Nevertheless, that may not be worth it if the material conditions for people to benefit from forest resources remain the same. Although decentralization is only one piece of other political and economic forces that contribute to shaping the relationship between forest and livelihoods, strengthening decentralization can make a difference.
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Endnotes

1 In Bolivia, there are three levels of government. Below the central government are placed the departmental governments or prefectures that correspond with the departmental jurisdiction, whose main authority (the prefecto) it is still appointed by the President. Then, the municipal governments, which correspond to the municipal jurisdictions. The member of municipal councils are elected democratically, and from within these council members mayors are elected.

2 In 1993, further legislation was passed stating that forest companies would pay 80% of their taxes directly in the areas where the resources originated. That mechanism was hard to implement in practice as well because of the resistance of timber companies to paying fees.

3 According to Ribot (2002:4), while decentralization is any act in which a central government formally cedes powers to actors and institutions at lower levels in a political-administrative and territorial hierarchy, deconcentration involves the transfer of power to local branches of the central state, such as prefects, administrators, or local technical line-ministry agents.

Acronyms

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<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ASL</td>
<td>Local User Group (Asociación Social del Lugar)</td>
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<td>BOLFOR</td>
<td>Project of Sustainable Forest Management BOLFOR</td>
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<tr>
<td>FONABOSQUE</td>
<td>National Forestry Development Fund (Fondo Nacional de Desarrollo Forestal)</td>
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<tr>
<td>MDSP</td>
<td>Ministry of Sustainable Development and Planning (Ministerio de Desarrollo Sostenible Planificación)</td>
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<tr>
<td>SF</td>
<td>Forestry Superintendence (Superintendencia Forestal)</td>
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<tr>
<td>TCO</td>
<td>Indigenous Communal Territory (Tierra Comunitaria de Origen)</td>
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<tr>
<td>UFM</td>
<td>Municipal Forestry Unit (Unidad Forestal Municipal)</td>
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