

Forest Certification and Private Forest Landowners

by Frederick Cabbage

Forest certification has expanded rapidly in the world since its introduction in 1993. It is intended to ensure that forests are managed in an economically, environmentally, and socially desirable manner. Certification develops, measures, monitors, and enforces specific forest practice standards at the forest management or the stand level. This article briefly summarizes the status of forest certification in the U.S., as well as other countries in the Americas. It relates these developments to prospects for small forest owners as well.

Certification Systems

Forest certification was largely developed as a means to encourage sustainable forestry in the tropics. However, about 95 percent of the world's certified forest area is in the northern hemisphere. In the Americas, about 95 percent of the certified forests are in North America with only about five percent in Central and South America. Canada has 69 percent of the certified forest area in the Americas, and 43 percent of those certified in the world (see Table 1 below).

Table 2 summarizes data on forest certification systems world-

wide. The largest forest certification system in the world is the Programme for Endorsement of Forest Certification (PEFC). PEFC endorses forest certification schemes developed in individual countries that meet minimum criteria for sustainable forestry. In total, PEFC has recognized 462 million acres as certified, including 138 million acres in Europe and 311 million acres in the Americas. The second largest system, the Forest Stewardship Council (FSC), is the only system with unified worldwide governance and has about 168 million acres.

Major forest certification systems in the Americas include the Canadian Standards Association (CSA, 175 million acres), the Sustainable Forestry Initiative (SFI, 136 million acres; 56 in the USA and 80 in Canada), and FSC (84 million acres in the Americas). Certificación Forestal (CertFor) in Chile and Certificação Florestal (CerFlor) in Brazil, which are recognized by PEFC, have 3.8 million acres and 1.9 million acres enrolled, respectively.

FSC started the first forest certification program in 1993, and is generally portrayed as the "greenest" of the various systems based on its strong focus on environmental protection and social concerns, as well its support from environmental nongovernmental organizations (ENGOS) such as the World Wildlife Fund and the Rainforest Action Network. FSC has a Small/Low Intensity Managed Forests (SLIMF) program designed specifically for small forest landowners. The American Tree Farm System (ATFS, 30 million acres), the forerunner to certification as now recognized, has converted from an educational program to certification, and has a

Table 1. Forest Areas and Certification, 2005

Country	Total Forest Area (000 acre)	Certified Forest Area (000 acre)	Cert. as % of Forest Area
Canada	766,030	294,310	38.4
U.S.A.	748,630	107,845	19.3
N America	1,673,329	403,672	31.1
C America	55,355	1,714	3.9
S America	1,960,185	19,691	0.9
Total Americas	3,688,868	425,080	12.0
World	9,557,554	683,696	7.2

Source: FAO 2005, Certified Program Web Sites

large number of members in the U.S. South.

Green Tag, with 69,160 acres, is a small system in the United States and Canada. Several Canadian provincial small woodland owners associations have best practice standards as well, which are being considered for conversion into forest certification systems currently. In addition, the United States Forest Service under its new planning regulations issued in 2005 is moving to at least a first party inspection approach patterned after International Organization of Standardization (ISO) 14000 for its entire National Forest System, which will include up to 190 million acres. ISO was created shortly after World War II to promote international manufacturing, trade and communication standards and to enhance global trading efficiency. In 1987, the ISO moved into the field of quality management and quality assurance, extending this further in the early 1990s to the environmental management field with the ISO14000/EMS series of guidelines. ISO 14001 is applicable to any organization that wishes to establish, implement and improve an environmental management system (EMS) or assure itself of conformity with its stated environmental policy.

Each of the forest certification systems has various principles, criteria, objectives, standards, and performance indicators, depending on the language used in that system. These may be as few as 20 or so indicators to more than 200 for each system. These standards are then audited to ensure that organizations conform to each one. Depending on the system, failure to conform or

Table 2. **Major Forest Certification Systems in the World, 2006**

System	Area (million acres)
Programme for Endorsement of Forest Certification (PEFC) ¹	462
Forest Stewardship Council (FSC)	180
Canadian Standards Association (CSA)	171
Sustainable Forestry Initiative (SFI) (2004 data)	135
American Tree Farm System (ATFS)	30
Australian Forestry Standard	13
Malaysian Timber Certification Council	12
Certificación Forestal (CertFor)	4
Certificação Florestal (CerFlor)	2
Total, All Systems	684

¹Includes 171 million acres of CSA in Canada, 134 million acres of SFI in U.S and Canada, four million acres CertFor in Chile, two million acres Cerflor in Brazil, 13 million acres in Australia, 140 million acres in Europe. Sources: program Web sites.

meet the standards may prevent certification, or may require corrective action before or after certification.

Standards in the U.S. and North America

In North America, the Sustainable Forestry Initiative program is the most widely applied forest certification system. The SFI Standard requires that program participants: (1) broaden the implementation of sustainable forestry by ensuring the long-term harvest levels based on the use of the best scientific information available; (2) ensure long-term forest productivity and conservation of forest resources through prompt reforestation, soil conservation, afforestation, and other measures; (3) protect water quality in streams, lakes, and other water bodies; (4) manage quality and distribution of wildlife

habitats and contribute to the conservation of biological diversity; and (5) manage visual impact of harvesting and other forest operations.

The SFI Standard also requires that program participants: (6) manage program participant lands that are ecologically, geologically, historically, or culturally important in a manner that recognizes their special qualities; (7) promote the efficient use of forest resources; (8) broaden the practice of sustainable forestry through procurement systems; (9) improve forestry research, science, and technology; and (10) improve the practice of sustainable forest management by resource professionals, logging professionals, and contractors through appropriate training and education programs. Finally, three objectives state that program participants must demonstrate



(11) commitment to comply with applicable federal, provincial, state, or other local laws and regulations; (12) broaden the practice of sustainable forestry by encouraging the public and forestry community to participate in the commitment to sustainable forestry and publicly report progress; and (13) promote continual improvement in the practice of sustainable forestry and monitor, measure, and report performance in achieving the commitment to sustainable forestry.

The American Tree Farm System was initiated in 1941, and required periodic inspection of the forests of participating Tree Farms. However, the rigor of the rules was modest and the inspections were sporadic. In order to become credible for forest certification, new standards and auditing procedures were developed in 2002, and were implemented in 2004. Audit inspections are now required every five years, and are conducted by cooperating foresters with forest industry, private consultants, or state foresters. ATFS has nine broad Standards, 14 Performance Measures, and 22 specific Indicators.

The Forest Stewardship Council framework for evaluating sustainable forest management consists of ten Principles and associated Criteria that focus on social, economic and ecological issues. The individual principles cover (Forest Stewardship Council 2000): (1) compliance with laws and FSC principles, (2) tenure and use rights and responsibilities, (3) indigenous people's rights, (4) community relations and worker's rights, (5) multiple benefits from the forest, (6) environmental impact (biodiversity), (7) management plans, (8) monitoring and assessment, (9) maintenance of high conservation value forests, and (10) plantations.

FSC has strong components related to environmental protection, community rights, and worker relations and protection. FSC is considered the strictest regarding high conservation value forests, justification for plantations, and a complete ban on genetically modified organisms (GMOs). However, FSC has certified a large area of forest plantations in the Americas.

Certification Impacts

Several studies that examined forest certification are relevant for small forest landowners. The Texas Forest Service found that implementation of best management practices (BMPs) was statistically higher when the timber was delivered to a Sustainable Forestry Initiative (SFI) mill. A Manomet Center for Conservation Sciences study found that landowners who were certified sustainable under either SFI or FSC had significantly stronger biodiversity practices than landowners not certified. Furthermore, they concluded that there was no difference between FSC and SFI in terms of the overall biodiversity practice scores.

Rickenbach and Overdevest (2006) assessed certification expectations and satisfaction with FSC certification in Wisconsin. They found that "signaling" benefits of getting better recognition for one's forest practices and public relations were ranked highest with the highest satisfaction, exceeding expectations. Participants had the greatest expectations for market benefits, but received less satisfaction with those. The category of "learning" about new forest management practices ranked third in expectations and second in satisfaction. Most large landowners were satisfied with forest certification, and small landowners had neutral opinions. Most owners stated that they would maintain their FSC certification.

An extensive study by the Federation of Nordic Forest Owner's Organisations (2005) examined the effectiveness and efficiency of FSC and PEFC in Finland, Sweden, and Norway for forest landowners. In brief, they found that forest certification has improved sustainable forest management, with the greatest contributions being in the area of environmental protection. This has required greater environmental investments by forest landowners, but has not brought significant economic benefits to forest owners to date. The report noted that the better environmental image might improve market access in the long term for Nordic timber and wood products.

State and university lands in North Carolina were certified and several

studies published on those efforts and costs (Cubbage et al. 2003). Studies estimated that costs for forest certification were significant, at about \$0.51 per acre to \$3.74 per acre for initial certification, and \$0.25 to \$1.85 per acre per year to maintain certification. Average costs per acre were inversely related to land ownership size (4,500 acres to 27,000 acres). The costs of certification were greater for small forest owners (NC State and Duke) than the large Division of Forest Resources land area because auditing and preparation costs were spread over fewer acres.

Forest certification has benefits for firms and landowners as well. It may help with strategic positioning and public relations, or help satisfy senior management and corporate social responsibility goals. Certification can help avoid problems with government regulators or protests from environmentalists, or boycotts of one's products. For marketing, it may help retain market access, capture new markets, attract investors and capital to the firm, or garner better timber prices. For employees, certification and environmental management systems (EMS) can improve worker safety and training; provide better morale and professional image; improve internal communications; improve record keeping and monitoring; and enhance management efficiency. Certification should lead to better management practices, with more use of science; better communication with external stakeholders; constructive dialogue with auditors; and institution of continuous improvement processes. These benefits tend to be more useful for large industrial or government owners than small landowners, but should accrue to all landowners somewhat.

Issues

There are many debates about the merits of forest certification. Some are widespread and explicit; some are more implicit. Various critics have cited the costs of forest certification and inferred that these systems are foisting social agendas on hapless forest landowners and managers. Some discussion suggests that firms or

governments in developing countries feel that certification is being promoted or required by developed countries so that the developed countries can compete better, due to their presumed technological and managerial advantages. High fixed costs of certification may put smaller landowners at a disadvantage compared to large, industrial producers. Another fear is that forest certification may be used by timber buyers to discriminate against uncertified forest landowners, or as a bargaining tactic to pay less to landowners when buying stumpage.

There are large debates about the social values included in forest certification standards, at least with FSC, including the environmental rigor of different systems, what practices are regulated and how much, and the on-the-ground impacts or improvement in forest practices. A critique from environmentalists is that some systems are merely “greenwash” to cover up the same old practices. On the other hand, some industrial advocates contend that certification standards are substantive, but only required due to “greenmail” direct action campaigns and protests at a firm’s stores, which extort adoption of certification systems to prevent loss of sales or damage to corporate image. Only a few of these debates have been (or can be) empirically tested to date because of the newness of forest certification.

Controversy over forest certification systems has occurred in the Southeast in particular. In 2005, the Dogwood Alliance and other environmental groups started a campaign against SFI, calling it the “Same-old Forest Industry” program. This included national media releases, purchasing of ads, and a major joint protest letter against SFI that was signed by 90 scientists throughout the South and posted on the Dogwood Web site, along with an extensive amount of materials challenging the merits and credibility of SFI. Instead of supporting SFI and encouraging certification options, they advocated the exclusive use of FSC. SFI responded with a letter on their Web site, supporting the independence and accomplishments of SFI, and pointing out flaws in the

assumptions of the Dogwood Alliance letter, and noting the specific indicators in the SFI standard that rebut the specific Dogwood claims.

Discussion and Conclusions

Forest certification has potential for significant impacts on natural and plantation forest management and measurement and protection of biological diversity. Forest certification by FSC requires that managers favor natural stands and high conservation value forests. The Sustainable Forestry Initiative certification process in North America includes wildlife and biodiversity as major components of its standards. FSC mandates rigorous standards for forest plantations, especially of exotic species, and careful planning to justify how they complement natural forests and are juxtaposed in the forest landscape. Social forestry standards also are important for FSC, and are being considered more closely by SFI, particularly to meet the standards in the PEFC program. SFI has rigorous environmental requirements for best management practices and wildlife protection, and more standards focused on forest utilization than FSC. ATFS has similar environmental protection, wildlife, and utilization standards, more appropriate for small forest ownerships.

Forest certification has reformed thinking and practices about the economic, ecological, social, managerial, and scientific aspects of sustainable forestry. While some of this is rhetoric, the new view toward forestry is being imbued throughout the organizations as the certification standards trickle down to most employees and operations. Certification under the major systems (SFI and FSC) is more difficult for small landowners, because of the significant annual audit costs (say \$5,000 per owner per year), and the large amount of record keeping and preparation costs. Thus the FSC small landowner group certification, or the systems designed specifically for small landowners, such as Tree Farm or Green Tag, are apt to be best for most nonindustrial private woodland owners.

The continued application of sustainable forest management criteria

and indicators through forest certification schemes will enhance data collection, scrutiny, management, and protection of natural forests throughout the world. At the same time, forest certification offers promise for the continued social imprimatur to grow and manage intensive forest plantations under reasoned guidelines and standards. Firms also should benefit from better planning, better morale, better marketing, and in other means from forest certification. Small landowners may gain better market access for their certified timber, but this has not occurred to date. Costs for certification under the major systems are significant, which can be borne at the least cost per acre by large landowners.

Forest certification will continue to be demanded by the public, by buyers of wood products, and by environmental groups that drive much of this agenda. With success, forest certification will continue to enhance forest management, forest protection, and social benefits in the Americas in the future. The tradeoffs between perceived benefits and costs discussed here will determine the merits of adopting forest certification and its rate of adoption by different landowners. 🌿

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Frederick Cubbage is a professor at North Carolina State University in Raleigh, North Carolina. (Email: fredcubbage@ncsu.edu.)