



**American
Forest & Paper
Association**

AF&PA White Paper: Sustainable Forestry and Certification Programs in the United States



**BETTER PRACTICES
BETTER PLANET** 2020
Continuing AF&PA's Commitment to Sustainability

EXECUTIVE SUMMARY: SUSTAINABLE FORESTRY AND CERTIFICATION PROGRAMS IN THE UNITED STATES

The paper on *Sustainable Forestry and Certification Programs in the United States* provides an overview of sustainable forestry and forest certification programs in the United States. It is intended to serve as a general reference document, providing third-party factual information for forest product company employees, customers, the general public, and other interested stakeholders.

Sustainable forest management practices on U.S. forests ensure healthy and abundant forests for present and future generations, while providing renewable natural raw materials for the production of pulp and environmentally beneficial, recyclable paper and packaging products and energy-efficient building materials. While deforestation is occurring in other countries, there is more standing wood on U.S. forestlands today than there was a half century ago.¹

The majority of wood fiber-based manufacturing operations in the U.S. are supplied by fiber from numerous, diverse private land ownerships. Sustainable forestry on these lands is ensured largely by the strong U.S. rule of law, which is reinforced through the highly successful use of voluntary best management practices. Forest certification programs, while not essential to ensuring a sustainable fiber supply, have played an important role in promoting and establishing sustainable forestry.

Forest certification programs provide a set of standards, or guidelines and structure, for sustainable forest management. These include forest certification, wood fiber sourcing, and chain-of-custody standards. Forest land management standards ensure certified forest land is managed according to sustainable practices, as defined by the forest certification system. Wood fiber sourcing standards, which can apply to suppliers and to manufacturers' wood procurement operations, ensure fiber is purchased from responsible sources, and promotes sustainable practices on non-certified lands. Chain-of-custody standards apply to suppliers and manufacturers, require the tracking of certified fiber through the supply chain, and allow use of certified content claims and labels on products.

Within the U.S. there are four primary forest certification bodies: the Programme for the Endorsement of Forest Certification (PEFC); the Sustainable Forestry Initiative, Inc. (SFI); the American Tree Farm System (ATFS); and the Forest Stewardship Council (FSC). PEFC is a global umbrella organization and the world's largest forest certification system. It endorses 33 national certification systems and more than 615 million acres of certified forests. SFI is a North American PEFC-endorsed standard that offers forest land management, fiber sourcing and chain-of-custody standards. SFI is the world's largest single forest land management certification standard, with approximately 63 million certified acres in the U.S. and over 240 million certified acres in the U.S. and Canada. ATFS, a PEFC-endorsed system, is the oldest U.S. forest land management certification program, with 82 thousand woodland owners and 24 million certified acres. Fiber harvested from ATFS lands can be recognized under the PEFC and SFI chain-of-

custody certificates. FSC International is a global forestry certification organization that sets national and regional standards. FSC International has approximately 450 million certified acres worldwide, with 35 million acres (8%) in the U.S. FSC offers forest management, controlled wood and chain-of-custody certification.

There is significant public documentation comparing different aspects of the available certification programs. According to the National Association of State Foresters (NASF), the ATFS, FSC-U.S. and SFI systems all include “fundamental elements of credibility and all make positive contributions to forest sustainability.”² NASF has stressed that none of these systems credibly can claim to be the best and any program promoting itself as the only option would lose credibility.

Despite the overall similarity, there are variations within the systems. The SFI and FSC-U.S. systems vary in terms of standards related to clearcutting, chemical use and plantations, among other topics. Detailed comparison charts can be found in: *Differences between FSC and SFI Certification Standards for Forest Management*;³ *Comparing Forest Certification Standards in the U.S.*;⁴ *Economic Analysis and Practical Considerations*; and *SFI and FSC Certification in North America – A Summary Comparison*.⁵

In conclusion, sustainable forestry on U.S. forest lands is largely assured by the strong rule of law in place in the U.S. and highly successful implementation of voluntary BMPs. Thus, direct certification of these lands is not necessarily essential to ensuring a sustainable fiber supply. When purchasing forest-based products, consumer products goods companies should be aware of the variations in the standards and look beyond the certification label to the specific requirements of the certification and consider the overall sustainability of the forests where the fiber is sourced. There is no consensus preference for one certification program; all programs reviewed in this paper play a significant role in promoting and advancing sustainable and responsible forestry.

¹ Sonja Oswalt, Mike Thompson, and W. Brad Smith, eds. “U.S. Forest Resources Facts and Historical Trends.” U.S. Forest Service, Accessed August, 2013.

² National Association of State Foresters (NASF), “Forest Certification as It Contributes to Sustainable Forestry,” *Policy Statement*, (2008-7): 2.

³ Dovetails, “Differences between the Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) Certification Standards for Forest Management.”

⁴ Brooks Mendell, Ph.D. and Amanda Hamsley Lang, “Comparing Forest Certification Standards in the U.S.: Economic Analysis and Practical Considerations,” *Econo Stats*, (June 2013): 4.

⁵ Sustainable Forestry Initiative *SFI and FSC Certification in North America- A Summary Comparison* 2010, SFI (1-4) <http://www.internationalpaper.com/documents/EN/Sustainability/SFIvFSC.pdf>.

AF&PA WHITE PAPER: SUSTAINABLE FORESTRY AND CERTIFICATION PROGRAMS IN THE UNITED STATES

BACKGROUND

Written for use by manufacturers of wood and paper-products, this paper provides an overview of the unique characteristics of U.S. forests and sustainable forestry practices, the reinforcing system of federal and state forest management laws, and the U.S. certification programs that further support sustainable forestry. Information within this document has been referenced to outside sources.

Information in this paper can be used to respond to groups that are “pressuring corporations... to purchase wood and paper products” that meet only a single certification system versus meeting one of several widely accepted and credible third-party certification systems.¹ It also is intended to serve as a general reference document to help explain the concepts of sustainable forestry and forest certification to employees, customers, the general public, and other interested stakeholders.

It is important to understand the context of forest land ownership and fiber sourcing in the United States (U.S.). Unlike many other countries, the majority of wood fiber-based manufacturing operations in the U.S. are supplied by fiber from a base of numerous, extremely diverse private landowners. Sustainable forestry on these lands is ensured largely by the strong rule of law in place in the U.S., and this has been reinforced through the highly successful implementation of voluntary best management practices. Thus, direct certification of these lands is not necessarily essential to ensuring a sustainable fiber supply. Forest certification programs, in general, however, have played a very important role in promoting and establishing sustainable forestry, and this paper describes the requirements of the existing certification programs, including their similarity and variability.

SUSTAINABLE FORESTRY

Sustainable forest management, as defined at the 1992 United Nations Conference on Environment and Development, requires a balance between meeting the forest resource needs of the present without compromising the ability of future generations to do the same. Sustainable forest management involves practicing a land stewardship ethic that integrates silviculture (reforesting, managing, growing, nurturing and harvesting of trees for useful products) with the conservation of soil, air and water quality, wildlife and fish habitats, recreation and aesthetics.

Sustainable forest management practices on U.S. forests ensure healthy and abundant forests for present and future generations, while providing renewable natural raw materials for the production of pulp and environmentally beneficial, recyclable paper and packaging products and energy-efficient building materials. Approximately 750 million acres in the U.S. are forestland - the same acreage that existed 100 years ago. This is due, in part, to reforestation efforts, improvements in agricultural practices and environmentally and economically sustainable markets for forest products.² While

deforestation is occurring in other countries, there is more standing wood on U.S. forestlands today than there was a half century ago.³

The majority of the forestland within the U.S., approximately 57 percent, is privately-owned by approximately 11 million individual landowners. These 11 million individual landowners provide approximately 92 percent of the fiber needed to support the forest products industry. The remainder of the forestland is owned by federal, state and municipal governments.

Private landowners have shown widespread adoption of sustainable forest management practices,ⁱ including forestry best management practices (BMPs), which are science-based guidelines for harvesting forests (focusing on water quality) that have been found to be very effective in most circumstances. BMPs have the flexibility to be regionally adaptive. The National Council on Air and Stream Improvement (NCASI) has been monitoring the implementation and effectiveness of forestry BMPs since the 1970s.⁴ In its January 2012 report, NCASI concluded that “there is strong evidence that forestry BMPs work..., and that the forest community is implementing BMPs and providing enhanced water quality protection.”⁵

U.S. forest products manufacturers also take steps to promote sustainable forest practices. For example, as a condition of membership, AF&PA member companies that source wood fiber from forests must comply with sustainable procurement principles that require providing information to landowners about reforestation following harvest, best management practices, and identification and protection of important habitat elements for wildlife and biodiversity, including Forests with Exceptional Conservation Value.

OVERARCHING LEGAL STRUCTURE

The strong framework of voluntary BMPs in the U.S. is reinforced by a thorough system of federal and state forest management laws that apply on public and private land. At the federal level, a number of laws govern management of federal and private forestland, including laws that protect threatened and endangered species; provide for certain BMPs and regulation of activities in forested wetlands; protect air quality and visibility; regulate chemical use in forest stands; and provide for safe harvest activities and equipment, and fair labor practices. Most of these laws contain significant penalties for violations, which are enforced by state or federal governments. Many also contain citizen suit provisions, allowing interested citizens to challenge their implementation and enforcement, and the U.S. Congress exercises oversight responsibilities.⁶

At the state level, state agencies work to promote sound forestry practices on public and private lands. For example, as of 2008, more than 1,000 government entities had responsibility for over 800 public programs focused on forest resources, providing for air and water quality, fish and wildlife, reclamation and restoration of forested areas, human health and safety, forest trails and roads, forested coastal zone management,

ⁱ AF&PA member company landowners all conform to credible sustainable forest management programs.

professional licensing and certification, taxation and revenue collection, and regulation of solid and hazardous materials in forested areas.⁷

THIRD-PARTY FOREST CERTIFICATION PROGRAMS

Forest certification programs provide a set of standards, or guidelines and structure, for sustainable forest management. “Forest certification requires rigorous documentation to prove that forestry practices are sustainable as defined by a widely accepted standard.”⁸ Individual certification standards may be designed to address forest land management, wood fiber sourcing operations, or chain of custody. Many forest products manufacturing companies are certified to more than one certification system. Dual/multiple certification can allow companies to account for variations in the systems and utilize fiber from all certified lands in their wood basket. For example, 27 AF&PA member companies are dual or multi-certified.

Below is a description of the types of certification, the four primary forest certification systems within the U.S. and their requirements, and a limited comparison of the U.S. certification programs:

A. Types of Certifications

- 1. Forest (land) Management** – certifies the management of forest land and ensures the management is based upon sustainable practices as defined by the forest certification system.

Approximately 10 percent of all forests worldwide are certified. The majority of certified forests are located in industrialized countries such as Canada, the U.S. and a number of European countries.⁹ About 500 million acres (two-thirds) of U.S. forestlands are classified as timberland.¹⁰ Current certified acres by certification program show higher participation by private landowners in the U.S. in the Sustainable Forestry Initiative® (SFI®) and the American Tree Farm System (ATFS) certification programs. Twenty percent of U.S. timberlandⁱⁱ is certified, with approximately 5 percent certified to the ATFS, 7 percent to Forest Stewardship Council (FSC)-US, and 12 percent to the SFI. (Note: These percentages exceed 20 percent as some acreage is dual certified.) Currently, there are no federal certified lands where harvest activities generally occur (U.S. Forest Service Lands, BLM); some state and municipal lands are certified to FSC and/or SFI.¹¹ While there is a strong legacy of voluntary sustainable forestry practices in the U.S., the fragmented pattern of land ownership has hindered overall certification of forest lands to one of the standard forestry certification schemes due to the added cost and associated work of certification.¹²

- 2. Wood Fiber Sourcing** – standardsⁱⁱⁱ, which can apply to suppliers and/or manufacturers' wood procurement operations to ensure fiber is purchased from

ⁱⁱ Timberland is land capable of growing twenty cubic feet per acre of wood.

ⁱⁱⁱ AF&PA members have a goal of increasing the amount of fiber procured from certified forestlands or through certified sourcing systems in the U.S. In 2010, 24 percent of the fiber procured by AF&PA members was procured

responsible sources, and in some cases, promote sustainable practices on non-certified lands. Procurement standards do not require fiber purchases to be limited to certified lands and sources as they are meant to address the non-certified portion of the land base and ensure responsible fiber procurement from these sources. They can, but do not always, include a certification of the procurement process.

- 3. Chain of Custody** – standards, which apply to suppliers and/manufacturers, require the tracking of certified fiber as it moves through the supply chain and permits the application of certified content claims and labels to products. The standards also allow mixed products when fiber from certified and non-certified lands is combined during the manufacturing process. Third-party certified Chain of Custody participants must track the amount of fiber moving through these systems to prevent double counting.

B. Forest Certification Programs in the United States

Within the U.S., there are four primary forest certification systems.

1. The Programme for the Endorsement of Forest Certification ([PEFC](#))

PEFC is an independent non-profit global umbrella organization and the world's largest forest certification system. Founded in 1999, and headquartered in Geneva, Switzerland, PEFC promotes sustainably managed forests through independent third-party certification. It assesses and endorses national land management standards that align with its principles, with 33 endorsed national certification systems and more than 249 million hectares (or 615 million acres) of certified forests. In the United States, both SFI and ATFS are endorsed by PEFC. The national certification programs are assessed by a PEFC-approved assessor based on a 4-Part PEFC Minimum Requirements Checklist. The checklist covers everything from how the national certification program was developed to the stakeholders involved, forestry requirements, chain of custody requirements, and third-party certification and accreditation requirements.¹³

2. Sustainable Forestry Initiative ([SFI](#))

The SFI program was launched in 1994. The SFI standard is a North American standard overseen by SFI Inc., an independent, non-profit organization with offices in Washington D.C. and Ottawa, ON Canada. It encompasses forest land management, wood fiber sourcing and chain of custody, It “promotes sustainable forest management through [14 core principles, 20 objectives, 38 performance measures](#), and 115 indicators developed by professional foresters, conservationists, scientists and others. The standard addresses key environmental, social and economic forest values – from water quality and biodiversity to harvesting and regeneration. The SFI standard is reviewed through an open public process every five years, and is subject to continuous improvement so it can incorporate the latest scientific information and respond to emerging issues.”¹⁴ As an integral part of its program, SFI has established SFI Implementation Committees (SICs) that include

from third-party certified forestlands and more than 96 percent of fiber sourced from the forest by AF&PA members was sourced through certified sourcing programs.

private landowners, independent loggers, forestry professionals, local officials, academics, scientists and conservation organizations, which provide logger training and education and landowner outreach promoting responsible forestry and best management practices.¹⁵

SFI offers three types of certifications:

Forest land management – uses seven objectives to provide measures for evaluating Program Participants’ conformance with the SFI 2010-2014 Standard on forest lands. “Through these objectives, addressed in forest management plans, Program Participants are implementing sustainable forestry principles by employing an array of economically, environmentally and socially sound practices in the conservation of forests — including appropriate protection, growth, harvest and use of those forests”¹⁶ SFI is the world’s largest single forest land management certification standard, with approximately 63 million certified acres in the U.S. and over 240 million certified acres in the U.S. and Canada.¹⁷ Twenty-five percent of SFI certified land is in the U.S.¹⁸ SFI generally is used by large landowners, rather than small or family-type landowners.

Fiber Sourcing – applies to wood procurement organizations and requires SFI program participants to show that the fiber “in their supply chain comes from legal and responsible sources, whether the forests are certified or not. To meet the certified fiber sourcing requirements, primary producers must be third-party audited and certified to performance-based SFI requirements. Program participants must take proactive measures to address important items that have a direct effect on the uncertified forestlands from which they source wood fiber, such as: 1) provide for logger training programs and ensure that the wood delivered to a mill is harvested by trained loggers; 2) require that loggers who deliver wood to the mill abide by forestry BMPs, monitor the use of BMPs in general, and provide for improvement in compliance rates over time; and 3) provide educational material to non-certified forest landowners.”¹⁹ Relative to wood fiber sourcing, SFI is the only standard in the U.S. that requires program participants to engage in public outreach and the promotion of reforestation.

Chain of custody – applies to facilities such as manufacturers, processors and traders along the supply chain, and outlines the requirements for a system to track the flow of certified and responsibly sourced non-certified material from the forest to final product.²⁰

3. American Tree Farm System (ATFS)

ATFS is the oldest U.S. forest land management certification program with 82 thousand woodland owners and 24 million certified acres. ATFS does not include procurement or a chain of custody certification programs. Fiber harvested from ATFS lands can be recognized under the PEFC and SFI chain of custody certificates.

ATFS-certified family forests “meet eight standards of sustainability and are managed for multiple purposes: water, wildlife, wood and recreation.”²¹ ATFS also operates State Tree Farm Committees that support small landowners in the sustainable management of their forests.

4. **Forest Stewardship Council (FSC) ([International](#) and [U.S.](#))**

Developed in 1992 and 1993, and headquartered in Bonn, Germany, FSC is a global forestry certification organization that sets out [international standards](#) with which national and regional FSC standards must conform. FSC-International has approximately 450 million acres certified world-wide. Eight percent (or just over 35 million acres) of FSC’s 450 million acres are located within the domestic United States²². FSC-U.S. formerly maintained nine standards for different regions of the U.S.; in July 2010, it incorporated the different regional standards as “variations” into a single FSC-U.S. standard.²³

In 2010, FSC also finalized a family forest ownership program that allows group certification, with the goal of providing small family forest owners access to FSC certification.²⁴ Currently, FSC has approximately 4.8 million acres certified to this group certification program.²⁵

FSC offers three types of certification:

- a. **Forest management certification** – uses ten Principles and Criteria (P&Cs) to serve as a framework for development of national and sub-national standards. “The P&Cs are applicable worldwide and relevant to forest areas and different ecosystems, as well as cultural, political and legal systems. This means that they are not specific to any particular country or region.” The P&Cs were developed in 1994; a full review was undertaken in 2009 and completed in January 2012.²⁶

FSC-International maintains approximately 40 different forest certification standards across the world.²⁷ FSC engages with different national-level stakeholders when developing standards from country to country; thus, the terms of certification may differ from one country to another given the differences in the underlying laws and standards. “For example, some U.S. and Canadian forests have clearcut size limits, whereas FSC’s standards for Brazil, Russia and New Zealand have no limits.”²⁸

Currently, many FSC-International forest management standards “are interim or not fully developed.”²⁹ Where there is not yet an FSC-accredited standard, certification bodies use “their own ‘generic’ interim standards, adapted to account for the local conditions in the country or region in which they are to be used with input from local stakeholders.” FSC-International recently proposed a set of International Generic Indicators to replace the generic interim standards.³⁰

- b. **Controlled wood certification** – Under the FSC system, if wood fiber does not come from certified land and will be mixed with FSC fiber for labeling it must be

“controlled” to ensure it is wood FSC considers acceptable. Controlled wood certification is designed to minimize risk surrounding issues such as legality, traditional and civil rights, conversion, high conservation values and genetically modified organisms when sourcing from non-FSC certified lands. Controlled wood material can be mixed with certified material during manufacture of products with an FSC-mixed label, enabling “manufacturers to manage low and fluctuating supplies of FSC certified forest products, while creating demand for FSC certified wood.”³¹ There is no consumer label available for FSC Controlled Wood.

- c. **Chain of custody certification** – applies to entities such as manufacturers, processors and traders of FSC certified forest products. It verifies FSC-certified material and products along the production chain.

C. Limited comparison of the U.S. Certification Programs

When different programs are available comparisons inevitably are drawn. There is significant documentation in the public domain comparing different aspects of the available certification programs. Below is a sampling of this information:

1. Similarities

According to National Association of State Foresters (NASF), the ATFS, FSC-U.S., and the SFI systems all include “fundamental elements of credibility and make positive contributions to forest sustainability.”

The elements of credibility are: independent governance, multi-stakeholder standards, independent certification, credible complaints and appeals processes, and open participation, and transparency.³² All three programs are recognized as sharing the common attribute of reforestation, “which is the cornerstone of sustainable forestry.”³³

FSC and SFI include requirements for third-party auditors, chain of custody, public reporting, stakeholder consultation, and independent governance, and are based on compliance with local laws and regulations, forestry science, and best management practices.³⁴ The two systems are based on similar (but not the same) criteria and indicators, which include requirements for reforestation and conservation of biodiversity and old growth, protection of endangered species and water quality, and maintenance of sustainable harvest levels. Both systems allow plantations, clearcuts and conversions, with variation in requirements.³⁵ The FSC, PEFC, and SFI standards prohibit use of fiber from forests with genetically modified organisms (GMOs) or genetically engineered trees.^{iv}

^{iv} SFI and FSC-U.S. previously varied in requirements related to GMOs. In January 2014, the SFI board adopted a policy prohibiting the use of fiber from genetically engineered trees via tree biotechnology

Changes in the major certification programs in recent years mean “it is increasingly difficult to differentiate between certification systems in North America.”³⁶ The United Nations Economic Commission for Europe/Food and Agriculture Organization notes that: “[o]ver the years, many of the issues that previously divided the (certification) systems have become much less distinct. The largest certification systems generally have the same structural programmatic requirements.”³⁷

NASF stresses that: “[n]o certification program can credibly claim to be “best”, and no certification program that promotes itself as the only certification option can maintain credibility. Forest ecosystems are complex and a simplistic “one size fits all approach to certification cannot address all sustainability needs.”³⁸

2. Variations in FSC-U.S. and SFI Standards

Despite the overall similarity in structure and criteria, there are some variations in the certification systems. In comparing the systems, it should be noted that: 1) products carrying an FSC label may be sourced under one of the forty national, sub-national, or interim FSC global standards that sometimes have less vigorous benchmarks than the FSC-U.S. standard;^v and 2) the nine regions in the FSC-U.S. standard contain different requirements for practices such as set-asides and clearcut size.

Variations in the forest management standards include:

- a. **Clearcuts:** Both standards allow responsible clearcutting. SFI has a single requirement in North America of a maximum average size of 120 acres. FSC-U.S. clearcut requirements vary by region and forest type. FSC sometimes refers to clearcuts as clearings. Both FSC and SFI standards require mast trees, snags, and nest trees to be left in clearcuts. In some US regions, FSC has specific requirements regarding the number of such trees. The FSC-U.S. standard has varying maximum size restrictions, ranging from two to 80 acres in some cases, although sometimes a maximum clearcut size is not specified in the standard. The Southeastern U.S. standard recommends a nonbinding 80-acre limit on clearings and clearcuts; however, auditors approve larger openings, and have approved 100-acre average openings close to SFI’s 120-acre average.³⁹
- b. **Chemical Use:** FSC-U.S. encourages minimization, but does not prohibit the use of chemicals, requiring that “the forest owner/manager strive to reduce the use of chemical pesticides and biocides, and work towards their eventual phase-out whenever feasible.”⁴⁰ SFI allows forest chemical use that has been approved by federal, state and local governments. The SFI Standard

^v For example, the FSC-Russia standard has no limits on clearcut size and specifies the width of streamside management zones as that which is within legal requirements. In contrast, the FSC-U.S. standard specifies streamside zones beyond the legal requirements in the Pacific coast – up to 150 feet in fish bearing streams.

has six auditable requirements related to minimizing chemical use, including using the least-toxic pesticides whenever feasible.⁴¹

- c. *Plantations:*** FSC prohibits replacement of natural forests with tree plantations, and places requirements on management of plantations. FSC places more restrictive requirements on plantations than natural stands and “semi-natural” forests. The classification of plantations has become more “relaxed,” and in certain regions, such as the southeastern U.S., some forest types have been reclassified as planted semi-natural stands.⁴² Under the SFI standard, conversions to plantations “are not allowed except in justified circumstances where the program participant can document that ecological impacts are not significant if managing for a different species mix after a final harvest.”⁴³ SFI prohibits conversion to plantations in specified circumstances, including when the forest type is old growth or rare and ecologically significant at the landscape level and when reforestation cannot be accomplished promptly.
- d. *Independent Third-Party Certifications and Audits:*** FSC’s auditors are accredited by Accreditation Services International (ASI), a for-profit organization founded by FSC and governed by a Board of Directors that provides “external oversight of ASI’s operations to strengthen the competence, independence and impartiality of the organization”.⁴⁴ FSC certificates can be awarded with multiple “minor” non-conformities related to issues such as First Nations consent, chemical use, areas of special ecological value and rates of harvest...⁴⁵ SFI requires certification bodies to be accredited by independent accreditation bodies, such as the American National Standards Institute, the American National Accreditation Board, and the Standards Council of Canada, following audit procedures and certification as required by the International Accreditation Forum.⁴⁶ SFI allows some minor non-conformances, but will not certify major or multiple minor non-conformances.⁴⁷

For more detailed comparison charts see Differences between FSC and SFI Certification Standards for Forest Management,⁴⁸ Comparing Forest Certification Standards in the U.S.: Economic Analysis and Practical Considerations,⁴⁹ and SFI and FSC Certification in North America- A Summary Comparison.⁵⁰

CONCLUSION

Sustainable forestry on U.S. forest lands is largely assured by the strong rule of law in place in the U.S. and highly successful implementation of voluntary BMPs. Thus, direct certification of these lands is not necessarily essential to ensuring a sustainable fiber supply.

Four main certification programs operate in the United States. These certification programs are all credible and have a number of similarities, but there are differences. An important and desirable element of these programs is that they are continuously

reviewed and revised over time. It is critical to note the importance of participating in all public comment processes during any standard revision. Company and trade association participation in a public vetting process will help to avoid the potential of any emerging certification requirement impacting U.S. global competitiveness. If a competitive disadvantage were to emerge, it could disrupt the balance between social, environmental, and financial value to the unique small non-industrial private landowner base. Once certification requirements significantly reduce the overall financial value received by the landowners, they may transition the use of their land from sustainable forest operations to non-forest use, which directly contradicts the goal of sustainable forest management.

When purchasing forest-based products, consumer products goods companies should be aware of the variations in the standards and look beyond the certification label to the specific requirements of the certification and consider the overall sustainability of the forests where the fiber is sourced. There is no consensus preference for one certification program; all programs reviewed in this paper play a significant role in promoting and advancing sustainable and responsible forestry. As such, customers should feel confident that products sourced in accordance with any of these programs support sustainable and responsible forestry.

Endnotes

- ¹ Steve Pociask and Joseph P. Fuhr, Jr., "The Monopolization of Forest Certification: Do Disparate Standards Increase Consumer Costs and Undermine Sustainability?" (October 1, 2012): 1
- ² Mila Alvarez, "State of America's Forests," Society of American Forests, (2010): 5.
- ³ Sonja Oswalt, Mike Thompson, and W. Brad Smith, eds. "U.S. Forest Resources Facts and Historical Trends." U.S. Forest Service, Accessed August, 2013.
- ⁴ Ice, G.G., Schilling, E., and Vowell, J. 2010. Trends for forestry best management practice implementation. *Journal of Forestry* 108(6):267-273
- ⁵ Yeske, Ronald. 2012 President's Note in- Ice, G.G. Schilling, E. 2012. Assessing the Effectiveness of Contemporary Forestry Best Management Practices (BMPs): Focus on Roads. *NCASI*. 1.
- ⁶ For a more detailed overview of the applicable laws, see, Alberto Goetzl et. al., "Assessment of Lawful Harvesting & Sustainability of U.S. Hardwood Exports," (Oct 1, 2008): 77-84.
- ⁷ Alberto Goetzl et. al., "Assessment of Lawful Harvesting & Sustainability of U.S. Hardwood Exports," (Oct 1, 2008): 85..
- ⁸ National Association of State Foresters (NASF), "Forest Certification as It Contributes to Sustainable Forestry," *Policy Statement*, (2008-7): 2.
- ⁹ Tony Rotherham, "Forest Management Certification Around the World- Progress and Problems," *The Forestry Chronicles* (September 2011) Vol.87 no.5: 608.
- ¹⁰ Kathryn Fernholz, "TIMOs & REITs: What, Why, and How They Might Impact Sustainable Forestry?" *Dovetails* (2007): 2.
- ¹¹ Brett Butler, "Family Forest Owners of the United States 2006," (U.S. Forest Services) http://www.nrs.fs.fed.us/pubs/gtr/gtr_nrs27.pdf (June 2008): 15.
- ¹² Brett Butler, "Family Forest Owners of the United States 2006," (U.S. Forest Services) http://www.nrs.fs.fed.us/pubs/gtr/gtr_nrs27.pdf (June 2008): 15.
- ¹³ Source Summary Comparison of Forest Certification Standards in Canada
- ¹⁴ SFI, "SFI Standards," <http://www.sfiprogram.org/sfi-standard/sfi-standards/> (Accessed: September 2013).
- ¹⁵ SFI, "2013 Progress Report," <http://www.sfiprogram.org/files/pdf/sfi2013progressreportfinalwebspreadpdf/> (2013): 1.
- ¹⁶ Section 2: SFI 2010-2014 Standard, January 2010. Page 4/14 <http://www.sfiprogram.org/files/pdf/section2sfirequirements2010-2014pdf/>.
- ¹⁷ PEFC, "Facts and Figures." <http://www.pefc.org/about-pefc/who-we-are/facts-a-figures> (July 2013): 4.
- ¹⁸ PEFC, "Facts and Figures."
- ¹⁹ SFI, "Fiber Sourcing Requirements," <http://www.sfiprogram.org/sfi-standard/fiber-sourcing-requirements/>.
- ²⁰ PEFC, "Chain of Custody Certification," <http://www.pefc.org/certification-services/supply-chain>.
- ²¹ ATFS, "Certification," <http://www.treefarmssystem.org/certification-american-tree-farm-system>.
- ²² FSC-IC, "Facts and Figures."
- ²³ Kathryn Fernholz, Dr. Jim Bowyer, Dr. Sarah Stai, Dr. Steve Bratkovich, and Dr. Jeff Howe, "Differences Between the Forest Stewardship Council and Sustainable Forestry Initiative Certification Standards for Forest Management," (March 28, 2011): 2.
- ²⁴ FSC-US, "Family Forests," <https://us.fsc.org/family-forests.202.htm> (Accessed: September 2013).
- ²⁵ FSC- US, "Family Forests" <https://us.fsc.org/family-forests.202.htm>
- ²⁶ FSC-IC, "Principles and Criteria," <https://ic.fsc.org/principles-and-criteria.34.htm> (Accessed: September 2013).
- ²⁷ FSC-IC, "National Standards." <https://ic.fsc.org/national-standards.247.htm> (Accessed: September 2013).
- ²⁸ Steve Pociask and Joseph P. Fuhr, Jr., "The Monopolization of Forest Certification: Do Disparate Standards Increase Consumer Costs and Undermine Sustainability?" (October 1, 2012): 4.
- ²⁹ Freedom Works, "The Conflicting Interests of Forest Certification Programs," <http://m.freedomworks.org/blog/11800/the-conflicting-interests-of-forest-certification-p> (2012).
- ³⁰ SFI, "The Facts on Responsible Forestry-Interim Standards & Standards Development," <http://www.sfiprogram.org/files/pdf/messagesheetinterimstandardspdf/> (June 2012): 1.
- ³¹ FSC-IC, "Controlled Wood." <https://ic.fsc.org/controlled-wood.40.htm> (Accessed: September 2013).

-
- ³² National Association of State Foresters (NASF), "Forest Certification as It Contributes to Sustainable Forestry," *Policy Statement*, (2008-7): 2.
- ³³ Joel Holtrop, "Reforestation Problems on National Forests: A GAO Report on the Increasing Backlog," <http://www.fs.fed.us/congress/109/house/oversight/holtrop/042705.html>.
- ³⁴ Dovetails, "Differences between the Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) Certification Standards for Forest Management" Dovetails Inc: Minneapolis, MN (2011): 1-15.
- ³⁵ Dovetails, "Differences between the Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) Certification Standards for Forest Management."
- ³⁶ Dovetail Partners, "Forest Certification: A Status Report," *Dovetails* <http://www.dovetailinc.org/files/DovertailCERTReport0310b.pdf> (March 2010): 14.
- ³⁷ United National Economic Commission for Europe/Forest Owners' Associations Forest Products Annual Market Review, 2009/2010. Via. Georgia-Pacific, "What is Forest Certification?" *Georgia-Pacific: Sustainable Forestry and Certification* (2011): 1.
- ³⁸ National Association of State Foresters (NASF), "Forest Certification as It Contributes to Sustainable Forestry," *Policy Statement*, (2008-7): 3.
- ³⁹ SFI, "A Summary for FSC and SFI's Approach to Responsible Forestry." (June 2012): 1.
- ⁴⁰ SFI, "The Facts on Responsible Forestry- Chemical Use." <http://www.sfiprogram.org/files/pdf/messagesheetchemicalspdf/> (May 2012): 1.
- ⁴¹ SFI, "The Facts on Responsible Forestry- Chemical Use," 1.
- ⁴² Brooks Mendell, Ph.D. and Amanda Hamsley Lang, "Comparing Forest Certification Standards in the U.S.: Economic Analysis and Practical Considerations," *Econo Stats*, (June 2013):
- ⁴³ SFI, "The Facts on Responsible Forestry- Plantations." <http://www.sfiprogram.org/files/pdf/messagesheetplantationspdf/> (May 2012): 1.
- ⁴⁴ FSC-IC, "Accreditation Program," <https://ic.fsc.org/accreditation.28.htm>.
- ⁴⁵ SFI, "The Facts on Responsible Forestry- Independent Third Party Certification," <http://www.sfiprogram.org/files/pdf/messagesheetthirdpartycertificationpdf/> (May 2012): 1.
- ⁴⁶ SFI, "Accreditation of Independent Certification Bodies," <http://www.sfiprogram.org/sfi-standard/accreditation-of-independent-certification-bodies/>.
- ⁴⁷ SFI, "Accreditation of Independent Certification Bodies."
- ⁴⁸ Dovetails, "Differences between the Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) Certification Standards for Forest Management."
- ⁴⁹ Brooks Mendell, Ph.D. and Amanda Hamsley Lang, "Comparing Forest Certification Standards in the U.S.: Economic Analysis and Practical Considerations," *Econo Stats*, (June 2013):, 4.
- ⁵⁰ Sustainable Forestry Initiative *SFI and FSC Certification in North America- A Summary Comparison* 2010, SFI (1-4) <http://www.internationalpaper.com/documents/EN/Sustainability/SFIvFSC.pdf>.