

The World Bank/WBI's CBNRM Initiative
Case Received: February 6, 1998
Authors: Victoria Santos Jimenez, Rosa Ledesma Santos, Patricia Negreros Castillo
Tel/Fax: +52 983 40675

COMMUNITY-BASED FOREST MANAGEMENT
ORGANIZACION DE EJIDOS PRODUCTORES
FORESTALES DE LA ZONA MAYA (OEPFZM)

Country: Mexico

Region: Yucatan Peninsula

Natural Resource: Partly evergreen tropical rain forest

Context: Region inhabited by 21 indigenous Mayan communities, with legal rights over the forest since 1984. Total area of 380,000 ha, incorporating 220,000 ha of managed forest. Products obtained: timber, *chicle*, railroad ties, building materials, rattan for craft articles, fuelwood. Support provided from the outset by a team of technical advisers. Region has survived ecological disasters and political pressure.

The Authors: Victoria Santos Jimenez and Rosa Ledesma Santos are professional foresters, founding members of OEPFZM, and current members of the team of advisers. Patricia Negreros Castillo is a forestry researcher who has worked with the team since 1986.

Background

In Mexico, although at least 80% of forestlands are community-owned, logging operations were carried out for many decades under a system of concessions. Initially, the concession holders were foreign companies, but they were later replaced by Mexican enterprises. This is a system with two sets of adverse effects. First, community members derive no benefits from the timber resources of their forests. Second, the forests lose much of their wealth as sources of commercial timber, since only the best-quality timber is extracted and in greater volume than can be replaced by natural regrowth.

Accompanying this is a lack of attention to reforestation operations. The Yucatan Peninsula is a source of two of the world's most valuable tropical species, mahogany (*Swietenia macrophylla* King) and cedar (*Cedrela odorata*). The concession system was in force in the region up until 1983; its effects on both the rain forest and its inhabitants were the same as in the rest of the country.

Changes

When the concessions expired, the government of Quintana Roo State supported the creation of community-based organizations that would manage its forest resources. The

support took the form of financing for a team of forestry specialists, but it unfortunately proved to be available for only two years. By then, having come to feel committed to the communities they had been working with, the team members set about forming this organization, OEFPZM. The key changes stemming from this move were: (1) ejido communities were organized so they would be equipped to take over the management of their own forests; (2) a part of each ejido was designated exclusively as a "permanent forest zone"; (3) each permanent forest zone was divided into 25 sections, or logging areas, one to be harvested each year over a 25-year cycle; (4) a forest inventory was conducted on every ejido; (5) a management plan was drawn up, based on inventory findings and all available data on the growth behavior of the species present; (6) a program was designed for the reforestation not only of logged areas but also deteriorated areas lying outside the designated permanent forest zone; (7) ejido community members received training in the official procedures and administrative requirements associated with their logging and other production operations; (8) ejido community members received training in the forestry practices involved in getting timber to processing points (volume measurement, documentation, location of trees suitable for felling, etc.); (9) small enterprises were created (vegetable growing, craft goods production, cornflour dough and tortilla production, wildlife breeding, hog breeding, ornamental and medicinal plant nurseries); (10) a local research network was launched, in conjunction with national and international institutions. Throughout this whole process, particular attention was paid to identifying influential players — for instance: key forest community members, those who pressed for better terms and conditions for use of their resources; the then Governor of the State, who demonstrated enough political will and vision to support the indigenous communities and their forest production aspirations; the then Assistant Secretary of Forest Resources, who advocated a different kind of technical assistance, free of institutional obstacles and based on direct contacts with the forest communities; and professional foresters able to fit in with the communities and respond to their real needs. For some of these individuals, the impetus for change stemmed from their sense of the importance of the tropical regions, with their great but quickly disappearing biodiversity, and of the need for tools and information that would allow this biodiversity to be wisely exploited and at the same time preserved. For others, the impetus came from their conviction that the forest communities of this region should be afforded better choices and opportunities based on sustainable use of the natural resources in their own environment. This experiment served as a kind of pilot project for both the forest communities and the next State Governor, who continued the work of his predecessor, and, with some variations, reaffirmed the original underlying principles so forcefully that two more organizations similar to OEFPZM were formed. At the present time, there are seven such "civil corporations" in the forestry sector of Quintana Roo State — as well as others in the States of Campeche, Tabasco, and Chiapas.

Results

The key changes adopted in the course of this case study can be grouped into five general categories: organization, forest management, production projects, equitable treatment, and research. (1) Organization: Each forest ejido administers its own resources through production and management committees made up of its own members. The underlying aims here are decentralization of the power previously vested in the sole ejido

representative, and well as greater participation in and capacity for community decisions. Each ejido is now like a corporation that itself awards the concessions for the technical forestry services it needs; the committee that directs the affairs of the ejido is made up of ejido members; and advice is available from a team of forestry professionals. Each ejido is represented by five delegates, who meet monthly and in a different community of the ejido each time. (2) Forest Management: Prior to the formation of OEPFZM, there was no concern to replace trees felled. As a result of educational action by the advisory team, ejido members became convinced of the importance of sustaining their resource base and so supported forestry management and reforestation plans. (3) Production Projects: With the aim of supplementing the incomes of ejido members and relieving the pressure on precious woods, production projects were set up — for instance, to produce craft articles (embroideries, wood carvings, rustic-style furniture, straw hats, wicker/rattan baskets). Such projects are very important, given the fact that the rain forest currently does not produce enough, because of over-exploitation in the past. Today's reforestation programs will benefit future generations of ejido inhabitants. (4) Equitable Treatment: Prior to the existence of OEPFZM, members of ejido communities received none of the financial proceeds of sales of timber from their lands, whereas they now benefit not only from the sale of timber but also from the jobs that have been generated since the whole forest management and production process passed into their own hands. The substantial increase in timber prices is due to them. Previously, ejido communities had received only the proceeds of the *derecho de monte*, a type of license fee paid by logging companies. (5) Research: As only limited data on methods of sustainable rain forest management were available initially, the OEPFZM adviser team set up an internal research program, which has been enhanced over the last five years through collaboration with national and international institutions. Current studies are focused on lumber production technology, forest management techniques, plant production techniques, reforestation techniques, more complex agro-forestry systems, and better fallowing methods.

Lessons Learned

- Several major factors appear to have coalesced initially to make this experiment possible, and in particular the forest communities' interest in exploiting their forestlands themselves, something which prompted their participation in the attempt to influence policy decisions and thereby prevent renewal of the concession held by the existing parastatal enterprise.
- The goodwill evinced by the then gubernatorial candidate, who after taking office promoted the launching of a special state program, and lobbied the relevant group of state institutions to follow his lead. Under this program, credits were made

available, purely on the strength of verbal assurances, for the purchase of lumber hauling and processing equipment and machinery, while 51% of the shares in the existing parastatal enterprise were purchased so there would be the necessary support for new lumber prices.

- The support shown by the highest federal authority in the forestry sphere, namely the Subsecretariat for Forestry Resources, the only agency so far with trained foresters on staff. It was this agency which formulated action plans for providing technical assistance with forest management. The key features of this assistance were: permanent contact for forest communities with sources of multidisciplinary advice, without the interference of fixed schedules or timetables; arrangements to issue the ejidos with logging licenses promptly as required; direct supervision of community actions and progress in forest management; and assignment of a team consisting of enough technicians possessing, among them, the right qualifications in such areas of importance to the ejidos as development, organization, training, and management.
- The availability of funding support, mainly from international foundations, for training, technical assistance, equipment and infrastructure, research, management plans.
- Financial participation by the ejidos themselves, which fund operating costs by paying a per-unit levy on forest resources they utilize or sell.
- Support with product development/promotion at the different stages of the production process, and extending to processing (value added) and marketing.

- Promotion of strategic alliances with universities, research specialists, NGOs, other rural organizations, both regional and national, and governmental institutions.
- Rural organization, at different levels — intra-ejido, inter-ejidos, and inter-organizational, a move that resulted in more effective administration and representation.
- The lessons learned through this experiment appear to be replicable in other circumstances. Even if variants, adaptations, and new interpretations may be required, the basic situation is likely to be the same.
- Most of the strategic issues encountered in this instance appear to be universal. We know of a number of experiments in other countries where the issues were similar, and the problems — and potential solutions — largely the same. Due allowance must of course be made for local biophysical, social, and economic factors so that the courses of action decided on will be as effective as possible.

Perhaps an unusual or unique aspect of this experiment was the land tenure situation. In Mexico, legal ownership of the land is vested in the rural community, which means that long-term decisions affecting forest resources can be taken. This is a pivotal issue.

Of the main lessons learned in the course of this experiment, the following command the most attention: Sound management of natural resources and better living standards for those who own or have the use of them are possible: when producers themselves are involved in decision-making, promotion, and organization; when systematic, comprehensive support is available with the needs and issues that accompany exploitation of a specific resource; when institutional coordination prevents duplication of efforts in some areas and absence of efforts in others; and when mechanisms exist to link the players involved in a specific production activity or area of concern.

It is also clear that sound management of natural resources is feasible whenever it is recognized as an economic alternative by those who own or have the use of these resources, which they will then be prepared to protect and develop. If they fail to

recognize this, they will tend to choose some other method of land use which, although ecologically harmful in the long run, offers immediate economic advantages, as in the cases of cropgrowing and cattle breeding, which bring farmers the benefit of subsidies.

Finally, there is convincing evidence that deterioration in natural resources is not caused solely by the lack of technical responses, which in fact are available. In most instances, it is the outcome of socioeconomic problems, and also of mistaken choices by those who administer these resources and take decisions that affect them.

Glossary

Permanent forest zone: An area of rain forest designated exclusively as a managed forest reserve, where any other type of agricultural or livestock activity is prohibited. Each ejido has an area of forestland lying outside its designated permanent forest zone.

Chicle: A resin extracted from the chicozapote tree (*Manikara zapota*). Used to make chewing gum and other latex products.

Ejido: Name given to a community formed by a group of rural families who were granted land under collective title following the Mexican Revolution of 1910.

Concession: License granted by the government to exploit a large tract of forest for a long period (over 25 years).