



Forest Certification in Canada

The Programs, Similarities & Achievements

Glossary

ANSI	American National Standards Institute
DFA	Defined Forest Area
SFI	Sustainable Forestry Initiative
CSA	Canadian Standards Association
EMS	Environmental management system
SFM	Sustainable forest management
CCFM	Canadian Council of Forest Ministers
FSC	Forest Stewardship Council
PEFC	Programme for the Endorsement of Forest Certification
CoC	Chain-of-custody
ISO	International Organization for Standardization

Contents

1. Introduction to Certification
 - Forest Certification
 - Traceability
 - Chain-of-Custody Certification
 - Certification Programs Used in Canada
 - Links to International Standards and Programs
2. Canada – A World Leader in Forest Certification
3. Key Elements of Certification Programs
 - Celebrating the Value of All Standards
 - Table of Key Elements in Forest Certification Programs
 - Conclusions

Introduction to Certification

FOREST CERTIFICATION

Independent forest management certification provides a stamp of approval showing customers they are buying products that come from forests managed to comprehensive environmental, social, and economic standards. A certificate is issued only after a thorough review by third-party auditors determines, among other things, that long-term harvests are sustainable, there is no unauthorized or illegal logging, wildlife habitat is preserved, and soil quality is maintained.

In Canada: Canadian forest managers certify their lands to one of three internationally recognized sustainable forest management certification programs – [Canadian Standards Association \(CSA\)](#), [Forest Stewardship Council \(FSC\)](#) and [Sustainable Forestry Initiative \(SFI\)](#). All three set high thresholds that forest companies must clear, above and beyond Canada’s tough regulatory requirements.

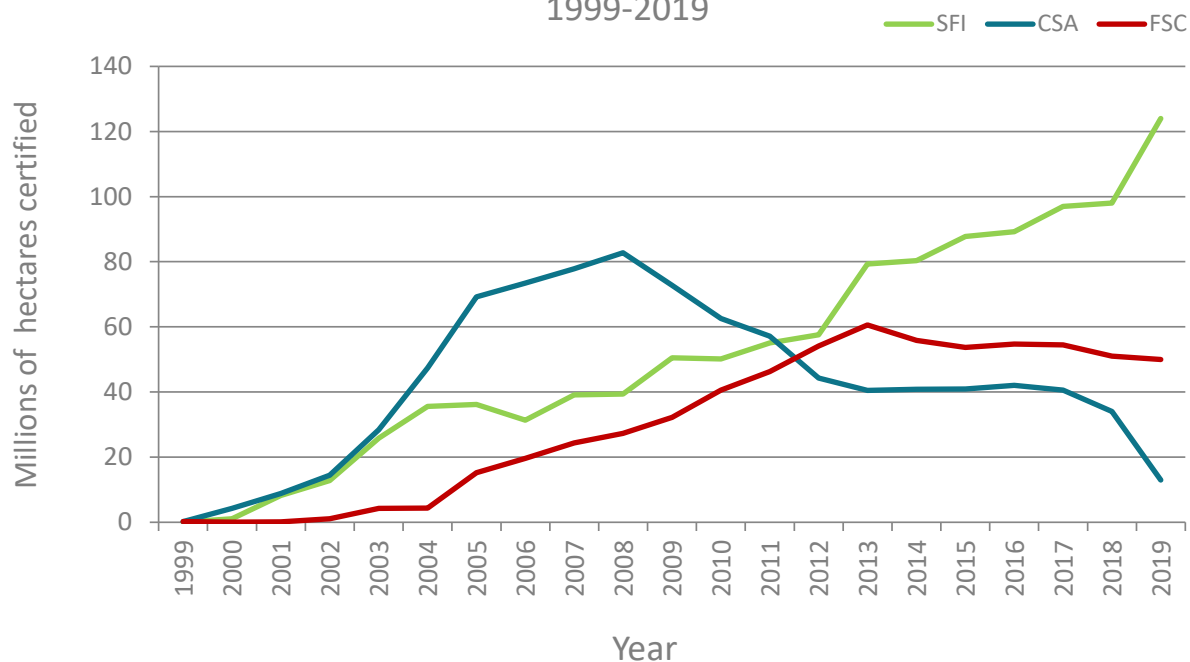
Moreover, they are tailored to take into account global forestry issues as well as circumstances specific to the Canadian landscape, such as the livelihood of local communities and the interests of Indigenous peoples.

Many companies are also certified to the [ISO 14001 Environmental Management System \(EMS\) Standard](#), which provides a solid management system for meeting goals and then improving on them. The forestry-specific standards (CSA, FSC, SFI) can then be built on top of this foundation for continual improvement.

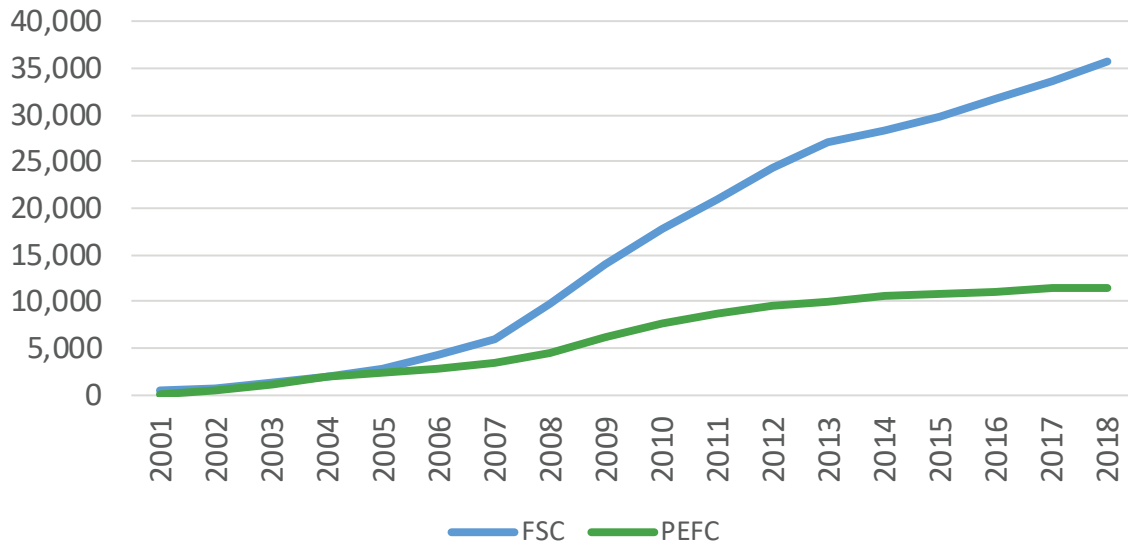
Globally: [FSC International](#) operates at the global level and establishes processes and requirements for the development of national standards meeting its international principles and criteria. The [Programme for the Endorsement of Forest Certification \(PEFC\)](#) is a global forest certification umbrella organization that endorses national forest certification systems that meet its assessment criteria. Both the CSA and SFI certification programs have been endorsed by PEFC.

In 2002 forest companies belonging to the [Forest Products Association of Canada \(FPAC\)](#) and responsible for managing the majority of the working forest in Canada, committed to certifying their forestry operations to CSA, FSC, or SFI. That goal was met in 2006. New FPAC members and operations acquired by member companies must meet this certification commitment within five years as a requirement of membership.

Forest Certification in Canada
1999-2019



World Trends Chain of Custody Certificates



TRACEABILITY

Illegal logging in developing countries is a major cause of deforestation and poses a significant threat to the overall sustainability of forests and the economic viability of forest communities. It can undermine the competitiveness of legally harvested and traded forest products. Forest companies belonging to FPAC have signed a commitment to only purchase and use wood from legal sources, and to trace their wood supplies to provide documented assurance that they come from well-managed and legal origins.

There are multiple wood production and tracking mechanisms whereby saw or pulp mills in Canada can identify the forest management unit and the exact stand that wood has originated from. This is largely because 94% of the forest lands are publicly owned. They are managed under a multi-layered legislative framework and many of the traceability mechanisms in place are part of regulations and government oversight. The details of the traceability mechanisms used are likely to vary between provinces, territories, and companies because of jurisdictional and business management differences. For example, one company might use a contractor payment system to identify the forest each load of wood comes from; another might take the location from the load slip that accompanies the wood to the mill.

However, the same general mechanisms (such as approval of management and operating plans, and field inspections) are in place everywhere.

CHAIN-OF-CUSTODY CERTIFICATION

A chain-of-custody is a set of chain-wide administrative and technical requirements for traceability. The chain might run from the forest to the first mill that receives it (a “forest” chain-of-custody) or from the forest through all stages of production to the end consumer (a “product” chain-of-custody). The traceability mechanisms to be used are established in the chain-of-custody standard of the relevant forest certification program (e.g. CSA, FSC, SFI) and audited by independent third parties. Chain-of-custody certification complements forest management certification by verifying the link between the certified forest and the product, enabling the product to be sold as certified. Both FSC and SFI have developed program-specific chain-of-custody standards whereas the CSA program uses the PEFC international chain-of-custody standard.



A certification system's chain-of-custody provides:

- » third party verification of the percentage of certified, non-certified and recycled content in a product
- » assurance that non-certified sources come from legal, controlled and non-controversial sources
- » the ability to communicate that content through a label on the product.

Businesses and governments have rising expectations about the environmental and social pedigree of the paper and wood products they buy, and are asking for certified products. Because of concerns over illegal logging and deforestation they are also scrutinizing any non-certified wood. This demand for proof that forest products have been sustainably and legally harvested has, in turn, boosted demand for chain-of-custody certification. The majority of FPAC member companies use a certified chain-of-custody to track their wood supplies.

CERTIFICATION PROGRAMS USED IN CANADA

Three major forest certification programs are used in Canada. They apply to public and private lands, can be used for both large and small forest areas, and include environmental objectives and performance measures.



The Canadian Standards Association (CSA)

CSA is a not-for-profit membership-based organization founded in 1919, and Canada's oldest and largest standards development organization. The CSA Sustainable Forest Management Standard (CAN/CSAZ809-16), Canada's national standard for sustainable forest management, was first released in 1996 and then revised in 2002, 2008 and finally 2016. It uses a definition of sustainable forest management developed by the Canadian Council



of Forest Ministers (CCFM) from the Montréal Process, an inter-governmental process for developing global criteria and indicators for sustainable forest management.

The Forest Stewardship Council (FSC) Canada.

FSC Canada was constituted in 1998 and operates under FSC International (see below). It is a not-for-profit organization governed by a Board of Directors representing a balance of interests. The FSC National Forest Stewardship Standard of Canada was released in 2019 (FSC-STD-CAN-01-2018 V 1-0). It represents the Canadian adaptation of FSC's global Principles, Criteria and International Generic Indicators. This new forest management standard replaces the former regional standard that were: the Maritimes Standard (released 1999, revised 2008), the British Columbia Standard (released 2003, revised 2005), and the National Boreal Standard (2004). A draft standard for the Great Lakes-St. Lawrence region was field-tested in 2007. A streamlined standard is also being developed for Small and Low Intensity Managed Forests (SLIMF).



The Sustainable Forestry Initiative® (SFI®)

SFI is an independent, non-profit organization that advances sustainability through forest-focused collaborations. SFI is governed by a three-chamber Board of Directors representing environmental, social and economic sectors equally. The SFI Forest Management Standard (first released in 1995, revised in 1999, 2002, 2005, 2010, and 2015) is based on SFI Principles and applies to organizations in the United States and Canada (SFI 2015 – 2019). and applies to organizations in

the United States and Canada. The SFI Fiber Sourcing Standard include measures to broaden the use of forestry best management practices to protect water quality, provide outreach to landowners, and utilize the services of forest management and harvesting professionals. SFI also has two modules designed for small landowners, as well as Indigenous peoples, families and communities.

The SFI Forest Management Standard is endorsed by PEFC.



their products as FSC certified. By May 2020, 211 million hectares (521 million acres) distributed in 90 countries had been certified to FSC standards. In Canada, three regional standards and the National Forest Stewardship Standard of Canada have been accredited by FSC.

PEFC is a global alliance of national forest certification systems. Founded in 1999, it operates in some 51 countries through a network of national members that develop and implement the PEFC system within their country. PEFC is an umbrella organization that works by endorsing national forest certification systems. Each national forest certification system undergoes rigorous third-party assessment against PEFC's unique sustainability benchmarks to ensure consistency with international requirements. Within PEFC's certification system, national Accreditation Bodies must be members of the International Accreditation Forum (IAF) of one of the IAF regional accreditation groups. Being part of PEFC offers the opportunity to use the PEFC International Chain of Custody standard and the PEFC label. By March 2020, 331 million hectares (818 million acres) of certified forest in more than 40 countries.

Canada joined the PEFC alliance in 2001 with CSA International, part of the CSA Group which developed the CSA SFM standard. SFI was also an early member of PEFC, joining in June 2001. In 2005, the CSA and SFI standards achieved international recognition with PEFC endorsement.

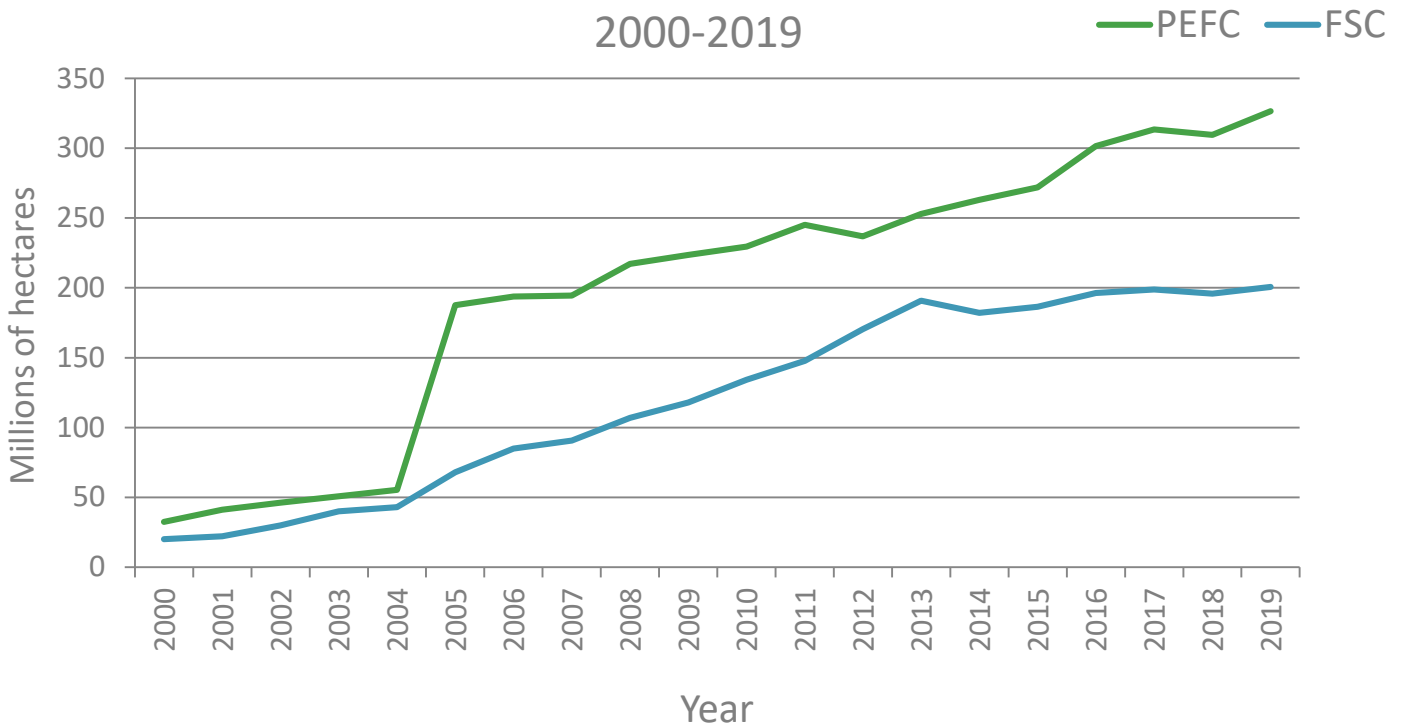
LINKS TO INTERNATIONAL STANDARDS AND PROGRAMS



Forest Stewardship Council International (FSC) and the Programme for the Endorsement of Forest Certification schemes (PEFC) are global, independent non-profit programs that recognize national and regional forest certification standards meeting international requirements and developed in a multi-stakeholder process.

FSC is an international organization that provides a system for voluntary accreditation and independent third-party certification. Founded in 1994, it operates in some 50 countries through a network of national and regional offices. FSC sets procedures for the development and approval of FSC Stewardship Standards which are based on the FSC Principles and Criteria. In addition, FSC sets standards for the accreditation of conformity assessment bodies (also known as certification bodies) that certify compliance with FSC's standards. Based on these standards, FSC provides a system for certification for organizations seeking to market

Forest Certification Worldwide 2000-2019



Double Certification - Based on joint research, PEFC and FSC concluded that in mid-2019, 93 million hectares of global forest area were double certified (18% of the total certified area), and the total global certified area is 430 million ha. Double certification exists in 33 countries.

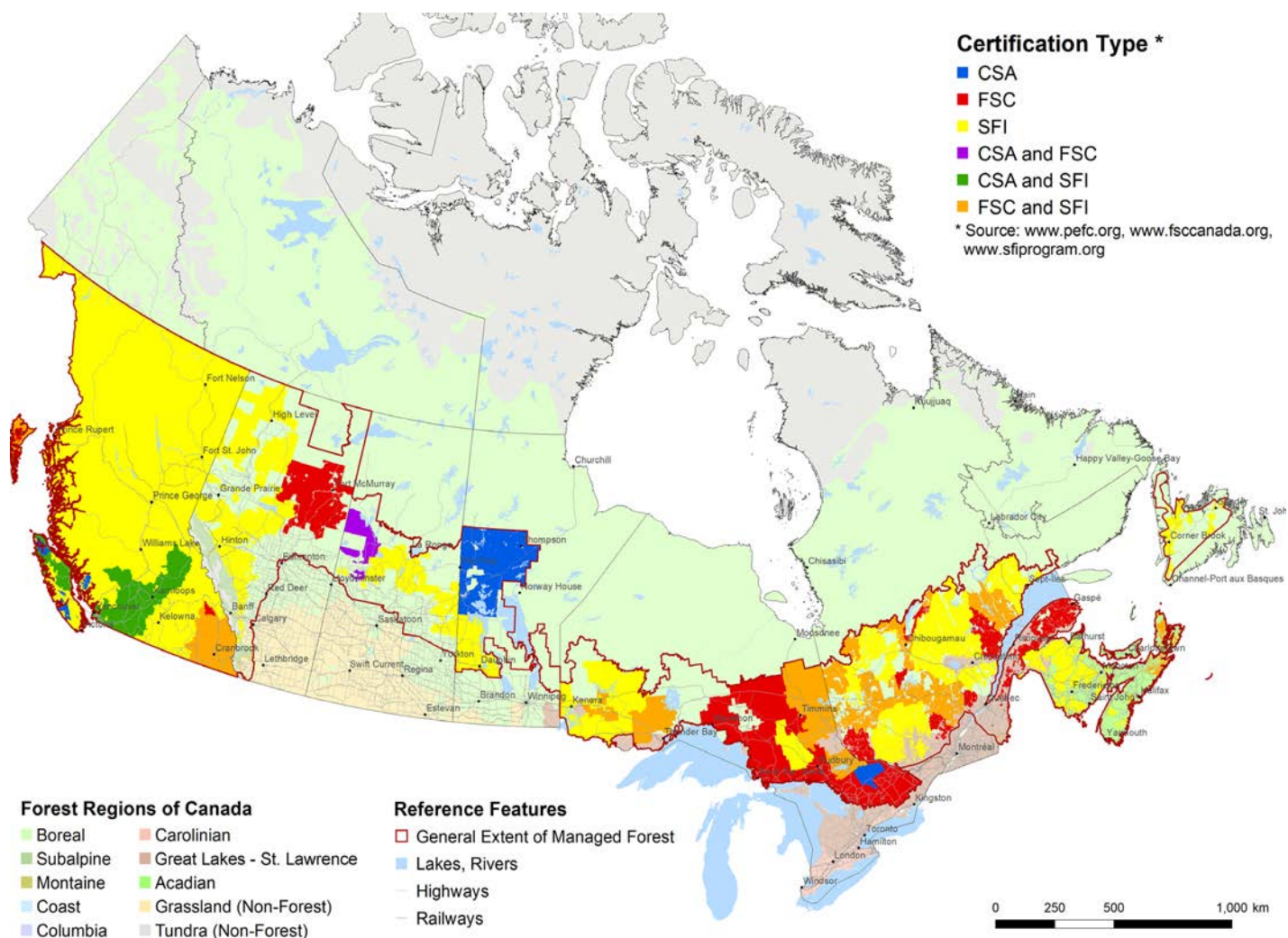


Canada – A World Leader in Forest Certification

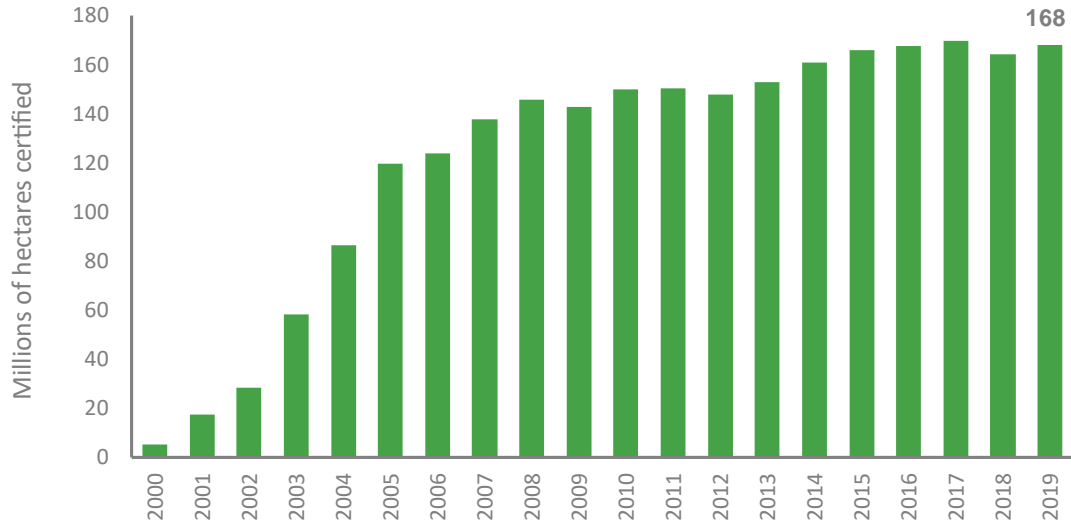
CANADA LEADS THE WORLD IN THIRD-PARTY FOREST CERTIFICATION

The early certification commitment of FPAC member companies in 2002 was instrumental in spurring the phenomenal growth of forest certification in Canada. There is now a significant amount of certified wood available from Canada to meet the growing customer demand for certified forest products.

Certification map. A map of areas of certified forest operations across Canada can be found at www.certificationcanada.org. Details about a certification can be viewed by clicking on the specific area. An example of these maps is shown below, and the most current version can be found on the website.

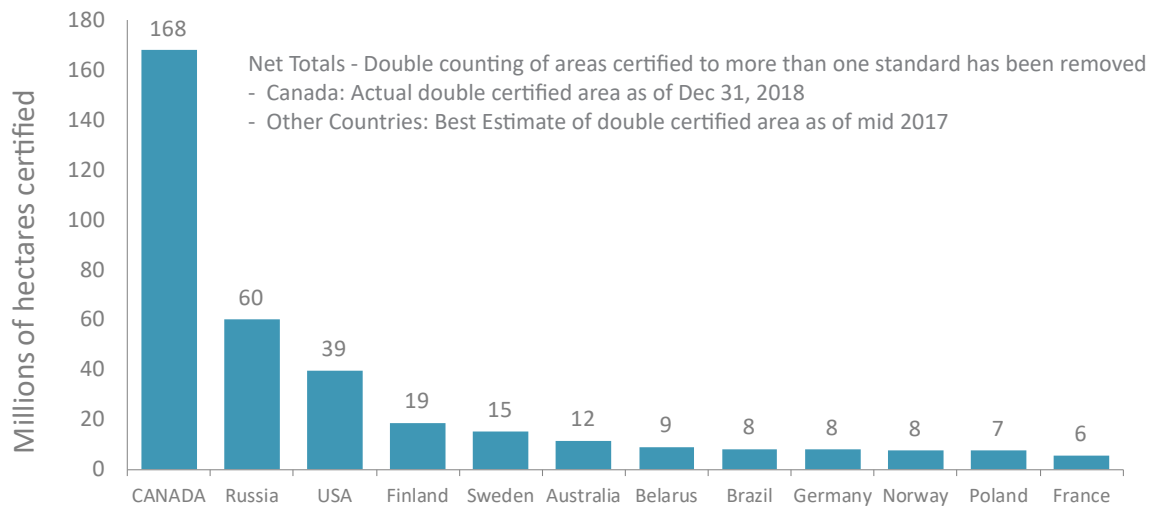


Certification in Canada 2000-2019



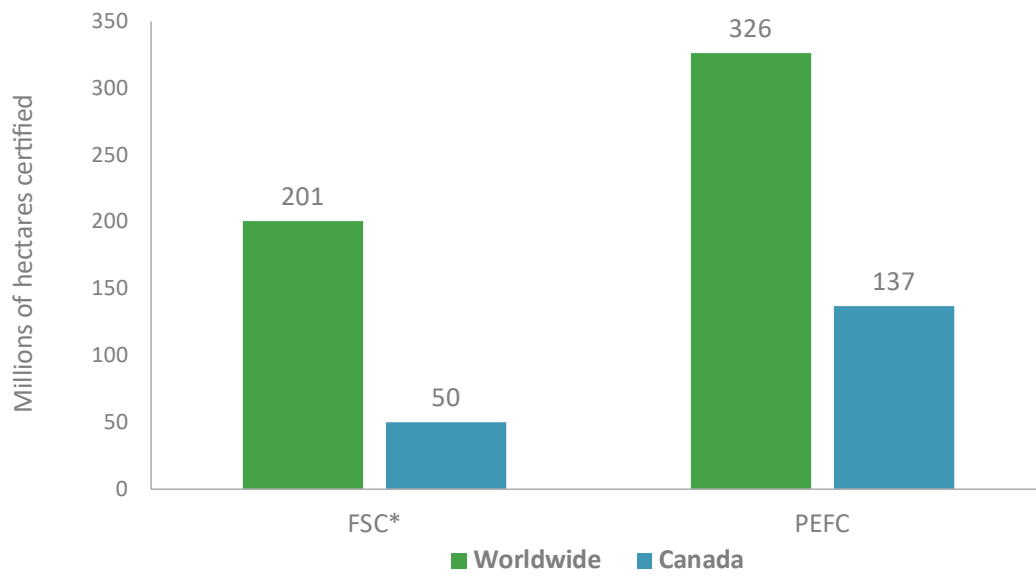
- » There are 168 million hectares (415 million acres) where forest management is certified under one or more of the three certification programs used in Canada.
- » The forestry practices in the vast majority of the forests in which forestry operations can occur are now certified.

Canadian Certification in the Global Context - 2019



- » Canada has the largest area of third-party independently certified forests in the world.
- » Canada has 35% of the world's certified forest area.
- » Only 11% of the world's forests are independently certified.

Canada's Contribution to Worldwide FSC and PEFC Certifications - 2019



- » Canada has 42% of all PEFC endorsed certifications (CSA and SFI) and 22% of all FSC certifications.



Key Elements of Certification Programs

The CSA, FSC and SFI forest certification standards were developed for specific circumstances and needs, and have differences. The legal framework within which standards are applied has also influenced them. For example CSA is only applied in Canada, largely on government-owned forest lands, and was written to complement tough policies, guidelines and government oversight already in place for the public forestlands in Canada. FSC was established as a response to concerns over global deforestation and is applied on public or private lands, large or small, worldwide. It includes requirements that may not already be in place in developing countries lacking a strong environmental and social framework. SFI is applied in Canada and the United States on both public and private lands and its requirements for North America recognize the strong legal framework in place there. It incorporates outreach and training requirements for suppliers of wood bought from uncertified sources as an additional measure to ensure all wood is from responsible sources.

The standards have evolved over time, just as the definition of sustainable forest management itself has. They remain current and relevant through regular standard reviews that accommodate new science and changing public views, and on many fronts there has been convergence over time. For example the CSA standard has become more responsive to social concerns, FSC standards have become more responsive to economic concerns, and SFI has expanded their scope to include conservation, community and education.

All standards promote responsible forest management through the conservation of biological diversity, maintenance of wildlife habitat and species diversity, protection of special sites, soil and water, and sustainable harvest levels. Forests are protected from illegal logging, laws and rights are observed, input is obtained from multiple stakeholders, there is public reporting, and audits by independent third parties are required.

For more on how the certification systems all promote responsible forest management, please see the table that follows entitled “Key Elements in Forest Certification Programs”.

CELEBRATING THE VALUE OF ALL STANDARDS

The CSA, FSC, and SFI certification standards all belong in purchasing policies aimed at obtaining environmentally sound products from well-managed forests. The standards complement each other in that they accomplish the same overall objectives. They are applied side-by-side across the landscape, and increasingly, on the same forest area to keep options open for meeting market demands. Certification to one standard makes it easier to certify to another since many elements are already in place. See the map of certified areas in Canada at www.certificationcanada.org.

The Canadian Council of Forest Ministers recognizes CSA, FSC and SFI as being consistent with national and international agreements related to sustainable forest management and meeting criteria for balancing interests, being objective and science-based, implementable and practical.

Many other government agencies and corporate buyers in North America with procurement policies that include certified products recognize the CSA, FSC and SFI programs. Globally the programs are recognized either explicitly or through the FSC or PEFC international programs, and are accepted by the governments of France, Germany, Japan, New Zealand, Switzerland and the United Kingdom.

TABLE OF KEY ELEMENTS IN FOREST CERTIFICATION PROGRAMS

The forest certification standards used in Canada are consistent across key values. However each moves from global values and principles, to local application, in a different way:

- » CSA Sustainable Forest Management Standard involves a combination of public participation requirements, performance requirements, and management system requirements. This Standard's management system requirements are based on the internationally recognized CAN/CSA-ISO 14001 environmental management system standard. In the public participation process, an advisory group identify and select Values, Objectives, Indicators, and Targets based on (but not limited to) the sustainable forest management elements identified in this Standard.
- » The FSC National Forest Stewardship Standard of Canada maintains the internationally established hierarchical structure where Principles are essential rules or elements of forest stewardship, the Criteria provide the means of judging if a Principle has been fulfilled, and Indicators contain the performance direction that the FSC-certified organizations must meet or to which they must adhere.

- » The SFI Forest Management Standard applies to SFI Program Participants that own or have management authority for forestlands and is based on Principles, Objectives, Performance Measures and Indicators. In addition, organization with fiber sourcing programs must meet the SFI Fiber Sourcing Standard.

These “structural” differences make it difficult to directly compare the CSA, FSC and SFI standards, as they each take a diverse approach to developing auditable indicators. To structure our comparison, we refer to the internationally-agreed elements of sustainable forest management used by Indufor in their International Comparison of Forest Management Legal Frameworks and Certification Standards (first published in 2009 and revised in 2016). A summary of Indufor report is available on the FPAC website www.fpac.ca.

The following table illustrates the forestry requirements of these standards and provides some examples of indicators to show how the requirements are specifically applied in Canada's forests. Other important elements of certification standards, such as auditor qualifications, chain-of-custody and labeling are also covered. The table is based on what is written in the standards and should not be taken as giving an accurate indication of what happens when they are applied on the ground.

<p>Elements of sustainable forest management</p> <p>1. Harvesting-level management</p> <p>Managing the harvesting-level in natural forests is a central component of ensuring sustainability in the long term. The process to determine the allowable harvest levels can be driven by economic or environmental concerns. In many jurisdictions the government plays a role in determining allowable cuts – particularly when harvesting is conducted on public lands.</p>	<p>CSA Sustainable Forest Management Standard (CAN/Z809-16)</p> <p>Criterion 2 — Ecosystem condition and productivity Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.</p> <p>Element 2.1 — Forest ecosystem condition and productivity Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 5: BENEFITS FROM THE FOREST</p> <p>The Organization shall efficiently manage the range of multiple products and services of the Management Unit to maintain or enhance long term economic viability and the range of social and environmental benefits.</p> <p>Criterion 5.2 The Organization shall normally harvest products and services from the Management Unit at or below a level which can be permanently sustained.</p>	<p>SFI 2015-2019 Forest Management Standard</p> <p>Principle 1. Sustainable Forestry To practice sustainable forestry to meet the needs of the present without compromising the ability of future generations to meet their own needs by practicing a land stewardship ethic that integrates reforestation and the managing, growing, nurturing and harvesting of trees for useful products and ecosystem services such as the conservation of soil, air and water quality, carbon, biological diversity, wildlife and aquatic habitats, recreation and aesthetics.</p> <p>Objective 1. Forest Management Planning To ensure forest management plans include long-term sustainable harvest levels and measures to avoid forest conversion.</p> <p>Performance Measure 1.1. Program Participants shall ensure that forest management plans include long-term harvest levels that are sustainable and consistent with appropriate growth- and yield models.</p>
--	---	--	--

<p>Elements of sustainable forest management</p> <p>2. Reforestation management</p> <p>Following the harvesting of trees from natural forest, either selectively or through clearcutting, reforestation is a crucial step in promoting the sustainability of the forest resource base.</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p> <p>Criterion 2 — Ecosystem condition and productivity</p> <p>Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.</p> <p>Element 2.1 — Forest ecosystem condition and productivity</p> <p>Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 10: IMPLEMENTATION OF MANAGEMENT ACTIVITIES</p> <p>Management activities conducted by or for The Organization for the Management Unit shall be selected and implemented consistent with The Organization's economic, environmental and social policies and objectives and in compliance with the Principles and Criteria collectively.</p> <p>Criterion 10.1 After harvest or in accordance with the management plan, The Organization shall, by natural or artificial regeneration methods, regenerate vegetation cover in a timely fashion to pre-harvesting or more natural conditions.</p>	<p>SFI 2015-2019 Forest Management Standard</p> <p>Principle 2. Forest Productivity and Health</p> <p>To provide for regeneration after harvest and maintain the productive capacity of the forestland base, and to protect and maintain long-term forest and soil productivity. In addition, to protect forests from economically or environmentally undesirable levels of wildfire, pests, diseases, invasive exotic plants and animals, and other damaging agents and thus maintain and improve long-term forest health and productivity.</p> <p>Objective 2. Forest Health and Productivity</p> <p>To ensure long-term forest productivity, carbon storage and conservation of forest resources through prompt reforestation, afforestation, minimized chemical use, soil conservation, and protecting forests from damaging agents.</p> <p>Performance Measure 2.1. Program Participants shall promptly reforest after final harvest.</p>
--	---	---	--

<p>Elements of sustainable forest management</p> <p>3. Clearcutting</p> <p>Clearcutting is an appropriate regeneration felling method for forest stands where light demanding species are common e.g. in boreal climate zones. On the other hand, shade tolerant fir or hardwood stands should be regenerated with selective harvesting.</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p> <p>Criterion 1 — Biological diversity Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part, including ecological elements that contribute to cultural values.</p> <p>The public participation process shall include discussion of the following topics: [...]</p> <ul style="list-style-type: none"> management in the context of natural disturbance regimes and patterns and the range of natural variation; [...] silvicultural regimes and practices such as integrated pest management and pesticide use, structural retention, and timber harvest practices (including clear-cutting); 	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 6: ENVIRONMENTAL VALUES AND IMPACTS The Organization shall maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit, and shall avoid, repair or mitigate negative environmental impacts.</p> <p>Criterion 6.8 The Organization shall manage the landscape in the Management Unit to maintain and/or restore a varying mosaic of species, sizes, ages, spatial scales and regeneration cycles appropriate for the landscape values in that region, and for enhancing environmental and economic resilience.</p> <p>Indicator 6.8.3 Based on the analyses undertaken for Indicators 6.1.3 and 6.1.4, targets are identified for the size distribution of forest patches to maintain, restore, or enhance the condition of the forest as appropriate to the regional context. The targets also take into account the needs of species at risk* that require large areas of contiguous habitat.</p>	<p>SFI 2015-2019 Forest Management Standard</p> <p>Objective 5. Management of Visual Quality and Recreational Benefits To manage the visual impact of forest operations and provide recreational opportunities for the public.</p> <p>Performance Measure 5.2. Program Participants shall manage the size, shape and placement of clearcut harvests.</p> <p>Indicators: 1. Average size of clearcut harvest areas does not exceed 120 acres (50 hectares), except when necessary to meet regulatory requirements, achieve ecological objectives, or respond to forest health emergencies or other natural catastrophes.</p>
--	--	---	--

<p>Elements of sustainable forest management</p> <p>4. Forest conversion</p> <p>The conversion of natural forest to non-forest uses or to another forest type is often driven by economic justifications and can sometimes spark public protests due to the possible loss of biodiversity or wildlife habitats and the increase of carbon emissions.</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p> <p>Criterion 4 — Role in global ecological cycles</p> <p>Maintain forest conditions and management activities that contribute to the health of global ecological cycles.</p> <p>Element 4.2 — Forest land conversion</p> <p>Protect forest lands from deforestation. Encourage afforestation where ecologically appropriate.</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 6: ENVIRONMENTAL VALUES AND IMPACTS</p> <p>The Organization shall maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit*, and shall avoid, repair or mitigate negative environmental impacts.</p> <p>Criterion 6.9 The Organization shall not convert natural forest to plantations, nor natural forests or plantations on sites directly converted from natural forest to non-forest land use, except when the conversion:</p> <ol style="list-style-type: none"> Affects a very limited portion of the area of the Management Unit, and Will produce clear, substantial, additional, secure long-term conservation benefits in the Management Unit, and Does not damage or threaten High Conservation Values, nor any sites or resources necessary to maintain or enhance those High Conservation Values. 	<p>SFI 2015-2019 Forest Management Standard</p>	<p>Objective 1. Forest Management Planning</p> <p>To ensure forest management plans include long-term sustainable harvest levels and measures to avoid forest conversion.</p> <p>Performance Measure 1.2. Program Participants shall not convert one forest cover type to another forest cover type, unless in justified circumstances.</p> <p>Indicators:</p> <ol style="list-style-type: none"> Program Participants shall not convert one forest cover type to another forest cover type, unless the conversion: <ol style="list-style-type: none"> Is in compliance with relevant national and regional policy and legislation related to land use and forest management; and Would not convert native forest types that are rare and ecologically significant at the landscape level or put any native forest types at risk of becoming rare; and Does not create significant long-term adverse impacts on Forests with Exceptional Conservation Value, old-growth forests, forests critical to threatened and endangered species, and special sites. <p>Performance Measure 1.3. Program Participants shall not have within the scope of their certification to this SFI Standard, forest lands that have been converted to non-forest land use.</p> <p>Indicator:</p> <ol style="list-style-type: none"> Forest lands converted to other land uses shall not be certified to this SFI Standard. This does not apply to forest lands used for forest and wildlife management such as wildlife food plots or infrastructure such as forest roads, log processing areas, trails etc.
--	--	--	---	---

<p>Elements of sustainable forest management</p> <p>5. Plantations</p> <p>Plantations are an important source of certified wood and fibre in many countries, but their management requirements often differ from natural forests and are sometimes considered agriculture activities rather than forestry. Nonetheless the conversion of forests to plantations is an important issue in many of the national standards.</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p> <p>Criterion 1 — Biological diversity Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part, including ecological elements that contribute to cultural values.</p> <p>Element 1.1 — Ecosystem diversity Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA. Establish forest plantations only in afforestation projects.</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 6: ENVIRONMENTAL VALUES AND IMPACTS The Organization shall maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit, and shall avoid, repair or mitigate negative environmental impacts.</p> <p>Criterion 6.9 The Organization shall not convert natural forest to plantations, nor natural forests or plantations on sites directly converted from natural forest to non-forest land use, except when the conversion:</p> <ul style="list-style-type: none"> a. Affects a very limited portion of the area of the Management Unit, and b. Will produce clear, substantial, additional, secure long-term*conservation benefits in the Management Unit, and c. Does not damage or threaten High Conservation Values, nor any sites or resources necessary to maintain or enhance those High Conservation Values. 	<p>SFI 2015-2019 Forest Management Standard</p> <p>SFI Guidance (Section 6) The SFI 2015-2019 Forest Management Standard and SFI 2015-2019 Fiber Sourcing Standards are intended to apply to forest management systems that are classified as natural forest systems, managed natural forests and plantation forests.</p>
--	---	--	---

Elements of sustainable forest management	CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)	FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)	SFI 2015-2019 Forest Management Standard
<p>6. Forest risk and productivity management (fire, insect, disease)</p> <p>Sustainable forest management is predicated on the maintenance of forest resources. The varied geography means that the risks – such as fire, insects and disease – are different for each and therefore standards are adapted to the priority risks that are most likely present in the area.</p>	<p>Criterion 2 — Ecosystem condition and productivity Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.</p> <p>Element 2.1 — Forest ecosystem condition and productivity Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.</p> <p>Criterion 1 — Biological diversity Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part, including ecological elements that contribute to cultural values.</p> <p>The public participation process shall include discussion of the following topics: [...]</p> <ul style="list-style-type: none"> • management in the context of natural disturbance regimes and patterns and the range of natural variation; [...] • silvicultural regimes and practices such as integrated pest management and pesticide use, structural retention, and timber harvest practices (including clear-cutting). 	<p>PRINCIPLE 10: IMPLEMENTATION OF MANAGEMENT ACTIVITIES Management activities conducted by or for The Organization for the Management Unit shall be selected and implemented consistent with The Organization’s economic, environmental and social policies and objectives and in compliance with the Principles and Criteria collectively.</p> <p>Criterion 10.9 The Organization shall assess risks and implement activities that reduce potential negative impacts from natural hazards proportionate to scale, intensity, and risk.</p> <p>INTENT BOX Examples of natural hazards may include droughts, floods, fires, landslides, storms, insects or diseases outbreaks and avalanches.</p>	<p>Principle 2. Forest Productivity and Health To provide for regeneration after harvest and maintain the productive capacity of the forestland base, and to protect and maintain long-term forest and soil productivity. In addition, to protect forests from economically or environmentally undesirable levels of wildfire, pests, diseases, invasive exotic plants and animals, and other damaging agents and thus maintain and improve long-term forest health and productivity.</p> <p>Performance Measure 2.4. Program Participants shall manage so as to protect forests from damaging agents, such as environmentally or economically undesirable wildfire, pests, diseases, and invasive exotic plants and animals, to maintain and improve long-term forest health, productivity and economic viability</p>

<p>Elements of sustainable forest management</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p>	<p>SFI 2015-2019 Forest Management Standard</p>
<p>7. Illegal-logging avoidance Illegal logging is responsible for significant carbon emissions and lost revenues around the world – particularly in developing economies. Two major topics are regulated by law and the standards in the jurisdictions studied; the illegal harvesting of trees and the import/trade of illegally harvested wood.</p>	<p>Rights and regulations The organization shall</p> <ul style="list-style-type: none"> a) respect the legal rights and responsibilities of other parties in the DFA; b) demonstrate that relevant legislation and regulatory requirements relating to ownership, tenure, rights, and responsibilities in the DFA have been identified and complied with; c) demonstrate that the legal and constitutional rights relevant to SFM (including those specified in the International Labour Organization [ILO] Conventions and Recommendations to which Canada is a signatory [such as “Freedom of Association” and “Protection of the Right to Organize”]) and the health and safety of DFA-related workers are respected, and their contributions to SFM are encouraged; d) demonstrate that the acquired and legal rights of private woodlot owners to set the values, objectives, indicators, and targets relating to their properties are respected; and e) establish and maintain procedures to identify and have access to all legal and other requirements to which the organization subscribes that are applicable to the DFA. This includes requirements related to ownership tenure, rights, and responsibilities in the DFA. 	<p>PRINCIPLE 1: COMPLIANCE WITH LAWS The Organization shall comply with all applicable laws, regulations and nationally ratified international treaties, conventions and agreements.</p> <p>Criterion 1.4 The Organization shall develop and implement measures, and/or shall engage with regulatory agencies, to systematically protect the Management Unit from unauthorized or illegal resource use, settlement and other illegal activities.</p> <p>Requirements for Sourcing FSC Controlled Wood The five FSC controlled wood categories of unacceptable sources (referred to as controlled wood categories) are: 1) Illegally harvested wood; [...] 1.5 The organization shall only use material as controlled material or sell material with the FSC Controlled Wood claim³ if it is in conformity with the requirements of this standard, confirmed through the due diligence system (DDS).</p>	<p>Principle 8. Legal Compliance To comply with applicable federal, provincial, state and local forestry and related environmental laws, statutes and regulations.</p> <p>Objective 9. Legal and Regulatory Compliance To comply with applicable federal, provincial, state, and local laws and regulations.</p> <p>Performance Measure 9.1. Program Participants shall comply with applicable federal, provincial, state and local forestry and related social and environmental laws and regulations.</p> <p>SFI 2015–2019 Fiber Sourcing Standard</p> <p>Objective 12. Avoidance of Controversial Sources including Illegal Logging To avoid illegal logging in fiber sourcing programs.</p> <p>Performance Measure 12.1. Program Participants shall ensure that their fiber sourcing programs support the principles of sustainable forestry, including efforts to reduce the risk of illegal logging.</p>

	<p>PEFC Chain of Custody of Forest Based Products - Requirements</p> <p>5.6.2 Timber known or reasonably suspected as coming from illegal sources (controversial sources 3.9(a) or (b)) shall not be processed and, shall not be traded and/or shall not be placed on the market unless appropriate documented evidence has been provided and verified which allows the timber supplied to be classified as presenting “negligible risk”.</p>	<p>Chain-of-custody standard The Organization’s Due Diligence System shall: [...]</p> <p>4.3.2 Conduct a risk assessment of sourcing forest-based products from illegal logging</p> <p>4.4 Implementing a Program to Address Risk Where the risk assessment conducted under 4.3 determines other than low risk, the organization shall implement a program to mitigate such risk and require a signed contract and/or self-declaration that the supplied forest-based product does not originate from controversial sources.</p>
--	--	---

Elements of sustainable forest management	CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)	FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)	SFI 2015-2019 Forest Management Standard
<p>8. Wildlife habitat management</p> <p>The concept of wildlife that traditionally refers to non-domesticated animal species, has come to include all animal, plant, fungi and other organisms that grow or live wild in an area without being introduced by humans.</p>	<p>Criterion 1 — Biological diversity Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part, including ecological elements that contribute to cultural values.</p> <p>Element 1.1 — Ecosystem diversity Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA. Establish forest plantations only in afforestation projects.</p> <p>Element 1.3 — Genetic diversity Conserve genetic diversity by maintaining the variation of genes within species and ensuring that reforestation programs are free of genetically engineered trees.</p> <p>Element 1.4 — Protected areas and sites of special biological, geological, heritage, or cultural significance Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological or cultural significance.</p>	<p>PRINCIPLE 6: ENVIRONMENTAL VALUES AND IMPACTS The Organization shall maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit, and shall avoid, repair or mitigate negative environmental impacts.</p> <p>6.5 The Organization shall identify and protect representative sample areas of native ecosystems and/or restore them to more natural conditions. Where representative sample areas do not exist or are insufficient, The Organization shall restore a proportion of the Management Unit to more natural conditions. The size of the areas and the measures taken for their protection or restoration including within plantations, shall be proportionate to the conservation status and value of the ecosystems at the landscape level, and the scale, intensity and risk of management activities.</p>	<p>Principle 4. Protection of Biological Diversity To manage forests in ways that protect and promote biological diversity, including animal and plant species, wildlife habitats, and ecological or natural community types.</p> <p>Performance Measure 4.1. Program Participants shall conserve biological diversity.</p> <p>Performance Measure 4.2. Program Participants shall protect threatened and endangered species, Forests with Exceptional Conservation Values (FECV) and old-growth forests.</p> <p>Performance Measure 4.3. Program Participants shall manage ecologically important sites in a manner that takes into account their unique qualities.</p> <p>Performance Measure 4.4. Program Participants shall apply knowledge gained through research, science, technology and field experience to manage wildlife habitat and contribute to the conservation of biological diversity.</p>

<p>Elements of sustainable forest management</p> <p>9. Species management (including endangered species and species at risk)</p> <p>Forests are home to much of the biodiversity. The protection of endangered species, including both flora and fauna, therefore requires actions by forest managers to protect habitats and prevent damage by forestry operations.</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p> <p>Criterion 1 — Biological diversity Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part, including ecological elements that contribute to cultural values.</p> <p>Element 1.2 — Species diversity Conserve species diversity by ensuring that habitats and forest conditions for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 6: ENVIRONMENTAL VALUES AND IMPACTS The Organization shall maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit, and shall avoid, repair or mitigate negative environmental impacts.</p> <p>Criterion 6.4 The Organization shall protect rare species and threatened species and their habitats in the Management Unit through conservation zones, protection areas, connectivity and/or (where necessary) other direct measures for their survival and viability. These measures shall be proportionate to the scale, intensity and risk of management activities and to the conservation status and ecological requirements of the rare and threatened species. The Organization shall take into account the geographic range and ecological requirements of rare and threatened species beyond the boundary of the Management Unit, when determining the measures to be taken inside the Management Unit.</p>	<p>SFI 2015-2019 Forest Management Standard</p> <p>Principle 4. Protection of Biological Diversity To manage forests in ways that protect and promote biological diversity, including animal and plant species, wildlife habitats, and ecological or natural community types.</p> <p>Performance Measure 4.2. Program Participants shall protect threatened and endangered species, Forests with Exceptional Conservation Values (FECV) and old-growth forests.</p>
--	---	---	---

Elements of sustainable forest management	CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)	FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)	SFI 2015-2019 Forest Management Standard
<p>10. Water quality management</p> <p>Forests play a central role in maintaining water quality, but forestry operations can entail significant impacts on water quality.</p>	<p>Criterion 3 — Soil and water Conserve soil and water resources by maintaining their quantity and quality in forest ecosystems.</p> <p>Element 3.2 — Water quality and quantity Conserve water resources by maintaining water quality and quantity.</p>	<p>PRINCIPLE 6: ENVIRONMENTAL VALUES AND IMPACTS The Organization shall maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit, and shall avoid, repair or mitigate negative environmental impacts.</p> <p>Criterion 6.7 The Organization shall protect or restore natural watercourses, water bodies, riparian zones and their connectivity. The Organization shall avoid negative impacts on water quality and quantity and mitigate and remedy those that occur.</p>	<p>Principle 3. Protection of Water Resources To protect water bodies and riparian areas, and to conform with forestry best management practices to protect water quality.</p> <p>Performance Measure 3.1. Program Participants shall meet or exceed all applicable federal, provincial, state and local water quality laws, and meet or exceed best management practices developed under Canadian or U.S. Environmental Protection Agency–approved water quality programs.</p> <p>Performance Measure 3.2. Program Participants shall implement water, wetland and riparian protection measures based on soil type, terrain, vegetation, ecological function, harvesting system, state best management practices (BMPs), provincial guidelines and other applicable factors.</p>

<p>Elements of sustainable forest management</p> <p>11. Old-growth management/ Special sites</p> <p>Old-growth forests spark even interest because of their particular characteristics and different requirements aim to maintain old-growth forests in managed landscapes. Standards impose processes to consult with stakeholders to define special sites.</p>	<p>CSA Sustainable Forest Management Standard (CAN/ CSA-Z809-16)</p> <p>Criterion 1 — Biological diversity Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part, including ecological elements that contribute to cultural values.</p> <p>The public participation process shall include discussion of the following topics: [...]</p> <ul style="list-style-type: none"> • locally available processes and methods for identifying sites with special biological and cultural significance; • conservation of old-growth forest attributes; <p>6.3.1.3 Element 1.1 — Ecosystem diversity Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA. Establish forest plantations only in afforestation projects.</p> <p>Core indicators</p> <p>1.1.1 — Ecosystem area by type. 1.1.2 — Forest area by type or species composition. 1.1.3 — Forest area by seral stage or age class. 1.1.4 — Degree of within-stand structural retention.</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 6: ENVIRONMENTAL VALUES AND IMPACTS The Organization shall maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit, and shall avoid, repair or mitigate negative environmental impacts.</p> <p>Indicator 6.1.4 An assessment of the range of natural variation (RONV) of the forest is completed. If sufficient data are not available to complete a RONV assessment, an assessment of the pre-industrial condition (PIC) is completed. The RONV or PIC analysis includes:</p> <ol style="list-style-type: none"> 1. An assessment of the natural range of the amount of each forest type; 2. An assessment of the natural range of forest types by age class; and 3. An assessment of the natural range of disturbance sizes and sizes of post-disturbance remnant patches. <p>Indicator 6.8.1 Based on the analyses undertaken for Indicators 6.1.3 and 6.1.4, targets are identified for the distribution of forest types and age classes of forest types that are intended to maintain, restore, or enhance the condition of the forest appropriate to the regional context.</p> <p>Targets may take anticipated impacts of climate change into account provided they are based on best available information.</p> <p>Target age-class distributions represent the full range of natural forest ages such that old forest classes are incorporated into the targets.</p>	<p>SFI 2015-2019 Forest Management Standard</p> <p>Principle 4. Protection of Biological Diversity To manage forests in ways that protect and promote biological diversity, including animal and plant species, wildlife habitats, and ecological or natural community types.</p> <p>Performance Measure 4.2. Program Participants shall protect threatened and endangered species, Forests with Exceptional Conservation Values (FECV) and old-growth forests.</p> <p>Performance Measure 4.3. Program Participants shall manage ecologically important sites in a manner that takes into account their unique qualities.</p> <p>Principle 6. Protection of Special Sites To manage lands that are ecologically, geologically or culturally important in a manner that takes into account their unique qualities.</p> <p>Objective 6. Protection of Special Sites To manage lands that are geologically or culturally important in a manner that takes into account their unique qualities.</p> <p>Performance Measure 6.1. Program Participants shall identify special sites and manage them in a manner appropriate for their unique features.</p>
--	--	--	---

<p>6.3.1.6 Element 1.4 — Protected areas and sites of special biological, geological, heritage, or cultural significance Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological or cultural significance.</p> <p>Identify sites of special biological, geological, heritage, or cultural significance within the DFA, and implement management strategies appropriate to their long-term maintenance.</p> <p>Core indicators</p> <p>1.4.1 — Protection of sites of special significance.</p> <p>1.4.2 — Proportion of identified sites with implemented management strategies.</p>	<p>Indicator 6.8.2 Measures are being implemented to achieve the targets for distributions of forest types and age classes of forest types identified in Indicator 6.8.1.</p> <p>PRINCIPLE 9: HIGH CONSERVATION VALUES The Organization shall maintain and/or enhance the High Conservation Values in the Management Unit through applying the precautionary approach.</p> <p>Criterion 9.1 The Organization, through engagement with affected stakeholders, interested stakeholders and other means and sources, shall assess and record the presence, status and likelihood of occurrence of the following High Conservation Values in the Management Unit, proportionate to the scale, intensity, and risk of impacts of management activities:</p> <p>HCV 1 – Species diversity [...] HCV 2 – Landscape-level ecosystems and mosaics [...] HCV 3 – Ecosystems and habitats [...] HCV 4 – Critical ecosystem services [...] HCV 5 – Community needs [...] HCV 6 – Cultural values [...]</p> <p>Criterion 9.2 The Organization shall develop effective strategies that maintain and/or enhance the identified High Conservation Values, through engagement with affected stakeholders, interested stakeholders and experts.</p> <p>Criterion 9.3 The Organization shall implement strategies and actions that maintain and/or enhance the identified High Conservation Values. These strategies and actions shall implement the precautionary approach and be proportionate to the scale, intensity and risk of management activities.</p>	
--	---	--

<p>Elements of sustainable forest management</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p>	<p>SFI 2015-2019 Forest Management Standard</p>
<p>12. Restrictions on the use of GMOs</p> <p>The impact of the use of genetically modified organisms in forestry has yet to be fully understood. Where this is addressed by legislation or standards, a cautious approach is applied in which the use of GMOs is either forbidden or highly restricted.</p>	<p>Criterion 1 — Biological diversity Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part, including ecological elements that contribute to cultural values.</p> <p>Element 1.3 — Genetic diversity Conserve genetic diversity by maintaining the variation of genes within species and ensuring that reforestation programs are free of genetically engineered trees.</p>	<p>PRINCIPLE 10: IMPLEMENTATION OF MANAGEMENT ACTIVITIES Management activities conducted by or for The Organization for the Management Unit shall be selected and implemented consistent with The Organization’s economic, environmental and social policies and objectives and in compliance with the Principles and Criteria collectively.</p> <p>Criterion 10.4 The Organization shall not use genetically modified organisms in the Management Unit.</p>	<p>SFI Section 7 – SFI Policies</p> <p>SFI POLICY ON FOREST TREE BIOTECHNOLOGY The SFI program has strong existing measures in the SFI 2015- 2019 Forest Management Standard and the SFI 2015-2019 Fiber Sourcing Standard regarding research on genetically engineered trees via forest tree biotechnology. [...]</p> <p>SFI Inc. is endorsed by the Program for the Endorsement of Forest Certification (www.pefc.org), which has restrictions on the use of genetically engineered trees until December 31, 2022: Genetically-modified trees shall not be used.</p>

Elements of sustainable forest management	CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)	FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)	SFI 2015-2019 Forest Management Standard
<p>13. Management of chemical use in forestry</p> <p>Chemical use in forestry to combat pests or fertilize stands presents the forest manager with some challenges to balance productivity and environmental goals. Environmental protection often requires the minimum possible use of these agents, except in cases of epidemic, while the economic sustainability of stands could be enhanced by the selective use of fertilizers and pesticides.</p>	<p>Criterion 3 — Soil and water Conserve soil and water resources by maintaining their quantity and quality in forest ecosystems.</p> <p>Element 3.1 — Soil quality and quantity Conserve soil resources by maintaining soil quality and quantity.</p> <p>Element 3.2 — Water quality and quantity Conserve water resources by maintaining water quality and quantity.</p> <p>Guidance for implementation and certification Maintaining soil quality and quantity involves implementing management strategies to minimize and mitigate soil disturbance. Measuring soil conditions, particularly chemical and physical properties, might be feasible at a specific site, but impractical across entire working forests. Established research may be used to identify the links between certain kinds of soil-related forest practices and soil conditions, and forest managers can control their practices accordingly.</p>	<p>PRINCIPLE 10: IMPLEMENTATION OF MANAGEMENT ACTIVITIES Management activities conducted by or for The Organization for the Management Unit shall be selected and implemented consistent with The Organization's economic, environmental and social policies and objectives and in compliance with the Principles and Criteria collectively.</p> <p>Criterion 10.7 The Organization shall use integrated pest management and silviculture systems which avoid, or aim at eliminating, the use of chemical pesticides. The Organization shall not use any chemical pesticides prohibited by FSC policy. When pesticides are used, The Organization shall prevent, mitigate, and/or repair damage to environmental values and human health.</p>	<p>Objective 2. Forest Health and Productivity To ensure long-term forest productivity, carbon storage and conservation of forest resources through prompt reforestation, afforestation, and minimized chemical use, soil conservation, and protecting forests from damaging agents.</p> <p>Performance Measure 2.2. Program Participants shall minimize chemical use required to achieve management objectives while protecting employees, neighbors, the public and the environment, including wildlife and aquatic habitats.</p> <p>Indicator 4. The World Health Organization (WHO) type 1A and 1B pesticides shall be prohibited, except where no other viable alternative is available.</p> <p>Indicator 5. Use of pesticides banned under the Stockholm Convention on Persistent Organic Pollutants (2001) shall be prohibited.</p>

	<p>Criterion 1 — Biological diversity Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part, including ecological elements that contribute to cultural values.</p> <p>The public participation process shall include discussion of the following topics: [...] <ul style="list-style-type: none"> • silvicultural regimes and practices such as integrated pest management and pesticide use, structural retention, and timber harvest practices (including clear-cutting); </p>		
--	---	--	--

Elements of sustainable forest management	CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)	FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)	SFI 2015-2019 Forest Management Standard
<p>14. Climate change and carbon management</p> <p>Forests play a central role in many countries' efforts to combat climate change. Standards present varying degrees of acknowledgement of the role that forest management plays in mitigating climate change and therefore impose different requirements on the forest manager.</p>	<p>Criterion 4 — Role in global ecological cycles Maintain forest conditions and management activities that contribute to the health of global ecological cycles.</p> <p>Element 4.1 — Carbon uptake and storage Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems.</p> <p>Criterion 2 — Ecosystem condition and productivity Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.</p> <p>The public participation process shall include discussion of the following topics:</p> <ul style="list-style-type: none"> • climate change impacts and adaptations; • trends in natural and human-caused disturbances; • proportion of naturally disturbed area that is not salvage harvested; and • biomass utilization. 	<p>PRINCIPLE 6: ENVIRONMENTAL VALUES AND IMPACTS The Organization shall maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit, and shall avoid, repair or mitigate negative environmental impacts.</p> <p>Criterion 6.3 The Organization shall identify and implement effective actions to prevent negative impacts of management activities on the environmental values, and to mitigate and repair those that occur, proportionate to the scale, intensity and risk of these impacts.</p> <p>Indicator 6.3.7 Management activities prevent negative impacts to carbon values.</p> <p>Criterion 6.8 The Organization shall manage the landscape in the Management Unit to maintain and/or restore a varying mosaic of species, sizes, ages, spatial scales and regeneration cycles appropriate for the landscape values in that region, and for enhancing environmental and economic resilience.</p>	<p>Objective 1. Forest Management Planning To ensure forest management plans include long-term sustainable harvest levels and measures to avoid forest conversion.</p> <p>Performance Measure 1.1. Program Participants shall ensure that forest management plans include long-term harvest levels that are sustainable and consistent with appropriate growth-and yield models.</p> <p>Indicators:</p> <p>4. Periodic updates of forest inventory and recalculation of planned harvests to account for changes in growth due to productivity increases or decreases, including but not limited to improved data, long-term drought, fertilization, climate change, changes in forestland ownership and tenure, or forest health.</p> <p>Objective 10. Forestry Research, Science and Technology To invest in forestry research, science and technology, upon which sustainable forest management decisions are based and broaden the awareness of climate change impacts on forests, wildlife and biological diversity.</p> <p>Performance Measure 10.3. Program Participants shall —individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners— broaden the awareness of climate change impacts on forests, wildlife and biological diversity.</p>

	<p>Indicator 6.8.1 Based on the analyses undertaken for Indicators 6.1.3 and 6.1.4, targets are identified for the distribution of forest types and age classes of forest types that are intended to maintain, restore, or enhance the condition of the forest appropriate to the regional context.</p> <p>Targets may take anticipated impacts of climate change into account provided they are based on best available information.</p>	<p>Indicators:</p> <ol style="list-style-type: none"> 1. Where available, monitor information generated from regional climate models on long-term forest health, productivity and economic viability. 2. Program Participants are knowledgeable about climate change impacts on wildlife, wildlife habitats and conservation of biological diversity through international, national, regional or local programs.
--	--	--

<p>Elements of sustainable forest management</p> <p>15. Public participation and community involvement</p> <p>Public participation and community involvement is seldom required in privately owned forestry. Legislative regulations on organisation and running of participatory processes apply commonly to state owned forestry or to institutional forest owners.</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p> <p>Public and Aboriginal participation requirements [...] In the public participation process, the advisory group shall have opportunities to work with the organization to</p> <ul style="list-style-type: none"> a) identify and select values, objectives, indicators, and targets based on SFM elements and any other issues of relevance to the defined forest area (DFA); b) develop, assess and select one or more possible strategies for achieving targets; c) review the SFM plan; d) evaluate results of monitoring programs, and discuss improvements; and e) discuss any issues relevant to SFM in the DFA. <p>Criterion 6 — Society's responsibility Sustainable forest management includes society's responsibility for worker and community safety, and the requirement for fair, equitable, and effective forest management decisions.</p> <p>Element 6.1 — Fair and effective decision-making Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 4: COMMUNITY RELATIONS The Organization shall contribute to maintaining or enhancing the social and economic well-being of local communities.</p> <p>Criterion 4.5 The Organization, through engagement with local communities, shall take action to identify, avoid and mitigate significant negative social, environmental and economic impacts of its management activities on affected communities. The action taken shall be proportionate to the scale, intensity and risk of those activities and negative impacts.</p> <p>PRINCIPLE 7: MANAGEMENT PLANNING The Organization shall have a management plan consistent with its policies and objectives and proportionate to scale, intensity and risks of its management activities. The management plan shall be implemented and kept up-to-date based on monitoring information in order to promote adaptive management. The associated planning and procedural documentation shall be sufficient to guide staff, inform affected stakeholders and interested stakeholders and to justify management decisions.</p>	<p>SFI 2015-2019 Forest Management Standard</p> <p>Principle 11. Community Involvement and Social Responsibility To broaden the practice of sustainable forestry through public outreach, education, and involvement, and to support the efforts of SFI Implementation Committees.</p> <p>Objective 12. Community Involvement and Landowner Outreach To broaden the practice of sustainable forestry through public outreach, education, and involvement, and to support the efforts of SFI Implementation Committees.</p> <p>Performance Measure 12.1. Program Participants shall support and promote efforts by consulting foresters, state, provincial and federal agencies, state or local groups, professional societies, conservation organizations, Indigenous Peoples and governments, community groups, sporting organizations, labor, universities, extension agencies, the American Tree Farm System and/or other landowner cooperative programs to apply principles of sustainable forest management.</p> <p>Performance Measure 12.2. Program Participants shall support and promote, at the state, provincial or other appropriate levels, mechanisms for public outreach, education and involvement related to sustainable forest management.</p>
---	--	---	--

		<p>Criterion 7.6 The Organization shall, proportionate to scale, intensity and risk of management activities, proactively and transparently engage affected stakeholders in its management planning and monitoring processes, and shall engage interested stakeholders on request.</p>	<p>Performance Measure 12.3. Program Participants shall establish, at the state, provincial-or other appropriate levels, procedures to address concerns raised by loggers, consulting foresters, employees, unions, the public or other Program Participants regarding practices that appear inconsistent with the SFI 2015-2019 Forest Management Standard principles and objectives.</p>
--	--	---	---

<p>Elements of sustainable forest management</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p>	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p>	<p>SFI 2015-2019 Forest Management Standard</p>
<p>16. Indigenous peoples rights Forest play a central role – culturally, spiritually, and economically – in the lives of many Indigenous communities. Standards have requirements that related specifically to Indigenous consultations and engagement.</p>	<p>Criterion 7 — Aboriginal relations Recognize and respect the unique rights and values of Aboriginal Peoples.</p> <p>Element 7.1 — Aboriginal and treaty rights Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights, and treaty rights.</p> <p>Element 7.2 — Respect for Aboriginal forest values, knowledge, and uses Respect traditional Aboriginal forest values, knowledge, and uses as identified through an Aboriginal input process.</p>	<p>PRINCIPLE 3: INDIGENOUS PEOPLES' RIGHTS The Organization shall identify and uphold Indigenous Peoples' legal and customary rights of ownership, use and management of land, territories and resources affected by management activities.</p> <p>Criterion 3.1 The Organization shall identify the Indigenous Peoples that exist within the Management Unit or those that are affected by management activities. The Organization shall then, through engagement with these Indigenous Peoples, identify their rights of tenure, their rights of access to and use of forest resources and ecosystem services, their customary rights and legal rights and obligations, that apply within the Management Unit. The Organization shall also identify areas where these rights are contested.</p> <p>Criterion 3.2 The Organization shall recognize and uphold the legal and customary rights of Indigenous Peoples to maintain control over management activities within or related to the Management Unit to the extent necessary to protect their rights, resources and lands and territories Delegation by Indigenous Peoples of control over management activities to third parties requires Free, Prior and Informed Consent.</p>	<p>SFI Section 1 – Introduction The SFI 2015-2019 Forest Management Standard recognizes and adopts the principles outlined in the United Nations Declaration for the Rights of Indigenous Peoples (UNDRIP). The Declaration says that consideration should be given for Indigenous Peoples' rights to maintain and strengthen their distinct spiritual relationship with their traditionally owned or otherwise used lands and territories. In adopting the UNDRIP articles SFI Program Participants are encouraged to communicate and collaborate with local Indigenous Peoples in order to better understand their traditional practices and experiences with respect to forest management.</p> <p>Objective 8. Recognize and Respect Indigenous Peoples' Rights To recognize and respect Indigenous Peoples' rights and traditional knowledge.</p> <p>Performance Measure 8.1. Program Participants shall recognize and respect Indigenous Peoples' rights.</p> <p>Performance Measure 8.2. Program Participants with forest management responsibilities on public lands shall confer with affected Indigenous Peoples with respect to sustainable forest management practices.</p> <p>Performance Measure 8.3. Program Participants are encouraged to communicate with and shall respond to local Indigenous Peoples with respect to sustainable forest management practices on their private lands.</p>

<p>Elements of sustainable forest management</p> <p>17. Training and outreach</p> <p>The concept of training and outreach covers competence building, as well as the requirements of and transparency in information dissemination.</p>	<p>CSA Sustainable Forest Management Standard (CAN/CSA-Z809-16)</p> <p>Criterion 5 — Economic and social benefits Sustain flows of forest benefits for current and future generations by providing multiple goods and services.</p> <p>Element 5.2 — Communities and sustainability Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies.</p> <p>Core indicators</p> <ul style="list-style-type: none"> • Level of participation and support in training and skills development. <p>Criterion 6 — Society's responsibility Sustainable forest management includes society's responsibility for worker and community safety, and the requirement for fair, equitable, and effective forest management decisions.</p> <p>Element 6.1 — Fair and effective decision-making Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.</p> <p>Core indicators [...]</p> <ul style="list-style-type: none"> • Evidence of efforts to promote capacity development and meaningful participation in general. 	<p>FSC National Forest Stewardship Standard of Canada (FSC-STD-CAN-01-2018 V 1-0)</p> <p>PRINCIPLE 4: COMMUNITY RELATIONS The Organization shall contribute to maintaining or enhancing the social and economic well-being of local communities.</p> <p>Criterion 4.3 The Organization shall provide reasonable opportunities for employment, training and other services to local communities, contractors and suppliers proportionate to scale and intensity of its management activities.</p> <p>PRINCIPLE 7: MANAGEMENT PLANNING The Organization shall have a management plan consistent with its policies and objectives and proportionate to scale, intensity and risks of its management activities. The management plan shall be implemented and kept up-to-date based on monitoring information in order to promote adaptive management. The associated planning and procedural documentation shall be sufficient to guide staff, inform affected stakeholders and interested stakeholders and to justify management decisions.</p> <p>Criterion 7.5 The Organization shall make publicly available a summary of the management plan free of charge. Excluding confidential information, other relevant components of the management plan shall be made available to affected stakeholders on request, and at cost of reproduction and handling.</p>	<p>SFI 2015-2019 Forest Management Standard</p> <p>Principle 10. Training and Education To improve the practice of sustainable forestry through training and education programs.</p> <p>Objective 11. Training and Education To improve the implementation of sustainable forestry practices through appropriate training and education programs.</p> <p>Performance Measure 11.1. Program Participants shall require appropriate training of personnel and contractors so that they are competent to fulfill their responsibilities under the SFI 2015-2019 Forest Management Standard.</p> <p>Principle 7. Responsible Fiber Sourcing Practices in North America To use and promote among other forest landowners sustainable forestry practices that are both scientifically credible and economically, environmentally and socially responsible.</p>
---	--	--	--

Other Program Elements

	CSA	FSC	SFI
BALANCE OF INTERESTS	Decisions are made with representation from a balance of social, economic and environmental interests. All standards are supported by various conservation groups.		
	CSA Standards are developed using an open and inclusive participatory process. The Technical Committee on Sustainable Forest Management consists of a balanced array of representatives from timber producers (including woodlot owners), forest-products manufacturers, academia, provincial and federal governments, and environmental, consumer, union, and Aboriginal groups.	Decision-making within FSC takes place by members around the world. International Members are divided into chambers (Environmental, Social, and Economic), with an additional, Aboriginal Peoples chamber in Canada, each with equal voting power. The purpose of the chamber structure is to maintain the balance of voting power between different interests.	SFI is governed by the 18-members SFI Board, which is responsible for overseeing and improving the internationally recognized SFI Program and SFI Standards. The Board's three chambers represent environmental, social and economic sectors equally. SFI Board members include executive-level representatives of conservation organizations, academic institutions, aboriginal/tribal entities, family forest owners, public officials, labor and the forest products industry. This diversity reflects the variety of interests in the forestry community.
ACCREDITED CERTIFICATION BODIES	Accreditation bodies are responsible for assessing and accrediting conformity assessment bodies (CAB) according to the requirements of ISO/IEC 17021-1:2015 Conformity assessment -- Requirements for bodies providing audit and certification of management systems. CAB, also referred to as certification bodies, are responsible to conduct third-party audit and make the certification decision.		
	Certification bodies conducting audits of CSA Sustainable Forest Management Standard are accredited by members of the International Accreditation Forum (IAF), including the Standards Council of Canada.	Certification bodies conducting audits of FSC forest management and chain of custody standards are accredited by Assurance Services International (ASI).	Certification bodies conducting audits of SFI forest management, fiber sourcing and chain-of-custody Standards are accredited by ANSI National Standards Institute (ANAB), or Standards Council of Canada (SCC).

<p>THIRD-PARTY INDEPENDENT AUDITS</p>	<p>Audits are carried out by accredited certification bodies independent of the standards writing organizations (CSA, FSC and SFI). The certification body employs, or has access to, a sufficient number of auditors, including audit team leaders, and technical experts to cover all of the audit work performed.</p> <p>Certification bodies make certification decisions based on their audit of the forest management enterprise's conformity with the requirements specified in the applicable standard.</p>		
	<p>In addition to the initial certification audit, there are mandatory annual surveillance audits which include both a document review and on-site checks of the forest and management system to ensure that progress is being made towards the achievement of targets and that the SFM requirements are being met.</p> <p>A full recertification audit is required periodically following the initial certification, in accordance with the requirements of ISO/IEC 17021.</p>	<p>There are four types of audits conducted for all forest management evaluations.</p> <p>Pre-Evaluation: assessment to determine the applicant's readiness for their main evaluation.</p> <p>Main Evaluation: assessment of an applicant for FSC certification.</p> <p>Re-Evaluation: assessment for re-certification.</p> <p>Surveillance Evaluations: systematic repetition of conformity assessment activities as a basis for maintaining the validity of FSC certification.</p>	<p>SFI Program Participants certified to the Forest Management, Fiber Sourcing and/or Chain-of-Custody Standards are required to undergo annual surveillance audits by independent and accredited certification bodies to deliver ongoing conformance. To maintain a current forest management, fiber sourcing, and/or chain-of-custody certificate, certified Program Participants must undergo a full recertification audit every five years.</p>
<p>REVISION OF THE STANDARDS</p>	<p>All forest standards remain current and relevant through an open, inclusive revision process involving public input, which typically occurs in Canada on a five-year cycle.</p>		

CHAIN-OF-CUSTODY	All chain-of-custody standards require screening of any non-certified wood sources to ensure they come from legal (authorized) and credible sources. They also exclude materials from unacceptable/controversial sources. Certified and non-certified materials are then tracked at each stage of the production or trading process through either physical separation methods, percentage system or credit system.		
	<p>Ability to use PEFC labels:</p> <ul style="list-style-type: none"> » For products with PEFC certified content of 70% or greater, from forests certified against a PEFC endorsed forest certification scheme. » For products with PEFC certified & recycle content. Minimum of 70% from forests certified against a PEFC endorsed forest certification scheme and post-consumer recycled raw material. 	<p>A label for 100% FSC certified content</p> <p>A 100% recycled label. (minimum of 85% from post-consumer sources, maximum of 15% from post-industrial sources).</p> <p>A variety of Mixed Source labels that include a combination of FSC certified material, controlled material, and recycled material. Content claims can be calculated using transfer, percentage or credit systems (usually 70% combined FSC certified and recycled content).</p>	<p>SFI Certified Content Labels: Show that some or all of the product’s fiber content comes from forests that are certified to PEFC endorsed standards in Canada or the US (SFI, CSA, and American Tree Farm System).</p> <ul style="list-style-type: none"> » Includes a combined content label showing exact percentages of content from certified forests, certified fibre sourcing, and post consumer recycled (for use with average percentage calculations). » When a company uses the volume credit method, the claim on the label is “Promoting Sustainable Forest Management” » Labels can include a mobius loop stating the percentage of post consumer content in the product. <p>SFI Certified Sourcing Label: Show that procurement system is third- party certified as meeting the SFI 2015-2019 Fiber Sourcing Standard and Appendix 1 Rules for Use of the SFI Certified Sourcing Label</p>
WEBSITES	www.csagroup.org www.csasfmforests.ca www.pefc.org	www.fsc.org www.fsccanada.org	www.sfiprogram.org www.pefc.org

Table Sources: Based on information publicly available at the time from CSA, FSC, PEFC, and SFI

Conclusions

While there are some differences, the three certification programs used in Canada all promote sound forest management through principles, criteria and requirements that are viewed as the basis of sustainable forest management within Canada and around the world.

Only 11 per cent of the world's forests are certified, and the fact that 36 per cent of those certified lands are found in Canada means Canada has a stable and secure supply of certified fibre. This independent verification provides added assurance of responsible forest practices from a country with some of the world's toughest and well-enforced regulatory frameworks for forestry.

BENEFITS OF INCLUDING ALL STANDARDS IN PROCUREMENT POLICIES INCLUDE:

- » Promoting well-managed, legal and sustainable sources of forest products
- » Rewarding sustainable forestry leadership in the 11% of the world's forests that are certified, encouraging similar improvements in the other 89% of the world's forests.
- » Promoting competition and continual improvement amongst the standards
- » Ensuring a plentiful supply of certified forest products
- » Giving freedom of choice (options) to organizations looking for certified forest products
- » Improving global forest management by providing independent third-party verification of responsible practice



