



Building  
Green with  
Wood in B.C.

MODULE 11

# Forest Practices in Canada



## Canada: A World Leader in Sustainable Forestry

Canada's immense forest land base means it has an important role to play in responding to the urgent issue of climate change. Its sustainable forest management policies and practices achieve a balance between the demand for quality products and economic benefits for communities, and the need to conserve forest values and maintain forest health and diversity.

In Canada, the forest industry operates under some of the toughest environmental laws and regulations in the world, backed by multi-faceted compliance and enforcement. Many operations are certified to credible third-party forest certification standards, bringing additional assurance that products are from legal, sustainable sources.

## A Snapshot of Canada's Forests

Canada has more than 348 million hectares (860 million acres) of forest land. Canada has 9 per cent of the world's forests, including 24 per cent of the world's boreal forests.

The area of Canada's forests that is managed for timber production or other uses is 232 million hectares. In 2014, 0.72 million hectares were harvested, contrasted with 20.3 million hectares damaged by insects and 4.2 million hectares burned in wildfires. Wildfire and insect affect much more forest land than harvesting.<sup>1</sup>

Most of Canada's forest land – 92 per cent – is publicly owned and managed by the federal, provincial or territorial governments. Each province and territory has strict regulations that fully characterize what sustainable forest management (SFM) means and what actions may take place on public land, with regulations and laws that are among the most stringent on earth.<sup>2</sup>

<sup>1</sup> National Forestry Database, Accessed July 2016 [http://nfdp.ccfm.org/index\\_e.php](http://nfdp.ccfm.org/index_e.php)

<sup>2</sup> NaturallyWood, 2009, Examining the Linkage Between Forest Regulation and Forest Certification Around the World, [www.naturallywood.com/resource/comparison-selected-forest-certification-standards-2009-summary](http://www.naturallywood.com/resource/comparison-selected-forest-certification-standards-2009-summary)

## Defining Forest Sustainability

Forest sustainability was first described in the book *Sylvicultura oeconomica* by German author Hans Carl von Carlowitz, published in 1713—and, while our understanding of what constitutes sustainability has evolved significantly in 300 years, it has long been a cornerstone of forest management. Von Carlowitz's work planted the seed for what we now know as sustainable development, defined in the landmark 1987 report of the World Commission on Environment and Development (the 'Brundtland Report') as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."<sup>3</sup>

The United Nations Food and Agriculture Organization (FAO) defines sustainable forest management as "the stewardship and use of forests and forest lands in

a way, and at a rate, that maintains their biological diversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological economic and social functions, at local, national and global levels, and that does not cause damage on other ecosystems."

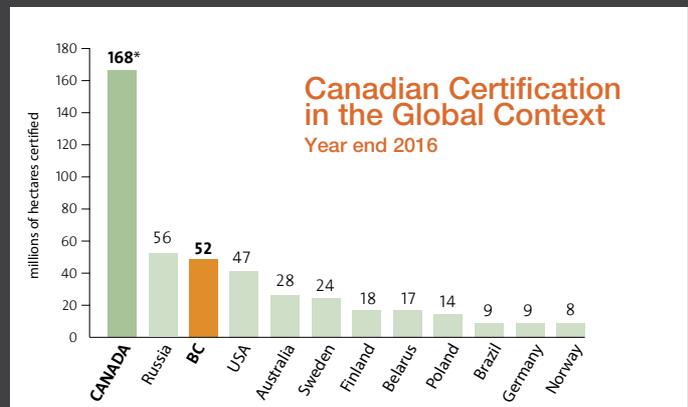
In Canada, forest sustainability is measured against criteria and indicators that represent the full range of forest values, including biodiversity, ecosystem condition and productivity, soil and water, global ecological cycles, economic and social benefits, and social responsibility. Sustainability criteria and indicators form the basis of individual country regulations as well as third-party sustainable forest certification programs.

<sup>3</sup> UN FAO, 2013, Three Hundred Years of Sustainable Forestry, <http://www.fao.org/docrep/018/i3364e/i3364e.pdf>

## Managing Diverse Forests

Canada's forest laws ensure its rich forest resources are managed in a way that maintains their many values today and for future generations, while providing a wide range of quality products to meet the needs of domestic and international markets. Companies harvesting public lands must consider and accommodate all forest values – which means environmental values such as wildlife habitat, biodiversity and water resources, and social values such as scenery and recreation, as well as timber production. They must reforest each site, and remain responsible for it until there is assurance it will grow into a new, healthy forest.

Deforestation in developing countries accounts for about 18 per cent of annual global greenhouse gas emissions. Canada has 91 per cent of its original forest cover<sup>4</sup> and its rate of deforestation has been virtually zero for more than 20 years. Very little forest land has been permanently converted to other uses such as agriculture and urban development.



\*Double counting of areas certified to more than one standard has been removed from this figure

**- Canada has 168 million hectares of certified lands –  
Canada is the international leader in forest certification  
with B.C. contributing more than any other province.  
- BC has 52 million hectares of certified lands.**

<sup>4</sup>A Guide to World Resources 2000-2001: People and ecosystems: The fraying web of life. Data Tables, United Nations Development Programme, United Nations Environment Programme, World Bank and World Resources Institute, September 2000

## Growing New Forests

A silviculture system covers all management activities related to growing forests – from early planning through harvesting, replanting and tending the new forest. Forest managers consider a variety of factors when choosing a silviculture system, including the tree species, their age and condition, soils, local ecology, and possible impacts on values such as wildlife habitat, water quality and scenery. They also look at economic and social factors, including cost, timber productivity and worker safety.

Canada's diverse forests are generally managed under one or a blend of three silvicultural systems:

- The clearcut system removes most of the trees from an area, with patches of trees and buffers left to protect other values.

- The shelterwood system harvests trees in stages over a short period of time so the new forest grows under the shelter of the existing trees.
- The selection system removes timber as single trees or in small groups at relatively short intervals, repeated indefinitely. This is done carefully to protect the quality and value of the forest area.

Clearcutting is used when the young trees of a species need an abundance of sunlight to germinate and to compete successfully with grasses and other plants. It is usually used to grow tree species that historically found open sunlight by following large natural disturbances such as windstorms or wildfire. It provides the direct sunlight needed to effectively grow some native species, while helping to create a mix of forest ages across the landscape, including the young forests preferred by certain wildlife.

## Conserving Forest Values

Biological diversity, or biodiversity, refers to the variety of species and ecosystems on earth and their ecological systems. An important indicator of forest sustainability, it enables organisms and ecosystems to respond to and adapt to environmental change.

Conserving biodiversity is an essential part of forest sustainability and involves strategies at different scales. At the landscape level, networks of parks and protected

areas conserve a range of biologically and ecologically diverse ecosystems.

Since Canada created its first park in 1872, it has designated 100 million hectares (250 acres) of terrestrial protected areas, which are managed for multiple values, including resource conservation, public education, preservation of culturally significant sites, research, and wildlife and habitat conservation.

## Responsible Stewardship

Canada's forest policy, based on sustainable forest management principles, guides its reforestation practices and sustainable harvest rates, ensuring the country retains its healthy forests for today and tomorrow's generations.

## Rigorous Legal Framework

The Canadian legal system holds companies and professionals accountable for their practices through strict forest management planning and approval processes, regulation of professionals, monitoring, and enforcement.

## Voluntary Third-Party Forest Certification

In addition to strong stewardship and strict legal framework, Canada has 168 million hectares of land certified to one of three market-driven forest certification systems. Canada leads the world in third-party certification, with more land certified to voluntary, market-based forest programs than any other country.

Wood is the only building material that has third-party certification programs in place to demonstrate that products being sold have come from a sustainably managed resource. North America has more certified forests than any other jurisdiction.

Accredited third-party certification bodies issue a certificate to an organization once they determine its planning, procedures, systems and the performance of its on-the-ground operations conform with a predetermined standard. Forest certification can also be complemented with a chain-of-custody certification, which is a mechanism used to track fibre from a certified forest through all production stages to the product on the shelf.

The three certification programs used in Canada – the Canadian Standards Association's Sustainable Forest Management Standards (CSA), the Forest Stewardship Council (FSC), and the Sustainable Forestry Initiative (SFI) – all promote sustainable forest management through principles, criteria and objectives consistent with government processes around the world. All three are recognized worldwide, and the CSA and SFI standards have met the rigorous requirements of the Programme for the Endorsement of Forest Certification (PEFC), the world's largest forest certification umbrella organization.



Canadian Sustainable Forest Management  
Supporting CSA Z809 – Canada's SFM Standard



- Mitigate climate change
- Use less energy and water
- User fewer materials
- Reduce waste
- Are healthy for people and the planet

"Forest certification is a tool for demonstrating to customers and consumers that forests are being well-managed and that key local, regional and national forest values are being taken into account in the management of forests."  
Canadian Council of Forest Ministers

[http://www.sfmcanada.org/images/Publications/EN/CCFM\\_StatementCertif\\_EN.pdf](http://www.sfmcanada.org/images/Publications/EN/CCFM_StatementCertif_EN.pdf)

*On the cover:*  
Indian Point River, Bowron Valley, B.C.  
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British Columbia wood. Sustainable by nature. Innovative by design.

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Each of the three certification standards depend on third-party audits by accredited certification bodies.