

## DECENTRALISATION AND FOREST MANAGEMENT IN LATIN AMERICA: TOWARDS A WORKING MODEL

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### SUMMARY

The particular characteristics of natural resources make the decentralisation of their management to elected local governments even more complex than the decentralisation of services and infrastructure. Nevertheless, natural resources are equally important to rural development concerns in the Third World. Numerous countries have begun to implement policies for some form of decentralisation involving natural resources and the environment, and many local governments are already making decisions that affect the future of local resources. This article reviews experiences with decentralisation of forest management in Bolivia, Brazil, Costa Rica, Guatemala, Honduras and Nicaragua. Based on those experiences, it proposes a working model for more effective decentralisation strategies. The model addresses the legal structure for decentralised forest management and relevant variables that define the local decision-making sphere, as well as key mediating factors that also affect outcomes. Most of these variables, even in the local sphere, offer important sites for policy and aid intervention. Copyright © 2003 John Wiley & Sons, Ltd.

### INTRODUCTION

In broad terms, the decentralisation of central governments is a tool for promoting development (Rondinelli and Cheema, 1983; Chiriboga, 1994; Ribot, 2001a), though policy debates about decentralisation in developing countries tend to emphasise increasing efficiency and government responsiveness (World Bank, 2000) and/or poverty alleviation (World Bank, 2001). In practice, decentralisation has focused primarily on service delivery and infrastructure (Bird and Rodriguez, 1999; Gideon, 2001; Mok, 2002), areas in which researchers increasingly report improvements in efficiency and effectiveness with better local governance practices (Romeo, 2003). Decentralisation researchers and practitioners have given relatively less attention to other aspects of development, such as natural resource management.<sup>1</sup>

Nevertheless, many Latin American countries have begun to design and implement decentralisations that include transferring certain aspects of the exploitation, management and/or conservation of their natural resources to local elected governments.<sup>2,3</sup> Many researchers and policy-makers believe that decentralisation could improve

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<sup>1</sup>Decentralisation of natural resources has often focused more on the devolution of powers to local communities (commonly known as community-based natural resource management) rather than to local governments. Of 55 cases in Latin America and Africa reviewed by Agrawal, for example, only one involved decentralisation to 'district elected authorities' (Agrawal, 2001). Nevertheless, elected municipal officials are increasingly being granted natural resource responsibilities (see text). For related research, see the 18 papers presented at the Workshop on Decentralisation and the Environment, Bellagio, Italy, 18–22 February 2002, sponsored by World Resources Institute.

<sup>2</sup>In this article, 'local government' and 'municipal government' are used interchangeably, to refer to the elected governments of legally defined districts, under state or national governments, whose jurisdictions include both urban and rural areas.

<sup>3</sup>Decentralisation may also refer to the *taking* of these kinds of decisions by local governments, with or without the legal authority to do so. Though this is relevant to the overall decentralisation process and the model proposed here, due to space limitations this article refers mainly to formal decentralisation policy.

natural resource management for several reasons.<sup>4</sup> Local people are more likely to identify and prioritise their environmental problems accurately; resource allocation should be more efficient and information costs lower; local groups are likely to have greater respect for decisions made with local inputs such as rules for resource use; it should be easier to monitor resource use, and marginalised groups could have greater influence on local policy (Carney, 1995; Kaimowitz *et al.*, 1998; Margulis, 1999).

This article first examines some of the theoretical benefits of decentralisation as well as the particular characteristics that distinguish natural resources from services and infrastructure. This is followed by a discussion of the kinds of problems found so far in the decentralisation of forest management. It then briefly summarises the experiences of six Latin American countries: Bolivia, Brazil, Costa Rica, Guatemala, Honduras and Nicaragua.<sup>5</sup> The article closes with a proposed model for the successful decentralisation of forest management, based on the analysis of those six cases.

### DEMOCRATIC DECENTRALISATION AND THE PARTICULAR CHARACTERISTICS OF NATURAL RESOURCES

Many theorists argue that decentralisation should increase efficiency, equity and democracy 'by linking the costs and benefits of local public services more closely' (World Bank, 1988, p. 154) and by 'bringing the state closer to the people' (World Bank, 1997). The efficiency and equity benefits derive from the democratic processes that encourage representative and accountable local authorities to serve the needs of their constituents (Smoke, 1990; Crook and Sverrisson, 2001; Ribot, 2002). Hence democratic forms of decentralisation should be more effective than administrative forms or deconcentration. Democratic decentralisation requires (1) representative and downwardly accountable local authorities, (2) who hold a secure and autonomous domain of powers to make and implement meaningful decisions (Ribot, 2001b). Nevertheless, as we will see below, democratic decentralisation of natural resource management is hard to find (see Ribot, 2003, for similar findings in Africa).

Several particular characteristics of natural resources increase both the potential and the risks of natural resource decentralisation as a force for local development and democracy:<sup>6</sup>

- (1) All decentralisations are both political and economic processes because they involve the redistribution of power and resources. Natural resources, however, have *economic and political dimensions* beyond those of, say, health and education. For example, in the resource-dependent communities common to the Third World, natural resources are often key factors in maintaining rural livelihoods, as well as significant sources of wealth. Hence the distribution of control over these resources can play an important role in defining local income levels and power relations.

Greater control over one's own livelihood is a factor widely recognised as key to development, empowerment and poverty alleviation (World Bank, 1989; Chambers, 1997; Ellis, 2000). This is one of the primary goals behind community-based natural resource management (CBNRM) projects, which have demonstrated that local democratic control over natural resources can improve local livelihood and have positive ecological effects as well (Lutz and Caldecott, 1996; Juma *et al.*, 1999; Klooster, 1999; Klooster and Masera, 2000). Nevertheless, CBNRM has often consisted of small-scale projects requiring significant donor support and has frequently failed to establish a lasting local institutional framework for community-based development (Ribot 2002).

Decentralisation to local governments could provide a stronger institutional basis for CBNRM (Larson, 2002a; Ribot, 2002). For example, in a review of 4 years of relevant Overseas Development Institute research, Carney and Farrington (1998) found that joint forest management is more likely to be successful where, among other things, the support of local political authorities is engaged. Ribot (2002) argues that the shift from

<sup>4</sup>'Management' in this article refers to management in its broadest sense, including regulation, oversight, planning, etc., not the narrower silvicultural sense of management in forestry, which usually pertains to the private sector.

<sup>5</sup>This article also refers, in some cases, to the management of trees outside forests as well as the management of deforested areas.

<sup>6</sup>My thoughts for the rest of this section have benefited from communications with David Kaimowitz and from Kaimowitz and Ribot (2002).

community-based participatory approaches to local government approaches represents a shift 'from ad hoc and experimental mobilisation and inclusion techniques to more institutionalised, more easily replicated and potentially more sustainable forms of participation through local democracy'.

The fact that natural resources are important for livelihood and generation of income implies even greater opportunities for increasing equity, alleviating poverty and providing development opportunities through the redistribution of control, as through decentralisation, than the decentralisation of services and infrastructure. Nevertheless, this also means that natural resource decentralisations are at greater risk of local elite capture. They are also more likely to be resisted by those in a position to lose control over resources in the redistribution of powers engendered by decentralisation.

- (2) The income-generating potential of natural resources means that they can be taxed (or directly exploited in the case of some municipal-owned *ejidos*) to generate *municipal income* (Kaimowitz and Ribot, 2002). Decentralised management does not, therefore, necessarily depend on government transfers for financing and could provide important economic benefits, unlike the provision of health services and education. Forest management, for example, might actually be able to pay for itself, and in forest-rich communities, it can even generate a profit (Larson, 2001a).
- (3) Natural resources already exist physically within a specific local arena, with its own particular *history and tradition of resource management*. Decentralisation of control, therefore, is not just a decision to be made by central authorities. Certain decisions affecting those resources have probably been made by local people for centuries, and, as we will see in the case studies, local government decisions regarding forests—with or without centrally sanctioned authority—reflect this reality.
- (4) In services, infrastructure and natural resource management, arguments regarding low technical capacity have been used to slow or block decentralisation (Kaimowitz and Ribot, 2002). But with regard to natural resources, the reality of local history and experience also means that *local knowledge* regarding the particular characteristics of a resource, such as a forest, and its management may have been generated over time. This raises questions regarding the appropriate role of forest professionals who are often based in the capital and have no such experiential knowledge of the particular forest in question.<sup>7</sup> National forestry institutes have a tendency to establish complex bureaucratic procedures for the exploitation of timber or non-timber forest products and to require detailed management plans. These plans suggest the 'micro-management' of each logging or non-timber enterprise, though in reality there is often little follow-up once plans are approved.
- (5) Another important factor that distinguishes natural resources from services and infrastructure is that, though they are physically located in a specific place, the management of natural resources can have *broader-scale effects*. This includes, for example, regional downstream effects of water use, contamination or deforestation and the national and global effects of deforestation and biodiversity loss. There are also boundary issues regarding the appropriate management scale for certain types of environmental problems or resources that do not necessarily coincide with political boundaries. Hence natural resources require a more complex management system across spatial scales and levels of government.

### DECENTRALISING FOREST MANAGEMENT

In spite of these greater complexities, many countries have begun to transfer authority to local governments not only in services and infrastructure but also in forest management. In this study, the four countries that have done so are responding, at least in part, to problems with the current or previous highly centralised structure.<sup>8</sup> One key problem with that structure is the demonstrated incapacity of central government agencies to control illegal logging and to supervise legal logging. Central governments' primary interest in decentralising, then, has often been to lower the costs and increase the efficiency and effectiveness of oversight. It is important to note, however, that

<sup>7</sup>In practice, local groups may or may not have a better understanding of how to manage local resources. Klooster (2002) proposes a combination of local knowledge and scientific forestry as the ideal adaptive management approach that draws on the strengths of both.

<sup>8</sup>And the two that have not implemented a formal decentralisation of forest management or conservation have similar problems with the current centralised structure.

this does not necessarily coincide with the main interest that the local population may have in decentralised forest management.

Nor do these decentralisations necessarily contemplate the broader democratic potential of decentralisation. Ribot (2003) argues that downwardly accountable and representative local authorities need discretionary powers 'over the resources that affect their constituencies in order to become legitimate actors around which civic organisations and citizens rally for justice, sustainable livelihoods and economic improvement'. As in Ribot's African cases, we also find that the required combination of accountable representation and significant discretionary powers are missing in the Latin American cases presented here.

At the same time, however, decentralisation does not depend only on the will of central governments. As we will see, constituent and local government demands and pressures have played an important role in natural resource decentralisation in at least some municipalities in Bolivia, Nicaragua and Guatemala. In addition, even where decentralisation has not formally occurred, local governments have often found themselves in the position to be making decisions that affect the future of their forests. That is to say, the decentralisation of forest management is not simply a 'top-down' process, but is rather increasingly occurring in practice whether central governments support it or not.<sup>9</sup>

The decentralisation of forest management has faced many of the same kinds of problems with which policy-makers and researchers of broader decentralisations are well-familiar. Briefly summarised, these include: decentralisation being used as a political or party strategy to increase territorial control rather than to promote local autonomy (Crook and Sverrisson, 2001), the failure to transfer decision-making powers (Crook and Manor, 1998; Crook and Sverrisson, 2001; Wunsch, 2001), insufficient municipal budgets (Peñalba and Grossi, 1989; Crook and Manor, 1998), problems with accountability (Crook and Manor, 1998; World Bank, 2001; Edmiston, 2002), weaknesses in political and administrative organisation (Wunsch, 2001; Edmiston, 2002), elite capture of benefits (World Bank, 2001; Wyckoff-Baird *et al.*, 2001; Manor, 2002), regional inequities (Sonja, 1996; World Bank, 2000), lack of legal clarity (Peñalba and Grossi, 1989; World Bank, 2000) and conflicts between central and local governments (Smoke and Lewis, 1996).<sup>10</sup>

In addition, decentralisation in forestry faces further problems relating to the characteristics of natural resources discussed earlier. For example, forestry's economic potential and the relation of that potential to local power relations increase the prospect for conflict, as well as for greater resistance to change by those who hold power under centralised schemes. Institutional arrangements for forest management systems must include broader scales. The regulatory framework for forestry is often complex and even internally contradictory and may not be consistent with broader decentralisation policies, adding even more grey area to 'the rules of the game'. Unlike services and infrastructure, renewable natural resources like forests are subject to economic forces that shape the costs and benefits of exploitation, as well as ideological debates regarding the appropriate balance between exploitation and conservation.

Finally, services and infrastructure represent the traditional development priorities of Latin American municipal governments. Development planning for the long-term sustainability of forests is not part of that tradition, hence decentralisation in this sector requires a certain change in the conception of local government and time for that change to occur.

## THE CASE STUDIES

This section reviews decentralisation and forest management experiences in six Latin American countries—two that have important forest territories under direct municipal control (Bolivia and Honduras), two that have

<sup>9</sup>Ribot's recommendations (Ribot, 2003) provide an excellent summary of measures to improve the current design and sequencing of decentralisation. Nevertheless, given that these measures would have to be implemented by the same central governments that have, to this point, resisted democratic decentralisation, pressure 'from below' is likely to be essential for making that implementation possible.

<sup>10</sup>Similar problems in natural resource decentralisations can be found in Agrawal (2002), Baviskar (2002), Bazaara (2002), Brannstrom (2002), Carney (1995), Cousins and Kepe (2002), Fisher (1999), Kaimowitz and Ribot (2002), Kassibo (2002), Larson (2002a), Lutz and Caldecott (1996), Margulis (1999), Mearns (2002), Melo (2002), Ntsebeza (2002), Pacheco (2002), Peluso (2002), Resosudarmo (2002), Ribot (2002, 2001), Oyono (2002) and Tan-Kim-Yong (2002).

decentralised other aspects of forest management (Nicaragua and Guatemala) and two that have given few, if any, specific forest-related powers to local governments (Brazil and Costa Rica).<sup>11</sup> The Bolivian case only examines lowland municipalities and the Brazilian case only considers the Amazon. Each of the six case studies briefly discusses the history of forest decentralisation in the context of broader decentralisation policies, the actual powers that have been transferred to local governments and the role that municipal governments have played in forest management.

### *Bolivia*<sup>12</sup>

In 1994, the Popular Participation Law significantly increased the powers of and financial resources transferred<sup>13</sup> to Bolivia's local governments. The decentralisation of forest management was partly a consequence of this overall dynamic, but also responded to the historic demands of populations from forested regions.

The 1996 Forestry Law granted municipal governments the right to manage up to 20% of the public forests for their allocation to small-scale extractors and loggers (organised in local associations known as ASLs) and gave indigenous communities exclusive control over the forest resources in their territories. Municipal governments were also granted 25% of the fees associated with permits for logging and forest clearing in their jurisdiction. Each municipal government was required to establish a forestry office (UFM) with these funds in order to continue receiving funds and responsibilities.<sup>14</sup> These offices are primarily responsible for assisting in the legal formation of the ASLs, negotiating the municipal forest areas and providing technical assistance for the ASLs' forest management plans. The local governments also share numerous oversight responsibilities with the central government, such as inspecting concessions, sawmills and the implementation of management plans.

The central government maintains full authority over the remaining 80% of the forests and, even in the municipal forest areas, approves both the local organisations requesting forest concessions and their forest plans and permits. The process of delimiting municipal lands as well as approving ASLs has been slow and bureaucratic. The central government defines all regulations, laws and norms for forest use and management, the sanctions that apply and the use of those resources. Local governments largely see themselves as implementing central government policies.

In spite of what, in the end, are fairly limited powers, many local governments have undertaken important forestry initiatives. Almost all of the most forested municipalities have formed municipal forestry units, in spite of limited funding in many cases. Some UFM's have played an important role in supporting local actors, particularly peasants and ASLs, in their efforts to obtain permits and to develop management plans, though the latter have usually required outside donor project support to win approval. Particularly where these local actors are well organised and influential, UFM's have negotiated the modification of some central government regulations that would have delayed or impeded ASL access to forest resources. Local governments have also been reasonably vigilant about controlling illegal clearing, though less so about illegal logging, at least in part because of the way fees are structured.

Several municipalities created UFM's with their own funding, in part because of genuine interest in the forestry sector, and in part because they believed these offices would attract future donor income. Projects have been key for support where funds have been insufficient to carry out mandates, as well as for technical skills. Municipal governments have played a greater role in forestry where local demands are high, where conflicts have forced them to intervene and where there are clear benefits.

<sup>11</sup>All of the studies were based primarily on an analysis of selected municipalities in each country, as well as the national legal framework. Among the goals of each study were to understand the structure and implementation of decentralisation, the role of municipal governments in forest management and the different dynamics behind local government action or inaction. They will appear in the forthcoming book edited by L. Ferroukhi, *Gestión Forestal Municipal en América Latina*.

<sup>12</sup>This section is based on Pacheco (2002, 2003), as well as several communications with Pablo Pacheco. The municipalities studied by Pacheco are located in the Bolivian lowlands, which comprise 70% of the country's forests.

<sup>13</sup>Municipal governments in Bolivia receive 20% of the national budget.

<sup>14</sup>Only the 109 forested municipalities were required to establish UFM's. Because of the way the logging permit funds are divided, 80% of the income goes to 30 of these, meaning that the majority receive too little to finance an effective UFM.

*Honduras*<sup>15</sup>

In what would appear to be a contradiction that distinguishes the Honduran case, Honduran municipal governments have little power or authority in general,<sup>16</sup> but the 1992 Law for the Modernisation and Development of the Agricultural Sector returned control over the country's *ejidos* to local governments. Though precise data are not available, *ejidos* are estimated to represent about 28% of the country's land and 30% of its forests.<sup>17</sup>

Honduras' municipal governments can log *ejidos* themselves or contract out to a logging company or group of agroforesters, with the only requirement that they develop a management plan for approval by the forestry institute, COHDEFOR. The larger and more economically secure municipalities, as well as those with project support, have been able to take on forest management in their *ejidos* to a greater degree than most others, in part because they have been able to contract the necessary technical assistance. These local governments have issued permits for controlled burning, developed land use plans, promoted the creation of protected areas, established funds for forest management, organised the population around resource conservation and/or implemented watershed protection projects.

Some municipalities have important income from the logging of *ejidos* as well as from the sale of other products such as pine resin and seeds. Most, however, sell standing timber, substantially lowering the income that could be captured. Many also charge a fee for permits and taxes for exploitation, and some also charge fines, though this is not yet clearly permitted by law.

With regard to all other aspects of forest management, however, local governments have few powers. They have little formal say over extraction on national lands within their territories, though they may give an opinion on the management plan, and they have a right to charge only a 1% tax on the commercial value of these resources. They are also expected to supervise the implementation of forest management plans, but COHDEFOR often fails to provide them with the necessary information to do so.

Municipalities can propose but not declare protected areas and are expected to make sure that norms are met but cannot create norms themselves. A current draft forestry law would allow local governments to charge fines for forest crimes, but this is not currently within their jurisdiction. All municipalities are required to create Municipal Environmental Units to promote projects and implement activities relating to forest management, preservation and marketing—61% had done so as of 2002.

In general, but with notable exceptions, local governments have very low capacity and budgets to carry out their mandates. In addition, COHDEFOR is known for its incompetence and a high level of corruption, hence is largely ineffective in terms of providing technical support for decentralised forest management.

*Nicaragua*<sup>18</sup>

Nicaragua's local governments have been strengthened significantly over the last 12 years since the first municipal elections in 1990. Revisions to the municipalities law in 1997 increased their powers in important ways, but the possibility for real autonomy is considerably undermined by low municipal budgets. Not only are government transfers extremely low (1.2% of the national budget in 2001), but also the tax options are very limited in terms of securing other sources of income.

The municipalities law grants local governments the power 'to develop, conserve and control the rational use of the environment and natural resources' as the basis for municipal and national development; nevertheless, other laws limit their powers to a supporting role.<sup>19</sup> As in most of the countries in this analysis, it is the central government that enters into contracts for logging, though in the Nicaraguan case, local governments must give their opinion before contract approval. They also have a right to 25% of the tax income from these contracts, though this has not always been honoured. The legal framework also allows municipal governments to establish municipal parks, organise campaigns for fire prevention and control, promote environmental education and projects, participate in

<sup>15</sup>The information on Honduras was taken from Vallejo (2002) and Kaimowitz, nd.

<sup>16</sup>By law Honduran municipalities should receive 5% of the national budget, but in practice they receive less than 2%.

<sup>17</sup>Though municipal governments apparently control a large quantity of forests, there is a general perception that these forests are more degraded and fragmented than national and private forests.

<sup>18</sup>See Larson (2001a, 2002a, 2003).

<sup>19</sup>The only direct and exclusive municipal environmental authority is the management of solid waste.

the management of national parks and promote citizen participation in environmental issues. They are also expected to develop land use plans for their territories.

In general, municipal governments feel they have been given the burdens without the benefits of management, either in terms of authority or income. The contradiction in the laws, however, creates certain manoeuvring room and, in particular, the basis for negotiation with central government agencies. In particular, the municipalities law allows local governments to pass resolutions and ordinances setting standards regarding the environmental management of their territories. In frustration over uncontrolled logging, for example, four municipalities threatened to declare a moratorium; in response, Nicaragua's forestry institute (INAFOR) agreed that future contracts would only be signed with prior local government approval.

Local governments have issued opinions on logging contracts, approved domestic permits,<sup>20</sup> promoted environmental reforestation and agroforestry projects, organised fire prevention and pest control campaigns, developed land use and environmental plans, declared protected areas, hired park rangers, passed ordinances regulating resource use, charged fees and fines (some of which are not permitted by law) for legal and illegal extraction and managed forestry funds. Most of the nation's municipalities have established Municipal Environmental Commissions, which serve as the primary mechanism for both local participation and inter-governmental negotiation around environmental problems.

Even so, forest-related concerns are not usually top priority, and economic issues have an important influence on the municipality's ability to promote these initiatives, the incentive to take action and the kind of action that is taken. They are much more likely to take initiatives where there are clear economic benefits, where local people or projects pressure them to do so or where a conflict or crisis demands immediate action.

### *Guatemala*<sup>21</sup>

Municipal autonomy in Guatemala is supported by the 1985 civilian Constitution which guarantees administrative decentralisation and the 1996 peace accords which promoted greater local participation in general. Unlike any of the other countries studied here, the decentralisation of forest management has the active support of the national institute in charge of the forestry sector, INAB. Nevertheless, this decentralisation involves primarily the delegation of responsibilities exclusive of decision-making powers. In contrast, as in Nicaragua, the Municipal Code and other laws promote municipal autonomy and a broader decision-making sphere, including with regard to natural resources.

The regulatory framework for forestry grants municipal governments the right to 50% of the taxes on logging permits, plus participation in a subsidy programme for reforestation. This programme constitutes one of the main ways local governments participate in forest management and, in relying on government transfers to conduct a series of pre-defined activities, is much more similar to decentralisation in the health and education sectors (Kaimowitz, personal communication).

The municipalities can also authorise small-scale logging permits for up to 10 m<sup>3</sup> per farm per year. Their primary responsibility, however, is to serve in a supportive role to INAB through the establishment of environment commissions which will coordinate with INAB to control illegal logging and supervise legal logging, promote environmental education, develop municipal forestry plans with popular participation and facilitate the authorisation of permits as an intermediary between local loggers and the national government institute. Local governments are expected to be the spokespeople for municipal policies, strategies and programmes designed by INAB.

By tradition, local governments also have important decision-making powers over *ejidos* or municipal and community forests, though these comprise a much smaller area than in Honduras. Often with the participation of local communities and often based on traditional management practices, municipal governments set norms for resource use and extraction, and sanctions for activities on these lands that violate those norms. Community forests are

<sup>20</sup>These are permits for logging of small quantities, such as two trees or 10 m<sup>3</sup>, a norm that varies by region. This municipal authority is not guaranteed by law, but rather made on an individual basis by INAFOR. A current draft forestry law, however, would pass this authority definitively to the municipal governments.

<sup>21</sup>The information for this section came from Echeverria (2002).

sometimes managed by the 'auxiliary mayors' of the community, also with community participation.<sup>22</sup> Municipal governments also obtain important income from *ejidos* through the rental of land and the sale of wood and non-timber products.

In the 90 municipalities that have begun to incorporate INAB's decentralisation model with the support of several different funding agencies and projects, all have their own forestry offices with technical personnel, a third of which are fully funded by local governments. A third have formulated municipal forest policies; some have established fire brigades and tree nurseries and implemented reforestation projects, environmental education and/or trainings on the formulation of management plans. Many of the technical offices have proven to be effective intermediaries between INAB and community leaders.

### *Brazil*<sup>23</sup>

Under Brazil's federal system, municipalities share government responsibility with the states and national governments as members of the Union and have the power to make their own laws. Nevertheless, in contrast with health and education, there has been no specific policy to transfer powers over natural resources or the environment to local governments. Because of their level of autonomy and sizeable discretionary economic resources, however, local governments could play a significant role in forest management. In addition, municipal governments in Brazil manage important credit and infrastructure development programmes, to a much greater degree than in the other countries studied. While these initiatives do not constitute forest management, they can have important effects on forests.

The current regulatory framework for forestry is incomplete, weak and highly centralised. The state environmental agency, IBAMA, has little political support, few resources and frequently finds itself in contradiction with important political-economic interests. Generous national funding of states and municipalities, in combination with 'weak, ideologically incoherent parties and personalized politics' (Ames and Keck, 1998), leave municipal governments in the Amazon region with little interest in being the enforcers of regulations that limit the economic activities of their constituents or even in charging taxes and fees. In addition, powerful local leaders in this region are often involved in logging or ranching and oppose the creation of protected areas or extractive reserves and the delimiting of indigenous territories.

Nevertheless, six out of eight municipal governments studied have programmes for fire prevention and control, environmental education, modernisation of forest industries and/or plans and projects to promote forestry and agroforestry. Most of these are supported by either non-governmental agencies or central government projects. One of the municipalities studied has supported the consolidation of an extractive reserve, wood certification and industrial development to increase local value added. In another, the mayor and other loggers have begun to recognise the importance of regulation, have promoted training on reduced-impact logging and are interested in wood certification.

Politics plays an important role in forest regulation issues, where the Worker's Party (PT) has chosen to support environmental concerns as well as champion the rights of small producers and extractors. The governor of the state of Acre, from the PT, is actively trying to stop forest conversion and promote sustainable forestry. In some municipalities, leaders from right-wing parties oppose extractive reserves as left-wing threats.

### *Costa Rica*<sup>24</sup>

Costa Rica's government is highly centralised, local governments have little power or funding in general,<sup>25</sup> and forest management in particular is highly influenced by the US national park tradition of top-down

<sup>22</sup>See also Wittman (2001) for a study of several types of forest management structures in two Guatemalan municipalities.

<sup>23</sup>The information for this section was taken from Toni (2002) and several communications with Fabiano Toni and David Kaimowitz. The eight municipalities studied by Toni are located in the Amazonian regions, in the states of Pará and Acre.

<sup>24</sup>Information for this section is from Ferroukhi and Aguilar (2003), as well as conversations with Lyes Ferroukhi.

<sup>25</sup>The implementation of a law gradually increasing the municipal share of the national budget to 10% from its current 1.28% was blocked by opposition from civil servants, who feared for their labour rights and the dismantling of the state, did not want their work location to be transferred to the municipalities and argued that municipal capacity was too low to take on such additional responsibilities.



decision-making with little local input. Decentralisation in the forestry sector has primarily consisted of deconcentrating the National System of Conservation Areas (SINAC) which oversees all decisions regarding forests, and forming partnerships with NGOs. Two types of regional councils have also been established to increase participation, though one has no say over forestry issues and the other, conservation area councils, has no decision-making authority except over the authorisation of logging of trees in pasture areas. Also, only two of the latter had actually been set up as of 2002. The result of all of these initiatives is that decision-making regarding forest management is still highly centralised.

Municipal governments currently have no decision-making authority regarding forest management, though they did, for a time, authorise permits for logging in pasture. The results, described as disastrous by the central authorities, led to the re-centralisation of this responsibility after 2 years. Nevertheless, this authority was transferred to local governments without funding, supervision, information or technical assistance, hence the results may suggest more about the *way* in which decentralisation should be implemented than about its necessary outcomes.

Municipal governments can plan and promote forestry projects and fire protection. They also have the right to income from some forest-related activities.<sup>26</sup> Little of this income is transferred in practice, however, in part because of bureaucratic procedures, long delays and obstacles to obtaining funds, and possibly because of the requirement in some cases that they be spent on environmental activities. Also, many municipalities may not even be aware that they are eligible for this income.

In spite of their limited funding and authority, some municipal governments have established environment offices, participated in important forestry and watershed projects, coordinated regional actors and stimulated the influx of forestry funding as well as community discussions on forest and environmental concerns. They are most interested, however, in investing in the areas that pertain to them directly as well as those that generate income. Environmental issues are not, in general, a high priority.

Where municipal governments have taken environmental initiatives, there tends to be local pressure to do so by citizens or NGOs; good personal relations with the regional SINAC offices; greater resources, organisational capacity and internal political stability; a need to protect water supplies; and/or a certain environmental consciousness among government officials. Capacity is much higher where there are environment offices. In addition, in spite of the fact that municipal governments have very few direct forest management responsibilities, there is a notable tendency for NGOs, projects and the local people to turn increasingly to local governments for action when concerns arise.

#### A WORKING MODEL FOR EFFECTIVE MUNICIPAL FOREST MANAGEMENT<sup>27</sup>

The evidence from these six case studies was used to develop a model of decentralised forest management (see Figure 1). The model defines the main factors that affect the outcomes of decentralised management, thereby establishing a framework for the analysis of future cases and also highlighting key areas of intervention that could increase the potential for successful outcomes.

In each case, the actual powers granted by law to municipal governments are important in defining the scope of local decision-making, though in most cases this falls far short of establishing an autonomous arena for forest management decisions. Where they have little real authority or benefits, local governments have little incentive other than the pressure of local constituents or NGOs to increase their involvement in forest management issues. And increasingly, in part because of this pressure, they find themselves in the position of having to do so. The model proposed below includes both the legal structures of decentralisation and the key factors in the national and local arena that affect municipal government motivations and decisions. In addition, it contemplates mediating factors between those two spheres that have an important effect on decentralised decision-making.

<sup>26</sup>This includes 10% of the taxes on sawn wood, 50% of the income from the auction of decommissioned wood, 30% of park entrance fees as well as the right to a special tax on municipal water services, which should support forest and watershed protection.

<sup>27</sup>This model has benefited from discussion at the World Resource Institute Workshop on Decentralisation and the Environment, Bellagio, Italy, 18–22 February, as well as from conversations with Jesse Ribot and Arun Agrawal.

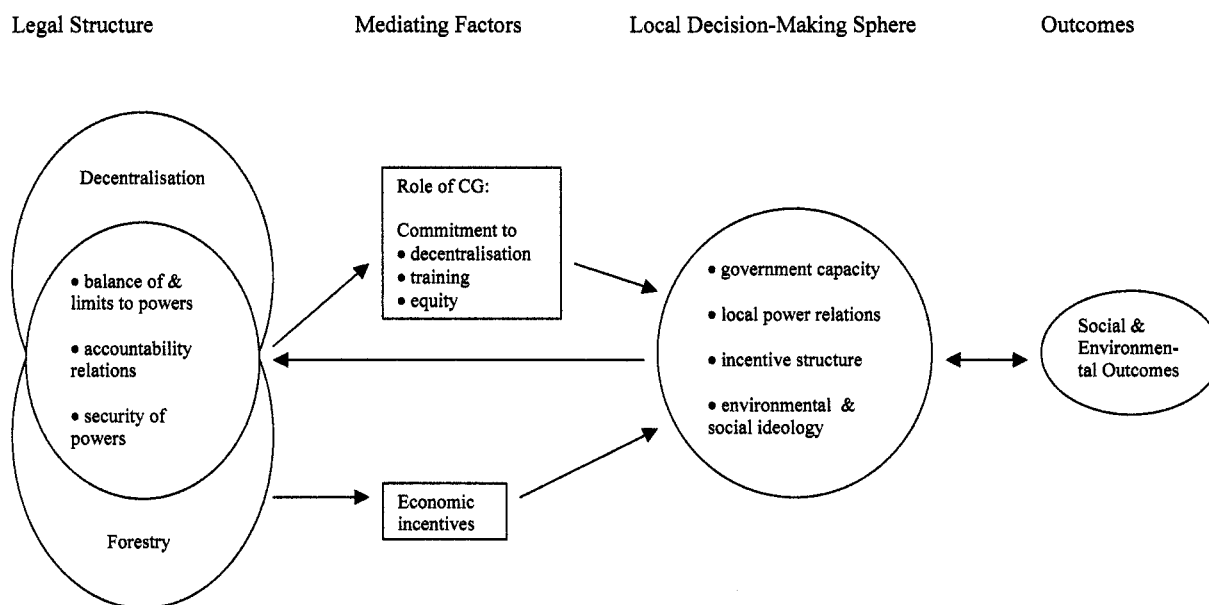


Figure 1. A working model for successful decentralisation of forest management.

### Legal structure

The legal structure of decentralisation reveals the type and extent of decentralisation that is officially being implemented. The three most important components of the legal structure are the types of powers transferred, the accountability relations of the actors receiving powers and the degree to which the powers transferred represent rights or privileges.<sup>28</sup> Most of the case studies reveal inconsistencies, contradictions or at least considerable 'grey area' between the legal structure for decentralisation—in terms of municipal government rights, responsibilities and autonomy—and for forestry specifically, hence the two are represented in Figure 1 in separate but overlapping ovals.

*Balance of and limits to powers.* Forests and other natural resources require a complex balance of powers between local and central actors<sup>29</sup> to protect both national and local interests and address problems at varying scales. Local authority requires clear—but fair and reasonable—limits, and local governments need sufficient financial resources to assume their powers effectively. In the four countries where local governments have officially received specific responsibilities relating to forest management, their main role is one of carrying out central government mandates; in two of those, the lack of economic resources undermines local autonomy. As discussed earlier, however, to comprise democratic decentralisation, local authorities need a realm of autonomous, discretionary decision-making around meaningful resource issues (Ribot, 2002, 2003).<sup>30</sup>

*Accountability relations.* Democratic democratisation also requires that those receiving powers be representative of and downwardly account to the local population (Crook and Manor, 1998; Agrawal and Ribot, 1999; Manor, 1999). Elections are usually seen as a key, though often insufficient, element of that accountability, where the actual accountability relations depend on political parties and the nature of the election process. In all of the cases

<sup>28</sup>See Agrawal and Ribot (1999), Crook and Manor (1998), Manor (1999), Ribot, (2002, 2003) for a discussion of these issues in democratic or political decentralisation.

<sup>29</sup>As well as the state level in Brazil and other federal countries.

<sup>30</sup>The case studies suggest that local governments may assume their authority more responsibly if they also receive benefits from the resources they manage and participate in decisions regarding the nature and extent of their natural resource powers, as well as the limits to them.

but Guatemala, for example, local candidates must be selected by national political parties. In contrast with the other five countries, Costa Rica is clearly leaning away from decentralising powers to elected officials in favour of regional councils.<sup>31</sup>

*Security of powers* (Ribot, 2002, 2003).<sup>32</sup> When powers are transferred as privileges instead of rights, the local government's accountability relations shift toward the entity authorising the privilege, and the population considers the authorising agency to be responsible for supervising the local authority. Hence the democratic potential of decentralisation is undermined. In addition, when powers are seen as privileges that may be taken away, an interest in short-term gain may take precedence over longer-term perspectives, which could, for example, encourage over-exploitation of forests.<sup>33</sup> People and governments may also be less likely to invest in powers that are not secure (Ribot, 2002).<sup>34</sup>

### *Local government decision-making*

Though the kinds of local government initiatives taken in the forestry sector are very much influenced by the legal structure, they are not limited to the powers transferred by law. Nor does the transfer of powers alone, or even specific accountability relations, explain the broad variation seen among different municipalities in the same country. The case studies, together and individually, suggest four variables that appear decisive in understanding the local decision-making arena: local government capacity, power relations, the incentive structure for forest management and environmental and social ideology.<sup>35</sup>

*Local government capacity.* 'Capacity' is a very broad concept referring to the abilities of local governments to carry out their mandates. These abilities can include financial and administrative management, problem-solving, technical skills and the capacity to be democratic leaders. Romeo (2003) divides these abilities into internal and interactive capacities. The former refers to the ability to carry out management functions, while the latter refers to their ability to cooperate and coordinate in a network of state, civil society and private sector actors.

Capacity is also affected by individual factors, relating to current personnel, and institutional structures, rules and procedures.<sup>36</sup> Romeo argues that training programmes for local government have wrongly emphasised the individual capacities of current personnel. In forestry, 'capacity' concerns often refer to technical capacities relating to forest management.<sup>37</sup> Far less attention has been paid to the interactive capacities needed to promote local democracy under decentralisation.

In the forestry sector, we have not been able to identify any studies that would help clarify the precise *kinds* of abilities that are needed under different models of decentralised forest management. This is an important issue since, as mentioned earlier, capacity arguments are commonly used to slow or obstruct decentralisation processes by those interested in maintaining centralised control.

<sup>31</sup>See Ribot (2003) for other kinds of accountability mechanisms.

<sup>32</sup>This issue was not mentioned here in the six Latin American cases, but it is very relevant. Many forestry agencies have opted for granting powers on a case by case basis, depending, for example, on local government capacity. It is important that the consequences of this option be fully considered.

<sup>33</sup>See the example of Indonesia (Peluso, 2002; Resosudarmo, 2002).

<sup>34</sup>Secure powers do not mean unlimited powers or the lack of checks on powers; hence the previous discussion regarding the balance of powers.

<sup>35</sup>The arrows in Figure 1 suggest that this local arena is not only affected by the legal structure (through mediating factors) but can also affect the legal framework, as we saw, for example, in Bolivia. In addition, the actual outcomes of the decisions made in the local sphere are also likely to influence future decisions.

<sup>36</sup>Romeo adds 'systemic' factors, but this refers not to abilities but rather the policy and legal framework, which we have included elsewhere.

<sup>37</sup>Nevertheless, not all decisions made by central authorities are related to technical capacity. Bazaara (2002) points out that decisions such as *who* has access to resources or their benefits are not technical but political. Many authors argue that far more powers could be devolved without any threat to forests (Fairhead and Leach, 1996; Ribot, 2003).

*Local power relations.* Local governments are embedded in a complex arena of interacting actors. Their relation to those actors depends on the accountability structure, discussed earlier, but it also depends on the capacity of different local actors to take advantage of that accountability structure. This includes, for example, the extent to which citizens are aware of their rights and the duties of local government, the extent to which marginalised groups are well-enough organised to make their demands heard, and whether NGOs are representative of civil society or, rather, crowd out local actors with their own particular interests. The case studies suggest that these relations are essential for understanding the risks of elite capture.

*Local incentive structure.* Just as can social pressures, economic and ecological incentives can encourage local government action, as well as influence the kinds of decisions that are made, regarding, for example, sustainable versus unsustainable logging or the commitment to protected areas. Economic incentives include the financial needs of local government, local economic development options (which include factors such as capital in standing forest, ecotourism potential, proximity to markets and environmental service payments) and project aid for conservation, reforestation or sustainable forestry. Municipal governments, for example, often appear primarily interested in using resources to generate tax revenue; where this is generated through exploitation, it can be detrimental to resources if the incentive to earn income in this way is not counterbalanced by other pressures, incentives or controls. Ecological incentives, other than those associated with these economic incentives, are particularly important in deforested areas and include problems such as declining water supplies, landslides, flooding and sedimentation.<sup>38,39</sup>

*Environmental and social ideology.* Local environmental traditions such as a conservation ethic also play an important role in the local decision-making sphere. One of Nicaragua's most active and environmentalist municipal governments is dominated by two indigenous groups that control the majority of the municipal council and hold the mayor's office, while a 'frontier ethic', promoting the legitimate domination of the jungle by humans, governs many of the recently colonised rainforest areas (Larson, 2001b). Similarly, the influence of a particular social and environmental ideology is apparent in the case of Acre in Brazil, where a political party has chosen to defend the rights of marginalised, particularly forest-dependent, groups.

#### *Mediating factors*

Two important mediating factors lie between the legal structure of decentralisation and the local decision-making sphere: one—the role of the central government—which affects the implementation of decentralisation in important ways and the other—economic incentives—which are external to but specifically influence the local incentive structure around forestry and conservation.

*Role of central government.* The central government plays an important role in terms of its commitment to three related spheres: (1) implementing decentralisation, (2) the appropriate training and accompaniment of local government actors and (3) defending the rights of marginalised social actors.

Whatever official central government policy may be, central government institutions and personnel at all levels often stand in the way of implementing decentralisation. This is often because they believe local governments to be incompetent and because they fear losing their own power, benefits or jobs (see Larson and Ferroukhi, 2003). Commitment from high-level central government policy-makers is important in overcoming these obstacles.<sup>40</sup>

In part because of these obstacles and in part due to institutional inexperience or incompetence, local governments may not receive the appropriate training and accompaniment needed to fulfill their new obligations

<sup>38</sup>Though there is not always a direct relation between deforestation and all of these problems in each particular context (see Kaimowitz, 2001), the dominant environmental discourse suggests that there is.

<sup>39</sup>Our research suggests, for example, that there are very different dynamics in agricultural frontier, postfrontier, extractive and deforested areas (Kaimowitz, personal communication). This is due mainly to the local incentive structure, but also to local power relations and environmental and social ideologies.

<sup>40</sup>As is pressure 'from below', from local people and local governments. This is represented in the figure by the arrow returning from the local to the legal sphere.

effectively. The Costa Rican experiment with logging permits in pasture and the failure of Honduran municipalities to take greater advantage of *ejidos* are examples of the consequences. Again, however, it is important to analyse more fully the types of training required.

Finally, it may take a specific central government commitment to marginalised groups to overcome problems of elite capture, which in some cases can result in even greater discrimination against these groups. This includes providing effective and accessible recourse mechanisms to encourage these groups to demand accountability.<sup>41</sup>

*Economic incentives.* The market incentives of the national economy as well as the incentives established by the particular regulatory system for forestry will have an important effect on local decisions regarding forests and trees. The national market can promote forest conversion to pasture or agriculture, for example, or provide incentives for conservation or sustainable forestry. Similarly, forestry laws and regulations can have numerous effects on the incentive structure. For example, a forestry law that favours plantations may discourage efforts to promote community forestry in the rainforest; or excessive bureaucracy, common in most of the case studies, may simply discourage attempts to undertake logging in compliance with the legal system.

## CONCLUSIONS

Key factors for promoting successful decentralised forest management are similar to those proposed by other authors regarding services and investments (Nielsen, 2002) and poverty alleviation (Romeo, 2003): increase the capacity of the local population to make demands, through civic education, and increase the interactive capacity of local governments through fair elections, multiple accountability mechanisms and local government associations (Romeo, 2003). Increasing accountability in the local arena includes increasing the capacity of local peoples to use those accountability mechanisms; and increasing local government participation in natural resource concerns also requires pressure from the local population, central government and NGOs.

At the same time, it is naïve to believe that local people will always choose the most sustainable use of forests or natural resources and that their participation in and influence on local government will guarantee better forest use. In agricultural frontier areas, for example, both leaders and constituents would often prefer forest conversion to pasture over forest conservation. This reality highlights the importance of other factors in the model—for example, broader-scale economic incentives, the local incentive structure, the appropriate balance of powers with the central government, the role of NGOs in local power relations.

In general, decentralisation of forest management is far more complex than the decentralisation of services and infrastructure. Nevertheless, the failures of centralised forest regulation, the demands of local populations and the potential to promote greater efficiency, equity and democracy in development, all suggest that experiments in decentralised natural resource management deserve a chance. The experience of decentralisation and forest management in six Latin American countries suggests that greater attention to the kinds of issues raised in the model discussed here could increase the potential for success.

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<sup>41</sup>Though none of the six case studies provided in-depth examples of the consequences of elite capture for marginal groups, this problem has been discussed in Bazaara (2002) on Uganda and Tan-Kim-Yong (2002) on Thailand. In our cases, we did find that many municipal governments oppose indigenous rights.

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