Municipal Decentralization Meets the Forests

Are municipal governments protecting forests and the environment? Are they developing social projects based on trees and lumber? Or are they acting as accomplices of the timber mafias? A study done in eight Nicaraguan municipalities offers some clues.

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Decentralization took a very important step forward in Nicaragua last year with the passage of a law guaranteeing central government budget transfers to the municipalities. But it also took a step backward, with the forestry law approved in September of that same year. Decision-making in the forestry sector is being re-centralized with this new law and even more so with its companion regulatory law, lowering the local governments' profile around this important local issue with only a few months to go before the municipal elections.

One of the main objectives of decentralization is democratization and local people's increased participation in the decisions that affect their lives. Why does that not include the forest sector? From the perspective of the National Forestry Institute (INAFOR), not to mention of many logging companies and even of small forest owners, local government involvement in requests for and review of permits for exploiting the forests has only resulted in greater costs and more bureaucracy. From the local governments' perspective, however, INAFOR is continuing to allow the forests in their territories to be ravaged without granting them either sufficient decision-making power or benefits from that exploitation.

Will it be impossible to see beyond this contradiction in an electoral year? What would be the aim of decentralizing the forest sector? Who would benefit from doing so? What benefits would come out of greater participation by civil society in forest management? Financed by the Ford Foundation, we participated in a study Nitlapán-UCA conducted in eight municipalities—Bonanza, Chichigalpa, Dipilto, El Castillo, Estelí, Mozonte, Siuna and Tola—to understand better how forest resources are being used and managed locally and what benefits or harm result from local government administration of the forest sector.

Bonanza and Siuna are large, contiguous mining municipalities in the North Atlantic Autonomous Region (RAAN); Dipilto and Mozonte are tiny, also neighboring municipalities on the border with Honduras, and Estelí lies on a straight north south line between them and Managua. Chichigalpa is in the southwest corner of the department of Chinandega; Tola is along the Pacific coast in the department of Rivas, and El Castillo lies along the Río San Juan, in the department of the same name, bordering with Costa Rica.

We're not just talking about wood, but production, people, society, ecology...

Despite the focus given to it by Nicaragua's forestry law, forest management doesn't refer only to logging. An integral forestry policy must recognize the economic, ecological and socio-cultural functions of forests and trees. Nicaragua's forestry law, however, only emphasizes the forests' productive and economic benefits, putting them under the auspices of INAFOR, while ecological aspects and conservation are found

within another judicial-institutional framework: the General Law of the Environment and Natural Resources (Law 217) and the ministry of the same name (MARENA). A more holistic focus would involve a forestry—and development—law aimed at a new and much more complementary and participatory vision that combines productive activities, human beings and natural resources.

Whether or not they enjoy an appropriate institutional framework, trees and forests live within a physical territory, in an economic-productive, ecological and social sphere. Wouldn't a focus that starts with that territory and the local population lead to more integral policies and practices? The democratic-participatory aim of decentralization is precisely that: to increase the voice of local actors—particularly of marginalized groups—to define their own needs and policies where they live.

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Forestry Law: Light, dark and shadow

The forestry law—officially the Law of Conservation, Promotion and Sustainable Development of the Forest Sector (Law 462)—went into effect in September 2003 and its implementing regulations (Decree 73-2003) followed two months later. The law's introduction mentions the importance of improving the population's living standard through forest management and of participation by local government and civil society in overseeing conservation of the resource, "securing the multiple benefits in goods and services our forests produce." During the floor debate in the National Assembly, several sentences were added regarding municipal government participation, such as the need for INAFOR to coordinate all of its activities with local governments.

But it was just a flash in the pan; the regulatory law makes almost no mention of this "coordination" and fails to establish mechanisms that would make it possible. Not only that, the new law eliminates the local governments' right to independently review logging requests, either giving or denying its endorsement to INAFOR for issuing the permit. It establishes instead what it calls a "public hearing" in which apparently only INAFOR, regional government (in the autonomous regions) and the respective municipal government's "forestry technician"—which not all have—participate in the evaluation, without the right to use any criteria beyond the technical ones established by INAFOR.

Other aspects of the law negatively affect municipal finances. With respect to logging, it establishes a "one-time" tax payment to INAFOR at 6% of the established value of the wood. Currently, many municipal governments charge an additional tax on the timber logged in their jurisdiction. While all these costs sometimes represent an unreasonable burden for loggers, eliminating these local taxes will deprive the municipal governments of resources, even though they generally find it hard to exercise their rights and responsibilities in the forest sector as is. These governments still have the right to 25% (established in 1997 by the Municipalities Law) of the 6% collected by INAFOR, which will rise to 35% in 2005. (In the autonomous regions, this money will be divided equally between the community where the logging takes place and the municipal, regional and central governments, at 25% each.) According to INAFOR data from 2003, this tax income ranges from zero to 10,000 córdobas annually (about \$640) for over two thirds of the country's municipalities—far too little, for example, to pay a full-time local forester.

Local governments also bear the greatest burden of incentives for investments in plantations or the logging of managed forests. Among other things, those who sow plantations are exonerated from half of the Municipal Sales Tax, and properties where there are plantations or "natural forest" areas with a forest management plan are exonerated from paying any Real Estate Tax (IBI), one of the most important income sources for the municipal governments.

On the other hand, however, the law makes it possible for INAFOR to sign agreements that would delegate forest management to municipal governments. The governments would have to follow strict guidelines established by INAFOR, and the agreements could be cancelled at the discretion of INAFOR's director. According to the law, these agreements should be accompanied by financial resources, though the source of these funds is not stated. Several municipal governments are already lobbying to negotiate such agreements.

With respect to civic participation, the law mainly reflects the "participation" of INAFOR's clients by receiving its services and the privatization of some services such as the formulation and supervision of management plans through the Forest Regency. Thus, citizens—professionals trained for this work—can "participate in forest management" by being regents, the name used for the foresters who must now be hired by all prospective loggers to oversee and guarantee their operation.

Representatives of civil society as well as local governments are included as members of the National Forestry Commission (CONAFOR), which will establish policy for the forest sector. "Participation," however, should refer not only to having representation in such bodies, but also to the possibility for small and medium producers to participate in the sector as forest owners, agro-foresters, firewood sellers and small manufacturers, which is essential for any serious initiative aimed at addressing equity and poverty alleviation. Nonetheless, while the law recognizes the existence of these sectors, and includes forest owners in CONAFOR, it gives them little importance and does nothing to improve their current, disadvantaged, situation. In addition, neither the law nor its regulation explicitly considers the dispersed trees on farms or pastures managed mainly by small and medium-sized peasants as a forest resource.

Municipal initiatives:

Conservationist, developmentalist or corrupt?

We observed a wide diversity of conceptions and initiatives in our municipal case studies (see table on page 14). What is the local governments' prime interest in forest resources? Is it getting income at any cost, protecting the forests for ecological reasons or prioritizing the demands of the local population? Do any have a vision that integrates social, ecological and economic concerns? (It is important to note that most of the research for this article was undertaken prior to implementation of the new forestry law, which rendered some of the local government's specific initiatives no longer legal or valid. They are, however, still useful for understanding local government priorities and relations with constituents, which is the primary purpose of this study.)

The range of initiatives we found demonstrated many ways to participate in forest management, despite the local governments' limitations. Although they are legally

powerless to make some key decisions about forest resources, their initiatives grow mainly out of recognizing the importance of these resources for the municipality and local development. Most of the initiatives we found are not "integral," however, and the municipal governments can rather be classified by their main motivations into conservationist, developmentalitor corrupt.

Local governments with conservationist motivations have promoted ecological initiatives essentially aimed at conserving trees and forests. Those moved by development motivations are mainly preoccupied with obtaining income from the forest sector to invest in infrastructure projects and social services. While there is a degree of care and transparency in both types of initiatives, there are other priorities.

In contrast, some municipal governments are mainly motivated by short-term economic interests that become destructive because there is little or no concern about the future of forest resources. The murky management behind the timber business goes hand in hand with questionable uses of other municipal resources.

Bonanza, and Estelí, both mountainous areas, have clear conservationist interests. Chichigalpa, a sugar-growing region, does as well, but with a greater leaning toward development. Developmentalist interests prevail in Siuna and Dipilto, also both mountainous, though tendencies exist in both municipalities to support conservation initiatives. And in both Tola and Mozonte, next door to Dipilto, there is corruption, according to local perceptions (although no concrete cases have been aired in the local courts, and these perceptions never refer to all members of the Municipal Council or to all officials of the mayor's office).

Local governments are not uniform internally. A set of initiatives will often result from a variety of motivations because not all Council members or technicians in municipal environment or forestry offices share the same perspective. The opportunities offered to local governments through central government or NGO projects also vary, and may be taken in spite of, rather than because of, the prevailing vision or priorities. The space is ample and permits the coexistence of more than one vision and even of initiatives that appear to be or truly are contradictory.

Naturally, a gamut of actions with different priorities cannot be called an integral forest policy. El Castillo is the only municipality in which we could clearly observe a much more comprehensive vision.

Tola and Mozonte: Dark deals and timber mafias

Few policies are able to benefit everybody; there are always winners and losers. With varied and non-coherent initiatives, it can happen that those who lose in one win in another. In the eight municipalities studied, who benefits from municipal forestry policies: loggers from outside the municipality, local elites, the whole population or, perhaps, marginalized groups?

In the municipalities where dark deals and timber mafias are found or suspected, the perception also predominates that an elite is getting rich. In Tola, some accusations that got as far as the media include officials of the mayor's office and INAFOR. Various people interviewed said that the firing of officials from both entities affected the wrong

people and was only a smokescreen. Current local government officials were fingered as linked to the timber business.

Tola residents are worried about natural disasters and water scarcity and are very critical of how timber is being cut indiscriminately in places where they know it is prohibited, because local authorities have prohibited them from logging there. They are particularly resentful that trees are being felled in some of the places in which they had previously participated in reforestation and enrichment programs. Some residents have even risked their lives by confronting the loggers, who later go unpunished.

Something similar has happened in Mozonte. In that case, however, many peasants own pine forests but don't live on their farms. When they complain of illegality and timber mafia, they are thinking about their own farms and their own wood. They claim that their timber is robbed in their absence. As in Tola, the loggers go unpunished. In Mozonte, those who accuse them have received death threats. These peasants want justice and better options and markets so they can manage their own forests without having to depend on selling their timber to these dealers.

Dipilto: Benefits only for the big guys

Elites benefit not only from corruption, but also from legal policies when they are biased to favor their interests. The municipalities of the Segovias (Dipilto and Mozonte) are home to many peasants who own pine forests and participate in the timber business. Some of them feel their hands are tied by local government policies.

Forest owners in Dipilto, a "conservationist" municipality, complain of extraordinary municipal government delays in reviewing the logging request, as required prior to implementation of the new forestry law, before INAFOR could decide on issuing the permit; in addition, they were lucky if the response was positive. The municipal government defends its policy of denying its endorsement on ecological grounds. It argues that deforestation must be reversed, natural disasters prevented and the forest conserved in order to promote other alternatives, such as environmental services payments and ecotourism. Other peasants back these policies.

But this policy isn't consistent. Forest owners believe that "conservation" is only a smokescreen. When they see that logging companies get their endorsements quickly and easily, they conclude that the mayor's office is denying them only to small and medium-sized forest owners and even accuse it of granting endorsements to loggers on the very farms where arguments had been given to deny them to the owners.

In this situation, the small and medium forest owners are obliged to sell their wood as standing trees to logging companies and their intermediaries—the only ones that get permits—or exploit their own forests illegally. Forest owners in both Dipilto and Mozonte lack capital as well as machinery to log, transport and process their timber to gain access to better markets.

Estelí: Forests more important than people

The conservationist municipalities argue that their policies benefit the whole population by benefiting the environment, but the population doesn't always see it that way. In both Bonanza and Estelí, we frequently heard that the mayor's office is more concerned about forests than about people.

In Estelí, our interviews suggested that the predominant vision in the mayor's office is that the forest sector is a "problem" and those who participate in the forest chain are the "cause" of deforestation. The few sawmills that still remain in the city are being forced to move; forests in protected areas cannot be logged even by those who already have approved management plans; endorsements are frequently denied after long delays and the municipal government charges high fees for both the endorsement and the amount logged, even when for domestic use.

And throwing salt in the wound, the mayor's office charges real estate tax on farms located in protected areas. MARENA argues that the Environment Law exonerates properties within protected areas from this tax, but the municipal governments say that neither the Municipalities Law nor the IBI Law mentions such exonerations.

Bonanza and El Castillo: Opening roads

Complaints are also heard about conservationism in the three agricultural frontier municipalities—Siuna, Bonanza and El Castillo. The main issues there are road construction and lack of economic alternatives, as well as immigration from the Pacific. There is a lot of pressure on the Bosawás Reserve in the north and the Indio-Maíz Reserve in the south, as well as on indigenous territories in Bonanza.

The indigenous community wants controls on mestizos (non-indigenous) invading their territories. In Siuna and El Castillo, immigrants already dominate the area. In Bonanza, although indigenous people are viewed as more conservationist "by nature," some want the opportunity to log the forest, as do the mestizos working in the forest sector. There is currently a prohibition on taking timber out of the municipality.

In both Bonanza and El Castillo, road construction has been a cause for conflicts. In Bonanza, the mayor's office and indigenous organizations pushed through a project to construct a highway to the indigenous community of Musawás, but it was held up for a number of years by the opposition of conservationist NGOs and GTZ, the German aid agency. The project was first promoted in the early 1990s; construction finally began this year.

In El Castillo, various institutions and population sectors support a development strategy that involves opening new roads and upgrading existing ones. This is opposed by the Danish aid agency (DANIDA), the main agency financing the Sustainable Development Project, because it fears greater deforestation. Although some local government officials have the same concerns as DANIDA, it would appear that the roads will, in fact, be funded. Many believe that without them, the population will be condemned to bare survival.

Siuna: Endorsements and timber prices

Conservationism hasn't been as strong in Siuna because its institutions, including the local government, have been dominated until very recently by timber interests, making it a municipality characterized in part by excessive logging. But the fact that previous

local governments have virtually given away endorsements, with no charges and no obstacles, does not mean that the local population or the peasants who sell wood have benefited. As in Dipilto, those who benefit are the logging companies and their intermediaries. Without policies designed to benefit peasants and other marginalized groups, all they get for their valuable forest resources is the arbitrary price these loggers and merchants pay them for standing trees.

How much do they pay? Between \$10 and \$20 per tree, when they pay at all. Often peasants don't know the value of what they are selling, and even when they do, they lack the means to make the dealers pay them. We learned of several peasant groups in Río San Juan that did know how to negotiate. One peasant refused to sell a mahogany tree for the 200 córdobas (under \$13) he was being offered, and negotiated his price up to 2,000 córdobas with another merchant. We also saw another lot of already cut logs rotting on a farm: the logger had never paid for them or taken them.

Siuna is beginning to change its policies. The main forestry-related conflict is around the charge for endorsements. Just as the forestry law established that there cannot be two separate charges—one by INAFOR and another by the mayor's office—for logging permits, the Siuna mayor's office decided to introduce local fees to finance its forestry office, entering into conflict with loggers. Given that this is an electoral year and that the new law explicitly prohibits it, the government may backtrack. The current mayor also triggered a tense controversy by publicly declaring that the reserve is "a pain in the neck." Some fear this could be interpreted as suggesting that he's not going to impede colonization in the protected area, whether he meant it that way or not.

Chichigalpa and Bonanza:

The two most integral projects

There is little logging in Chichigalpa, our study's most deforested municipality. There conservation is a priority, although the mayor's office is also interested in generating income, and people complain, as they do in Estelí, about the real estate tax (IBI) charged on farms in protected areas and about the cost of endorsements. The peasants in the municipality feel "alone," with no help from anyone.

The exception is a community in the protected area at the base of the San Cristóbal volcano. This community has received support from the municipal government for project fundraising, including to equip the community's 35-member fire brigade. Most importantly, in exchange for the protection this brigade provides to the forests in the protected areas, including a municipal ecological park, the mayor's office has granted the community the right to make use of the forest resources of these areas—particularly deadwood for kindling—without charging for the endorsement or permit even when the firewood is sold commercially. The only thing they are charged is ferriage when they transport large amounts of firewood.

In Bonanza, the mayor's office sought support from the German cooperation agency DED to organize and train the Bonanza Silviculture Cooperative (COOSBA). The cooperative formed five years ago to bring together forest owners, carpenters, chainsaw operators and local timber merchants but it couldn't get off the ground, in part due to lack of institutional support. The mayor's office has finally begun to promote the organization, largely because its conservation strategy has shifted from simply trying to

prevent logging to promoting sustainability and the local generation of added value to the municipality's timber. DED has begun to offer training and is committed to helping COOSBA market its products. The cooperative is now legally registered, has over 50 members and is self-financing a three-year project to reforest all the members' farms (147 hectares). Other projects it hopes to get funded include credit for upgrading machinery for carpentry and furniture-making and for purchasing a portable sawmill.

These two initiatives are the ones we found that best represent a social focus in local forest management. They are also the two most integral projects among all the ones we learned about, though there are also a couple of interesting small projects in El Castillo and Dipilto. The local populations themselves are the starting point in all of these initiatives, which also include ecological aspects and economic benefits that accrue to the population rather than the municipal government.

Some ecological initiatives also generate social benefits, of course, such as watershed protection, which protects water sources and helps avoid natural disasters. Economic initiatives tend to benefit the population only indirectly in that they focus most often on generating income for the municipal government, which charges taxes, IBI, fees for registering chainsaws, etc. in order to reinvest the income in priority projects for the population. These same initiatives thus usually involve costs for the population. Only the social projects are designed to generate direct income for a sector of the local population. And with regard to the use of forest resources, it appears that poor sectors only benefit when initiatives are designed specifically with them in mind.

Do participatory mechanisms work?

To what degree does the population have a chance to express its demands and forest-related concerns to its municipal representatives? Although, by law, town forums or open meetings (cabildos) are the primary prescribed participatory mechanism, these do not appear to be the most effective forum, attracting little participation in many municipalities. But the fact that they don't work well doesn't necessarily mean there is no communication between the population and its local government. In some cases, it could even be that they don't function precisely because there are other, more effective mechanisms.

Town forums appear to be more effective when participation in them is organized, rather than simply inviting the population at large to an open meeting—that is, when the different local organizations in each rural district and urban neighborhood also send representatives to participate. That's how the cabildos work in Estelí, which has received a national prize for being the municipality with the most outstanding participation and transparency. It is also the method used by Municipal Development Committees (CDMs) in other municipalities.

In some municipalities, there is another intermediary level of organization, such as the zonal level in Bonanza, which sends representatives to participate in the development committees; or the territorial units (UTOMs) in El Castillo, where local leaders by zone meet with representatives of the mayor's office. These appear particularly practical in municipalities that have many distant and largely inaccessible communities. Of course, for any such representative mechanism to be effective, each local leader has to meet with his or her community before attending the meeting with the municipal government. At times, such local assemblies are organized or facilitated by the mayor's office. In

Bonanza, copies of the minutes of these meetings are reportedly turned in to the local government.

Communication between the mayor's office and the population

The residents of five of the eight municipalities studied—Estelí, Dipilto, Bonanza, El Castillo and Chichigalpa—appear more satisfied with the communication level they have with their local government than those of the other three municipalities. Four of these five have structures similar to those described above. There is no development committee in Chichigalpa, but the municipal government organizes meetings in which the Municipal Council members as a whole can meet with all the district representatives after the latter have held local assemblies.

Tola's population is the most dissatisfied, followed by that of Mozonte. There appear to be virtually no functional organizations of elected community representatives in Tola and little relation between the few that do exist and the municipal government, and there is scant attendance at town forums. In Mozonte, there is a Municipal Development Committee but its participants claim that the municipal government pays no attention to it. Nor are town forums held. In Siuna, both the town forums and the development committee are relatively new, having been initiated in 2002.

The most effective Municipal Environmental Commission (CAM) seems to be the one in Bonanza, followed by El Castillo. Both have been around for a number of years and have survived one or more changes of government. Since these are also the two municipalities in the study with the greatest forest cover, their success could be due to the presence of more NGOs and projects, which permits them a certain degree of stability. Bonanza's CAM is also strengthened by having succeeded in getting the mining company Hemconic on board with its plans, which is not the case with either the E. Chamorro company in El Castillo or the San Antonio Sugar Refinery in Chichigalpa.

Between timber and conservation elites

What is the relationship between the population's demands and the mechanisms available for participating in local government initiatives? Is more harmony observed between local policies and the population's perspective on forest management where the participatory mechanisms work better? Do poor populations benefit more when there is more participation?

We found a clear correlation among corruption, lack of effective participation mechanisms and initiatives that harmed the local population. We also noted that civil society in Mozonte and even more so in Tola has a low organizational level and few projects or NGOs that could help raise its voice. We can also conclude that important sectors of their local governments have been won over by timber elites, as was the case in Siuna until the arrival of the current administration.

We did not find, however, that greater participation necessarily resulted in better policies for poor forest owners and others involved in forestry. This is particularly notable in Dipilto and Estelí, municipalities whose populations have expressed an important level of satisfaction regarding their communication with local government. These findings are in part because municipal governments with a conservationist approach, as in Dipilto, Estelí, Chichigalpa and Bonanza, are in accord with the desires of other sectors of their populations. But it is also clear that the methods used to promote conservation often harm forest owners and those living in protected areas. It does not have to be this way, however, and important exceptions were found in Chichigalpa and Bonanza, as we will see below.

If the local governments of Tola and Mozonte have been captured by timber elites, the local governments of Bonanza and El Castillo have, in some ways, been captured by conservation elites. In El Castillo, this elite group hardly represents the interests of the peasant immigrants who dominate the municipality. There is more coherence in Bonanza between the conservationist vision and the Sumo-Mayangna cosmovision, although those two are not coherent with the vision of most immigrants, or even that of some indigenous people. Nevertheless, both governments seem to have listened to local demands and taken steps to seek more integral alternatives.

Charges, permits, taxes: With what criteria?

The population tends to pay the price where local government is neither transparent nor representative and where it has little communication with civil society. But even where there is transparency and participation, local forest policies have not necessarily favored marginal groups such as small forest owners. These small producers have been affected mainly by additional costs and charges and by restrictions on exploitation in the name of conservation.

The municipal logging fees affect everyone who wants to log (although some municipalities do not charge for non-commercial cutting), but hurt small forest owners most. Nevertheless, it is important also to recognize the local governments' economic needs. Local governments began to participate in the permitting process without any resources to assume this new responsibility (INAFOR was required to transfer 25% of its tax income to the municipalities as of approximately 1998, but failed to do so for another two to three years). Even with this income, very few municipalities can afford to pay a forester's salary.

In any case, the population is less annoyed about paying taxes when it understands the logic behind them and sees the benefits they generate. But the municipal government's role in reviewing permit requests is somewhat rightly viewed as a repetition of what INAFOR does in order to issue the final permit rather than as a complement—both review the same paperwork and terrain, usually with the same criteria. Greater effort should be placed on developing local criteria for the review of logging applications, but the forestry law as currently written precisely prohibits this possibility. In any case, these added local charges seem unlikely to survive the implementation of the new forestry law.

With respect to conservation measures, it is important to recognize that they do not always refer to restrictions implemented by local government. Some policies in Bonanza and El Castillo are defined by the national protected areas found in their territories, where MARENA is the entity with ultimate authority. What needs to be

revised is the conservationist ideology that conceives of the local population and of forest management that includes logging as "problems," as the cause of deforestation. This ideology has been an obstacle to the search for socially and ecologically sustainable alternatives. It is based on this ideology that local governments—and the central government—essentially promote conservation by imposing restrictions, despite ongoing complaints by the affected population.

Only with specific policies and a social approach

It also must be recognized, however, that the outcomes for the trees and other forest resources aren't always good just because the social benefits are. The agricultural frontier is the best example of this: it is where the local population, particularly recent immigrants who are interested in getting whatever land they can for agriculture and pasture, even in the Bosawás or Indio Maíz Reserves, can most legitimately be conceived of as the cause of deforestation. In the agricultural frontier, a local government that only concerns itself with the population's demands would have to open protected areas to colonization for planting and pasture. This would of course trigger serious damage, and demonstrates that representing the local population isn't always enough.

On the other hand, there is a need for local initiatives and forest policies specifically directed to the local population. Although some initiatives have increased costs and made forest exploitation even harder for small producers, these social groups are already very hard hit by the status quo. That is, even when local governments do nothing, or even facilitate logging permits as under previous administrations in Siuna, small forest owners don't benefit from the sale of wood. This is due to the market structure and their own lack of knowledge and negotiating capacity with logging companies and their intermediaries. Similarly, forest owners in the Segovias don't benefit from the sale of their wood because they have neither the capital nor the machinery necessary to try for the more competitive prices of other markets. The cases studied here demonstrate that poor local producers only benefit from municipal forest policies or initiatives when benefiting them has been the specific aim of such initiatives. These also represent integral solutions: in other words, they include not only an economic and ecological but also a social focus, and identify this population as the "target group."

Behind the successes in Bonanza, Chichigalpa and El Castillo

Bonanza is loosening up on its almost intransigent opposition to logging by beginning to support local sectors that work with wood. This has happened for two reasons. First, seeking value added in a context of strong controls on extraction is an acceptable policy to conservationist groups and thus doesn't represent a major change in local policy. Second, COOSBA, the beneficiary group, has important economic power and a significant social base. The local government has decided that it is better to negotiate with COOSBA than ignore it. It also hopes that by encouraging legal, controlled logging, it will discourage the illegal logging it has been unable to control.

In Chichigalpa, the most important factor that led to the agreement between the municipal government and the fire brigade is that the government's forester comes from

this same community. The direct communication facilitated by this personal relationship has a lot to do with the initiative's success. It further helps that the community has been organized for a long time and had the support of an international project for many years.

El Castillo has been recognized as the municipal government with the clearest and most comprehensive vision and understanding of the situation of its forest in all of Nicaragua. In addition, it has proven technical capacity and good communication with the local population and with INAFOR. It has a small integral forestry project and lots of ideas. It also made an important contribution to forest conservation by sacrificing property tax income: the land appraisal office lowered the value of wooded land to a par with pasture so that the payment of taxes would not encourage the conversion of forest into pastureland (land values for forest were previously set at over three times the value for pasture, presumably to reaffirm the value of forests; but this high value raises annual taxes, hence encouraging conversion).

The population can't be "the problem"

Despite this vision, not many truly comprehensive initiatives are coming out of El Castillo's local government for two reasons. First, DANIDA's conservationist ideology has had a major influence over the past decade, dominating the scene and to some degree interfering with the development of other alternatives. Even if the ideology that considers the population as "the problem" were technically correct, it is a socially unacceptable perspective because the only workable solutions will have to rely on this same population as their starting point.

Second, the reality of the agricultural frontier is extremely complex, beginning with the national migratory dynamic at its root, which is beyond the municipalities' control or influence. Even when a government would like to promote solutions, the migrants' desire to find a way out of their poverty—and not just content themselves with survival—combined with the economic advantages of cattle raising and the lack of markets for agricultural and forest products are some of the many problems that make the search for viable alternatives so difficult.

The tension between conservation and development is at the root of many of the problems in the eight municipalities studied. This tension can perhaps only be overcome in the local arena and with a strategy that begins with social concerns.

Is the timber business synonymous with corruption?

Many of the Nicaraguan government's speeches and documents acknowledge the importance of decentralization to democratization, but this never appears to include the forest sector. Nevertheless, both the Municipalities Law and the new Civic Participation Law conceive of the local-municipal sphere as the most important space for civil society participation in the decisions affecting their lives. Although the institutional structure governing forests hinders the construction of local options, the very fact that this vision exists in other institutional spheres permits hope of finding or creating spaces for important local initiatives and alternatives.

Many people in the National Forestry Institute believe that local government participation in forest management is skewed by political interests and prevents logging

businesses from being able to work efficiently. They don't even recognize the legitimacy of other perspectives. There is logic to their position: logging companies have to be able to operate in an environment that is appropriate and safe for private investment and the development of their businesses. On the other hand, there's a widespread conception in Nicaragua that being a logger is synonymous with being corrupt, an unscrupulous pillager of forests that doesn't leave a tree standing or contribute anything to development. The responsibility for this conception lies with INAFOR and many loggers themselves, thanks to the way both have operated up until now. INAFOR—now calling itself "The New INAFOR"—is making a tremendous effort to change this perception, and we very much hope it will, in fact, gain control of the country's "timber mafias."

Wouldn't it be legitimate?

Given this history, then, wouldn't it be legitimate for a local government to require that lumber not leave the municipality as unprocessed logs, without a first or second round of value-added transformation? Isn't it legitimate for an organization of forest owners to request priority technical support and credit to exploit their own wood and sell it to the highest bidder instead of having to sell standing trees to intermediaries who come from outside? Isn't it legitimate for a municipal government to require that a percentage of the chainsaw operators and their assistants be from the district where logging is taking place? And isn't the opinion of a community that does not believe INAFOR is defending its interests a legitimate one?

As long as INAFOR sees its role as facilitating a good atmosphere for logging companies, the municipal governments have every reason to see their own role as facilitating appropriate contexts and even alternatives for a better future for the local population. To put any doubts to rest, we should recall something that the environment law says, but the forestry law omits: "Exploitation contracts must take into account the benefits for [local] communities."

Environmental offices and environmental or forestry personnel. The eight municipalities studied have environmental offices that address the forestry issue. Most have only one employee managing the whole sector, although there are three in Chichigalpa and four in Bonanza. The personnel of at least four of these offices is financed with outside funds. In Mozonte, the office was closed for a while because the mayor's office gave insufficient importance to fundraising to keep it open.

Endorsements and charges. At the time of our research, municipal environmental offices were responsible for receiving requests for the local government's approval or rejection of logging requests and for making field inspections. In almost all, a fee was charged for the endorsement (including the inspection) and at times a tax was charged per cubic meter of logs cut. Other charges include chainsaw registration and "ferriage," justified by the damage done to roads by heavily loaded lumber trucks.

Controls, monitoring and fines for improper resource use. The mayor's office has no legal power to levy fines for illegal logging. That is a faculty only of INAFOR. What

they can do is inspect, monitor and establish control posts to stop people who are working illegally, then denounce them to INAFOR. The municipal governments have also made denunciations or facilitated the filing of legal charges with the Environmental Defense Attorney's Office.

Payment for environmental services. These initiatives are still in the discussion phase. El Castillo and Dipilto showed particular interest in this issue—which is combined with the idea of developing ecotourism in the future.

. **Municipal Ecological Parks.** Several municipalities have created parks or are starting to create them. In Chichigalpa, Las Brisas Park is made up of some 35 hectares of forest donated by the Las Brisas cooperative. The Tola Park may not become a reality due to concerns by peasants who would otherwise concede lands but believe the local government is more interested in selling them than using them for a park.

Support to national protected areas. In Estelí, the mayor's office occupies the presidency of the co-management committee for the Tisey-La Estanzuela Protected Area. In other cases, local governments participate in guarding the protected areas and inspecting for extraction permit requests, as in Chichgalpa and Mozonte. Bonanza and Siuna, two municipalities that hold part of the Bosawás Biosphere Reserve, which is Nicaragua's largest reserve, have helped disseminate information, endorsed actions such as evictions or local development projects, provided talks and training sessions, administered projects and participated in the formulation of the park's Management Plan, under the coordination of the Bosawás Technical Secretariat (SETAB-MARENA).

Reforestation and watershed protection. In the northern zones, where Hurricane Mitch's effects were the worst, watershed protection is aimed at mitigating disasters. The primary goal in other areas is rather to protect water sources, and in Bonanza it's to generate energy. These areas are protected mainly through reforestation projects along rivers, slopes and headlands. Urban streets, highways and green areas for the local population are also reforested.

Moratoriums on logging. Logging moratoriums have been declared in Tola, Estelí, Mozonte and Dipilto, but none worked. In Tola, even the mayor's office wasn't interested in obeying the moratorium because it would mean a loss of income. In Estelí, there was an attempt to implement it for a period, but the population didn't respect it and illegal logging only increased. In Mozonte and Dipilto, INAFOR prevented a moratorium from being put into effect.

Fire prevention. Five of the municipalities have fire brigades and another two have prevention strategies and campaigns. Only Tola lacks any prevention effort. In the five with brigades, their preparation and equipping received important support from NGOs.

Forestry incentives. El Castillo has lowered the property tax on forested land from 11.20 córdobas per hectare to 3.50—making it equal to natural pasture areas. This measure is conceived as an incentive to preserve the forestland on the agricultural frontier, given the tendency to convert it to pasture.

Environmental education. El Castillo is working in coordination with MARENA-DANIDA to support education in the communities neighboring the Indio-Maiz Reserve.

There is mention in Bonanza and Siuna of financing from the RAAN-ASDI-RAAS project to permit the mayors' environmental offices to provide talks and training for the peasant leaders and groups that use natural resources: small-scale gold panners, loggers and indigenous peoples.

Environmental ordinances. Ordinances and resolutions are mechanisms for institutionalizing initiatives such as those mentioned above. For example, control of agricultural burning, the work of the fire brigades or charges and fines for natural resource extraction are often backed up by ordinances.

Land use planning and environmental strategies. At least three of the eight municipalities have land use plans, but in none of these cases have the mayor's offices succeeded in putting them fully into practice. The weakness of both those plans and the environmental strategies is that consultants often prepared them without sufficient participation by the population. Another problem is that the authorities don't know how to implement them, or they shelved them for having been prepared under a previous administration and political party.
