Forest Certification in Mexico

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ABSTRACT

Forest certification has become well established in Mexico and has obtained the recognition of government forestry institutions, forestry professionals, the forest export industry, and many forest *ejidos*[1] and communities. The combination of early NGO involvement in funding and promoting certification, market demand for FSC-certified products from industry, and federal and state-level government incentives has been key in promoting certification. As of July 2004, there were 32 FSC-certified forestry operations covering nearly 600,000 hectares in Mexico, which is nearly 7 percent of Mexican forest area with a federal forestry permit. Where implemented, FSC certification in Mexico has had an array of effects: it has increased the use of forest inventory and monitoring, recognized the silviculture developed by forest communities and *ejidos*, and facilitated these groups' access to national- and state-level resources that promote sustainable forestry and adaptive management. At the same time, certification has not changed important problems such as illegal logging. And recently, leading members of certified *ejidos* and communities have begun to question the importance and advantages of forest certification, as long-promised economic benefits have failed to materialize in many cases. While a number of initiatives are being undertaken to help strengthen markets for Mexican certified products, it appears that economic incentives will have to increase if forest certification is to have an enduring impact on conservation efforts.

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[1] *Ejido* refers to a form of land tenure in Mexico that emerged with revolutionary agrarian reform. It recognizes individual land ownership with the possibility of collective administration and management.

INTRODUCTION[2]

Forest certification emerged in Mexico in 1994 following an alliance between two non-governmental organizations, the Mexican Civil Council for Sustainable Silviculture (CCMSS/*Consejo Civil Mexicano para la Silvicultura Sostenible en México A.C.*), and the SmartWood Program of the Rainforest Alliance. The CCMSS was interested in promoting sustainable forest management through community forestry and SmartWood was interested in using its new role as an auditor for the Forest Stewardship Council (FSC) to promote sustainable forestry in developing countries.

Initial efforts to promote certification were facilitated by the CCMSS's longstanding and earnest efforts to promote meaningful stakeholder participation over forest resource use, which resulted in a high degree of trust with local populations, NGOs, and other governmental agencies

The emergence of forest certification in Mexico has followed two distinct pathways. The first path, followed by forest owners primarily in the northern part of the country, was initiated in response to market pressures from U.S. and European clients to produce FSC-certified wood. This has generated economic benefits from forest certification for private wood by-products and charcoal industry firms in Durango. The second pathway was sparked not by market signals per se, but by the Mexican federal government, in conjunction with the World Wildlife Fund (WWF), in an effort to strengthen community forestry processes and preserve biodiversity rich forests in the state of Oaxaca. Owing to limited resources and capacity, the Mexican government has come to see forest certification as providing a powerful instrument with which to stimulate forest conservation, generate revenue for local communities, and protect forest ecosystems. For these reasons the Mexican federal government developed policies, including economic incentives, designed to promote forest certification.

The cumulative impact of these two pathways, to date, is promising. As of July 2004, in Mexico there were 32 FSC-certified operations covering nearly 600,000 hectares, or nearly 7 percent of Mexico's forestland with a federal forestry permit. In addition, certification has increased understanding and discussion of what constitutes sustainable forestry, both within the private and public spheres. However, the market benefits of certification have yet to reach the stage that the original initiators had envisioned. In the absence of increased international incentives, it seems clear that maintaining existing levels of forest certification will require maintaining ongoing donor and government support.

One of the greatest challenges for forest certification in Mexico will be to develop a plan for strengthening production and commercialization capacities among certified communities and organizations, to improve their ability to access international and domestic markets for FSC-certified products. Important innovations might include promoting a market for forest-certified products under a "fair trade" model and improving prices paid to *campesino* and indigenous community forest operations.

[2] To prepare this document, the author reviewed a series of studies and documents related to the forest sector and forest certification in Mexico, carried out interviews with representatives of the principal institutions promoting certification in that country, and drew upon his personal experience.

BACKGROUND FACTORS

Historical Context

Forestry Problems

In terms of the forest environment, Mexico's most prominent forestry problems are legal and illegal deforestation. Of Mexico's 127.6 million hectares of forest and other vegetative area, only 19.6 million hectares are officially designated for forestry (8.6 million hectares) or protection (11 million hectares). This lack of oversight has led to the loss of much ecologically important forest area through conversion to agriculture (at a rate of 600,000 hectares annually) and illegal logging activities. In addition, it has led to extensive forestry areas with governance problems. Mexico's Federal Office for Environmental Protection (*Procuraduría Federal de Protección al Ambiente*) has identified one hundred critical zones where illicit forest activities are a serious problem (PROFEPA 2004).

Mexico's lack of suitable policies and programs to protect and sustainably manage the forest environment is due in part to the historically low importance of the forestry sector to Mexican society, and the weak institutional structure for evaluating, issuing directives and monitoring management programs and harvest authorizations. The authorization of forest harvests by the federal government has several reliability problems. Its personnel are not well trained to review forest management plans and, because of limited economic resources, it is not always possible to verify forest inventory and stocking data in the field.

An additional problem lies in the implementation of existing forest management policies, particularly by forest communities and *ejidos*. The limited number of forest technicians with sufficient capacity and quality to manage forests sustainably, and the lack of technical and organizational capacity among most forest owners, often leads to poor forestry practices. In the case of forest communities and *ejidos*, a fundamental problem is the lack of permanent organizational and administrative frameworks with a management focus. Every three years, it is customary to change community and *ejido* authorities. In similar fashion, those responsible for the forest operations in the field and in the processing sites are changed. Also, the lack of infrastructure related to roads and to community industry is a severe limit and increases the costs of production for community forest enterprises.

For its part, private industry has maintained a level of secondary processing involving a low level of value-added. Only a few firms, principally located in Durango and Chihuahua, have managed to develop and modernize their industrial infrastructure and maintain certain levels of competitiveness. By contrast, there are processing entities, such as those in Michoacán and Guerrero, that have an industrial infrastructure that surpasses the production capacity of those states, thereby creating incentives for illegal and clandestine extraction of forest resources.

Policy Responses

In Mexico, forest-related activity is regulated by the recently passed *Ley General de Desarrollo Forestal Sustentable* (Law on Sustainable Forest Development), which lays out the jurisdictions and competencies of the three branches of Mexican government: federal, state, and municipal. This law details the institutional framework of activities related to regulation, protection, promotion and forest law enforcement and monitoring, as well as the diverse government forestry programs. It describes the requirements necessary for obtaining authorization for forest use, as well as the commitments and obligations of forest landowners and the Mexican government to conserve, protect, use sustainably, and restore forested areas of the country.

Other laws that complement the above-mentioned law include the *Ley General del Equilibrio Ecológico y Protección del Ambiente* (Law on Ecological Equilibrium and Environmental Protection). This law focuses on the protection of biodiversity and prevention and mitigation of environmental impacts of forest activities on forestlands and tropical areas. A law on wildlife (*Ley de Vida Silvestre*) regulates the use of plant and animal wildlife. A law on agriculture (*Ley Agraria*) establishes the legal framework in which landowners carry out activities to use their forest resources. The *Ley General de Desarrollo Rural Sustentable* (Law on Rural Sustainable Development) establishes the general framework for activities that protect and restore forest cover within rural development programs.

In an effort to partially address forestry's problems, CONAFOR (*Comisión Nacional Forestal*/National Forest Agency) provides technical assistance and training programs for communities and *ejidos*, financial support for silvicultural activities and recently has taken on the support of road construction and maintenance. To promote industrial development, it has established a government department within the Forestry Commission to stimulate the creation of productive chains. At the same time, it has coordinated with programs such as PROCYMAF (*Proyecto de Conservación y Manejo Sustentable de Recursos Forestales en México*/Conservation and Sustainable Forest Management Project) to establish continuing education programs in some Mexican states to improve and expand training of forestry technical service providers.

Nevertheless, these indicators of progress are still in an incipient stage. Government programs have not attained the scope and scale that Mexico's forestry sector requires. Non-governmental organizations are also important in understanding policy responses, as they are increasing in number, resources and expertise. They have become an important link between professional foresters, forestry communities and *ejidos*, and the government. Nonetheless, similar to government interventions, the scope and impact of civil society organizations are limited to a few forest regions in the country.

Structural Features

Ownership and Tenure

Mexico has a vegetated area of 127.6 million hectares, of which 63.5 million hectares are forest, and 64.1 million hectares are xerophyte scrubland and other types of vegetation. This vegetated area represents 66 percent of its national territory (SEMARNAT 2002). Of total forest area, 80 percent is social property (belonging to *ejidos* and communities), 15 percent is private property (small-scale landowners), and the remaining 5 percent is government property. Mexico is one of the few countries in the world in which property rights to forestlands were given to agrarian communities and *ejidos* subsequent to the revolutionary struggle of 1910 (Bray 2004). In Mexico, three types of property are recognized: communal property where communities (typically indigenous communities) own the territory; *ejido* property (a form which emerged out of post-revolutionary agrarian reform and which refers to property owners, *ejidatarios*, who received land grants for individual use, but under community administration); and finally, small property, which refers to privately owned forestlands.

Presently, twelve million people live in the forest areas of Mexico, most of them affected by extreme poverty, which has led to high levels of outward migration to larger cities for many years (CONAFOR 2001).

The federal government has primary jurisdiction for regulating forest resources. SEMARNAT (*Secretaría de Medio Ambiente y Recursos Naturales*/The Secretariat of the Environment and Natural Resources) is the agency charged with administering policy and with delegating key aspects of forest management responsibility to the 32 federal entities.

In contrast, the National Forest Agency (CONAFOR) is the agency in charge of promoting activities related to sustainable forest use, forest protection, plantation development and restoration. CONAFOR provides economic resources to forest owners, which are allocated as subsidies. The Federal Environmental Protection Office (PROFEPA/*Procuraduría Federal de Protección al Ambiente*) is the institution in charge of enforcing the law and carrying out inspection operations and forest surveillance, with state governments and municipalities collaborating and carrying out development, restoration, and forest surveillance programs.

Before forests can be used for commercial purposes in Mexico, SEMARNAT must grant authorization. Interested parties must present the following documents: a Forest Management Report, legal documentation that safeguards property rights within the forest site, and, in the case of communities and *ejidos*, an assembly act granting use of the forest site and proof of tax payments to the federal government for the use of these resources. Communities and *ejidos*, like private individuals, must also make tax payments for the right to access the forest resource. Permits for the use of forest sites are generally issued for a period of ten years.

In 2000, 2,616 permits were registered at SEMARNAT. The states with the most permits are shown in Table 1.

Table 1 Forestry permits in Mexico

States	Number of Forest Permits
Puebla	448
Chihuahua	278
Durango	272
Oaxaca	220
Michoacán	219

Source: SEMARNAT 2000

Meanwhile, the states with the highest timber volumes under permit are shown in Table 2.

Table 2 Authorized volume per state entity in Mexico

States	Authorized Volume (thousands m^3)
Oaxaca	1,069
Guerrero	1,038
Michoacán	972
Chihuahua	857
Durango	711

Source: SEMARNAT 2000

In Mexico, the chain of production starts with the forest owners who, depending on their organizational and technological level, either a) rent their forest to intermediaries, b) sell their wood in log form, c) process chip and fibre and sell it as mulch, or d) make products of greater value-added.

Mexico's forest industry is composed principally of sawmills, box factories, carpentry workshops, and to a lesser extent, of plywood, veneer and finished lumber factories. Sawmills make up 60 percent of Mexican forest industry operations; box factories represent 15 percent; and carpentry workshops represent 15 percent.

Industries with greater value-added such as plywood, veneer, finished lumber and furniture factories represent less than 4 percent of the total. In general, Mexico's forest industry is technically obsolete and not competitive, which explains in part the sector's deficit trade balance. The states of the Republic where forest industry is concentrated are Michoacán, Durango, Chihuahua, Oaxaca, Guerrero, México and Jalisco.

The main silvicultural techniques for coniferous forests are selective treatments such as the Mexican Method for Forest Management (*Método Mexicano de Ordenamiento de Bosques*) and other treatments such as pre-thinning, thinning and reforestation, such as the Silviculture Development Method (*Método de Desarrollo Silvícola*), and the SICODESI (*Sistema de Conservación y Desarrollo Silvícola*), which includes leaving "father trees" and pruning techniques (i.e., *cortas de regeneración,*

cortas de liberación), clearing and pre-clearing. For tropical rainforests, the principal selection methods focus on rare species. In some cases, forestry procedures seek to promote the development of commercial species.

Markets

According to the National Forest Inventory, Mexico has 21.6 million hectares of forest with commercial potential. Of this area, 8.6 million hectares, or 40 percent, are utilized (CONAFOR 2001).

In 2000 registered forest production in Mexico was 9.4 million m^3. The Mexican states with the most timber production for that year are presented in Table 3.

Table 3 Volume produced by the main forest operations in Mexico

States	Volume Produced (thousands of m^3)
Durango	2,371
Chihuahua	2,091
Michoacán	1,394
México	604
Oaxaca	578

Source: SEMARNAT 2002

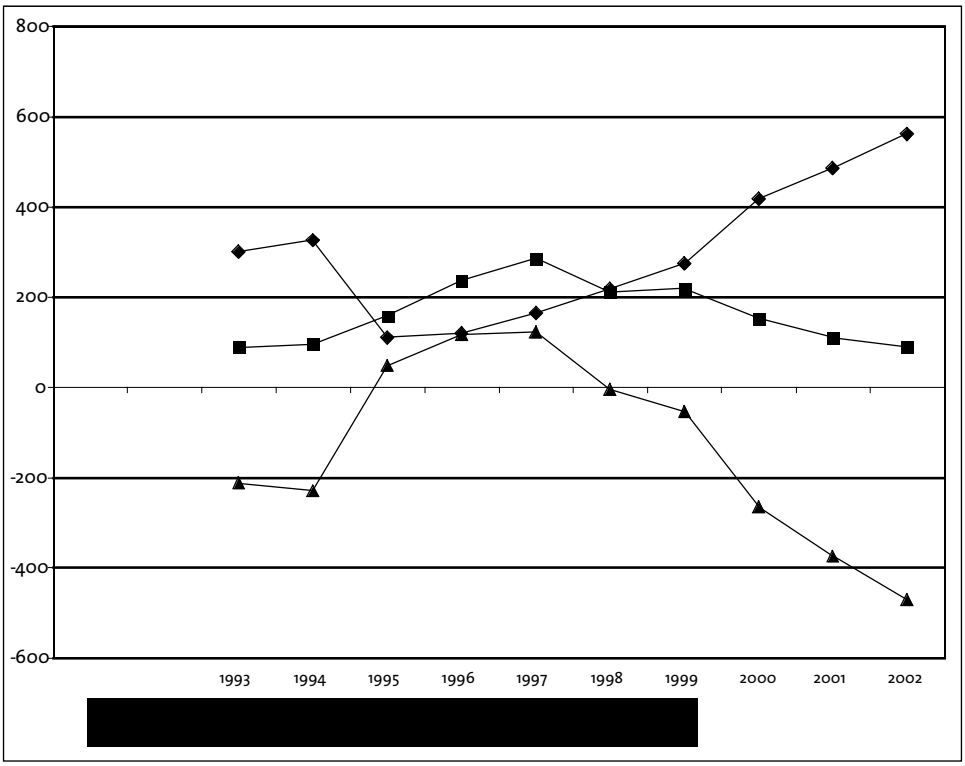
Tables 2 and 3 show that there are discrepancies between the volume authorized and the actual volume harvested. This could be due to the forest-use registry that assigns the lots annually, which can sometimes include the volume for two years as one year, as is the case of Durango and Chihuaha, which report a greater volume than that authorized for one year. On the other hand, there are states, such as Oaxaca and Guerrero, which only remove a portion of their authorized volume. These data reflect the level of efficiency in each federal entity's production. For example, more efficient production will be reflected in higher authorized volumes than actually harvested in a state. Some states have high authorized volumes but do not manage to harvest them all (like Oaxaca and Guerrero). By contrast there are others (such as Durango and Chihuahua) that harvest almost all of their authorized volume. This highlights the higher level of infrastructure and efficiency among raw material providers and industry in those states.

The forest sector's contribution to the Gross Domestic Product (GDP) for 1987 was 1.3 percent; in 1996 it fell to 0.5 percent, and in 1999 it rose again to 1.2 percent of the GDP (CONAFOR 2001). Exports of forest wood products in Mexico fluctuate. Since 1995, exports have increased due to the devaluation of the Mexican *peso*, explaining a jump in exports from US$96 million in 1994 to US$286 million in 1997. After 1998, exports began a steep decrease that would plunge to US$89 million in 2002. During the past ten years, Mexico exported timber at a total net value of US$1,647 million. Sawn wood, plywood and molding exports comprised 65 percent of the total amount.

With respect to wood imports, during the past five years sawn wood imports have seen a dramatic increase, moving from US$49 million in 1998 to US$172 million in 2002. There has been an ever-increasing influx of Chilean, Peruvian and Brazilian timber to the Mexican market. Imports have increased for plywood and medium density fiberboard (MDF), which are used in the furniture industry but not produced in Mexico. This timber mainly originates in the United States, Chile, Peru, Canada, and Brazil. Brazil has been able to increase its presence in the Mexican market by 450 percent over the last ten years. In two years, Chile has increased its presence in the market by 360 percent, while Peruvian timber has done so at 900 percent. Plywood also increased by 269 percent; the main countries that sell these types of products to Mexico are the United States, Chile, Malaysia, and Indonesia. The increase in plywood imports is basically due to the entry of Malaysia and Chile into the Mexican market during the past four years, and the increase in imports of 850 percent and 433 percent from these two countries, respectively.

Figure 1 shows timber import and export trends and their impact on the balance of payments for forest products.

Figure 1 Trade balance of forest products in Mexico



Source: Pineda 2003

During the last ten years, total imports of forestry products totaled US$2,973 million and exports US$1,647 million, giving a negative account balance of US$1,326 million. US$1,110 million or 84 percent of that negative trade balance occurred during the past three years. We must also add to this figure the commercial deficit generated from the imports of cellulose and paper, which during this same period totaled US$4,544 million, making the accumulated trade deficit in Mexico's forest sector US$5,654 million.

This increased competition from relatively cheap imports has put Mexican producers of forest products in a financially difficult position, and has led them to search for ways to reduce their production costs. In this fiscal environment, the direct and indirect costs of certification are even more often out of reach for many producers than they would be in the absence of foreign competition.

THE EMERGENCE OF FOREST CERTIFICATION

Initial Support

Forest certification began in Mexico in 1994 with the active participation of the Advisory Council for the Mexican Civil Council for Sustainable Silviculture (CCMSS), whose membership includes a variety of people interested in promoting sustainable forest management, including individuals from academia and non-governmental organizations. The CCMSS members have a great deal of experience in the forestry sector, principally in advising and supporting forest communities in various states of the Mexican republic. The CCMSS has developed into the most important non-governmental forestry sector network in Mexico and represents many NGOs in the National Forestry Council, the most important policy development arena. The CCMSS believed that the forest certification process could be an important instrument for promoting sustainable forest management, and thus led the effort to promote certification and establish relationships and links with the Forest Stewardship Council (FSC) and accrediting agencies such as SmartWood.

Pathway One: Enhancing Governmental Goals

In 1994, CCMSS, along with SmartWood, began promoting forest certification in forest *ejidos* and communities from Quintana Roo and Oaxaca. (Previous to this time, several members of CCMSS had participated in SmartWood training courses). SmartWood and CCMSS put together three pilot certification projects with forest *ejidos* from the following groups: *Sociedad de Produccion Forestal de la Zona Maya, la Sociedad de Productos Forestales del Sur de Quintana Roo*, and member communities that are part of a pioneer indigenous peoples organization with the acronym UZACHI, composed of Zapotecas and Chinantecos. These pilot certification assessments were carried out with funding from SmartWood and CCMSS. Subsequently, a collaborative agreement was reached between these two organizations so that CCMSS would be the partner agency in charge of the forest certification assessments in Mexico with support and accreditation from SmartWood.

The forest certification process was initially promoted as one of CCMSS's objectives. CCMSS believed that this activity could guide the improvement of forest management in Mexico. The initial reaction from government institutions, businesses, forestry experts and the community in general was general scepticism and poor understanding regarding the importance and scope of forest certification in Mexico.

Subsequently, the establishment of the Secretariat for the Environment, Natural Resources and Fishing (SEMARNAP/*Secretaría de Medio Ambiente, Recursos Naturales y Pesca*) in 1995 created space in the Mexican forest sector for local organizations associated with forestry issues to participate in forest-related policy processes. With the creation of SEMARNAP and under the leadership of Director Julia Carabias, M.S., more openings developed for NGOs and forest community and *ejido* organizations in the National Forestry Council (CONAFOR) and the State Forestry Councils. Previously, these councils had been controlled by forestry professionals and politicians.

Another initiative that has increased the options available to community forestry operations and *ejidos* was the innovative Conservation and Sustainable Forest Management Project (PROCYMAF), which was initiated in 1996 and operated by the World Bank in collaboration with SEMARNAP to support and promote community forestry and certification in Mexico. A pilot project was established in the state of Oaxaca. Since 1998 the project has financially supported forest certification assessments in the state of Oaxaca in collaboration with the regional World Wildlife Fund office. PROCYMAF contributes 70 percent of forest certification assessment costs and WWF contributes the remaining 30 percent. With their support, four communities have been certified, UZACHI has been re-certified, and the certification of four member communities of IXETO, an organization comprised of Ixtlan, Etla, and Oaxaca, has been strongly encouraged. All certification assessments were carried out by CCMSS.

In its consolidation phase (1996-2002), CCMSS received financial support from various foundations such as the Ford Foundation, the Inter American Foundation, and the Packard Foundation. Subsequently, CCMSS's Certification Administration unit was maintained through payments derived from certification assessments. Recently, CCMSS has withdrawn from the certification assessment business and SmartWood will be directly managing assessment and audits out of a new Mexican office and taking on the challenges of keeping up with growing certification demands and alliance-building with the communities and *ejidos*.

In addition, a new certifying agency has begun operations in Mexico. The VIVO Foundation, an agency composed of Mexican professionals from Durango, has recently been accredited by the FSC. It originated and currently has its headquarters in the state of Durango, where the largest number of certified operations and the second largest certified area is located. Certified operations in Durango rely on state-level government support through the fund created to promote certification. The creation of this new certifying agency in Mexico provides an alternative to the approaches taken previously by the CCMSS and currently by SmartWood. The success of certification in Durango illustrates the second pathway that promoted certification in Mexico: market incentives.

Pathway Two: Responding to Market Potential

Since 1999, in the northern part of the country, specifically in the state of Durango, private industries have been promoting certification. In 1999, NORAM of Mexico, a firm that processes and packages oak charcoal, had a European client that requested FSC-certified charcoal (Ludvic, A., 2002, personal communication). Since the *ejidos* that provided the raw materials to the firm were not certified, NORAM looked to CCMSS to encourage certification of their raw material providers, and thus the assessment of the supplier *ejidos* began. The cost of assessment was taken care of mainly by NORAM, with WWF covering a smaller portion.

In addition, forest industries established in Durango such as the Pirelli Group, *Forestal Lider* and Halcon Industries, which had contracts to supply to several markets in the United States, began to receive requests for certified sawn wood from their buyers. Once again, market demand obligated these companies to ask CCMSS to assess and certify the *ejidos* that provided them with raw materials and sawn wood (Robinson 2000).

This market demand was supported by reforms to the institutional and legal framework related to national forestry activity in 2000. What was formerly SEMARNAP became the Secretariat of the Environment and Natural Resources (SEMARNAT). The National Forest Council (CONAFOR) was created and spun off from SEMARNAT, with the goal of carrying out functions related to forest enhancement and protection. SEMARNAT was now exclusively in charge of regulatory procedures.

With the creation of CONAFOR, forest certification in Mexico acquired greater status and importance, since the decision to support forest certification evaluations was taken on by the most important forestry subsidies program in the country: the Forestry Development Program (PRODEFOR/*Programa de Desarrollo Forestal*). The responsibility for this program was shifted from SEMARNAP to CONAFOR. The CONAFOR support was designed on the basis of years of PROCYMAF experience with forest certification.

Prior to the publication of PRODEFOR's regulations for 2001, Mexico's Strategic Forestry Program 2000-2002 (*Programa Estrategico Forestal para Mexico 2000-2002*) made explicit reference to the federal government's interest in encouraging and supporting forest certification-related activities in Mexico (CONAFOR 2001). Within this context, CCMSS established an agreement with CONAFOR in 2001 to promote forest certification in several states of the country, and to carry out assessments of the communities, *ejidos*, and small-scale landowners that requested them. Subsequently, in 2003, when the prior Forestry Law was reformed and the General Law for Sustainable Forestry Development (*Ley General para el Desarrollo Forestal Sustentable*) was created, the latter established in Article 114 the federal government's commitment, through CONAFOR, to support forest certification with economic resources from PRODEFOR (SERMANAT 2003).

There are two main reasons that the federal government took such an active role in promoting forest certification in Mexico. First, the government was interested in the credibility that third-party certification would give Mexican forest management and the possible rewards it would bring to the *ejidos* and communities that had undergone extensive changes to achieve certification. Second, it fit with the new

vision of the federal public administration, which involved certification of a range of processes (in addition to forest practices), such as institutional performance, governmental services, technical operations, etc.

With this development of public policies related to forest certification, CONAFOR decided that forest certification assessments should be solely supported with resources from PRODEFOR, while PROCYMAF would support the studies and forestry improvements required by the conditions and recommendations of the certification assessment. In addition, the state government of Durango and some other states adopted policies and established special funds to support and promote forest certification within the state. These state-level incentives in Durango were inspired by a desire to build on the momentum and trust that arose from the early FSC certification of several *ejidos*, communities, and small landowners in that state.

As a result, with support and incentives provided by federal agencies and some state governments, the largest increase in the number of FSC-certified forestry operations in Mexico took place between the years 1999 and 2002.

Institutional Design

The institutional design established through the certification process began with the efforts of CCMSS to promote certification within communities and *ejidos* exhibiting good forest management. Subsequently, non-governmental organizations such as the WWF and governmental programs such as PROCYMAF joined this effort.

In 1997 the FSC commissioned the agency *Estudios Rurales y Asesoría Campesina A.C.* (ERA) to initiate the process of preparing national standards for Mexico. When these standards were not accredited by the FSC (see below), in 1999 the CERTIFOR initiative was created and mandated by the FSC to analyze and agree upon a final version of the national standards. CERTIFOR had active participation of CCMSS and representatives from all groups involved in the certification process in Mexico (Madrid, S., 2004, personal communication).

Despite the lack of standards, the forest industry in Durango pursued certification and turned to CCMSS to carry out the certification assessments of the *ejidos* that supplied its raw materials. The same occurred with Mexican firms that needed the chain of custody certification in order to export their products to clients requiring certified wood. In all these cases, CCMSS and its consultants carried out the evaluations in the forests and within the firms. After reviewing the reports, SmartWood subsequently issued the certificates.

Because of the confidence and reliability inspired by forest certification in Mexico, the federal government decided to promote economic policies and incentives to strengthen it. The certification process allowed the incorporation of several members of the Civil Council, of other non-governmental conservation organizations, and of researchers from academic institutions who began to view this process favorably. The same occurred with a number of forestry professionals and industrialists. Lastly, the new federal administration incorporates the certification process as part of its public policies, making mention of it in the new law, and supporting certification evaluations with government resources.

Despite this action by the government, the lack of approved Mexican FSC standards and the lack of a common strategy among the Mexican government and those actors promoting certification (CCMSS, NGOs, etc) has meant that no integrated framework for monitoring and strengthening certified communities, *ejidos* and industries has been established.

Standards

Mexico does not yet have a national standard for forest certification. The first national standards draft, written by ERA A.C., was presented for discussion at several regional forums between 1997 and 1998. However, this standard was not accredited by the FSC; although the proposed standards retained the FSC principles, certain modifications were made to the FSC criteria that made approval by the FSC more difficult.

The draft begun by ERA A.C. in 1997 and discussed in 1998 was revaluated subsequently by the director of CERTIFOR. Their intention was to encourage revision of the ERA A.C. standard, based on consultation with the chief parties interested in certification in Mexico. However, due to various difficulties, such as the lack of economic resources and lack of continuity among the group that had worked on national standards, the final draft of Mexican certification standards was not completed.

SmartWood and CCMSS decided to readdress the standard development efforts initiated by ERA A.C., and in 2000 they contracted the organization *Tropica Rural Latinoamericana S.C.* from Quintana Roo to propose Mexican national standards for forest management evaluation (*Normas Mexicanas Internas para la Evaluacion del Manejo Forestal*). It was hoped that these standards could be used by CCMSS and SmartWood for their certification assessments in Mexico. At the time of this writing, consultants hired by CCMSS had tested the second version of this standard in several certification processes in Mexico. This proposed standard upholds the principles and criteria stipulated by the FSC, but modifies certain criteria, and develops indicators and verification mechanisms.

The criteria were modified in an attempt to adapt the FSC standards to the function and organization of community and *ejido* management entities and the practical implementation of management plans. Specifically, the modified criteria were: 5.7 (related to the organization of the forest company), 5.8 (related to commercialisation), 6.11 (related to forest fires), 7.5 (related to application of the management plan), and 7.6 (related to the technical organization of the forest management operation). In general, the lack of approved FSC standards continues to be a serious concern.

Important progress has been achieved by the *Unión Nacional de Organizaciones de Foresteria Comunal A.C.* (UNOFOC), which has proposed instituting the concept of "pre-evaluation" in Mexico. A pre-evaluation is a more generic and preliminary assessment that is less costly than a full assessment and determines whether the operation is ready to be evaluated using a full assessment (CCMSS and SmartWood 2003).

THE REACTION TO CERTIFICATION

Forest Policy Community and Stakeholders

Forest certification has become established in Mexico. Measured in terms of recognition by the government institutions dedicated to forest enhancement and forestry norms, by forestry professionals, the forest export industry, forestry NGOs and forest *ejidos* and communities, it could be called a success. This was due to the combination of early NGO involvement in financing and developing certification, the emergence of some certified markets (particularly for producers in the north of Mexico) and federal and some state-level government incentives to promote certification. However, the prominence of certification in the public eye and the ability of certification to make the public less negative about forestry practices have remained weak.

The reaction to forest certification differed across stakeholder groups, but in general what was important was the efforts that its initial supporters made to develop market incentives. Currently, the forest policy community appears to be working to increase market benefits for certified producers and to bring certification into its next phase in Mexico. With the support of the Rainforest Alliance TREES Program, the Pueblo Nuevo *ejido* in Durango established a contract with Sitwell Industries, an IKEA supplier, to sell furniture components made from certified timber. These components are value-added by-products from the sawmill industry. Due to the large quantity of timber that this *ejido* produces and the presence of an operating kiln, it is possible for it to produce a significant volume to attract international buyers.

In the same vein, a new initiative has been developed by CCMSS, ERA A.C. and CONAFOR in the state of Oaxaca called the "Certified Community Forestry Company" (*Empresa Integradora de Comunidades Forestales Certificadas*). This project has the goal of establishing a strategic alliance that will help market members' products, offer a greater volume of products, and create designs for products (furniture, boxes, moldings, etc.) that can be offered to potential buyers of certified products. The project, which is financed by the Inter American Foundation and PROCYMAF, involves creating an alliance between nine already certified communities and three communities with certification in progress. These initiatives, as we show below, were important in understanding the current status of market demands for forest certification.

Revealing the Mexican government's proactive response to certification, they were, as of the summer of 2004, considering a policy of "green purchases" to supply the needs of government offices. While this concept is still in the early stages and has not yet been clearly defined as an official policy of the Mexican government, it would provide a large market for certified furniture if formalized. In general, the institutional incorporation of a sustainable development philosophy as a government strategy began with the creation of SEMARNAP.

Forest Owners

The response of many forest owners (particularly communities and *ejidos*) to certification after its introduction was positive. Currently, however, certified forest

communities and *ejidos* in Mexico have begun to question the usefulness of remaining certified, given that the costs of audits, of meeting the certification requirements and recommendations, and of re-certifications are not covered by the surplus generated by their certified timber sales (see Roadblocks and Challenges section). This factor will undoubtedly be of great importance in maintaining the forest communities' and *ejidos*' interest in certification.

Current Status of Forestland Certification

As of July 2004, there were 32 FSC-certified operations in Mexico, totalling nearly 600,000 hectares, or 7 percent of Mexico's forest area with a federal forestry permit. At that time, at least 15 operations totalling over 200,000 hectares were poised to undergo certification assessments in the upcoming year (Eva Fernandez, SmartWood, personal communication 2005). Most of the 13 chain-of-custody certified processors (as of July 2004) were located in the state of Durango (Table 4).

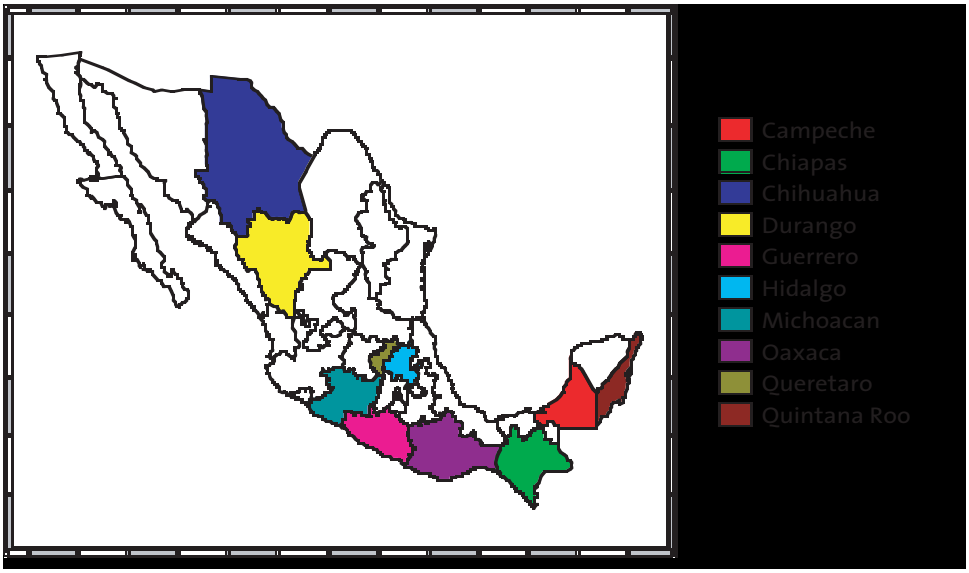
Table 4 Number and area of FSC-certified forestry operations in Mexico (as of July 2004)

State	Number of Chain-of-Custody Certified Processors	Number of Certified Forestry Operations	Total Area Certified (hectares)
Durango	8	21	276,741
Oaxaca	4	6	79,960
Quintana Roo	0	2	18,750
Chihuahua	1	2	209,495
Guerrero	0	1	10,968
TOTAL	**13**	**32**	**595,914**

Source: Eva Fernandez, SmartWood 2005; www.certifiedwood.org

Of the 32 operations described in Table 4, 26 were "social" property (community and *ejido*-owned). The states with the largest number of evaluated forestry operations are Durango (21) and Oaxaca (6). While an exact number of community forests and *ejidos* in Mexico is uncertain, their numbers are estimated at nearly 800 (Bray and Merino 2004). This means that around three percent of communities and *ejidos* in Mexico are certified.

Figure 2 Mexican states containing FSC-certified forestry operations

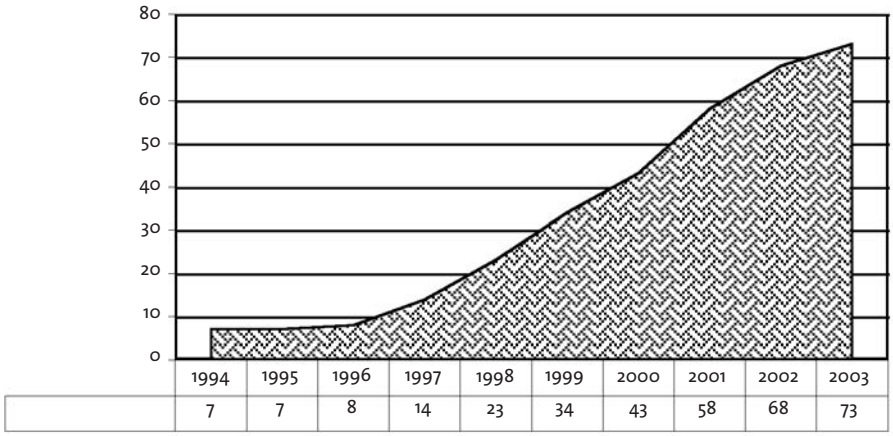


Source: Alatorre 2003

Durango is the state with the most certified forest area, at 276,741 hectares and 21 forestry operations. Next is Chihuahua with 209,495 hectares and Oaxaca with 79,960 hectares. With the exception of Quintana Roo, which is made up of rainforests, all of the country's certified forests are temperate coniferous or oak-dominated forests.

A large increase in number of evaluated and certified operations occurred between 1998 and 2002. This increase coincides with the demand for certification by the forest industry in Durango and the introduction of government assistance and subsidies for certification, first through PROCYMAF and subsequently through PRODEFOR (see Figure 2).

Figure 3 Number of assessed forest management operation sites in Mexico (1994-2003)



Source: Alatorre 2003

As of 2003, Mexico made up 44 percent of the total number of certified community forest sites and half of the certified community forest area worldwide (Alatorre 2003).

Current Status of the Certified Marketplace

With the exception of some forest industries in the northern part of the country, very few certified forestry operations have been able to sell their products into the certified marketplace. There are numerous reasons why this is so. A serious problem is the disconnected supply chain. For example, some private forest industries in the southern part of Mexico, specializing in the production of certified doors and moldings, do not purchase certified timber from certified Mexican forests. Rather, they buy certified raw materials from Brazil, Bolivia, and several Asian countries, as well as pine from certified forest plantations in Chile. An alliance or chain of production has not yet been established between certified forest firms and certified industries via a certified chain of custody in Mexico.

In many cases, it has not been made clear to certified communities and *ejidos* that access to international and preferential markets requires that the forest operation improve its industrialization process, develop a management framework, and offer large volume sales with high quality product characteristics. In general, community and *ejido* operations tend to be inefficient producers with high costs (R. Butterfield, Rainforest Alliance TREES Program, 2005). Forest *ejidos* and communities need to promote the development of products with a higher added value, be it by producing finished products or by-products.

This lack of access to certified markets is also due in part to the lack of a national strategy to create access to foreign markets and promote better sale prices of certified forest products for the communities and *ejidos*. As described in the previous section, new NGO and government initiatives are underway to tackle this problem. For example, to date the "Certified Community Forestry Company" alliance has received orders for 1,000 boxes made from certified timber from an industry that produces natural and organic products in Mexico and has made contacts with Mexican and American firms interested in producing moldings and purchasing wood panels that are FSC-certified.

THE EFFECTS OF FOREST CERTIFICATION

FSC certification in Mexico has brought about much change: it has improved forest management, provided independent recognition of the silviculture developed by forest communities and *ejidos*, and facilitated these groups' access to national and state-level resources that promote sustainable forestry and adaptive management.

According to several commissioners and technical directiors of community forestry operations and *ejidos*, forest certification has had the greatest impact in forest operation sites that are relatively large in area (more than 5,000 hectares), and in communities and *ejidos* with relatively solid internal organizational procedures.

Operations with large wood volumes were best able to allocate revenue towards improving their forest management processes.

These operations have experienced improvements in forest monitoring, protection of high conservation value forests, and the strengthening of social and administrative aspects of their operation. However, the effects of forest certification will be seen more clearly in the medium term, over the next five years, after most operations have gone through at least one re-certification process.

Power

Forest certification has caused the institutions of the federal and state governments to view forest communities and *ejidos* as deserving special and preferential attention, from a legal standpoint as well as from a public policy development standpoint. Forestry operations are now in the advantageous position of receiving economic resources from government programs such as PROCYMAF and PRODEFOR. Also the regional managers of CONAFOR have developed a strategy to economically support certified communities and *ejidos* in complying with requirements established by the evaluators, for example, through studies of flora, fauna, monitoring of silviculture procedures, feasibility studies, strengthening administrative and factory units, silviculture management practices, management development, and business/marketing studies.

Forest certification has also been important to the forest communities and *ejidos* because it has granted them a certain prestige with respect to other agrarian activities, and a defense against extremist positions of environmentalist and political interest groups that could negatively affect the image of community and *ejidos* forestry operations. This impact was observed in the state forests of Oaxaca and Guerrero (interviews with the commissioners of the *ejidos* of Capulalpam, Santiago Xiacu, Santa Catarina Ixtepeji, San Pedro El Alto, and Santiago Textitlán, 2002, and Sergio Madrid, personal communication 2004).

Forest certification in Mexico has obtained a prominent position as a socially credible instrument for sustainable forest management of commercial and non-commercial forests (Robinson 2000; Madrid and Chapela 2003). Several certified communities have been recognized with the Forest and/or Ecological National Merit in Mexico prize. In 2003, six certified communities of the North Mountain Range of Oaxaca received the "Gift of the Earth" prize for their good forest management and conservation activities.

However, there are still sectors within the urban population of Mexico that view forestry activities unfavourably (Eva Fernandez, SmartWood, personal communication). For most of the last fifty years, private and parastate industries have controlled the greater part of the forests in Mexico, leading to serious negative environmental impacts, a reduction of natural capital, the use of forest resources without the consent of its landowners, and unfavorable economic conditions for the forest landowners and proprietors. This remains the prevalent situation in most parts of the forested areas of the country. This situation has reinforced the public perception that forestry activities are by definition destructive to ecosystems and

natural resources, have generated enormous revenue for a minute sector of society, and are linked to corruption in legal and governmental circles. Critics such as Quadri (2004) consider biodiversity conservation combined with sustainable forest management to be impossible, due to the problems associated with collective property management (e.g. that found in *ejidos* and communities) and poverty.

This perception of forestry activities is without a doubt the result of a lack of awareness within Mexican society of the important progress communities and forest *ejidos* have made in Durango, Oaxaca, Guerrero, Michoacán and Quintana Roo since the 1970s and 80's. During this period, they successfully fought for the elimination of the federal forest concession grants to private and parastatal industries. Since this struggle, the federal government has modified the Forestry Law to recognize the rights of landowners to manage their forest resources, and to encourage the development of a new model of community silviculture. This model has social and environmental objectives that seek to preserve forest resources, make proper and adequate use of forests, and evenly distribute the collectively generated forest-related revenue. The awareness of this model has been strengthened recently due, in great part, to the decision made by forest communities and *ejidos*[3] to certify their forest management procedures according to the FSC standards. It is in this way that forest certification has made its greatest contribution in Mexico (Madrid and Chapela 2003; Robinson 2004).

[3] For example, communities from the Zapoteco-Chinantecas Forest Communities Union (UZACHI), San Pedro el Alto, Ixtlán, Ixtepeji and Textitlán in Oaxaca, Nuevo San Juan Parangaricutiro in Michoacán, Noh Bec in Quintana Roo, Pueblo Nuevo in Durango, and El Balcón in Guerrero.

Social

Through certification, many labor regulations for forest management operations, processors, and forest administration units have improved, and with this, the efficiency and productivity of these same groups have increased. This is one of the effects of certification that is rarely identified. Certification has also contributed to strengthening community organization processes such as sawmill administration and gender equity in the forestry sector, and readdressing organizational procedures that have become weakened.

Illegal wood extraction has developed in areas with weak local government enforcement, weak local community governance structures, and where local groups with economic and political power are allowed to access natural resources through violence and illegal manoeuvres. Forest certification has not contributed to a decrease in the illegal extraction of timber, since certified forest operation sites distinguish themselves by working within a specific legal framework. Given this focus, forest certification cannot be considered an economic tool for discouraging inappropriate and illegal forest practices. Federal, state, and municipal government agencies are responsible for providing the legal framework and economic incentives for the protection and proper management of forest resources. Significantly, a case has been reported of a certified *ejido* in Durango that was illegally extracting timber and was penalized immediately by CCMSS and SmartWood, which withdrew the *ejido's* certificate.

Economic

Economic advantages of certification have developed for some certified operations on two levels: increased access to certain certified markets and increased internal efficiency. The first level of benefit has occurred in the north of the country, in forest product industries such as charcoal. These benefits have been primarily due to demands for FSC-certified products from existing buyers in Europe and the U.S. Chain-of-custody certified forest industries in Mexico have, in turn, requested certified products from their community forest suppliers of raw materials.

For the most part, however, economic benefits from forest certification have been lacking. At a workshop with seven FSC-certified community forestry operations in Oaxaca, all operations reported that they had not been able to access markets for certified forest products (ERA A.C. and CCMSS 2003). This lack is the greatest threat to forest certification development in Mexico. Currently, nearly all certified forest *ejidos* and communities sell their timber at the same price as non-certified timber. As a result, forest landowners and proprietors can lose interest in certification and choose not to undergo annual audits or re-assessments, thus losing their certification altogether.

However, some observers are optimistic that economic benefits will improve and hope that a number of recent projects can serve as models for other communities and states of the Republic. For example, the experience developed by the Pueblo Nuevo *ejido* with IKEA, with the support of the Rainforest Alliance TREES Program and initiatives such as the Certified Community Forestry Company of Oaxaca, as well as efforts by the government, NGOs, and supporting international agencies to consolidate and strengthen certified markets, may increase economic benefits. Also, despite the fact that Mexican timber is not competitive in relation to timber from Chile and other countries, the processing quality of its secondary products is better than that of imported timber. For many producers, FSC certification assures continued access to certain export markets (Eva Fernandez, SmartWood, personal communication). This is the case for "Certified Community Forestry Company," which in 2004 signed a contract with a U.S. moulding producer.

Through the certification assessment process, many forestry operations have improved their forest management programs and the supporting cartography developed with geographic information systems, and have implemented additional information systems such as bookkeeping, forest documentation registry, and financial balance sheets. Certified communities and *ejidos* have improved and strengthened many of their manufacturing procedures in the field, sawmills, and forest administration units. For example, in Ixtepeji, Oaxaca, certification has caused the reorganization of the production process over the past three years, which has improved sawmill efficiency and production (Chávez 2005). These improved organizational processes have also allowed the certified communities of Xiacuí and Comaltepec in Oaxaca to repair their inoperable sawmills, and the certified community of Xiacuí to install a kiln.

Environmental

Certified forest operations incorporate more environmental safeguards and biological and ecological considerations into their silvicultural management processes than non-certified operations. Certification requirements and recommendations have encouraged communities and *ejidos* to conduct inventories of the flora and fauna within their forests. Certification has required the development of monitoring systems and other follow-up processes in areas designated for forest use, and has supported initiatives aimed toward educating landowners about the protection and conservation of forests with high conservation value (Patricia Gerez, personal communication 2003).

Certification has also allowed forest communities and *ejidos* to identify their strengths and weaknesses, value their own progress, and try to improve weaknesses in their forestry management procedures, community organization, forest ventures, and overall management. Certification's requirements and recommendations have allowed many communities and *ejidos* to formally incorporate ecosystem conservation and protection procedures and carry out better follow-up of their forestry technical service providers.

In general, however, the ability of certified operations to maximize the environmental benefits of certification depends on their economic and technical resources. Those sites with the most resources tend to be integrated in *ejidos* and/or Community Unions[4] that can hire technical forestry services providers who are closely tied to the project and the interests of the communities and *ejidos*. Several *ejidos* or communities that have important natural and social capital have been able to develop and hire forestry professionals from within their own ranks, which leads to higher quality forestry and commitment to assessment and technical assistance (Bray and Merino 2004). This has, for example, occurred at UZACHI in Oaxaca and the *Ejidos Union Emiliano Zapata* in Durango, among others. In these cases, the process of complying with the requirements of certification tends to be faster and within the timeframe established by the certifiers (Eva Fernandez, SmartWood, personal communication).

[4] Unions of communities or of *ejidos* are organizations made up of more than one *ejido* or community. They normally join together to contract their own forestry professionals to handle forest management. The participating communities or *ejidos* share the costs of these professionals' salaries.

However, there is also a group of small-scale *ejidos* and communities that cannot afford to hire technical forestry assistance on a full-time basis. For these groups, follow-up and attention to the sites that have undergone a certification assessment is done by an external consultant. In this case, compliance with certification conditions and requirements tends to take longer and be more difficult, especially if the conditions require financial investment. This has occurred at the *Ejido Echeverría de la Sierra* in Durango, and *El Centenario*, also in Durango.

Many members of CCMSS believe that certification and its associated benefits are about to reach their maximum capacity in Mexico. Most of the forestry operations that are characterized by a high level of forest management will soon be certified (Patricia Gerez, personal communication 2003). Thus, many forestry operations in the country whose forest management has been rated average and poor will remain so, and will be unlikely to be certified in the near future. As a result, forest certification in Mexico may be unable to solve many serious forest problems such as deforestation,

loss of biodiversity, forest fires, and use of illegal wood, especially since several of these problems occur only in places without commercial forest activity. This is the case with deforestation in Mexico, which is caused primarily by changes in soil use triggered by the expansion of cattle and farming. In addition, forest fires are observed primarily in non-commercial forest areas and can be traced back to the use of fire to encourage the establishment of both farming and grazing areas for cattle.

CONCLUSION

Summary

The principal lessons of forest certification in Mexico include:

1. The forestry operations best situated to be successfully certified are those communities and *ejidos* that carry out community silviculture, because community forestry involves management principles similar to those promoted by FSC;
2. For certified operations, forest certification has served as a tool for improving silvicultural, administrative, social and ecological processes;
3. Forest certification can be used as a government policy instrument for strengthening and improving sustainable forest management;
4. The certification saturation point has been reached in Mexico. Despite intense efforts, all the communities, *ejidos* and small-scale private operations capable of being certified have been certified. The remaining forestry operations in Mexico will, in the medium term, have to undergo an intense process of improving their forest management in order to meet the FSC standards.

Forest certification in Mexico was developed as part of a joint strategy between a civil society organization, CCMSS, and an international NGO, Rainforest Alliance, to promote the improvement of forest management. The forest communities and *ejidos* that practiced silviculture in the southern part of the country shared many of the standards and norms promoted by the FSC.

The demand subsequently created by the forest industry in the northern part of the country — ultimately attributable to demand for FSC-certified products from international buyers — promoted certification in the states of Durango and Chihuahua. In addition, Mexican government programs encouraged and stimulated certification. In just a few years, the number of forest operation sites and certified area in Mexico increased dramatically. At present, around 800,000 hectares are certified or will be assessed soon. In fact, Mexico is one of the countries in the world with the most certified forest area managed by community forestry operations.

Certification has generated among certain sectors of society an increased confidence in certified communities' and *ejidos*' sustainable forest management.

Many certified operations have received financial support from the government, and their forest management processes have been strengthened in terms of both sustainable forestry practices and business processes and management.

However, the value of certification as a market instrument is currently being questioned by many forest communities and *ejidos*, as few economic benefits have resulted from this process. This is why it is urgent that all actors involved — federal and state governments, NGOs, supporting international agencies, and forest industries — address the need to develop commercial links between certified forest producers in Mexico and certified forest products consumers both in Mexico and around the world. It is necessary to analyze and evaluate the feasibility of pushing forward and promoting stable certified forest product markets. Part of this analysis will involve understanding the conditions under which forests in Mexico are produced and managed, and developing and promoting appropriate market niches that incorporate forest certification into a tight and stable market.

Certified forest products stemming from indigenous, poor rural communities may only be able to compete in the marketplace for sustainable forest products when they are officially differentiated from those products coming from private or state-owned forests, or even from certified forest plantations. Without some such strategy, forest certification for forest communities and *ejidos* will cease to be a supporting instrument of proper forest management processes, and will risk becoming an additional cost, soon tossed aside if it does not create an economic advantage in the market.

Roadblocks and Challenges

Although certification was accepted readily by many communities and *ejidos* in Mexico, there have been many challenges to making certification a viable, long-term success in the country. These roadblocks center primarily on the lack of technical and financial resources of community and *ejido* forestry operations, and the lack of markets for their certified products.

Maintaining certification momentum within a universe of small forestry operations has been difficult. Communities and *ejidos*, as well as small-scale landowners, do not have sufficient resources to individually settle the payments for certification or to comply with the necessary technical requirements. While the cost of certification has been covered by NGOs or state initiatives for many operations, these operations will eventually need to be financially self-sufficient.

An additional hurdle for many operations is the lack of access to forestry professionals and technical assistance needed to meet the requirements of certification and to conduct ongoing monitoring and follow-up. The certifying agency generally tends to go no further than the evaluation process, with subsequent annual audits. While the government provides economic support to certified forest operations that do not have the resources to meet the certification requirements, a coalition of civilian organizations and forestry professionals that supports the continuous improvement process of *ejidos* and forest communities would be beneficial. Such a coalition would also analyze the effects of certification at a forest firm level, at an *ejido* and/or community level, and at the regional, state, and national level.

According to CCMSS, another of the most important bottlenecks in the evaluation process for certification in Mexico is the need to have a larger number of qualified consultants to carry out the forest certification assessments (Alatorre 2003).

Without a doubt, one of the greatest obstacles to successful forest certification is the lack of access to markets willing to pay higher prices for certified timber and products. After promoting certification in Mexico for ten years, most of the certified community forestry operations and *ejidos* have not been able to place their forest products directly into markets that purchase these kinds of products. Access has been achieved only by private industries in the state of Durango that purchase certified wood from sites in the state and sell it to their clients in the United States.

Finally, it is necessary to finish developing the national FSC certification standards for Mexico, so that they are congruent with the conditions and reality of the country's forest ecosystems and forestry sector. The development of standards should be part of a national plan that also follows up and monitors the certification process in Mexico.

Future Developments

While Mexican state and federal governments have created stronger pro-certification initiatives than in most other countries, the future success of certification also requires that government policy be developed to improve the transformation and industrialization processes of certified timber products, as well as the production of value-added products and of products that satisfy the quality standards of foreign markets. It will also be necessary to strengthen local businesses' forest administration processes, develop management frameworks, and promote production processes that are highly efficient and competitive.

The certification process in Mexico will require greater fiscal, regulatory and economic incentives in order to maintain the interest of certified communities and *ejidos* in continuing with certification. The achievements of certification in Mexico are due in great part to the work, experience, and trust developed by CCMSS within the communities and forest organizations in Mexico. If SmartWood, as the agency in charge of certification in Mexico now, does not take these experiences under advisement and give priority to the commercialization of certified products, there will be many problems in maintaining the certification process in this country.

Future success of certification will also require that government institutions develop a program to promote effective forestry management in those forest communities and *ejidos* that are still far from being certified, but which have demonstrated interest in improving their management of their forests. The emergence of new certifying agencies in Mexico will likely provoke an improved performance among this type of organization, and will expand the possibility of bringing new forestry operations into forest certification.

Finally, forest communities with internal conflicts in their territory have been deemed ineligible for certification, and this has discouraged them from engaging in proper forest management. This was the case of the Pueblos Mancomunados in Oaxaca. Perhaps if the certifying agency were to consider certifying just the portion

of the forestry operation that is conflict-free, this could encourage the owners of forestland under private or social property tenure to maintain their certification and try to resolve their internal conflicts.

Future Research

Regarding future research on certification in Mexico, among the most important topics will be further evaluation of the environmental, social and economic impacts of forestry certification over the last ten years. This research should aim to discover whether social conditions among the people of certified communities and *ejidos* have improved, whether forest management has come to incorporate better safeguards for preservation and conservation of the biodiversity of certified forests, and whether, through strengthening forestry administration, greater efficiency and improved market prices have been achieved among community forestry enterprises. Research should be encouraged into market and commercialization opportunities so that Mexican forestry firms can improve their prospects for entering international markets in North America and Europe.

In this sense, the feasibility of creating or developing new certification processes that highlight the value of community forestry operations should be explored. Such new certification processes would seek to differentiate their products in the international market, with fair market prices.

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Organization	Date
Noram de México	2002
Certificación del Consejo Civil Mexicano para la Silvicultura Sostenible A.C.	2004
Comisariado de Bienes Comunales de Santa Catarina Ixtepeji	2002
Comisariado de Bienes Comunales de Capulapan de Méndez	2001
Comisariado de Bienes Comunales de Santiago Textitlán	2002
Comisariado de Bienes Comunales de San Pedro El Alto	2002
Comisariado de Santiago Xiacuí	2002

ACRONYMS

CCMSS	*Consejo Civil Mexicano para la Silvicultura Sostenible en México A.C.*/ Mexican Civil Council for Sustainable Silviculture
CONAFOR	*Comisión Nacional Forestal*/National Forest Agency
ERA A.C	*Estudios Rurales y Asesoría Campesina A.C.*
FSC	Forest Stewardship Council
SEMARNAP	*Secretaría de Medio Ambiente, Recursos Naturales y Pesca*/Secretariat for the Environment, Natural Resources and Fishing
SEMARNAT	*Secretaría de Medio Ambiente y Recursos Naturales*/Secretariat of the Environment and Natural Resources
PRODEFOR	*Programa de Desarrollo Forestal*/Forestry Development Program
PROCYMAF	*Proyecto de Conservación y Manejo Sustentable de Recursos Forestales en México*/Conservation and Sustainable Forest Management Project
PROFEPA	*Procuraduría Federal de Protección al Ambiente*/Federal Office for Environmental Protection
SICODESI	*Sistema de Conservación y Desarrollo Silvícola*/
UNOFOC	*Unión Nacional de Organizaciones de Forestería Comunitaria*
WWF	*Fondo Mundial para la Conservación de la Naturaleza*/World Wildlife Fund

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