Forest Certification:
Are Mutually Recognized Standards Feasible?

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Abstract

Forest Certification Programs have emerged as a result of the active roles that industry associations, environmental nongovernmental organizations (NGOs), national governments, and international organizations have played in developing and promoting codes of conduct that formally sanction and certify sustainable forest management. We describe the emergence of forest certification standards, outline current certification schemes and also discuss the limited success of certification and some of the obstacles to its adoption in developing countries. The current diversity of forest certification programs and ecolabeling schemes has created a costly, less-than-transparent system that has been largely ineffective in terms of the initial goals of reducing tropical deforestation and illegal logging. Some steps have been taken toward harmonization of different certification criteria as well as endorsement and mutual recognition among existing forest certification programs. A common international certification standard could help avoid discrimination against any particular program or region of the world.

Key Words: Forest certification, codes of conduct, chain of custody, Forest Stewardship Council, PEFC, Sustainable Forestry Initiative, sustainable forest management

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Introduction

The forestry industry provides a good illustration of the active roles that industry associations, environmental nongovernmental organizations (NGOs), national governments, and international organizations can play in developing and promoting codes of conduct that formally endorse sustainable forest management. The development of these certification programs reflects some of the challenges to worldwide dissemination of common codes of conduct, particularly in developing countries.

Media and environmental NGOs raised public concerns regarding illegal logging of tropical hardwoods and clear-cutting practices in North America during the 1980’s. As a result of public and market pressures forest certification and ecolabels for wood products emerged as a response to potential boycott campaigns against major retailers. Several national and international certification standards developed to address the operation of the forestry industry, promising benefits to all stakeholders from forest owners to consumers in the 1990s. Certification would provide consumers with desired information about the environmental impacts associated with the forest products they purchase. For corporations, forest managers, and landowners, certification and ecolabels would be tools for gaining market access or competitive advantage by demonstrating responsible forest management. For governments, certification and ecolabels offer soft policy instruments to promote environmentally sound practices through demand-side responses (Stevens et al. 1998, Eba’a Atyi and Simula 2002).

Although certification has gained popularity in recent years, price premiums have been elusive for forest owners and manufacturers. Also, contrary to the original target of conserving forests in developing countries, these programs have overwhelmingly certified sustainable management practices in developed countries.

Major Forest Certification Programs

The World Trade Organization places forest certification standards in the category of process and production methods standards, which in this case specify how natural resources are managed and how harvesting is carried out. The wood products industry has adopted different certification schemes for sustainable forest management and chain-of-custody regulatory measures. Chain-of-custody refers to the ability to track products from the forest to the final consumer. The process documents all phases of ownership, processing, and transportation. Products traced by a chain of custody are identified by an ecolabel (Anderson and Hansen 2004b).

Forest management and chain-of-custody certification attempt to address the operation of the entire industry, rather than building niche markets for specialty products. Figure 1 illustrates the formation, adoption and application of forest certification schemes. Every program is governed by a Board often comprised of representatives from the industry, academia, NGOs, communities and other stakeholders. This group of stakeholders is responsible for the development and approval of criteria for a certification program. These certification criteria should be applied by forest owners, and the primary and secondary wood products manufacturers that seek certification.
Forest management units, transportation operations and manufacturing facilities are audited and certified by a third-party organization independent from the organization issuing certification criteria.

Globally, the three most widely adopted certification schemes are the Forest Stewardship Council (FSC), PEFC (originally Pan European Forest Certification, now Program for the Endorsement of Forest Certification), and Sustainable Forestry Initiative (SFI) (Eba’a Atyi and Simula 2002). In North America, the main forest certification programs are FSC, SFI, American Tree Farm and Canadian Standard Association Sustainable Forest Management Program (CAN/CSA Z809). For a detail discussion and comparison of different certification programs please see Vlosky et al (2005) and Fischer et al (2005).

Table 1 shows the major certification programs and lists countries with large areas of certified forestland. Notice that the majority of certified forests are located in North America and Europe.

Given the geographic distribution and size of certified forests it suggests that certification has been rapidly adopted in vast areas of temperate forests responding to a public concern on the sustainable forest management in these areas. However, we argue that a large number of different schemes is costly and may cause confusion among consumers. Regarding cutback of
Table 1. Certified forest areas classified by selected countries and certification standard (million of hectares)

<table>
<thead>
<tr>
<th>Forest Certification Standard</th>
<th>Country</th>
<th>SFI</th>
<th>FSC</th>
<th>CSA</th>
<th>PEFC</th>
<th>Tree Farm</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Canada</td>
<td>33.9</td>
<td>4.9</td>
<td>63.7</td>
<td></td>
<td>101.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>18.7</td>
<td>6.7</td>
<td>10.5</td>
<td></td>
<td>35.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Finland</td>
<td>&lt;0.01</td>
<td>22.3</td>
<td></td>
<td></td>
<td>22.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>10.4</td>
<td>6.4</td>
<td></td>
<td></td>
<td>16.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Norway</td>
<td>0.01</td>
<td>9.2</td>
<td></td>
<td></td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>0.5</td>
<td>6.9</td>
<td></td>
<td></td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Austria</td>
<td>&lt;0.01</td>
<td>3.9</td>
<td></td>
<td></td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Russia</td>
<td>3.9</td>
<td></td>
<td></td>
<td></td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>0.01</td>
<td>3.6</td>
<td></td>
<td></td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poland</td>
<td>3.2</td>
<td></td>
<td></td>
<td></td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brazil</td>
<td>2.9</td>
<td></td>
<td></td>
<td></td>
<td>2.9</td>
<td></td>
</tr>
</tbody>
</table>

*Bolivia, Croatia, Czech Republic, Chile, Latvia, South Africa, United Kingdom, Estonia, Lithuania all have more than one million hectares of certified forests.

Sources: Canadian Sustainable Forestry Certification Coalition (n.d.), FSC (2005b), Forest Certification Resource Center (2004), and PEFC (2005).

deforestation in the Tropics, additional costs associated to certification have been a major setback to its widespread adoption in other parts of the world. We will further discuss these issues in the next section.

A by-product of certification programs has been the creation of a new industry of third-party auditing enterprises. Examples include SmartWood for FSC and PricewaterhouseCoopers, Bioforest Technologies, Interforest/Arthur Andersen, and the Plum Line for SFI. Société Générale de Surveillance may be the largest player, offering FSC, SFI, and PEFC certification; 57% of all FSC-certified forests are certified by Société Générale de Surveillance (Eba’a Atyi and Simula 2002).

All forest certification and chain of custody standards are under constant revision in an attempt to incorporate concerns from different stakeholders including social, environmental and industry groups. For example, SFI and FSC are both reviewing the implementation of the FSC Principles and Criteria in plantations. FSC issued new chain of custody and labeling standards in October 2004, which are to be fully adopted by July 2005 (FSC 2005). The continuous update of standards for forest management, chain of custody and labeling can be costly and cumbersome to participants of the program while confusing to consumers.

**Toward a Common Standard: Issues for Harmonization**

The Confederation of European Paper Industries has identified 21 national and international certification schemes worldwide (Rupert 2001). The diversity of national, regional, and global schemes can create confusion among consumers and hinder competition among suppliers, who may not be able to afford multiple certifications for multiple clients. Today, the market seems to
be moving toward mutual recognition and harmonization of the major international standards, if not a common global certification standard.

The Food and Agriculture Organization of the United Nations, the German Agency for Technical Cooperation, and the International Tropical Timber Organization called for a seminar in 2002 to compare international schemes and develop common definitions and indicators. These organizations have served as facilitators in the process of adopting common guidelines for national and international standards. In considering a convergence to a common international forest standard, it is valid to ask whether harmonization or diversity is better for overall welfare. There may be trade-offs between the benefits of differentiation and the costs of overlapping verification requirements. Several complications related to forest products pose challenges for the development of common standards. In an effort to expedite program harmonization, the International Forest Industry Roundtable suggested the adoption of a set of different criteria to support the adoption of an international mutual recognition framework for forest certification schemes. Table 2 presents the themes and criteria that should be included in the proposed framework (Griffiths 2001).
Table 2 : Components of an international mutual recognition framework as suggested by the International Forest Industry Roundtable

<table>
<thead>
<tr>
<th>Theme</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conformity with Sustainable Forest Management (SFM)</td>
<td>The certification system shall require conformance with a nationally (or regionally/sub nationally) accepted standard for sustainable forest management which is consistent with internationally agreed sets of SFM Criteria and Indicators and which complies with applicable legislation, including ratified international agreements (e.g. Convention on Biodiversity).</td>
</tr>
<tr>
<td>Participation</td>
<td>The certification system shall be open and accessible to all interested stakeholders. The influence of all stakeholders shall be balanced and consensus outcomes shall be sought.</td>
</tr>
<tr>
<td>Scientifically supported</td>
<td>The SFM standard shall be scientifically supported. Views shall be supported by knowledge or the weight of current scientific opinion.</td>
</tr>
<tr>
<td>Continual improvement</td>
<td>The certification system shall be responsive to new knowledge, amenable to changed public values, and shall contribute to continual improvement in sustainable forest management.</td>
</tr>
<tr>
<td>Non discriminatory</td>
<td>The certification system shall be non-discriminatory, among all forest types, sizes and ownership structures.</td>
</tr>
<tr>
<td>Repeatability, reliability and consistency</td>
<td>The certification system shall ensure the results of independent audits are repeatable and consistent.</td>
</tr>
<tr>
<td>Independence and competence</td>
<td>Audits and certifications shall be carried out by competent, independent third party certification bodies and auditors, who are accredited through internationally accepted procedures. All certification institutions (including those involved in forest assessment, accreditation, standards setting, and dispute resolution) shall be free from conflicts of interest.</td>
</tr>
<tr>
<td>Transparency</td>
<td>The certification system shall be transparent. All interests can identify and comprehend standards and institutional frameworks. Procedures and documentation shall be clear, concise and readily available.</td>
</tr>
<tr>
<td>SFM Claims</td>
<td>Certification procedures shall include guidelines designed to ensure all SFM claims are clear, unambiguous, substantiated, and consistent with relevant national and international laws, standards and guidelines.</td>
</tr>
</tbody>
</table>

Source: Griffiths (2001).
Next, we briefly discuss some major issues that are barriers to the development and adoption of common international forest certification standards.

**Certification Criteria**
A degree of harmonization might be achieved among international, national, and private forest certification programs if a set of minimum requirements for sustainable forest management were developed (Whiteman et al 1999, Eba’a Atyi and Simula 2002). A common standard would have to choose common criteria and commit to system- or performance-based standards. By compressing standards, the strongest and weakest programs are naturally eliminated, even though each might have its place given different consumer preferences and compliance costs. To comply with a system-based certification scheme, a company must demonstrate that it has a management system in place to identify, measure, and monitor its impact on the environment and to improve environmental performance. However, the company is not required to meet any particular standard. Rather, collection of the monitoring information itself is seen as a desirable first step toward improving performance. A performance-based scheme goes further and requires the company to meet certain standards or report achievement in a quantitative way (Costa and Ibanez 2000). Experience in the timber and forest products industry seems to indicate that a performance-based scheme is better suited for manufacturing but a system-based approach is more appropriate to the certification of forest management practices. Nevertheless, a combination of both is probably necessary.

**Outsourcing and Commingling**
Commingling of certified and non-certified wood is a major challenge toward the development of common certification standards. Because of increased globalization and outsourcing in the forest products industry, particularly manufacturing, end products often mix wood and fiber inputs from certified and uncertified sources. Given manufacturers’ large product volumes and many lumber suppliers, it is difficult to track wood products from manufacturers back to their original sources. Hence, standards for procurement allow these products to enter the certified stream. To address labeling concerns, the PEFC and SFI have set a minimum content of certified wood or fiber that solid wood products, chip and fiber products, and assembled products must contain. FSC has recently issued a new set of labels for products containing 100% certified, products with mixed sources and Recycled products (FSC Chain of Custody 2005). PEFC minimum content is 70%, and SFI minimum requirement is 66% (Forest Certification Resource Center n.d.).

**Ecolabeling and Consumer Credibility**
The diversity of ecolabels (which reflect the multitude of certification schemes and types of products) can be confusing to consumers and weaken the credibility of all labels. Consumers prefer detailed information that labels often do not provide. In addition, current label formats make it difficult to compare product attributes because they do not differentiate between plantations and natural forests or among the environmental services provided by the forests. Information about the endorsing entities and the evaluation procedure could help bolster consumer confidence and influence consumers’ selection of ecolabeled products (Rickenbach 2002, Teisl et al. 2002, Anderson and Hansen 2004a, 2004b). On the one hand, a certain level of coherency among current standards could help avoid confusion among consumers. On the other hand, consumers in different markets may hold diverse views about which environmental
information is important when they make purchasing decisions. In that case, standardization could inhibit differentiation among attributes and the detailed information that consumers desire.

Ozanne and Vlosky (2003) indicate that consumer understanding of the concept of forest certification has increased from 1995 to 2000 but it was still low. According to a recent study by Vlosky et al. (Forthcoming), 68% of homeowner respondents indicated they have never seen an ecolabel on wood products.

**Certification Costs**

The primary benefit to forestry companies of a common standard would be relief from overlapping compliance and certification costs. A single certification could then foster more competition, as suppliers would be free to sell to any client demanding certified products, not only the subset requiring a particular label out of many. It also could foster competition among certifying organizations, further reducing costs. However, if the common standard ends up being more rigorous than the label a forest manager would otherwise have chosen, then compliance costs could rise, meaning some forests might forgo certification.

**Final remarks**

Concern over rapid deforestation in developing countries initially drew attention to forestry practices. Different stakeholders began to pressure major retailers and lenders to source their products from sustainably managed forests. These companies in turn demand verifiable assurances from their suppliers, due as much to a desire to protect corporate images and avoid blacklisting as to market eco-products to consumers. Several national and international forest certification schemes have been developed over the past 15 years. In that time, forest certification has been widely adopted in developed countries; however, contrary to earlier goals, it has been slow to gain acceptance in developing countries.

Demand for certified products in those countries is low, and costs related to certification and auditing may be prohibitive. In developed countries, despite greater market penetration of certification, there is little evidence that producers of forest products have been rewarded with higher prices. Rather, major retailers and corporate purchasers have made certification a cost of doing business. In retrospect, these results should not be surprising. By succeeding in certifying the mass market of forest products, the industry has surpassed the creation of a niche market, in which exclusivity breeds premium prices by targeting the most environmentally conscious consumers. Thus, in the developed world, the systems have arguably achieved improved environmental management without additional government regulation at little or no apparent cost to consumers while producers have taken on the additional costs to secure markets for their products.

However, the impact of international certification programs is more ambiguous for developing-country producers, who are less able to pay for the costs of certification, face little demand at home for certified products, and see little in the way of premium prices even in export markets. The fact that some major corporate purchasers require certification may even imply fewer
markets for developing-country wood and wood products. Reduced demand for exports may relieve some pressure for logging but does not improve producer practices or living standards.

Hence, the question arises as to what extent common, clearer standards could improve incentives for producers, particularly in developing countries, and what other policies might be needed. The sheer variety of certification programs has resulted in segmented markets, difficulties in maintaining credible chains of conduct, and considerable confusion to consumers. On these points, then, the harmonization of forest standards can offer benefits to both suppliers and consumers. However, any harmonization requires some participants to make their standards more stringent and others to water theirs down. Although the easiest basis for developing a framework for a common forest certification scheme probably would be management systems, performance standards would likely have to be incorporated as well.

Because major retailers favor the procurement of wood products certified under a single umbrella-certification program, mutual recognition can broaden markets for finding suppliers and prevent discrimination against any certification program—or region. However, mutual recognition does not necessarily assure retailers and consumers that all participant forest managers meet equivalent standards. Rather, as SFI seeks endorsement by PEFC, those consumers will be assured that all participants meet criteria for management systems. FSC still requires more stringent performance measures. The opportunity for competition among certifiers risks leading to a “race to the bottom,” because certifying to the easiest system allows access to all with mutual recognition. However, the programs as a whole have an incentive to maintain credibility, so as long as the minimum standards are appropriate and recognized by all stakeholders, competition may instead primarily help reduce certification costs to landowners.

Because cost is a major barrier in developing countries, this effect could contribute to expanding the area currently certified. However, it is unlikely to be enough. To make forest certification more attractive in developing countries, lower costs are needed; group certification and financial support from governments and international sources are possible means of reducing landowner burdens. On the whole, it is by no means clear whether greater standardization will offer significant help developing-country producers and forests. The benefits of common standards—improved consumer credibility and prices, or lower costs—must be passed on to them.

Unfortunately, it is likely that developed-country stakeholders will reap most of the benefits, as they do now. In the meantime, partial standardization may be more disadvantageous. Notably, the program that is most prevalent in developing countries is more reticent to allow mutual recognition, whereas the systems well seated in developed countries are moving toward consolidation. This trend may exacerbate issues of market access.

Even with a successful certification program for exported wood, significant environmental improvements are hardly guaranteed. Most wood is consumed locally, and the pressures for certification do not apply there as they do in developed countries. For illegal and open-access harvesting to become less worthwhile, domestic timber prices would have to fall. Yet if higher

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2 The value of cleared land also plays an important role, since deforestation often occurs to convert land to agriculture.
export prices have any effect, it would be to put upward pressure on domestic prices, by diverting supply toward certification and export, or by the laundering or smuggling of wood products into the export market. Since locally processed wood products (like plywood or furniture) represent an important link between uncertified wood and export markets, national certification programs in developing countries must work harder to incorporate and enforce standards for those products, not just harvesting practices. Even then, processors in third countries still provide ready links between uncertified timber and wood products exported to developed countries.

Ultimately, however, the biggest challenges for forest management in developing countries lie beyond the scope of mass certification: poverty and insecure land tenure. Certification can make a difference in some areas, such as those offering particular products slated for export. But because the vast majority of wood is harvested for local consumers, they cannot afford to pay extra for an ecolabel, and because producers are not sufficiently secure to take a long-term land management view, large-scale impacts still seem remote.

Literature Citations


