

# Behind the logo

An assessment of the  
Sustainable Forestry  
Initiative in comparison  
with the  
Forest Stewardship Council  
in the USA



A report prepared for Fern

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**An assessment of the Sustainable Forestry Initiative (SFI) in  
comparison with the Forest Stewardship Council (FSC) in  
the USA**

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This report is part of a series, including a report on the PEFC and the FSC in Sweden; the PEFC in France; the PEFC and the FSC in Germany; the PEFC in Finland and the SCA in Canada. All reports are available at Fern's website: [www.fern.org](http://www.fern.org), as is a synthesis report based on these studies.

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## I. SUMMARY

There is a growing international movement to conserve forests through forest-products certification. Certification is a tool to help consumers choose wood products that come from well-managed forests, instead of destructive logging practices. Interested forestry operations hire independent third-party auditors to assess and certify whether their practices comply with the requirements of a certification program. The role that certification can play in improving forest management depends upon the rigor of the certification program. Unfortunately, there has been a proliferation of competing certification programs, many of which are not credible. This paper analyses the industry-backed Sustainable Forestry Initiative (SFI) and compares it to the non-profit Forest Stewardship Council (FSC) program.

In summary, the SFI is not an environmentally credible forest products certification and labeling program. The Forest Stewardship Council (FSC) is a rigorous, environmentally credible, and broadly supported forest certification program, as well as the only global certification program in existence. It has support from: major environmental groups internationally; major retailers that have FSC-wood procurement preferences, including Home Depot, Ikea and Lowe's; and many small and large forest owners and timber companies in over 30 countries.

The Sustainable Forestry Initiative (SFI) is a program of the American Forest & Paper Association (AF&PA), the forest-industry trade association in the United States. Because of the program's goal to work with all AF&PA member companies (representing 90% of U.S. industrial forestland) to help improve their practices, the SFI is much weaker and more flexible in approach than the FSC. Participation in the SFI is a condition of continued membership in AF&PA. As a result, SFI embraces the current range of forestry companies and practices in AF&PA – both the good and the bad – and attempts continually to improve them, regardless of current performance and motivation. The SFI also has a licensing program for non-AF&PA members that wish to participate, such as state lands, university lands, and Crown lands in Canada. The SFI does not directly certify small private forestland owners.

Companies and licensees are required to self-report annually their progress towards implementing the SFI standards (SFIS) to the AF&PA. No independent monitoring is required. Participants wishing to make public claims of compliance with the SFIS must seek formal “verification” using the SFI’s new Verification Procedures. This allows first-party, self-verification by the forestry company itself, second-party verification by an affiliated or interested group, or third-party verification by an impartial or objective group, known as a certifier. Successful third-party verification is called “certification.”

The SFI’s main objectives are to:

- manage visual impacts of harvesting;
- reforest harvested areas;
- reduce harvesting impacts on water quality and soils;

- manage for wildlife habitat, biodiversity and special sites of historical, ecological, or biological significance;
- Promote efficient utilization of forest resources; and
- Promote SFI-endorsed practices to loggers, foresters, and landowners.

There is no doubt that efforts of the forests products industry and forestland owners to improve their practices are both necessary and encouraged. But, overall performance under a certification program is only as robust and consistent as its standards and procedures require – and the SFI’s are flexible, weak, and open-ended, despite recent program improvements. The SFI does not require substantial modifications beyond *status quo* practices, legally required practices, recommended Best Management Practices (BMPs), and the prevalent “cut a tree, plant a tree” model of sustained-yield forestry that emphasizes maintenance of fiber supply to the detriment of long-term forest ecosystem function. Indeed, the SFI’s clearcutting and “green up” rules are not based on ecological science, but on attempts to minimize the aesthetic and visual impacts of harvesting, according to the program’s own materials.

In early March 2001, approximately 94 million acres were enrolled in the SFI in the United States and Canada. About 28 million of those acres were SFI “certified.” The certified acreage included 7.2 million acres (nearly 25%) managed by Interfor in British Columbia, Canada. The Interfor certification was issued in December 2000, against a backdrop of criticism and boycotts by environmentalists, corporate wood buyers, and affected indigenous people, who opposed Interfor’s clearcutting of endangered, old-growth temperate rainforests, including 1000-year-old trees. The SFI expects about 78 million acres to be third-party certified in the United States and Canada by the end of 2001. This will include most AF&PA member company acreage.

The AF&PA also plans to launch an SFI on-product certification label and ad campaign in 2001 for SFI-certified companies and licensees. Yet, labeled wood need not originate in SFI-certified forests; it may come from “open market” log purchases. Current SFI procurement standards for wood coming from non-certified outside suppliers are insufficient to ensure that sound forestry practices are taking place on those lands. The AF&PA is placing promotions before performance by launching an SFI on-product label and ad campaign.

SFI is *not* an environmentally credible forest products certification and labeling program at this time. The SFI lacks many of the procedural, structural, and standards components necessary for credible, independent third-party certification and labeling. For example, it fails to:

- protect old-growth, endangered and “High Conservation Value<sup>1</sup>” forests;

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<sup>1</sup> High Conservation Value Forest (HCVF) is a designation within the FSC system, requiring special management.

- limit adequately large-scale destructive clearcutting and the conversion of diverse natural forests to ecologically simplified tree farms;
- require reductions in chemical use;
- control adequately the release of new “genetically modified organisms” (GMOs) into the environment;
- maintain/restore adequately forest ecosystem processes;
- address social factors, such as consent of indigenous people for corporate logging in their traditional territories;
- require consistent and repeatable application of standards to all operations in a region (as opposed to allowing the standards to be individually tailored by each participant);
- emphasize assessment of field-based performance (as opposed to process-based measures that can be assessed in an office);
- require annual field audits;
- require chain-of-custody tracking to ensure that pending SFI-labeled products will originate in SFI-certified forests;
- include annual monitoring of certifier performance for quality control and consistency of approach;
- establish full independence from vested industry interests and control;
- include balanced public/stakeholder input into the program, standards, and certifications.

In summary, the SFI is not an environmentally credible forest-products certification and labeling program. While the SFI may represent an opportunity to begin improving forestry practices, it provides neither a clear and consistent benchmark for environmental performance, nor sufficiently strong guidance on resource management and environmental protection.<sup>2</sup> The SFI standard and label do not offer meaningful assurance to consumers that wood products come from environmentally sound, socially just, and economically viable forest management.

Motivated companies that make progress with SFI should be encouraged to take the next step and pursue FSC certification – the only certification scheme that will give companies the credibility that they seek from certification. The FSC is the only program with the broad-based support of the international environmental community, as well as business and social interests. The FSC is the only scheme with all the structural, procedural, and standards components necessary for environmentally credible forest products certification and labeling.

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<sup>2</sup> Hall, Daniel. “Perspectives on AF&PA’s ‘Sustainable Forestry Initiative’ and Forest Certification.” Draft Paper, American Lands Alliance, October 2000.

## II. INTRODUCTION

Forests are critically important for wildlife habitat, clean water and air, stable climate, resources such as timber, recreational opportunities, and spiritual renewal. When practiced sustainably, forest management can be a very positive land use, providing ecologically sound and renewable resources, while also maintaining the forest's other attributes. It can help save the environment by creating value in standing forests that might otherwise be converted to non-forest uses, such as agriculture, in order to yield an economic return. Many environmental groups think that timber management is most appropriate when practiced in non-endangered and second-growth forest types, and that it should be discouraged in the earth's remaining pristine, old-growth, and endangered forest types, which should be protected instead.

Despite forestry's inherent potential as an ecologically desirable form of land use, poorly managed logging operations can also have serious ecological impacts, such as:

- depletion of high-quality timber inventories, including larger, older trees and favored species;
- over-simplification of forest structures and composition necessary for proper ecological functioning;
- clearing of diverse natural forests for conversion to ecologically impoverished tree farms;
- degradation of water and soil quality;
- loss of wildlife species, as well as endangered, old-growth and high conservation value forests types;
- boom and bust cycles of development that do not support stable jobs and communities; and
- negative impacts on indigenous, forest-dwelling people whose native territories may be disturbed by logging without their consent.

To help address these concerns and protect forests and biodiversity, an international movement to certify environmentally and socially responsible forest management practices began to emerge in the early 1990s. In 1993, the Forest Stewardship Council (FSC) was formed. The FSC is the most credible, broadly supported and environmentally oriented forest certification program in existence. Today it is supported by major environmental groups internationally; major retailers that specify a preference for FSC-certified forest products, such as Home Depot, B&Q, Lowe's, Ikea, and Andersen Windows; and small and large forestland owners alike, including some large pulp and paper companies such as Assidomain in Sweden.

In response to the creation of the FSC and the growing public demand and pressure for certified forest products, a number of weak, competing industry- or government-backed "sustainable forestry" certification programs have since been formed. They include the Sustainable Forestry Initiative (SFI) of the American Forest & Paper Association (AF&PA), the International Organization for Standardization (ISO) 14000, Environmental Management System (EMS),

the Canadian Standards Association's Sustainable Forest Management Standard (CSA), and the Pan European Forest Certification Scheme (PEFC). This paper offers a comparison of the SFI to the FSC; for reports on other schemes, see the Fern web-site, [www.fern.org](http://www.fern.org). In summary, FSC is the only credible forest products certification and labeling program available at this time.

### **III. THE FOREST STEWARDSHIP COUNCIL (FSC)**

Forest Stewardship Council (FSC) certification is a “seal of approval” awarded to well-managed operations that adopt environmentally and socially responsible forest management practices and to companies that process and sell products made from certified wood.

The FSC is an internationally recognized non-profit organization based in Oaxaca, Mexico. It has national “contact persons” or “initiatives” in about 40 countries, including the United States. The FSC is a membership organization. Its members are divided into three “chambers” representing environmental, economic, and social interests. The FSC’s elected board of directors is balanced across chambers and accountable to the FSC’s membership (called the General Assembly), which is comprised of 461 voting members from 51 countries.

The FSC was launched in 1993 by a balanced mix of international stakeholders, including environmentalists, businesses, forestry professionals, academics, certifiers, and church, tribal, and labor interests. The FSC’s mission is to establish international standards for forest management and to accredit and monitor organizations – “certifiers” – that are qualified to evaluate compliance with FSC standards on the ground. Through a balanced stakeholder consensus process, the FSC established international Principles and Criteria (P&C) for forest management, procedures for developing and approving detailed regional certification standards based on the P&C and input from regional stakeholders, and procedures for conducting certifications and accrediting certifiers.

The FSC’s detailed standards involve 10 principles, 56 criteria, and numerous nationally and regionally developed indicators. The standards address environmental, social, economic, and forest-products utilization issues. The FSC emphasizes evaluation of field-level performance. The FSC standards, which allow both natural forest management and plantations, emphasize maintenance of natural forest composition, structures and processes at the stand and landscape levels. The FSC standards seek to ensure the long-term health and productivity of forests for timber production; wildlife, soil and water quality; and social benefits, such as lasting employment from stable forest management operations.

FSC standards are systematically applied to all forest management operations seeking certification in a region; operations cannot opt out of assessment under any portion of the standard. To receive and maintain certification, forest owners must: (i) successfully complete rigorous certification field assessments by inter-disciplinary teams; (ii) undergo confidential peer reviews; (iii) satisfy pre-conditions in advance of certification; (iv) agree to long-term conditions for improvement where necessary; and, (v) undergo annual field-performance audits by FSC-accredited certifiers.

FSC certification is an open and transparent process. Certification assessments include public input and consultations with stakeholders. Certifiers are required to prepare and update detailed public summary reports for each certified forestry operation according to content requirements specified by FSC. A certification dispute-resolution and appeals mechanism also exists, should stakeholders wish to challenge certifications.

Certifiers also provide “chain-of-custody” assessments for companies that wish to be certified to process and sell products made from certified wood. Chain-of-custody tracking of wood through milling and manufacturing, and controlled labeling with the FSC logo, enable buyers to identify confidently wood products that originate in well-managed certified forests. Consumers can thereby use their purchasing power to influence and reward improvements in forest management around the world in accordance with the only credible forest-products certification and labeling standards in existence.

The FSC program constitutes the highest and most consistent threshold for standards, program entry, field performance, monitoring, product tracking, labeling, and public information. The FSC is the most rigorous program for protecting wildlife habitat, clean water and air, and forest ecosystem function, while assuring steady supplies of timber. For the reasons discussed above, internationally, most leading environmental advocacy groups – including Natural Resources Defense Council, World Wildlife Fund, The Wilderness Society, Greenpeace, National Wildlife Federation, Friends of the Earth, Environmental Defense Fund, and Sierra Club – encourage forest management certification in accordance with the rules and procedures of the Forest Stewardship Council.

## **IV. SUSTAINABLE FORESTRY INITIATIVE (SFI) OF THE AMERICAN FOREST & PAPER ASSOCIATION (AF&PA)**

### **1. Program Development**

The Sustainable Forestry Initiative (SFI) was developed by the American Forest & Paper Association (AF&PA) for its members. The AF&PA, based in Washington, DC, is the national trade association for the United States forest products and paper industry. The AF&PA has approximately 250 company and trade association members. They control 90% of the industrially owned timberlands (approximately 56 million acres), 84% of paper production, and 50% of solid wood production in the United States.

The SFI was developed to help address public relations concerns about the forest-products industry's environmental performance. The AF&PA conducted research and learned that the public had negative perceptions about the industry, especially its ability to protect wildlife, lakes, and streams; preserve wilderness; and practice sustainable forestry. Clearcutting was a major concern. The SFI was created, therefore, as a "proof of performance" program to help address negative public perceptions and improve AF&PA member practices.

The SFI's standards and procedures have been developed and approved by industry for industry, rather than by a balance of environmental, social, and economic interests, as is the case with the FSC. To develop the SFI standards and procedures, the AF&PA established a Forest Resource Task Force in February 1994, which hosted regional workshops to gather input from members and allied organizations. The standards setting process was not an open process; it did not provide for balanced participation by environmental and social interests. In October 1994, the AF&PA board formally approved SFI's first set of standards. The SFI program has since been modified and improved.<sup>3</sup> The current set of standards and verification procedures was approved by the AF&PA board in July 2000.<sup>4</sup>

After the first set of standards was approved, the SFI program was formally launched in January 1995. Company participation in the SFI is a condition of continued membership in the AF&PA. As a consequence of obligatory participation, the SFI includes the current range of forestry companies and practices in AF&PA (both good and bad) and attempts to improve them by requiring companies to report annually their progress towards satisfying the SFI Standards (SFIS). The SFI is less stringent and more flexible in approach

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<sup>3</sup> Some modifications were published in 1998. Additional improvements were adopted in November 1999 and again in July 2000.

<sup>4</sup> Changes to the SFI 2000 Standard as reported in the 5<sup>th</sup> Annual Progress report include: amendment of the foreword to reference the establishment of a Sustainable Forestry Board; a new performance measure about sustainability of harvests; combining objectives on biodiversity and wildlife habitat; and, addition of a continual improvement objective and measure. The standards were approved after review by AF&PA members, SFI's Expert Review Panel, consultants, and invited parties.

than the FSC because of the SFI's unique role in working with the entire membership of the AF&PA to improve performance, despite varying levels of interest, performance, and motivation.

The SFI's main objectives are to:

- manage visual impacts of harvesting;
- reforest harvested areas;
- reduce logging impacts on water quality and soils;
- manage wildlife, biodiversity and special sites of historical, ecological, or biological significance;
- promote efficient use of forest resources; and
- promote SFI-endorsed practices to loggers, foresters and landowners.

These objectives are embodied in the SFI standards (SFIS), which include five principles, 11 objectives, 35 performance measures, and numerous verification indicators. The SFI standards emphasize environmental, silvicultural, educational, and forest-products utilization issues. The SFI does not systematically address social and economic issues (as does the FSC), although it places unique emphasis on educational issues because it aims to promote SFI-endorsed practices to loggers, foresters, private landowners, and the public. Although the SFIS are quite detailed, companies retain significant discretion in interpreting them, and many evaluation parameters do not provide a meaningful basis for assessing compliance with SFI's specified goals or performance on the ground.

## **2. Program Administration**

SFI-related responsibilities are divided among the AF&PA and the SFI's Sustainable Forestry Board and Expert Review Panel.

To date the AF&PA – through its program staff, task groups, and/or board – has been responsible for:

- developing and approving the SFI's current set of standards and procedures;
- evaluating annual compliance reports from participants;
- compiling the SFI's Annual Public Progress Report;
- organizing semi-annual "National Forums" promoting exchange between loggers, foresters, companies, and other participants;
- developing program outreach materials;
- designing and implementing SFI's promotional, advertising, and product labeling programs; and
- coordinating with SFI State Implementation Committees (SICs) regarding their activities to promote the SFI.

Furthermore, the AF&PA established two "independent" bodies to help advise the program – the Expert Review Panel (ERP) and the Sustainable Forestry Board (SFB) – because AF&PA focus-group research indicated that outside involvement from state foresters, federal agencies, members of professional

forestry societies, academics, and conservation organizations helps to enhance the credibility of the SFI program.

The ERP<sup>5</sup> has been in existence for several years. It helps to advise the program and review aggregated industry-wide performance trend data for SFI before the information is released in SFI's annual public progress reports (described below). The ERP has no management or decision-making authority.

The SFB was established in July 2000 as a non-profit body to increase the SFI's appearance of independence from the AF&PA and to oversee the SFI standard and verification system. It includes some members from the ERP. Of its 14 members<sup>6</sup>, 11 are forestry professionals, including six representatives from AF&PA member companies. Three are from non-profit conservation organizations. Conservation organization representatives seek to improve the SFI and have presented specific recommendations to better align timber industry activities with international forest conservation goals, reform the SFI standard, and adopt an independent governance structure for the SFI program.

The SFB was established to help evaluate and manage the effectiveness and consistency of application of the SFI standard and verification procedures, make improvements, and monitor and resolve non-compliance issues. The SFB's role is still evolving. As yet, it has no permanent staff, although an interim Director has been hired. Its independence and decision-making authority remain unclear. The SFB plays more of an advisory role than an independent management and decision-making role at this time. The AF&PA maintains ultimate control over SFI.

### **3. The SFI's Applicability to Landowners, Loggers, Foresters, and the Public**

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<sup>5</sup> The Expert Review Panel composition is roughly as follows: 3 state foresters; 3 federal agencies; 3 professional associations; 2 university affiliates; 7 resource management organizations.

<sup>6</sup> The SFB's members are as follows:

- Allen Bedell, President, Circle B Logging, Inc.
- John Cashwell, President, Seven Islands Land Company
- A.D. Correll, Chairman and CEO, Georgia-Pacific Corporation
- John T. Dillon, Chairman and CEO, International Paper
- Rick R. Holley, CEO, Plum Creek Timber Company, Inc.
- Colin Moseley, Chairman, Simpson Timber Company
- Duane McDougall, CEO, Willamette Industries Inc.
- Skeet Burris, Non-industrial landowner, Cypress Bay Plantation
- William Banzhaf, Executive Vice President, Society of American Foresters
- Gerald Rose, State Forester Minnesota
- David B. Thorud, Dean Emeritus, College of Forest Resources, University of Washington
- Paul Hansen, Executive Director, Izaak Walton League of America
- Peter Seligmann, Chairman and CEO, Conservation International
- Lawrence Selzer, Senior Vice President, The Conservation Fund
- A non-governmental conservation organization position remains unfilled.

a. Large Forestry Companies and Landowners

There are about 504 million acres of timberland in the United States. The forest-products industry controls about 64 million acres or 13% of this land. The rest is owned by private, non-industrial owners or public entities. Private non-industrial forestland owners control about 57% or 288 million acres of the commercially productive timberland in the United States.

The SFI program is mainly applicable to large, corporate, industrial forestland owners that are members of the AF&PA – about 135 companies. These companies typically own and manage from hundreds of thousands to millions of acres. At present, the larger landholding members of the AF&PA are undertaking third-party certification, but smaller landholding members are expected to follow suit.

The SFI also has a licensing program for large landowners that are not AF&PA members, but that wish to participate in the program – about 35 in number. The SFI licensees include state and country government land managers, public and private institutions, such as land trusts and universities, non-AF&PA companies, and Crown lands in Canada.

Licensees represent millions of acres of SFI's enrollment. SFI licensees typically own and manage holdings from the tens of thousands of acres in size to the hundreds of thousands of acres in size, although Canadian land holdings may range in the millions of acres. The smallest licensee is reportedly the Duke forest (about 9,000 acres) and the largest is Interfor in Canada (about 7.2 million acres).

Twenty-one companies<sup>7</sup> (AF&PA members and Canadian licensees) have already either committed to or completed (\*) third-party certification for all or part of their operations by undergoing an audit. The SFI allows participants to

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<sup>7</sup> Blandin Paper Company  
Boise Cascade Corporation  
Fraser Papers, Inc., Edmonton, N.B., Canada \*  
Finch, Pruyne & Company, Inc. \*  
Georgia-Pacific Corporation  
International Forest Products, Vancouver, B.C., Canada \*  
International Paper \*  
J.D. Irving, St. John, N.B., Canada  
Louisiana-Pacific Corporation \*  
Mead Paper Corporation \*  
The Pacific Lumber Company  
Plum Creek Timber Company, Inc. \*  
Rayonier  
Seven Islands Land Company \*  
Stimson Lumber Company  
Stora Enso Consolidated Papers, Inc.\*  
Timber West \*  
Temple-Inland, Inc.  
Weyerhaeuser Company  
Westvaco  
Willamette Industries, Inc.\*

determine the geographic scope of that audit. Certifications are typically at the level of the entire company/ownership or a regional division.

In early March 2001, approximately 94 million acres were enrolled in the SFI in the US and Canada. About 28 million acres, in approximately 14 operations, were third-party “certified”. The SFI expects 78 million acres to be third-party certified by the end of 2001 in approximately 21 operations. (\* *Note: 2.47 acres equals 1 hectare.*)

#### b. Small Landowners

The SFI does not certify small, private non-industrial forestlands (PNIFs), but it has a “Mutual Recognition” agreement with the American Tree Farm System (ATFS), which has 65,000 PNIF members. Under the reciprocity agreement, the two programs recognize each other’s standards and procedures as substantially equivalent in terms of outcomes and performance. About 25 million acres are certified separately under the American Tree Farm System. These PNIF ownerships may range in size from tens of acres to thousands of acres.

The standards and procedures used by the ATFS are extremely vague. They were developed by the American Forest Foundation, which shares a common address with the AF&PA. The 10-point standards follow those of the SFI, but are much simpler. Other than having a written management plan, meeting certain laws, and re-establishing cut stands within 5 years, the ATFS has almost no specifically measurable performance requirements. Compliance evaluations are performed once every five years by volunteer foresters, who may even be colleagues. To help enhance its credibility, the ATFS plans to have an independent accredited third-party auditor “certify” ATFS’s internal management systems and procedures (not its landowners).

#### c. Education, Training and Outreach Program

The SFI program includes a major outreach, education, and training component for loggers, foresters, non-industrial landowners, and the public. SFI member companies are expected to support forestry educational activities, both individually and through SFI State Implementation Committees (SICs). SICs, which exist in approximately 34 states, are comprised of representatives from local forest industries, state forestry associations, government agencies, and other organizations. “The SICs...undertake the real work of public education and recruitment in the effort to bring more public and private forestland into the program. Through training programs, workshops, meetings, forest tours, brochures, mailings, web-sites, and even TV spots, the SICs promote and gather support for the SFI program.”<sup>8</sup>

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<sup>8</sup> SFI 2000, 5th Annual progress Report, page 13.

The SFI emphasizes training programs for loggers and foresters because they serve as the primary source of information for millions of private forest owners who contract with them to execute harvest plans. As of March 2001, more than 50,000 loggers and foresters had completed SFI training courses. Training courses focus on issues such as implementation of State Best Management Practices (BMPs) and safety and environmental issues, although programs vary somewhat from state to state.

SFI outreach also targets state government legislatures. Twelve states – including Alabama, Florida, Georgia, Indiana, Maine, Missouri, New Jersey, New York, Pennsylvania, Texas, and Virginia – have passed resolutions of support for the SFI.

Foresters from SFI member companies may also engage in outreach to small landowners in order to advance the educational goals specified in SFI's standards and to increase the timber supply available to company mills. For example, they may offer landowners SFI program materials, seedlings, and advice. In the Southeast, some small landowners may be encouraged to clearcut their natural forest timber resources before they mature and to replace them with ecologically simplified plantations that produce wood fiber more economically. The landowner gets quick cash and the company gets an enhanced, long-term supply of wood chips for its pulp mills. Thus, some of the practices advanced by SFI members and educational programs are designed to promote the sustained yield of wood fiber, rather than ecologically sustainable forestry.

#### **4. Main elements of the SFI standard**

The SFI's main performance goals for companies are summarized as follows:

- Minimize visual impacts of harvesting by limiting *average* clearcut size to 120 acres (116 football fields). Some clearcuts can be much larger, as long as some are smaller. The average size limit may be waived for “forest health” issues.<sup>9</sup>
- Reseed or plant within two years, or naturally regenerate within five years. Report reforestation statistics.
- Grow trees to three–years old or five–feet tall before clearcutting adjacent areas. Alternatively, a company can define its own “green up” rules.
- Use chemicals prudently by aiming for compliance with laws, Best Management Practices (BMPs), and manufacturer labels. Use trained applicators.
- Protect water quality by aiming for compliance with state and federal laws and state Best Management Practices (BMPs).
- Comply with laws governing release of Genetically Modified Organisms (GMOs) into the environment.

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<sup>9</sup> Some participants opt for smaller openings.

- Promote habitat diversity and conserve wildlife and biodiversity through policies, programs, and research. Have “programs” to protect federally listed threatened and endangered species.
- “Manage” special sites of historical, ecological, or biological significance to maintain their attributes.
- Promote diversity across the landscape by judicious placement of harvest units, age classes, and harvest methods.
- Protect soil productivity by avoiding compaction, excessive disturbance and erosion.
- Promote forest health and productivity through management, fire and pest control, and contributions to research.
- Aim for harvest rates (of fiber) in balance with growth rates (of fiber) over the long-term.
- Promote efficient utilization of forest resources.
- Provide recreational opportunities when consistent with management objectives.
- Support educational activities targeted at small landowners, loggers, wood producers, and the public, mainly through state programs and SICs.
- Communicate commitment to SFIS to employees, including at mills.
- Report compliance with SFIS to AF&PA annually.
- Develop a system to review internally the effectiveness of program implementation.

While many of these goals sound positive, program participants retain significant discretion and flexibility in interpreting them through the use of SFI evaluation parameters that often provide only a weak basis for measuring compliance. Furthermore, the program fails to cover a large number of issues addressed by FSC that are central to the practice of ecologically sustainable forestry. These limitations are described in greater detail, below.

## **5. Certification Standards and Verification Procedures**

To participate in the SFI, companies must annually self-report progress towards meeting the SFIS to the AF&PA using a standard reporting form. No independent monitoring is required. Participants wishing to make public claims of compliance with the SFIS must also pursue formal first-party, second-party or third-party<sup>10</sup> “verification”, using SFI’s new Verification Procedures. Third-party verification is the most rigorous of the options. Successful third-party verification is called “certification.”

While “compliance” with the by-law requirements of the SFI is a condition of continued membership in the AF&PA, the actual level of performance achieved is uneven and uncertain. The SFI standards and procedures are

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<sup>10</sup> First-party verification (i.e., self-verification by the same company), second-party verification (i.e., verification by an associated party such as a client), or third-party verification (i.e., verification by an independent party).

very flexible and open-ended. Individual companies are granted significant flexibility to decide how to interpret and apply them. For example, program participants are free to individually tailor some elements of the standard (i.e., indicators, performance measures) that will be used to assess their performance, as the following SFI program language indicates:

- "Participants shall...adopt performance measures that are most appropriate for the given forest conditions, even if different from those stated."<sup>11</sup>
- "The SFI Verification Indicators...some of which a forestry operation may use to assess its conformance...may or may not be applicable to all forestry organizations. SFI Program Participants will need to determine which indicators are useful in their particular situation, and perhaps apply different or additional indicators."<sup>12</sup>
- "SFI Program Participants are encouraged to be creative in using these indicators as a starting point for developing their own set of indicators to document and demonstrate conformance to the SFIS. They are not intended to be used as a checklist...to directly assess conformance."<sup>13</sup>

More precisely, participants pursuing first- and second-party verification may select which, if any, of the SFI's numerous optional verification indicators to use, and/or they may create their own. Similarly, participants pursuing third-party verification also may individually tailor the indicators that will be used to assess them, except for a subset of 75 "core indicators" that must be met for certification.

Many SFI indicators do not provide an adequate or rigorous basis for assessing field compliance with the SFI's stated principles, objectives and performance measures. For example, while SFI's indicators include both field-based and systems-based measures of performance, they emphasize the latter.<sup>14</sup> This is illustrated by the core indicators, which focus largely on process-based measures that can be assessed in an office, rather than in the field, e.g.:

- that written policies exist;
- that money is donated to research;
- that training sessions are held;

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<sup>11</sup> SFI Standard, SFI-2000, page 2.

<sup>12</sup> Verification Indicators, SFI-2003, Page 1

<sup>13</sup> Verification Indicators, SFI-2003, Page 1

<sup>14</sup> There are two basic types of standards: performance-based standards and systems-based standards (also called process-based standards). Performance-based standards evaluate whether forest management meets specified ecological and social performance measures in the field. Systems-based standards evaluate whether companies have management systems, processes and policies in place to help them achieve targets that they have set. Systems-based standards focus on process not on outcome. SFI's emphasis on process-based standards is consistent with the International Organization for Standardization (ISO) model. SFI was developed to be consistent with ISO procedures and most SFI certifiers are accredited by ISO member bodies.

- that copies of laws are accessible;
- that staff responsibilities are defined;
- that support is given for educational activities.

Not only are many of the SFI indicators systems based, rather than based on performance in the field, but many may be flexibly interpreted as well. For example, companies individually define the contents of their policies and levels of donations, etc... In fact, approximately one third of the core indicators relate to having written policies or plans, the contents of which are largely discretionary and the implementation of which is not necessarily specified.

Consequently, as written, the SFI standard fails to provide a rigorous or consistent benchmark for performance. One company's participation and field performance under the SFI may mean something very different from another company's, while both can claim compliance or "certification."

## **6. SFI's Main Benefits and Limitations**

Efforts by the forests-products industry and forestland owners to improve their practices are necessary and encouraged. The SFI's effort to raise the level of awareness and practices among its members is laudable. Motivated program participants, particularly those that interpret the letter and spirit of SFI seriously, could make certain necessary and important improvements in management, especially as a function of their level of interest in the program.

The following are the most likely performance outcomes for a company associated with SFI:

- better documentation of management activities and performance relative to the elements of SFI;
- greater compliance with water quality laws and BMPs;
- greater compliance with chemical use laws, BMPs, and labels;
- replanting and regeneration after harvesting;
- compliance with SFI clearcutting limits and "green up" rules;
- adoption of policies and programs for wildlife, biodiversity, "special sites," aesthetics, and/or recreation according to a company's level of interest;
- donations (e.g., for research) according to a company's level of interest;
- promotion of SFI among employees, loggers, foresters, private landowners, and the public.

Although this represents a start, SFI does not specify substantial field-level modifications beyond *status quo* practices, legally required practices, recommended state Best Management Practices, and the prevalent "cut a tree, plant a tree" model of sustained-yield forestry that emphasizes maintenance of fiber supply instead of long-term forest ecosystem function. The SFI standard does not include adequate guidance on a number of

important issues addressed by the FSC, such as large-scale clearcutting, conversions of diverse natural forests to simplified plantations, business-as-usual chemical use, and the release of little understood genetically modified organisms (GMOs) into the environment.

In sum, overall performance is only as strong and consistent as a certification program's standards and procedures, and the SFI's are still flexible, weak, and open-ended, despite recent improvements. Not only does the SFI lack clear and consistent benchmarks for performance, it also fails to provide strong guidance on genuine resource management and environmental protection.

The AF&PA/SFI standard of forestry continues to place substantial emphasis on intensive forestry management practices (e.g., plantations, tree farms, clearcutting, chemical use, and heavily regulated natural forest management). These practices may be important and justifiable in some contexts.<sup>15</sup> However, they do tend to replace, simplify, or truncate the species diversity, structural components, and age-class distributions found in natural forests, which are important for proper ecological functioning, wildlife habitat, and soil and water quality. The FSC also allows tree farms and plantations; however, unlike the SFI, it does not allow further clearing and conversion of natural forests for this purpose, and it requires ecologically based modifications and restoration within existing plantation units.

The SFI's main claim to "sustainable forestry" is planting and regenerating seedlings to replace trees that have been cut. More than 1.6 billion new trees are planted in the United States each year, due in part to the efforts of participants in the SFI.<sup>16</sup> This is important for maintaining ground cover and sustainable fiber supplies, but tree planting and regeneration alone do not sustain diverse forest ecosystems and high quality timber supplies.

The SFI embraces the art and science of sustainable fiber production, but it fails to pay sufficient attention to the art and science of ecologically sustainable forest management. The SFI's clearcutting and "green up" rules are not based on ecological science, but on attempts to minimize the aesthetic and visual impacts of harvesting, according to the program's own materials. The average allowable clearcut size is extremely large – 116 football fields and sometimes larger. There is no requirement to retain some trees in openings in order to mimic natural processes and maintain forest ecosystem structures and functions across successive harvest units and the landscape. Once re-established seedlings grow to three–years old or five–feet

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<sup>15</sup> Intensive management (e.g., plantations and tree farms) can produce fiber supplies very efficiently, with much higher yields per acre. Such supply can theoretically help alleviate the need to harvest in natural forests, especially High Conservation Value Forests (HCVFs) such as old-growth and endangered forests, but only if accompanied by controls that limit the locations of intensive management. Intensive management is best practiced on degraded pastures and agricultural lands and in existing plantations.

For more information, see Sedjo, Roger A. and Daniel Botkin. "Using Forest Plantations to Spare Natural Forests." *Environment* Vol. 30, No. 10 (December 1997): 14-20, 30.

<sup>16</sup> Sustainable Forestry Initiative. "A Good Sign Somebody Cares." March 2001

tall, adjacent forests can be clearcut. Under these permissive rules, entire forested watersheds (except for stream buffer zones) may be cleared and replanted, often with a single species (to the detriment of biological diversity), within relatively short periods of time throughout the landscape.

As a result, diverse and complex forest ecosystems – including old-growth forests with 1000-year-old trees – can be converted into ecologically simplified tree farms or heavily “regulated” managed forests, where trees grow no older than a specified harvest age (e.g., between 5 and 60 years). No specific requirements exist for maintaining natural species diversity, snags, downed wood, or larger and older trees in the forest.<sup>17</sup> And, while the SFI specifies a goal of maintaining diversity across the forest landscape, the requirement potentially could be satisfied by maintaining little more than a mosaic of required stream buffer zones and staggered plantation units at differing stages of maturity, all younger than a specified harvest age (e.g., 20 years).

Such conversion and over-simplification of forests may not be of great concern on a small scale and when adequately buffered by natural forests, but it becomes a problem when insufficiently planned and applied across entire watersheds, landscapes, and regions. For example, this is the case in parts of the Southeastern United States where natural forests are rapidly being lost to chip mills and plantations, many of which are owned by or associated with SFI-member companies.<sup>18</sup>

With respect to chemicals, SFI seeks “prudent” use<sup>19</sup>, which is defined as compliance with laws, Best Management Practices (BMPs), and manufacturers’ labels. Notably, chemical-use laws and BMPs are sometimes inadequate; BMPs may specify that compliance is optional or “as

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<sup>17</sup> Older, larger trees are important to old-growth dependent-species that cannot survive in the landscape without them. Snags are standing dead trees that are important den, nest and forage sites for wildlife. Downed wood, especially larger, older logs, are important for den sites, as substrate to grow fungus that feeds rodents that feed birds, and as a means to recharge soils with nutrients and organic matter.

<sup>18</sup> Williams, Ted. “False Forests.” *Mother Jones* May/June 2000: 72-79.

<sup>19</sup> Following is a sample SFI performance measure and indicators. This helps to illustrate the basis for the above critique.

“4.1.2.1.3. Program participants shall use chemicals prudently (follow all applicable label requirements, Best Management Practices, and meet or exceed laws...) to improve forest health, while protecting...public, and... forest..”

**Core SFI indicators:** [NOTE: These are required for certification.]

1. Written policy...
2. [T]raining for all persons involved in...applications
3. [T]rained... applicators ... supervise...
4. Current copies of laws...accessible...
5. Participate in research...

**Optional SFI Indicators:** ....

4. [A]pplications are in compliance with label...
5. Apply...using Best Management Practice’s appropriate to the situation...”

In summary, SFI does not limit, restrict, or reduce chemical use. It specifies a goal of compliance with laws, labels and BMPs, which are often very weak, but does not specifically require field assessment of compliance in the core indicators for certification.

appropriate”; and label instructions of economically motivated manufacturers tend to facilitate chemical use, not reduce it to the lowest possible levels. Furthermore, the SFI does not require avoidance of chemicals, use of alternatives, or prohibition of especially harmful chemicals; the FSC does. Finally, the SFI’s core indicators for third-party certification do not specifically require evaluation of field compliance; this is addressed under SFI’s optional indicators instead. Thus, SFI certification may produce little more than legally required behavior, rather than genuine protection of the environment.

With respect to protecting water quality, the SFI specifies a goal of compliance with state and federal laws and state BMPs. Although compliance with laws and BMPs is a positive step, in some states these specifications are in fact insufficient to protect water quality and fish habitat. Furthermore, although field assessment may occur, the core indicators for certification do not actually specify assessment of compliance on the ground; references to field monitoring appear in the optional indicators.

The SFI specifies compliance with laws governing the release of “genetically modified organisms” (GMOs) into the environment. Laws pertaining to genetically engineered organisms, whose potential impacts on the ecosystem are little understood at this time, are considered weak and inadequate by many environmental and consumer groups. By contrast, the FSC does not allow the use of most forms of GMOs at this time, although it does allow selective breeding and hybridization (e.g., Mendelian crossing).

The SFI requires companies to have policies and programs, and to conduct research to promote habitat diversity, as well as conservation of wildlife and biodiversity, but there are few clear goals or specific field-level performance requirements. Companies largely determine their own goals and objectives<sup>20</sup>. Snags and downed wood are not specifically required. Rare, threatened and endangered species monitoring and protection provisions are vague and insufficient. State-listed threatened and endangered species are not addressed. No reference is made to circumstances that might require habitat restoration. The SFI also specifies that landowners should “manage” special sites of historical, ecological, or biological significance to maintain their attributes. No clear parameters are set for defining “special sites.” For example, the SFI does not specifically reference or recommend conservation zones for endangered species habitats, unentered old-growth forests, or representative samples of existing ecosystems; the FSC-US standard does. Nor does the SFI contain any reference to the concept of full protection (i.e., “no harvest” zones) for any classes of special sites. Furthermore, the area currently designated as “special sites” remains minimal, as described below.

In January 2001, *A Survey of Special Sites Owned and Managed By Members & Licensees of the American Forest & Paper Association* was

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<sup>20</sup> Some SFI companies are to be commended for voluntarily devoting resources to wildlife management and endangered species protection, e.g., by donating conservation easements or entering into cooperative management agreements with conservation organizations and agencies.

released.<sup>21</sup> The survey is based on responses from 40 companies representing nearly 75% of AF&PA member land in the United States. About 156,077 acres of land are clearly designated as special sites: an area equal to only 0.3% of all AF&PA member lands.<sup>22</sup> Three-quarters of the special sites are set aside for ecological purposes. "Modified" management, which includes timber harvesting, is the predominant form of management on that acreage, rather than full protection. Member companies have also transferred an additional amount of acreage to other owners, such as The Nature Conservancy (TNC), for conservation purposes. For example, nearly 200,000 acres have been transferred to TNC by AF&PA members since 1994, and nearly 400,000 acres since the late 1970s. The study found that special site designations and land transfers have increased since the inception of the SFI. This is to be commended and encouraged, but much more needs to be done to expand such designations beyond a percentage or two of AF&PA member forestlands.

## 7. Worrisome Examples

While member companies are expected to "comply" with the SFIS and show "continuous improvement," it is still unclear what compliance really means and to what extent certified and uncertified participants must comply *now*. The fact that some AF&PA member companies employ highly unsustainable and ecologically harmful practices (see below) indicates that the program's bottom line is not only unclear, but also extremely low.<sup>23</sup> The SFI's endorsement of Interfor, Boise Cascade, and Pacific Lumber Company as meeting the certification requirements or simply the by-law requirements of SFI is clear evidence of the SFI's low standards and performance requirements.

The SFI's certification of Interfor clearly demonstrates the weakness of the program. The certification was issued in December 2000 against a backdrop of criticism and boycotts by environmentalists, corporate wood buyers, and affected indigenous people, who opposed Interfor's clearcutting of endangered, old-growth temperate rainforests in British Columbia, Canada. Interfor was devastating 1000-year-old trees and the habitat of wild salmon and grizzly bears. International environmental groups were deeply troubled by AF&PA President and CEO W. Henson Moore's press-release statement, in which he claimed that Interfor's forestry practices set a standard against which "all others will now measure their success and achievements." Interfor's

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<sup>21</sup> Weyerhaeuser, Rick and Will Price. "Survey of Special Sites Owned and Managed by Members and Licensees of the American Forest & Paper Association." Summary Report, National Fish & Wildlife Foundation, January 2001.

<sup>22</sup> Responding companies reported 1,768 special sites; however, only 1,087 had site-specific information that could be analyzed. The analyzed sites totaled 156,077 acres, representing roughly 0.3% of all land owned by AF&PA member companies in the US.

<sup>23</sup> . Hall, Daniel. "Perspectives on AF&PA's 'Sustainable Forestry Initiative' and Forest Certification." Draft Paper, American Lands Alliance, October 2000.

acreage represented nearly one-quarter (25%) of the SFI's "certified" forest area in February, 2001.

Boise Cascade, which is considered to be SFI-compliant, is also actively involved in clearcutting old-growth forests throughout the Pacific Northwest with disregard for biological diversity and high conservation value forests.

Further exemplifying concern about environmental performance under SFI is the participation of The Pacific Lumber Company (Maxxam). Although not certified, Pacific Lumber formally complied with the by-law requirements for the SFI, according to AF&PA's annual progress reports for 1996, 1997, 1998, 1999 and 2000. Nonetheless, during this period, Pacific Lumber became well known for its role in the Headwaters/Julia Butterfly controversy over clearcutting ancient redwoods in California. It was cited 128 times for approximately 300 violations of the California state forest practices rules since 1995, which resulted in the suspension of its license to practice forestry in the state of California from November 1998 through early 1999.

The poor environmental performance of these three SFI companies is no small consideration. Obviously, the overall rigor of the SFI program and standards is called into serious question by such performance. By association, the performance of other AF&PA members is also called into question.

## **8. Chain of Custody**

The SFI has no chain-of-custody tracking or certification process. The AF&PA believes that, while chain-of-custody tracking may be viable where a few large forest owners are concerned, it is not practical in the U.S., where millions of private forest owners control about 57% of the commercially productive timberland. For example, an International Paper mill may get supply from about 1000 private forestland owners, as well as company land.<sup>24</sup>

AF&PA members, such as International Paper, also argue that chain of custody is not necessary to ensure sustainability in the U.S., where they claim that a tradition of responsible management exists, including professionally trained foresters and government programs. They argue that establishing a chain of custody simply increases costs to small forest owners, reducing their incentive to practice forestry and forcing companies to seek cheaper wood from overseas where standards are lower. By contrast, FSC-US certified companies must possess verifiable chains of custody.

## **9. Product Label and Ad Campaign**

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<sup>24</sup> From "Why is SFI Superior to FSC?," IPToday, Tue, Dec 12, 2000

The SFI has no product label at this time. However, the AF&PA plans to launch an SFI-product label and ad campaign in 2001, in response to market demand for certified products. It will spend an estimated \$7 million each year for three years to promote the SFI and its product label. Individual companies may also bolster the campaign with their own promotions.

The label is expected to identify lumber produced by third-party "certified" companies participating in the SFI program. An "SFI-certified participant" label is expected to appear on products such as boards, but the boards themselves will not be certified because there is no chain of custody. Thus, labeled boards from SFI-certified companies need not originate from SFI-certified forests. They may also come from "open market" log purchases from uncertified sources. Although there are standards for wood coming from outside sources (logger training for operators harvesting the wood and information distributed to landowners), they are not sufficient to ensure that sound practices are being implemented on those lands.

Most environmental groups believe that the label launch is misguided. Even some members of SFI's own Sustainable Forestry Board believe that it is premature, because it places program promotions before performance. In a recent letter to the AF&PA board, ten U.S. environmental groups vigorously objected to the launch of the SFI ad campaign and product label; they feel that the label is misleading and will be compelled to inform consumers that SFI means the Same-old Forest Industry, not the "bold new approach" to sustainable forestry that the industry claims.

## **10. Certification Process**

Independent third-party auditors use the SFI standards and verification process.

As of July 2000, assessments should be based on the *2001 Edition, SFI Verification Process*, comprised of:

- SFI Verification/Certification Principles and Procedures (SFI-2001);
- SFI Qualification Criteria for Verifiers (SFI-2002);
- SFI Verification Indicators (SFI - 2003).

The following organizations are known to conduct SFI third-party certification audits: Price Waterhouse Coopers, KPMG, QMI, Bureau Veritas Quality International, The Plum Line, and BioForest Technologies.

SFI program participants have a great deal of influence over the third-party certification assessment process, compared to FSC participants. According to SFI program literature, SFI program participants may work with the verifier (certifier) to determine/approve the scope, location and extent of the audit, the audit plan, the audit team,<sup>25</sup> and the audit report content. Participants define

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<sup>25</sup> The SFI company or participant selects the certifier. The selection of the team members is at the discretion of, and will be approved by, the company in consultation with the leader of the certification team. One member of the verification team must be a professional forester. Conflict of interest

their own corrective actions. As a result, the independence of the assessment process can be affected by the company.

## **11. Stakeholder and Public Input**

There is no balanced stakeholder consultation or public input process for SFI certifications or standards development processes. Unlike the FSC, the SFI does not include equal and balanced participation and decision-making by economic, social and environmental interests.<sup>26</sup>

## **12. Audit Frequency**

The initial SFI certification audit shall occur within three years and then every five years thereafter. FSC field audits occur annually, with full re-evaluations every five years.

## **13. Costs of Certification**

The costs of certification vary enormously due to the differing acreages that members have certified. Figures generally run in the range of several hundred thousand U.S. dollars to employ a certification firm for a large company. Licensee certifications, which typically occur on less extensive ownerships, may be comparable or possibly lower in cost than FSC certifications.

## **14. The AF&PA's Monitoring of Compliance**

Companies are required to submit confidential progress reports to the AF&PA/SFI annually, using a standard reporting form developed by the SFI Task Force. It is up to the company to assure that the information reported is credible. AF&PA staff members review the forms, which are kept strictly confidential, to determine whether companies have complied with AF&PA by-law requirements for SFI. Then company-specific information is aggregated for anonymity by AF&PA into more generalized information on industry-wide performance trends under the SFI. The individual company reporting forms are reportedly destroyed by AF&PA once data is aggregated. Almost all company-specific information remains confidential.

The AF&PA makes the aggregated information on industry-wide performance trends under SFI and selected anecdotes available to the Expert Review

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provisions are minimal. Team members shall not have been involved in any consulting arrangements relating to a company's SFI program for one year prior to the commencement of the verification.

<sup>26</sup> The exception is the participation of "outside" interests on the Expert Review Panel and new Sustainable Forestry Board (described above), whose roles and influence are still limited, uncertain and evolving.

Panel (ERP), which evaluates the information prior to its release to the public in the SFI Annual Progress Reports<sup>27</sup>. The ERP review is considered important for validating the credibility of the results,<sup>28</sup> even though the ERP is not charged with reviewing individual company reporting forms or assessing field operations. Several ERP members have toured certain field operations. The Izaak Walton League, in particular, maintains a pilot Forest Monitoring Project for SFI that indicates that progress has been made in implementing the program, but that more progress is needed.

## **15. Public Information**

The main sources of public information about the AF&PA/SFI are:

- The AF&PA's web sites ([www.afandpa.org](http://www.afandpa.org) and [www.aboutsfi.org](http://www.aboutsfi.org)) and program materials;
- The AF&PA's Annual Progress Reports describing industry performance trends under SFI (see #14 above); and
- Audit summaries for certified operations (described directly below).

SFI program participants that wish to proclaim publicly their independent third-party certification shall work with the certifier to prepare an audit summary for public disclosure. No specific information is required in the summary. "The audit summary shall at a minimum provide the general results of conformance" (SFI Verification Process, SFI-2001, p.7). Thus, a press release claiming conformance could conceivably suffice as a public summary, although program expectations appear to be higher. For companies certified as of early March, distinct public audit summaries have not been readily available on company web-sites, from the AF&PA/SFI, or companies. Only one company is known to have made available a detailed public summary.

## **16. Complaints and Dispute-Resolution Mechanisms**

The SFI has a mechanism to hear complaints from the public, loggers, consulting foresters, and companies, etc<sup>29</sup>. The mechanism's genesis is as follows: in the summer of 1999, loggers submitted a formal letter of protest and withdrawal from the National Forum that the AF&PA hosts semi-annually to promote exchange among loggers, foresters, and companies. "[T]he withdrawal was an effort to force attention to their concerns and frustrations over inconsistencies within the SFI program, and specifically whether sustainable forestry practices and training programs were being conducted

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<sup>27</sup> Information reported from State Implementation Committees and government agencies may also go into the annual public report.

<sup>28</sup> Presumably the new Sustainable Forestry Board may begin to play a role too.

<sup>29</sup> SFI also has a mechanism to address disputes between certifiers and participants. Normally, the SFI verification process relies on consensus between the certified and the participant in determining the scope of the audit and reaching conclusions. When conflicts arise, an SFI Program Interpretations Sub-group provides opinions on interpretation, although it does not serve as final arbiter.

uniformly and fairly” (2000 5<sup>th</sup> Annual Progress Report, SFI). They wanted greater clarification of the terms and definitions in the SFIS, as well as a procedure for reporting observed violations by forestry operations.

The SFI’s executive committee responded by approving an Interim Inconsistent Practices Protocol in 1999. Under this, complaints can be filed confidentially for review by a member of the SFI Expert Review Panel, who makes recommendation on an action. This mechanism serves to supplement the activities of the State Implementation Committees (SICs), which should serve as the main venue for examining alleged violations. All SICs are expected to establish procedures for reporting and reviewing complaints, although some states have yet to do this. In the absence of satisfactory resolution, complaints can be addressed at ever-higher levels of management in the AF&PA.

Many of the complaints to date center on the use of clearcutting.<sup>30</sup> Yet, even if clearcutting or unsustainable practices occur, it may be very difficult to demonstrate actual violations of the SFI. In many cases, program requirements are written so broadly and permissively that it is difficult to find that a given practice violates them. Furthermore, it is difficult for the public to evaluate the particulars of a given company’s practices because most information is contained in confidential certification reports or annual compliance reports filed with AF&PA.

## **17. Certifier Accreditation and Monitoring**

A lead verifier’s organization or firm must be accredited to conduct International Organization for Standardization (ISO) 14001 certifications by the American National Standards Institute/Registrars Accreditation Board. Alternatively, the lead verifier on a certification team must have completed a week-long training course and been accredited by a national accreditation body such as the American National Standards Institute/Registration Accreditation Board in the U.S., The Canadian Environmental Auditing Association, or equivalent organizations (e.g., national ISO member body organizations).

While certifiers are accredited under ISO or equivalent international accreditation programs that are applicable to many types of auditors in different fields, there appear to be no SFI-specific accreditation or quality control monitoring processes, such as exist with the FSC. Consequently, certifier performance may vary, including as it relates to interpreting field performance and conformance with core indicators for third-party certification. Thus, the SFI-certification process is not sufficiently consistent or repeatable, given that the interpretation of the SFIS may vary from participant to participant and certifier to certifier.

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<sup>30</sup> According to the SFI annual report for 2000.

## **18. International Reach and Relevance of the SFI Standard**

The SFIS was designed to apply at the national level in the United States. The SFI is interested in expanding its program elsewhere (e.g. to Canada, where the SFIS is already being applied through the licensing program, and potentially to Latin America). The AF&PA/SFI also states its intent to engage in a process to create an international framework for “mutual recognition” among different certification programs with the proponents of other certification systems (such as the Canadian Standards Association, the Pan European Forest Certification Council, and the Forest Stewardship Council). The SFI claims to be generally consistent with certain broad objectives in the Montreal Process for boreal and temperate forests. It is not known to be specifically consistent with international instruments and agreements such as the International Labor Organization provisions (169), the Intergovernmental Panel on Forests proposals, the Rio Principles, and the Draft UN Declarations on Indigenous Peoples Rights. The SFIS does not specifically address labor or human rights issues.

## **19. Summary of Differences Between SFIS and FSC-US standards.**

There are significant differences in SFI and FSC-US programs. The FSC is the only program with all the structural, procedural and standards components necessary for environmentally credible forest products certification and labeling. For a certification and labeling program to be credible, topics including (but not limited to) those listed below, need to be adequately addressed.

### **SUMMARY COMPARISON OF THE FSC AND THE SFI**

- **Requirement for program entry:**

FSC: Successful certification assessment by independent third-party “certifier.”

SFI: Company agreement to “self-report” progress annually to the AF&PA. Optional independent third-party assessment for companies wishing to claim “certification.” (*SFI allows self-reporting of progress or first-, second- or third-party “verification” according to flexibly applied standards, indicators, and procedures.*)

- **Third-party audit frequency:**

FSC: Every year.

SFI: Initial audit within 3 years; every 5 years thereafter.

- **Standards and procedures:**

FSC: Rigorous. Consistently applied threshold for performance. Emphasis on field performance.

SFI: Weak. Flexible threshold for performance. Emphasis on management systems, not field performance. *(Flexibly applied to companies according to the assessment parameters that they select. Core indicators “required” for third-party certification emphasize process-based measures that can be assessed in an office, rather than in the field, e.g., that written policies exist, that money is donated to research, that training sessions are held, that copies of laws are available...)*

- **Standards scope:**

FSC: Environmental, silvicultural, social, economic/utilization issues addressed.  
*(Educational issues not systematically addressed.)*

SFI: Environmental, silvicultural, educational, utilization issues addressed.  
*(Social and economic issues not systematically addressed.)*

- **Old growth and high conservation value forests (HCVF):**

FSC: Includes old growth\* and HCVF protection measures (\* *in US lower 48 states*).

SFI: Does not include protection for old growth. Does not address HCVFs.

- **Chemicals:**

FSC: Reduces/limits use. *(Strive to avoid. Use alternatives. Some chemicals prohibited.)*

SFI: Does not reduce/limit use. *(Try to comply with laws, labels, best management practices.)*

- **Clearcuts:**

FSC: Allows smaller clearcuts. Retention specified. *(In natural forests, openings mimic natural disturbance patterns defined regionally. Some standing trees are retained in openings to maintain forest ecology, i.e., variable retention practices are specified. In plantations, openings do not exceed 40 acres without retention, but stricter regional interpretations may apply.)*

SFI: Allows larger clearcuts. No retention specified. *(In natural forests or plantations, average allowable clearcut size is 120 acres or 116 football fields. Some clearcuts may be larger, as long as some are smaller. Average size may be waived for “forest health.” There are no requirements for maintenance of trees in openings or variable retention harvesting.)*

- **Conversion of diverse natural forests to ecologically simplified plantations:**

FSC: New conversions not allowed.

SFI: Allowed.

- **Ecological restoration:**

FSC: Specified under certain circumstances.

SFI: Not addressed.

- **Release of genetically modified organisms (GMOs) into environment:**

FSC: Not allowed (*exceptions*).

SFI: Allowed.

- **Conservation zones:**

FSC: Representative samples of ecosystems. Threatened & endangered species habitats.

SFI: Manage “special sites” appropriate to their values.

- **Types of forest management allowed:**

FSC: Emphasis on natural forest management. Includes plantations.

SFI: Emphasis on intensive management (e.g, plantations). Includes natural forest management.

- **Maintenance of natural processes:**

FSC: Specifies practices that maintain forest ecosystem processes, structures, and diversity, at stand and landscape scale. (*E.g., Snags & downed woody debris required in US.*)

SFI: Inadequate specification of practices to keep intensive management from oversimplifying forest ecosystem processes, structures, and diversity at stand and landscape scales. (*E.g., Snags & downed woody debris not required.*)

- **Public trust values on US public lands:**

FSC: Recognized. (*In the FSC US system, management on publicly-owned lands requires a higher level of protection for wildlife, clean water and air, recreation, etc...as a result of stakeholder input. FSC-US policy currently precludes certification on certain federal forestlands that are subject to campaigns for full protection.*)

SFI: Not recognized.

- **Program development:**

FSC: Environmental, economic, and social interests internationally launched the program in 1993.

SFI: US Industry interests launched the program in 1995.

- **Governance, management and decision-making:**

FSC: An independent non-profit organization administers. Environmental, economic, and social interests on Board, which answers to 461 members from 51 countries in 3 “chambers.”

SFI: An industry trade association administers. “Independent” non-profit Sustainable Forestry Board exists, but has limited powers and is dominated by forestry interests.

- **Chain-of-custody (COC) certification:**

FSC: Included. (*Certifier tracks wood from forest through manufacturing, processing, and labeling.*)

SFI: Not included.

- **Product labeling:**

FSC: Product labeling based on verifiable COC.

SFI: Product labeling planned in 2001 without COC. (*Non-certified wood may be labeled.*)

- **Independence of certifiers:**

FSC: Certifier seeks company input, but controls audit process.

SFI: Company is allowed to exert considerable influence on audit process. Company helps determine/approve content of audit, audit team, corrective actions, and assessment reports.

- **Certifier accreditation:**

FSC: Certifier is accredited by FSC. Monitored annually for quality of FSC implementation.

SFI: Certifier is accredited (e.g., by ISO member body). Not monitored annually for quality of SFI implementation.

- **Program participants:**

FSC: Small, large and industrial forest owners internationally.

SFI: Large and industrial forest owners in US and Canada. Small forest owners not included directly.

- **Stakeholder/public input into standards and certifications:**

FSC: Included.

SFI: Not included.

- **Acreage:**

FSC: Approximately 53 million acres certified in 36 countries, as of February 2001.

SFI: Approximately 94 million acres enrolled in US and Canada. About 28 million certified as of March 2001 and approximately 78 million acres expected to be certified by end of 2001. About 25% of the certified acreage as of February 2001 was endangered, old-growth temperate rainforest being clearcut by Interfor in British Columbia, Canada.

## VI. CONCLUSIONS

Efforts of the forest-products industry and forestland owners to improve their management practices are to be encouraged. Nonetheless, while SFI represents an opportunity to begin improving forestry practices, it is neither equivalent to nor a substitute for true independent third-party certification according to the more rigorous rules and procedures of the FSC. Overall performance is only as robust as the standards and verification procedures of a certification program, and the SFI's are still broad, weak, and open-ended, in comparison to FSC's. Although the SFIS are quite detailed, they do not address some very important topics, companies retain significant discretion in interpreting them, and many evaluation parameters do not provide a meaningful basis for assessing stated performance goals and field-level compliance. Thus, the SFI standard and label do not offer meaningful assurance to consumers that wood products come from environmentally sound, socially just, and economically viable forest management.

Motivated program participants can make certain necessary and important improvements to their forest management; however, the SFI program does not require substantial modifications beyond *status quo* practices, legal requirements, recommended Best Management Practices (BMPs), and the prevalent "cut a tree, plant a tree" model of industrial forestry. The main improvements to be expected of SFI participants appear to be: greater documentation of practices; greater compliance with soil and water quality laws and state BMPs; greater compliance with label instructions, laws and BMPs for chemical applications; compliance with SFI clearcut, replanting and "green up" rules; implementation of policies and projects for wildlife, biodiversity and "special sites" at levels that reflect a company's individual level of interest; donations (e.g., for research), again, in accordance with the company's level of interest; and support for training and education of employees, foresters, loggers, contractors, and private landowners about SFI-endorsed practices.

The SFI does not provide strong guidance on environmental management and resource protection. The SFI lacks many of the procedural, structural, and standards components necessary for environmentally credible, independent third-party certification and labeling.

For example, the SFI fails to include:

- protection for old-growth, endangered, and high conservation value forests;
- adequate controls on large-scale destructive clearcutting;
- limits on conversions of diverse natural forests to simplified plantations;
- reductions in chemical use;
- adequate controls on the release of genetically modified organisms (GMOs) into the environment;
- strong requirements for maintenance and restoration of forest ecosystem structures, processes, and functions;
- consideration of social factors, such as the consent of indigenous people for logging on their traditional lands;

- fully consistent and repeatable application of standards to all operations in a region (as opposed to allowing participants to individually tailor elements of the standard that will be used to assess them);
- emphasis on clear field-based performance requirements (as opposed to process-based performance measures that can be assessed in an office);
- annual field audits;
- chain-of-custody tracking as a basis for credible product labeling;
- monitoring of certifier performance for consistency of approach;
- full independence from vested industry interests;
- balanced stakeholder input.

The difference in programs involves more than semantics. Analyses by the Natural Resources Defense Council, the Maine Audubon Society, the American Lands Alliance, Greenpeace and others reveal significant differences. The SFI is *not* an environmentally credible sustainable forestry certification and labeling program at this time. It is controlled by vested industry interests. It fails to provide a consistent benchmark for environmental performance among its participants because, beyond the core indicators (many of which are not rigorous), each participant is allowed to determine its own standards of field performance within the broad categories specified by the AF&PA. Thus, one company's participation in and field performance under SFI may mean something very different from another company's, while both can claim compliance or "certification."

While the SFI may represent an opportunity to start improving the practices of the forestry sector, it will not gain approval as a legitimate certification and labeling program in its current form. The Sustainable Forestry Board (SFB) will be facilitating a review of the SFI standard this year, but it remains to be seen whether the AF&PA/SFI has the political will to allow significant improvements to the program at this time, having just revised its program in July 2000. Until that occurs, rather than launching a product label and ad campaign, the SFI would act more responsibly by focusing instead on its goal of helping the entire AF&PA/SFI membership continuously to improve practices beyond current levels, and by striving to improve its own program.

The AF&PA would enhance its environmental and social credibility if, instead of discouraging participants from breaking ranks with the SFI, it were to encourage participants to build on their progress with SFI and take steps towards FSC certification in response to market demand. This would give companies the broad-based support and credibility that they seek and deserve from certification. FSC certification is achievable for interested forestry companies in the U.S., including AF&PA/SFI participants. New FSC-US National Indicators foster greater participation. The SFI and FSC should work in mutually supportive ways.

Establishing an FSC preference remains the fastest and most effective way for individual and corporate consumers of forest products to drive improvements in both forest management and in weaker certification programs globally.



**TABLE**

**COMPARISON OF ATTRIBUTES OF THE SFI AND FSC\***  
 (\*FSC-US focus)

	<b>FSC</b>	<b>SFI</b>
<b>IMPLEMENTED</b>	Formally launched in 1993 after long-term planning based on an existing foundation of independent, third-party forest certifications that began in 1990.	Formally launched in 1995 after long-term planning led to the adoption of SFI by AF&PA members in 1994.  Most recent major revisions to program standards, procedures, and structure were approved by AF&PA in July 2000.
<b>DESIGNED AS CERTIFICATION PROGRAM</b>	Yes.	No.  Formal option of third-party “certification” added in July 2000, yet program still lacks many key structural, procedural and standards components necessary for credible independent third-party certification.
<b>PROGRAM DEVELOPED BY</b>	International environmental, economic, and social interests.  Developed by environmental groups, companies, foresters, academics, social, and community development interests, and certifiers belonging to FSC.	US industry interests.  Developed by American Forest & Paper Association (AF&PA) for its company and trade association members.
<b>GOVERNANCE, MANAGEMENT, AND ADMINISTRATION</b>	Independent non-profit organization administers. Headquarters in Oaxaca, Mexico.	Industry trade association administers. Headquarters in Washington, DC.

	<b>FSC</b>	<b>SFI</b>
	<p>National initiatives in 40 countries.</p> <p>Governing board has equal representation of environmental, economic, and social interests.</p>	<p>State Implementation Committees in about 34 states help with outreach.</p> <p>New "Independent" Sustainable Forestry Board has limited powers and is dominated by forestry interests. AF&amp;PA has ultimate control.</p>
<b>MEMBERS TODAY</b>	<p>461 members* representing environmental, social and economic interests (mainly environmental organizations and companies) from 51 countries.</p> <p>(*Note that joining FSC as a supporter is different from becoming certified according to FSC rules and procedures.)</p>	<p>Over 250 members*, limited to forestry companies and trade associations from US.</p> <p>Members control 90% of industrial timberlands in US, 84% of paper production and 50% of solid wood production.</p> <p>(*Note that not all members own/manage land.)</p>
<b>SCOPE</b>	International, including US.	US emphasis, extending to Canada through licensing program.
<b>FOREST TYPES</b>	Temperate, tropical, boreal.	Temperate emphasis, with some boreal in Canada.

	<b>FSC</b>	<b>SFI</b>
<b>REQUIREMENTS FOR ENTRY INTO FOREST MANAGEMENT COMPLIANCE PROGRAM</b>	<p>Voluntary participation.</p> <p>Successful third-party certification assessment by FSC-accredited independent certifier (i.e., performance-based entry requirement).</p> <p>High threshold.</p>	<p>Participation in SFI is required of all AF&amp;PA member companies, no matter what the current level of interest and performance.</p> <p>Agreement to self-report progress towards meeting AF&amp;PA by-law requirements for SFI (i.e., process-based entry requirement). Companies have option of third-party certification.</p> <p>Low threshold.</p>
<b>PARTICIPANTS IN FOREST MANAGEMENT COMPLIANCE PROGRAM</b>	<p>More than 733 certifications issued to forestry companies, community forests, state and local public forests, small private forestland owners, and wood products manufacturers &amp; retailers (281 certified forests as of Feb '00; &gt;452 chain-of-custody certified companies as of June '99, with many more certified now).</p>	<p>About 135 forest products companies and 35 licensees* reporting to AF&amp;PA as of March-2000.</p> <p>(*SFI includes a licensing program for non-AF&amp;PA member such as government agencies, Crown lands in Canada, and institutions such as land trusts that wish to participate in SFI.)</p>
<b>ACRES IN PROGRAM</b> <b>(1 hectare = 2.47 acres)</b>	<p>About 53 million acres (21.5 million hectares) certified in 36 countries as of February 2001.</p>	<p>Over 94 million acres enrolled in US and Canada.</p> <p>About 28 million acres were third-party "certified" in March 2001.</p> <p>78 million acres may be third-party certified by end of 2001.</p>
<b>FOREST MANAGEMENT</b>	<p>Natural forests &amp; plantations.</p>	<p>Natural forests &amp; plantations.</p>

	<b>FSC</b>	<b>SFI</b>
	Includes considerable emphasis on natural forest management, which seeks to maintain species diversity, structural components, age classes, and ecosystem functions.	Includes considerable emphasis on intensive management (e.g., plantations, tree farms, even-aged management, heavily regulated uneven-aged management), which tends to simplify species diversity, structural components, age classes, and ecosystem functions.
<b>STANDARDS SCOPE</b>	<p>Environmental, silvicultural, forest products utilization, economic, and social issues.</p> <p>Educational issues not systematically addressed.</p> <p>10 principles; 56 criteria; numerous indicators developed nationally and regionally through stakeholder consensus processes.</p>	<p>Environmental, silvicultural, forest products utilization, and educational issues.</p> <p>Social and economic issues not systematically addressed.</p> <p>11 objectives; 35 performance measures; numerous verification indicators (many voluntary and optional) developed by AF&amp;PA and/or by company on case-by-case basis.</p>

	FSC	SFI
<b>STANDARDS CONTENT AND APPLICATION</b>	<p>Rigorous.</p> <p>Consistent threshold for program entry and performance.</p> <p>Standards are consistently applied to all applicants in a region.</p> <p>Standards emphasize evaluation of field performance (i.e., performance-based measures).</p>	<p>Weak and open-ended.</p> <p>Inconsistent threshold for program entry and performance.</p> <p>Standards are inconsistently applied. Individual companies have significant flexibility to determine how to address the standards according to their needs and interests. They may pick and choose many performance indicators.</p> <p>Standards emphasize evaluation of management systems and procedures per ISO model (i.e., systems-based measures).</p> <p>Core indicators required for third-party "certification" emphasize process-based performance that can be measured in an office, rather than in the field, e.g., written policies exist, money donated to research, training sessions held, copies of laws available, etc.</p>

	<b>FSC</b>	<b>SFI</b>
<b>MONITORING/AUDITING</b>	<p>Requires third-party monitoring and certification by certifiers.</p> <p>Third-party certifier controls audit process.</p>	<p>Requires annual self-reporting of progress by companies to AF&amp;PA on confidential basis.</p> <p>For companies wishing to make performance claims, first-, second- and third-party “verification”, according to flexible procedures, can be pursued. Third-party verification is considered “certification”</p> <p>Third-party certifier does not fully control audit process. Company may work with certifier to determine scope/content of audit, audit team, corrective actions, and report.</p>
<b>FREQUENCY OF THIRD-PARTY CERTIFICATION AUDITS</b>	Annual field audits required.	Initial audit required within three years; thereafter, once every five years.
<b>CHAIN-OF-CUSTODY (COC) CERTIFICATION</b>	<p>Yes.</p> <p>Requires annual audits for companies that want to be certified to process and sell products made from certified wood.</p> <p>COC tracks certified wood from forest through manufacturing, processing and labeling.</p>	<p>No.</p> <p>AF&amp;PA believes COC is impractical, given forestland tenure in US, which involves many small landowners. AF&amp;PA believes it is unnecessary and/or counter-productive to the sustainability of forest management in US.</p>

	FSC	SFI
<b>PRODUCT LABELING</b>	Yes.	<p>No, but pending.</p> <p>AF&amp;PA plans to launch an on-product label and ad campaign (\$7 million/year for 3 years) in 2001.</p> <p>The label is expected to identify lumber produced by third-party "certified" companies participating in the SFI program. Products such as boards will be stamped, but will not be certified themselves because there is no COC to guarantee that labeled products originate in "certified" forests.</p>
<b>REVIEW PROCESS</b>	Requires independent "peer review" process for each forest assessment evaluation report prior to awarding certification.	<p>Requires AF&amp;PA review of company-specific annual progress reports to determine compliance with SFI by-law requirements.</p> <p>AF&amp;PA then aggregates industry-wide performance trends and selected anecdotes for review by independent Expert Review Panel before release to public.</p>

	FSC	SFI
<b>PUBLIC INFORMATION</b>	<p>Detailed public summary reports (with content specified by FSC) are prepared and updated by certifier for each certified forest and placed on certifier web-site.</p> <p>FSC web sites (fscoax.org and fscus.org) post information.</p>	<p>AF&amp;PA reports industry-wide performance trends and selected anecdotes to the public in annual SFI progress reports (issued since 1996).</p> <p>Companies that wish to proclaim publicly their third-party certification shall work with the certifier to develop a public audit summary that “shall, at a minimum, provide the general results of conformance.” No specific details are required.</p> <p>AF&amp;PA web sites (afandpa.org and aboutsfi.org) post information.</p>

	<b>FSC</b>	<b>SFI</b>
<b>CERTIFIER ACCREDITATION AND MONITORING</b>	<p>FSC-accredits qualified certifiers and monitors them annually for quality control, including through visits to certifiers and certified operations.</p> <p>The following 10 certifiers are FSC-accredited to conduct chain-of-custody and/or forest management certifications: Rainforest Alliance Smart Wood Program, U.S.; Scientific Certification Systems, U.S.; SGS, U.K.; Soil Association, U.K; Silva Forest Foundation, Canada; GFA Terra Systems, Germany; South African Bureau for Standards (SABS); Institut für Marktökologie IMO, Switzerland; SKAL, The Netherlands; BM TRADA Certification, U.K.</p>	<p>Certifiers must be accredited by International Standards Organization (ISO) member bodies or equivalent national standards accreditation organizations.</p> <p>There is no annual quality-control monitoring of certifier performance, specific to SFI, to ensure consistent application of the new standards and procedures.</p> <p>The following organizations are known to be conducting SFI third-party audits and certifications: Price Waterhouse Coopers, KPMG, QMI, Bureau Veritas Quality International, The Plum Line, and BioForest Technologies.</p>
<b>PUBLIC CONSULTATIONS &amp; INPUT INTO CERTIFICATIONS &amp; STANDARDS</b>	<p>Yes.</p> <p>Process is participatory and transparent.</p>	<p>No.</p> <p>Process is not participatory and transparent.</p>

	FSC	SFI
<b>RELATIONSHIP TO SMALL LANDOWNERS, INDUSTRIAL LANDOWNERS, NON-INDUSTRIAL LANDOWNERS, LOGGERS, AND FORESTERS</b>	<p>FSC directly certifies various sizes and types of forest management operations, including foresters, small landowners, large non-industrial landowners, and industrial landowners.</p> <p>“Group certification” ensures that FSC certification is accessible and cost effective for small landowners. “Certified resource managers” implement FSC’s group certification system.</p>	<p>SFI certifies industrial landowners that are AF&amp;PA members, as well as large non-industrial landowners that are not members of AF&amp;PA, but that wish participate in the licensing program.</p> <p>SFI does not directly certify small landowners, but has a mutual recognition/ reciprocity agreement with the American Tree Farm System to accept their certifications of small landowners. Tree Farm certifications are based on vague and weak standards.</p> <p>SFI has logger, forester and landowner outreach and training programs to extend SFI practices.</p>

	FSC	SFI
<b>LARGE-SCALE CLEARCUTTING</b>	<p>Numerous certification criteria constrain this practice.</p> <p>FSC-US allows smaller clearcuts. Some standing trees are retained in openings to maintain forest ecology.</p> <p>In US natural forests, openings mimic natural disturbance patterns defined in each region. Variable retention practices are applied. Retention increases with opening size. In plantations, openings do not exceed 40 acres without retention (regional definitions may be more restrictive).</p>	<p>Standard practice.</p> <p>SFI allows larger clearcuts. No trees need be retained in openings to maintain forest ecosystem function across successive harvests.</p> <p>In natural forests or plantations, average allowable clearcut size is 120 acres or 116 football fields. Some openings may be much larger, as long as some are smaller. Exceptions are allowed for larger average opening size. No requirements for maintenance of "in stand" retention or variable retention harvesting. Revegetate within two to five years. Wait until trees are three-years old or five-feet tall before clearcutting adjacent stands.</p> <p>Under this standard, entire natural forest watersheds (except stream buffers) may be cut and replaced in short periods of time with ecologically simplified tree farms.</p>
<b>GENETICALLY MODIFIED ORGANISMS (GMOs)</b>		
- <b>SELECTIVE BREEDING</b>	Permitted.	Permitted.
- <b>BIOENGINEERING</b>	Not permitted (exceptions).	Permitted.

	<b>FSC</b>	<b>SFI</b>
<b>CHEMICAL USE</b>	Limits use.  Avoid chemical use. Use alternatives. Some chemicals prohibited.	Does not limit use.  Strive to comply with manufacturers labels, laws and BMPs.
<b>OLD-GROWTH AND HIGH CONSERVATION VALUE FORESTS (HCVF)</b>	Includes protection measures for old-growth* and HCVFs. (* In US lower 48 states.)	Does not include protection for old-growth. Does not address HCVFs.
<b>CLEARING OF NATURAL FORESTS FOR CONVERSION TO PLANTATIONS</b>	New conversions are not allowed.	Allowed.
<b>CONSERVATION ZONES</b>	Specified under certain conditions (representative samples of ecosystems, threatened & endangered species).	Manage "special sites" in a manner appropriate to their values.
<b>ECOLOGICAL RESTORATION</b>	Specified under certain circumstances.	Not addressed.
<b>SNAGS AND DOWNED WOODY DEBRIS</b>	FSC-US requires.	Not required.
<b>MAINTENANCE OF ECOSYSTEM PROCESSES IN NATURAL FOREST AND PLANTATION MANAGEMENT</b>	For both natural forest and plantation management, FSC specifies practices that maintain forest ecosystem processes, structures, and diversity at stand and landscape scales.	For both natural forest and plantation management, SFI does not adequately prevent intensive practices from truncating and over-simplifying forest ecosystem processes, structures, and diversity at stand and landscape scales.

	<b>FSC</b>	<b>SFI</b>
<b>PUBLIC TRUST VALUES ON U.S. PUBLIC LANDS</b>	<p>Recognized.</p> <p>Since society cannot control the fate of activities on private lands, public lands play a special role in protecting public trust values, such as clean water, wildlife habitat, endangered species, and stable climate.</p> <p>FSC standards in the US do not apply at present to certification of federal forestlands (e.g., USFS, BLM, NPS).</p> <p>Certification of other public lands, such as municipal lands, requires a higher burden of public consultation and conservation of public trust values.</p>	Not recognized.

	FSC	SFI
<b>FORMALLY AFFILIATED NON-PROFIT ENVIRONMENTAL &amp;/OR NATURAL RESOURCES ORGANIZATIONS</b>	<p>Natural Resources Defense Council; World Wildlife Fund; Greenpeace; Sierra Club; The Wilderness Society; National Wildlife Federation; Friends of the Earth; Rainforest Action Network; Rainforest Alliance; World Resources Institute; American Lands Alliance; Defenders of Wildlife; Ecoforestry Institute; Ecotrust; Institute for Sustainable Forestry; Rogue Institute for Ecology and Economy; Forest Trust; Forest Management Trust; Pacific Forest Trust; The Watershed Research and Training Center; Headwaters Charitable Trust; Pacific Environment and Resources Center; Northwest Natural Resources; Institute for Agriculture &amp; Trade Policy; Consumers Choice Council; Fauna &amp; Flora International; and, numerous environmental groups from other countries... (see FSC members and supporters on web <a href="http://www.fscoax.org">www.fscoax.org</a>).*</p> <p>(*All organizations are formal members of FSC.)</p>	<p>Izaak Walton League; Ruffed Grouse Society; The Conservation Fund; Wildlife Management Institute; American Forests; American Bird Conservancy; Conservation International; Society for Protection of New Hampshire Forests*</p> <p>(*A representative from each of the above organizations is on the SFI independent Expert Review Panel or Sustainable Forestry Board, although such participation does not necessarily signify formal endorsement of SFI performance by each organization.)</p>

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