

A Buyers' Guide to Canada's Sustainable Forest Products

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Foreword

Buyers of forest products are concerned about sustainability issues, leading them to consider factors beyond the traditional attributes of price, quality, service and availability. The purpose of this Buyers' Guide is to provide information on the issues that should be considered when you are developing your policies and programs for sustainable procurement and financing, as well as additional resources and tools to help support the implementation of sustainable procurement programs. To assist you further, we have included a sample procurement policy that can be used as a starting point.

The original version of this Buyers' Guide was released in 2009. In this 2015 edition we have updated the environmental performance data from members of the Forest Products Association of Canada (FPAC), included new information on innovative forest products and construction practices, and have aligned the document with FPAC's "Vision2020" plan, which guides the industry in developing new products and new markets, improving their environmental footprint and utilizing multi-stakeholder planning approaches.

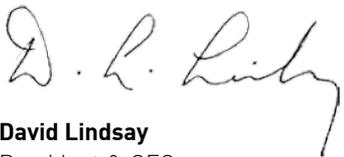
To ensure the Buyers' Guide is consistent with global procurement guidelines, this document has again drawn on the expertise of external organizations familiar with issues in the marketplace:

- **The Buyers' Guide is structured around the key sustainability questions posed in the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI) guide to sustainable procurement of wood and paper-based products (with permission).**
- **FPAC has worked with PricewaterhouseCoopers LLP (PwC) in the development of this Buyers' Guide in order to benefit from their knowledge and experience with sustainable procurement issues and to help address the questions that knowledgeable customers are asking.**

The Canadian forest products industry is committed to working in a manner that is environmentally responsible, socially desirable and economically viable. FPAC members have made commitments around sustainability issues such as conservation, sustainable forest management, certification, biodiversity and climate change. Through regular reporting, FPAC members are able to demonstrate steady and substantive progress toward their stated goals.

We welcome enquiries, visits, comparisons and your interest in Canadian forest products.

Sincerely,



David Lindsay
President & CEO
Forest Products Association of Canada



Kevin Bromley
Leader, Forest, Paper & Packaging Practice
PricewaterhouseCoopers LLP

Executive Summary

In keeping with internationally accepted principles of free trade, purchasing and financing policies should be non-discriminatory and transparent. Many companies procuring forest products are achieving their objectives through the development of sustainable procurement policies and we encourage you to use the resource information and sample procurement policy in the Buyers' Guide as tools to support the implementation of your forest products procurement program.

This Buyers' Guide to Canada's Sustainable Forest Products is designed to address the major considerations presented by the WBCSD/WRI in their guide to Sustainable Procurement of Wood and Paper-based Products¹, with respect to forest products produced in Canada, including:

Sourcing and Legality Aspects

Origin: Where do the products come from?

Knowledge of the products' origin, the supply chains they have followed and the manufacturing processes used to produce them will help buyers assess key factors such as the credibility of information about product origins, the legality of sourcing and sustainable forestry practices.

Information accuracy: Is information about the product credible?

To help trace the origin of raw materials and record the sale of certified products, Canadian forest companies are using traceability and third party certified Chain of Custody systems (CoC) to help track sustainably managed forest products. Canada is the world leader in third-party verified sustainable forest management certification, with 43% of the world's certified forests or more than 160 million hectares, which is four times more than any other country.²

Legality: Have the products been legally produced?

To reduce the risk of purchasing illegally harvested products, buyers should identify regions of higher risk and develop appropriate controls. Canada has a strong legal and institutional framework along with a solid commitment to sustainable forest management.

Environmental Aspects

Sustainability: Have forests been sustainably managed?

Sustainable forest management integrates economic, social and environmental aspects of management into an appropriate balance that meets the needs of today's society and those in the future. FPAC members are responsible for 66% of certified forest lands in Canada.

Unique forest values: Have unique forest values been protected?

There are areas in the forest landscape with unique qualities that deserve special attention or protection. The Canadian Boreal Forest Agreement (CBFA) is the world's largest conservation initiative and a model of how collaboration among industry, conservationists and governments can help to achieve environmental and economic objectives.

Climate change: Have climate issues been addressed?

Climate change is at the forefront of the sustainability agenda for the Canadian forest products industry, governments and consumers. The Canadian forest products industry was the first in the world to assess and report on its total carbon profile and commit to be carbon neutral along the supply chain.

Environmental protection and other resources: What action has been taken?

Producing forest products requires careful management of resources to minimize the impact on the environment. FPAC members have achieved significant improvements in environmental performance through reduced mill effluents, air emissions and water use over the past 20 years.

Fresh and recycled fibre: Have recycled fibres been used appropriately?

The use of recycled fibre can reduce the demand for fresh fibre from forests and reduce greenhouse gas emissions from paper sent to landfills. FPAC members achieved a recycling rate of 70% in 2013 compared with a global average of 56% in 2011. Recycling is an important aspect of the forest products value chain, although there will always be demand for fresh fibre to replenish the stock.

Social Aspects

Social Desirability: Have the needs of local communities or indigenous peoples been addressed?

Respecting the rights of Aboriginal Peoples and workers in forests and manufacturing facilities is an important part of sustainable procurement. The Canadian forest products industry has a proud tradition of working with Aboriginal Peoples, environmental groups, local communities, labour groups and other interested stakeholders to find common ground and mutually agreeable solutions for prosperity.

Sustainable Procurement

Introduction

Decisions regarding the purchase and use of wood and paper-based products can have far-reaching, long-term impacts. Beyond the immediate and obvious consequences of their purchases, consumers, retailers, investors and communities care about how their buying decisions affect the environment. They also want to know if products are produced sustainably and seek assurance that buying forest products today will not adversely affect the quality of the environment for future generations.

The environmental and social aspects of wood, pulp and paper products are often part of the purchasing decision, including questions surrounding sustainable procurement. This has led buyers to consider factors beyond the traditional attributes of price, service and quality. A variety of tools, initiatives and labels have been developed to guide consumers of wood and paper-based products.

Organizations that procure forest products may wish to take a complete life-cycle approach to evaluating the sustainability attributes of the products that they purchase. A life cycle assessment helps to objectively determine the environmental impacts of products, processes or services through production, usage and disposal of the products. This assessment typically encompasses raw material procurement, manufacturing, distribution, consumer use and post-consumer recycling/disposal.

When buying forest products from Canada, customers can be confident knowing that the products they purchase originate from sustainably managed forests. On top of its strong domestic record, Canada is demonstrating leadership in ending deforestation by endorsing the New York Declaration on Forests and its financial support for developing country anti-deforestation efforts. Over 94% of Canada's forests are publicly owned and are subject to rigorous federal and provincial legislation and regulations. Privately owned forests are also subject to regulation. This legal framework provides a high level of scrutiny and control over timber and non-timber values such as wildlife and biodiversity, harvest levels, road development and worker safety.

In addition, these regulations require comprehensive forest management planning subject to public review and government approval. Planning requirements vary among the provinces but generally include:

- Strategic forest management plans that are long-term and can range from 50 to 250 years
- Tactical forest management plans that are generally 20 to 25 years in scope and based upon strategic forest management plans
- Rolling five-year forest development plans and site specific annual operating plans

Vision2020

By 2020, the Canadian forest products industry will power Canada's new economy by being green, innovative and open to the world. This is FPAC's Vision2020³, a 10 year plan based on the following goals:

- Products: Generate an additional \$20 billion from new products and new markets
- Performance: Deliver a further 35% improvement in the sector's environmental footprint
- People: Renew the workforce with at least 60,000 new recruits including women, Aboriginals and new Canadians

FPAC recognizes that genuinely sustainable business requires a multi-stakeholder approach and its members have therefore engaged with groups such as governments, academic partners, local communities and environmental groups during the development of plans and strategies.

In 2014 FPAC released its first progress report showing how it had performed during the first two years of the plan. Overall, progress was good with total environmental impact falling by 6% [See Annex 3]. FPAC members are proud of their progress to date and are determined to achieve continual improvement in their performance.

Sustainable Procurement Policies

To ensure the appropriate emphasis is placed on environmental and social attributes of forest products, customers, as well as suppliers of financial services, can embody key sustainability principles in procurement or financing policies.

In keeping with internationally accepted principles of free trade, purchasing policies should be non-discriminatory and transparent. Sustainable procurement policies should include the following elements:

- Responsible fibre sourcing, including traceability or chain of custody
- Sustainable forest management certification
- Forest and biodiversity conservation
- Avoidance of illegal logging and deforestation
- Maintaining and enhancing air and water quality
- Energy efficiency and emissions reduction
- Efficient use of resources
- Recycling
- Social responsibility
- Research and education
- Public reporting
- Continual improvement

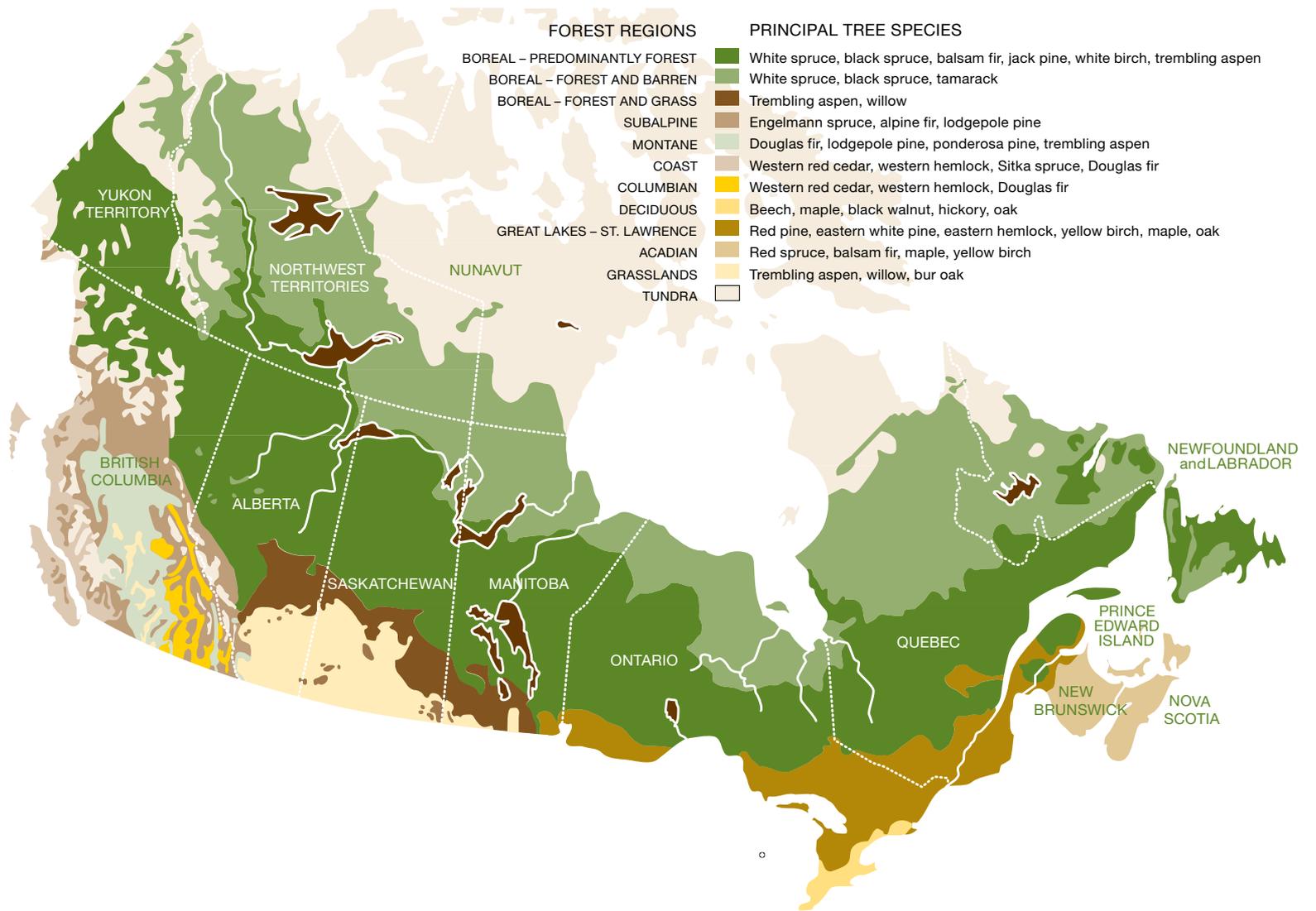
In order to support these sustainable procurement objectives, FPAC requires member companies to be certified to internationally recognized sustainable forest management programs. Examples of credible certification programs include the Canadian Standards Association (CSA) Sustainable Forest Management Standard (CSA® Z809),⁴ the Forest Stewardship Council (FSC®)⁵ certification program and the Sustainable Forestry Initiative (SFI®) certification program.⁶ In addition, the Programme for the Endorsement of Forest Certification schemes (PEFC™)⁷ is a global umbrella organization for the assessment and mutual recognition of national and regional forest certification schemes developed in a multi-stakeholder process. Of the forest management standards implemented in Canada, PEFC recognizes both the SFI and CSA sustainable forest management standards. Certification programs have also developed Chain of Custody standards that enable companies to track sustainably produced forest products through the supply chain and to use the appropriate on-product labels.

All FPAC members adhere to five core operating principles:

1. Harvest legally
2. Regenerate promptly
3. Reduce waste and promote paper recovery and recycling
4. Reduce greenhouse gas emissions
5. Be open to public scrutiny

Sustainable Procurement

Figure 1
Forest Regions of Canada



Canada’s Forest Resources

Forests are part of our Canadian heritage and culture. Almost half of Canada’s land area is forest. Canada has maintained nearly all, or 91%, of its original forest cover, which is more than any other country in the world. This is even more remarkable when you consider that Canada has been a world leader in the production of forest products for over a century. Canada’s rate of deforestation has been declining for the past two decades with the rate of deforestation now at less than 0.02% each year. The minimal amount of deforestation can be attributed to sectors of the economy other than forestry, such as agriculture and urban development⁸.

The forest regions of Canada are shown in Figure 1 and the classification of land in terms of forest management activities is shown in Figure 2.

Canada has a total of 979.1 million hectares of land, of which nearly 400 million hectares are forest and other wooded land.

Of this nearly 400 million hectares, 49 million are “Other wooded land,” consisting of treed wetland as well as slow-growing and scattered-treed land.

Canada has 347.6 million hectares of forest land; of this, 294.8 million hectares are not reserved and therefore potentially available for commercial forest activities.

Of the 294.8 million, 232 million hectares are most likely to be subject to forest management activities.

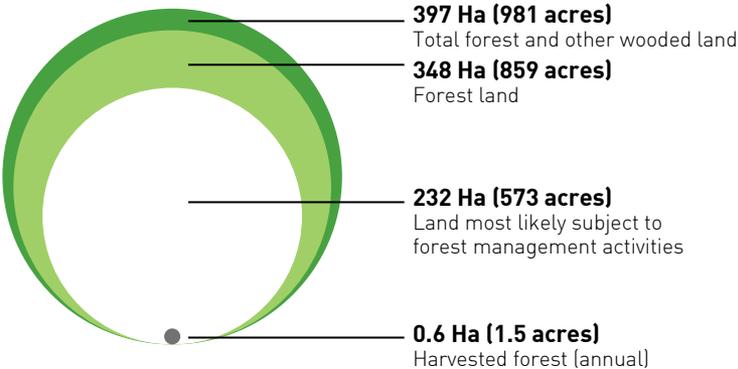
Of these 143.7 million, 0.6 million hectares of forest are harvested annually.

By law, all forests harvested on Canada’s public land must be successfully regenerated.

As of December 2014, Canada had 161 million hectares of forests certified as being sustainably managed under one or more of three globally recognized certification systems.

Source: StatsCan, CFS, Certification Canada website

Figure 2
Land Classification in Millions of Hectares
(millions of acres)



Key Issues Related to Sustainable Procurement

Sourcing and Legality Aspects

A determination to meet customers' and society's expectations has spurred Canada's forest products sector to go beyond legal requirements and has produced a spirit of continual improvement.

Origin: Where do the products come from?

Knowledge of the products' origin, the supply chains they have followed and the manufacturing processes used to produce them will help buyers assess key factors such as the credibility of information about product origins, the legality of sourcing and sustainable forestry practices.

To help trace the origin of raw materials, buyers can request that suppliers provide supporting documentation such as harvesting permits, bills of lading and other pertinent documentation to validate product origins. Management systems and controls, such as traceability and third-party verified Chain of Custody programs, are also a good approach to tracking product attributes through the supply chain.

Business, environmental groups and labour and trade organizations generally agree that independent, third-party verification of forest operations to internationally recognized standards is desirable and an effective way to ensure products are derived from legal and sustainable sources. Canada has the largest area of third-party certified forests in the world (Figure 3).

The origins of wood and paper-based products from Canada are well-known and documented, with further improvements being made as a result of implementing traceability and Chain of Custody programs. Some forest products originating from developing regions and/or areas with less rigorous supply chains may have questionable origins. This requires that customers ask appropriate questions of their suppliers.

Information accuracy: Is fibre sourcing information credible and traceable?

Supply chains for forest products produced in Canada can range from simple to complex. The raw materials in a finished product may come from a variety of sources, including temperate, boreal and foreign trees or secondary fibre from numerous suppliers and locations, from both within and outside Canada, making these supply chains even more complicated.

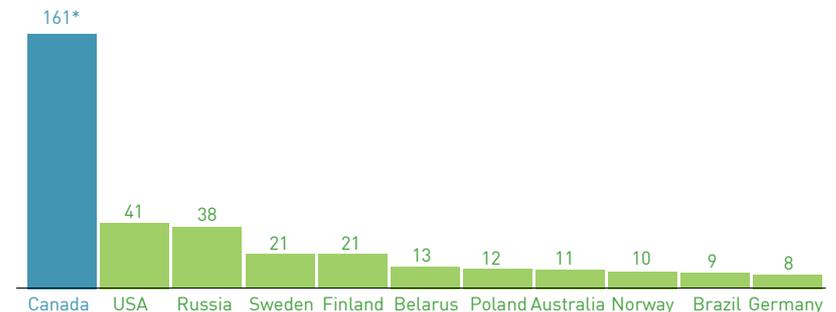
Some regions of the world are at risk of poor forest management, illegal harvesting and weak governance, so companies sourcing wood products from those areas often apply a greater degree of scrutiny and due diligence.

To help trace the origin of raw materials and record the sale of certified products, Canadian forest companies are increasingly utilizing traceability and third-party certified Chain of Custody systems (CoC).

Chain of Custody certification provides a link between the certified forest and the certified product, adding credibility to product claims and labels. All Chain of Custody standards also require the screening of any uncertified wood sources to ensure they come from legal (authorized) and credible sources. As discussed previously, FSC and SFI have developed their own CoC Standards, while CSA utilizes the PEFC CoC Standard.

Figure 3
Canadian Certification in a Global Context

2014 Year end (millions of Ha)



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

Source: www.certificationcanada.org as of Dec. 31/14

www.fsc.org as of Nov 28/14

www.pwfc.org as of Nov 10/14

Legality: Have the products been legally produced?

According to the WBCSD, illegal logging and deforestation has risen to the top of the international forestry agenda since the turn of the century. Buyers should be concerned about practices such as wood harvested without appropriate permits, logging of protected species, violation of human rights, and corruption or fraud. To reduce the risk of purchasing illegally harvested forest products, buyers should identify regions of higher risk and develop appropriate controls.

Canada has a strong legal and institutional framework, a solid commitment to sustainable forest management and virtually no systemic issues around illegal logging.

In addition to strict legal controls, many Canadian forest companies, including all FPAC member companies, provide additional assurances of legality through independent third-party certification that their forest management practices are conducted responsibly.

In 2006, FPAC members signed a commitment to global sustainability.⁹ This commitment now includes 93 industry signatories from around the world including FPAC members. It opposes the practice of illegal logging, which contributes to deforestation and undermines the viability of legally harvested and traded products worldwide. This commitment encourages the development of laws and regulations, as well as effective government monitoring, enforcement and assessment of forests, all of which are necessary to counteract illegal logging and trade of illegally harvested wood. This commitment also includes poverty alleviation to combat illegal logging and support of government initiatives to promote and advance sustainable forest management and the conservation of designated protected areas. Building on their expertise and resources, FPAC and the Canadian forest industry are committed to doing their part to prevent illegal logging, using a variety of tools, such as Geographic Information Systems, Environmental Management Systems, responsible purchasing policies, traceability and Chain of Custody systems, codes of conduct, corporate sustainability reporting, and independent third-party auditing and certification.



Key Issues Related to Sustainable Procurement

Environmental Aspects

Sustainability: Have forests been sustainably managed?

Sustainable forest management integrates economic, social and environmental aspects of management into an appropriate balance that meets the needs of today's society without jeopardizing the ability of future generations to meet their needs. Forest management standards require that Canadian forest companies subscribe to include these three aspects of sustainability.

The Canadian forest products industry contributes to society's well-being through its products and services from the forest to markets. Moreover, it is committed to working in a manner that is environmentally responsible, socially desirable, and economically viable and is committed to a sustainable development path built on a profitable and competitive industry. Developments in technology, such as using remote sensing via satellite, allow the industry to forecast and plan forest management with even greater efficiency and effectiveness.

FPAC and its members work collaboratively with other stakeholders to continually improve environmental performance and raise the bar for sustainable management. Example projects over the last decade have included a WWF/FPAC High Value Forest Identification Toolkit; Ducks Unlimited Canada/FPAC Boreal Wetland System Mapping; multi-stakeholder Air Quality Forum; and water working group collaboration with a broad array of interests from NGOs, scientists, Aboriginal communities, labor, and the federal government to address pulp and paper effluent discharges.

Unique Forest Values: Have unique forest values been protected?

Forests act as a filter for the world's freshwater; absorb CO₂ to mitigate the effects of climate change and provide habitat for hundreds of species. They provide an array of useful and renewable products, and in Canada, they support over 200 communities across the country.

Canada's ecology is diverse with many unique and sensitive places, including sensitive ecosystems and culturally important areas. FPAC's Vision2020 strives to identify and preserve these identified special places through a variety of mechanisms, including FPAC's commitment to forest certification, which incorporates the protection of special places. Canada's boreal forest represents significant environmental, economic and social values and the third-party certification of FPAC members' forest management practices helps ensure the values of the boreal forest are maintained and protected.

The Canadian Boreal Forest Agreement (CBFA) is the world's largest conservation initiative and a model of how collaboration among industry, conservationists and governments can achieve environmental and economic objectives. It seeks to conserve significant areas of Canada's vast boreal forest, protect threatened woodland caribou, and sustain a healthy forestry industry for the communities who rely on it for their livelihood. The agreement acknowledges that governments are the final authority and that Aboriginal peoples and their governments have treaty rights and title in the boreal forest, as well as legitimate interests and aspirations for it. Successful implementation of the CBFA requires the effective involvement of all parties.

Current signatories to the CBFA include seven leading environmental organizations, the Forest Products Association of Canada and its 16 member companies, and Kruger Inc. It directly applies to more than 73 million hectares across the country.

Key Issues Related to Sustainable Procurement

Climate change: Have climate issues been addressed?

With nearly 20% of global carbon dioxide emissions attributable to worldwide deforestation¹⁰, climate change is at the forefront of the sustainability agenda for the Canadian forest products industry, governments and consumers.

Forests can mitigate climate change by removing carbon from the atmosphere (carbon sequestration) and then storing it. Wood products also store carbon. A sustainably managed forest landscape can be considered relatively carbon neutral if logged areas are reforested, which is required by law in Canada. Moreover, sustainably managed forests can mitigate climate change by providing biomass energy that can replace fossil fuels. Biofuel derived from forest biomass is preferable to fossil-fuel energy because carbon is recycled to the atmosphere, whereas fossil fuels introduce new carbon. The forest industry is energy intensive, but in Canada a significant percentage of energy needs are being met with the use of carbon neutral biomass. Bioenergy accounts for 54% of the total energy used by the forest industry.¹¹

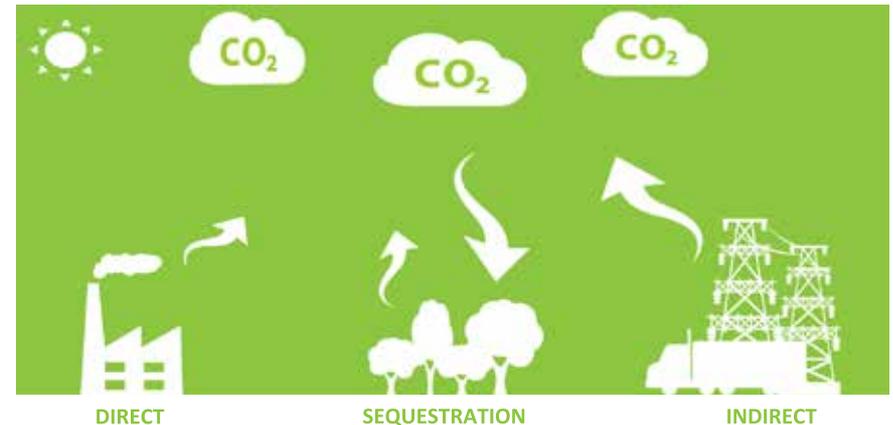
Canada's forest products industry is a leader in addressing global climate change. Reducing energy consumption has been a significant focus for the industry. For example, energy costs represent nearly one-quarter of all operating costs associated with pulp and paper manufacturing. Over the past two decades, Canadian forest products companies have upgraded equipment and implemented leading-edge technology at their manufacturing operations in a continuing effort to improve their environmental performance and limit their impact on climate change.

In October 2007, FPAC set a new bar for Canadian environmental responsibility through an industry-wide carbon neutrality commitment by 2015, without the purchase of carbon offset credits. As a foundation for this commitment, FPAC commissioned a report by NCASI titled "The Greenhouse Gas and Carbon Profile of the Canadian Forest Products Industry," making the Canadian forest products industry the first forest industry in the world to assess and report on its total carbon profile. Figure 4 is a stylized illustration of the industry's carbon profile.

The Canadian forest products industry remains committed and continues to work diligently to achieving this goal of carbon neutrality. Reporting on this commitment is expected in 2017 due to the lag in data availability.

Initial work to achieve this commitment included a partnership with World Wildlife Fund Canada and an external advisory group, consisting of representatives from the Canadian Forest Service, FPInnovations, NCASI, Pembina Institute, Rockefeller Brothers Fund, the University of Western Ontario Institute for Catastrophic Loss Reduction, and the World Resources Institute.

Figure 4
Industry Carbon Profile



Key Issues Related to Sustainable Procurement

Canadian forest companies have excelled at reducing carbon emissions that come directly from their mills. Some facilities are now net exporters of green power, generated by the use of renewable biomass.

The greatest challenge is in reducing emissions from indirect sources such as from buying electricity, from transportation, and from wood and paper going to landfill. Reducing these sources requires more collaboration and innovation along the supply chain.

The industry has also learned more about the complexities of assessing the full carbon lifecycle of the forest industry. Methodologies continue to evolve and different accounting methods continue to produce different results. An example of the complexity is in forest carbon accounting. Calculations vary from year to year because of natural disturbances such as fire and insects, which are beyond the control of forest companies.

FPAC Vision2020 Report card: Emissions from Sulphur Oxide (SOx) reduced by 6%, Nitrous Oxide (NOx) reduced by 11% and Particulate Matter emissions reduced by 11% since 2010.

Environmental protection and other resources: What action has been taken?

A large aspect of environmental protection is the control of pollution. Different types of pollution can occur at various points along the forest products supply chain. These include air emissions, solid waste, water emissions and noise.

On the manufacturing side, Canadian mills have made dramatic strides towards significantly reducing or eliminating several classes of toxic substances that affect the quality of air and receiving waters. FPAC members have achieved significant improvements in environmental performance over the last 20 years through reduced mill effluents, air emissions, and water use. Our commitment to continuous improvement is illustrated by the performance goal under Vision2020. See Annex 3 for progress made in the first two years, 2010–2012.

In addition, Canada's federal regulations include a comprehensive Environmental Effects Monitoring (EEM) program. Mills must measure the effects of their discharges on fish and fish habitat, identify causes and solutions, and implement those solutions.

FPAC Vision2020 Report card: Water use fell by 3% since 2010.

Key Issues Related to Sustainable Procurement

Fresh and recycled fibre: Has recycled fibre been used appropriately?

Recycling is an important aspect of the forest products value chain. The paper industry uses byproduct wood chips from sawmills and low-value trees to produce wood pulp, while other residues such as bark are used for energy. The use of recycled fibre can reduce the demand for virgin fibre from forests and reduce greenhouse gas emissions from paper sent to landfills.

FPAC Vision2020 Report card: Waste to landfill fell 31% and the recycling rate increased by nearly 4% since 2010.

Continually improving paper recovery and the use of recycled content is high on the Canadian forest industry's agenda. FPAC members have been working since the early 1990s to develop reliable sources of recycled content and increase the content in their finished products. Consumers use paper to meet many different needs and each distinct use requires different properties, such as strength, brightness and absorbency. Blends of both fresh and recycled fibres, in varying proportions, are used to deliver the required properties to the consumer. While it is technically impossible to sustain society's long-term paper needs without new fibre, Canadian companies believe that no good paper should go to a landfill. Fibre losses from the use of recovered paper vary from 10% to 30%, depending on the grade of paper being produced. Without fresh fibre, society would run out of paper in a year or less. With the current decline in newspaper and other paper grades the volume of recycled paper is likely to decline, introducing an additional challenge for the years ahead.



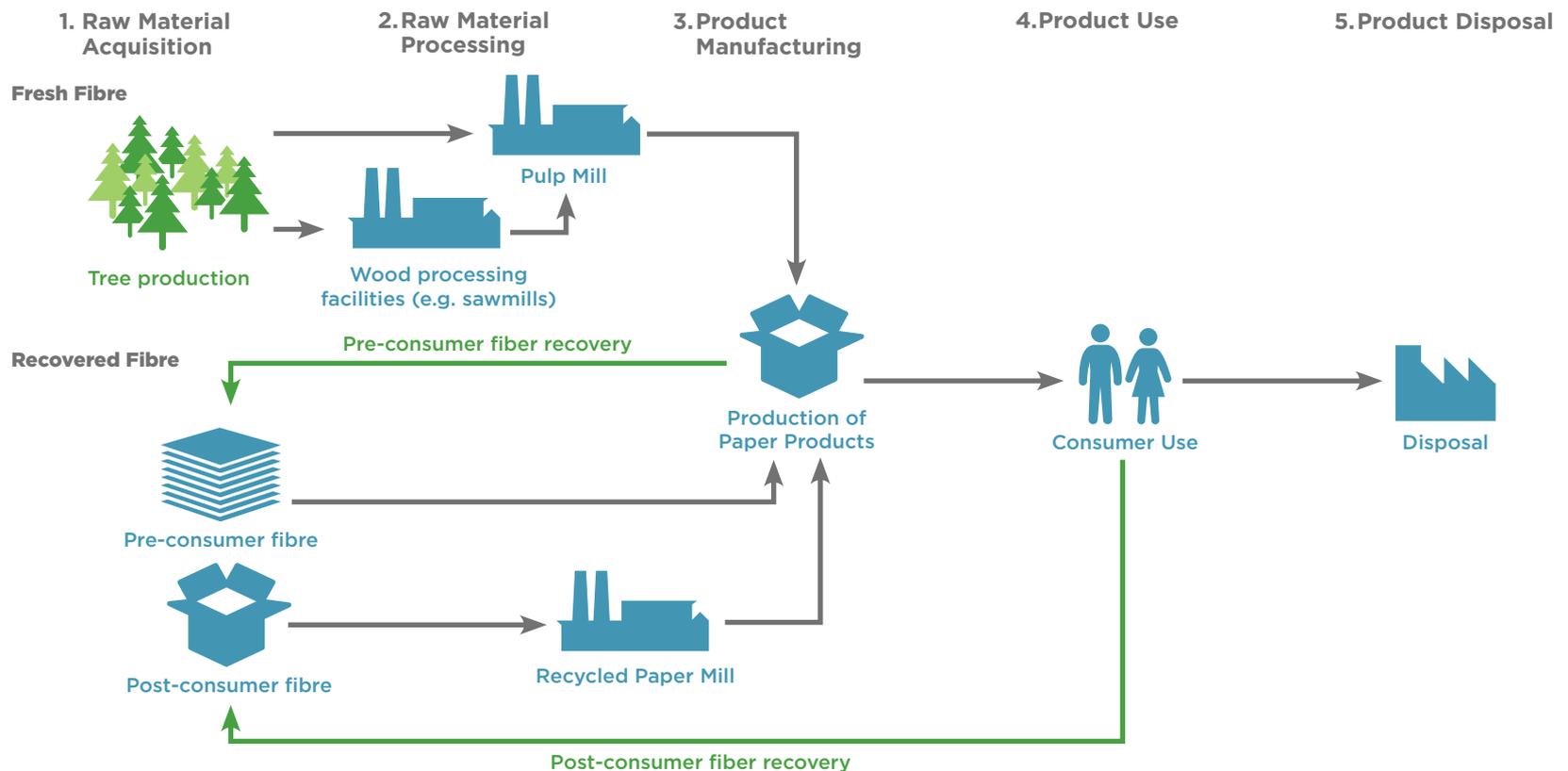
Key Issues Related to Sustainable Procurement

Figure 5 demonstrates that when considered on a lifecycle basis, even recycled fibres have an environmental cost and this will vary from product to product. Decisions to buy new or recycled fibre will need to factor this in when considering the sustainability of a product.

The following are some key facts about FPAC member companies' fibre recycling efforts:

- FPAC members support all programs that encourage greater recovery of waste paper, and strive to ensure that "no usable paper should be sent to landfill".
- FPAC members announced in January 2003 that they supported a 25% increase in recovery rates in Canada. The target was to increase the annual recovery rate to 55% by 2012. This target was surpassed, and FPAC members achieved a recycling rate of 70% in 2013 compared to a global average of 56% in 2011.¹²

Figure 5
Environmental Issues In Using Fresh and Recovered Fibre



Environmental issues in using fresh and recovered fibre

1. Raw Material Acquisition

Depending on where fibres are sourced, raw material made from fresh fibre can generate fossil fuel-based carbon dioxide emissions because of transportation to the mill. Environmental impacts of harvesting can include forest cover loss, threats to biodiversity, habitat loss, erosion and soil compaction, and reduction of water quality in adjacent areas.

2. Raw Material Processing

Fresh fibres are extracted from wood chips by a chemical or mechanical pulping process, which requires water, energy, and chemicals. Recovered fibre is cleaned, re-pulped and de-inked, before the pulp can be used for recycled fibres. This process requires water, energy, and chemicals for cleaning and removing fillers, and de-inking fibres.

3. Product Manufacturing

Creating paper from both fresh fibres and recovered fibres creates air emissions, wastewater effluent, wastewater treatment residuals, and uses water and energy.

4. Product Use

The recycling process breaks and stiffens fibres, resulting in reduced performance in some types of products. The technical specifications for the end product will in part determine how much fibre will be needed to make one unit of the product (i.e. one sheet of paper, or one roll of toilet paper).

5. Product Disposal

Paper products made from both fresh and recycled fibres are typically composted, recycled, or disposed as solid waste. When products no longer recyclable, they can be composted or burned to generate energy, while also creating air pollution and carbon dioxide emissions.

Source: Based on Franklin Associates 2012, NCASI 2014

Note: This graph shows the fibre cycle, with inputs of both fresh and recovered fibre. The graph highlights some of the potential environmental impact of using fresh and recovered fibres.

Key Issues Related to Sustainable Procurement

Social Aspects

Social Desirability: Have the needs of local communities or indigenous peoples been addressed?

Respecting the rights of Aboriginal Peoples and workers in forest and manufacturing facilities is an important part of sustainable procurement. In addition, proper equipment and training are essential to ensure the safety of workers, because logging and processing operations are potentially dangerous.

Safety is a critical issue as all companies in the forestry and forest products industry want to ensure they send their workers home safely. The industry has made significant progress by reducing their recordable incident rate from 5.87 in 2005 to 2.59 in 2013.¹³ The industry is committed to continuous improvement on safety and will continue best efforts

The sector is also a significant employer contributing to more than 235,000 jobs across Canada and mostly in rural communities. Driven by the need to replace its aging workforce and create new jobs to support the forest industry, FPAC members have an ambitious goal to hire 60,000 new workers in Canada by 2020. Filling jobs is a challenge for the industry due to the changing skillsets required to support sophisticated technology, and the aggressive competition for skilled workers in the trades across the country. To overcome this challenge, FPAC launched TheGreenestWorkforce.ca to help rebrand the industry as renewable and growing, and attract a new generation of employees to the sector, focusing on youth, women, Aboriginal workers and new Canadians.

Corporate Social Responsibility (CSR) is a term used to describe a company's commitment to operating in a socially, environmentally and economically sustainable manner, while respecting the interests of its stakeholders. Canadian forest industry stakeholders include the communities in which the companies operate, their employees, customers, shareholders, suppliers and others affected by their operations.

The Canadian forest products industry has a proud tradition of working with Aboriginal peoples, environmental groups, local communities, labour groups and other interested stakeholders to find common ground and mutually agreeable solutions for prosperity. Engagement, partnership and continual improvement are the industry's goals.

FPAC member companies have adopted the following principles, which relate directly to the key issues identified in the WBCSD/WRI Sustainable Procurement guide as important considerations when procuring wood and paper-based products:

- To conduct our business with integrity and reflect evolving societal values in our performance
- Provide economic opportunities and a safe and productive work environment for our employees and contractors
- Engage our stakeholders in a proactive and transparent manner and be respectful of their interests. Be respectful of the economic and cultural interests of Aboriginal peoples and encourage their participation in the forest products industry
- Contribute to the economic and social well-being in communities where we operate, as well as regionally and nationally

Some of the actions FPAC members have been taking toward incorporating CSR into their activities include:

- Recognizing that success is closely linked to the communities in which they operate and providing support for these communities. Examples of organizations that benefit from industry contributions include cultural and sports centres; schools, colleges and universities; foundations and non-profit organizations; hospitals and local infrastructure
- A continual focus on community development through scholarship and training programs. FPAC's Skills awards for Aboriginal youth is one example of the many programs which FPAC member companies use to aid and strengthen the communities in which they are located.
- Partnership with the Canadian Council of Aboriginal Business (CCAB) which works to foster sustainable business relations between Aboriginal people and Canadian business. An example is the FPAC/CCAB Aboriginal Business Leadership Award. The award recognizes and celebrates Aboriginal entrepreneurs for their success in a forest products business that exemplifies business leadership, exceptional environmental and safety performance and the delivery of high-quality products and services.
- Establishment of public participation mechanisms such as public advisory groups in order to ensure that a balance exists between the needs of the community and that of the company
- Strengthening health and safety programs in the workplace
- Building partnerships with non-governmental organizations to enhance and promote collaborative, proactive agreements with a variety of stakeholders, the type of engagement that led to the signing of the CBFA.



Go Green with Canada's Forest Products

While Canada's forest products industry has been traditionally focused on the production of high quality commodity products: lumber, panels, and pulp and paper from sustainable sources, a new range of products can be made from wood fibre. Years of intensive research and development are producing technologies that transform wood fibre into a variety of bio-products including bio-energy to heat homes and operate vehicles or produce solvents, renewable plastics and cosmetics, and innovative bio-materials such as intelligent paper and engineered wood products that can be used in advanced construction systems. Using these new "green" bio-products in some traditional consumer goods may decrease a product's carbon footprint and reduce overall reliance on fossil fuels.

Green Building Products

Wood has been a staple in the world of homebuilding in North America for generations, and interest in wood construction is spreading quickly to other parts of the world. In addition to its natural energy-saving performance, building costs are generally lower than alternatives. Wood offers a warmth and beauty unmatched by other materials, and provides design flexibility. When builders, architects and consumers are thinking about the environmental impacts of the homes they build and buy, nothing outperforms wood.

As designers make conscious environmental choices, they are turning back to wood. In addition to being renewable, wood is the only major building material that actually helps in alleviating climate change by sequestering carbon. Wood also requires less energy to work with and produces less air and water pollution than alternative materials. FPAC member companies are also employing new technologies to produce engineered wood systems to optimize the use of materials.

The Tall Wood Building Revolution: Engineered wood products and Mass Timber Construction

Innovations in the production of prefabricated engineered wood products have led to high strength and dimensionally stable building materials which provide a carbon neutral and sustainable alternative to traditional concrete and steel.

A number of tall wood demonstration building projects have been completed around the world, most notably, the 10 storey Forte apartment building in Melbourne, Australia.

Developments in both wood-frame and mass timber are bringing mid-rise wood buildings to a new level of affordability and transforming our understanding of what is possible with wood construction.

For example, building code height limits in some regions in Canada have recently raised the limit from 4 to 6 storeys. In Europe, Swedish authorities have approved a 34 storey wood tower. The use of wood in mid-rise and tall buildings is clearly in the early stages of development, however as more demonstration building projects are designed and completed, key concerns such as cost competitiveness of materials and safety are being addressed.

Bio-products – Beyond Traditional Wood Products, Pulp and Paper

Canada's forest products industry is starting to extract more value from wood fiber beyond traditional wood products such as pulp and paper. These new and innovative products are primarily produced from the industry's waste stream, achieving further utilization of the forest resource. Some new products include:

Cellulose Nanocrystals (CNC) and Cellulose Filaments (CF)

Cellulose can be extracted in different forms to produce a variety of properties. In nanocrystalline form, cellulose can enhance optical films for use in specialty packaging, biosensors and security devices. Extracted in filaments, cellulose optimizes the strength, stability, flexibility and longevity of a variety of materials including composites, coatings and consumer products.

Dissolving Pulp

Dissolving wood pulp is a bleached wood pulp that has high cellulose content. It is used as a source of cellulose in the manufacturing of products such as synthetic fabrics, plastic materials, lacquers and explosives.

Bio-energy and Bio-Chemicals: wood pellets, bio-gas and bio-oil

Canada's forest products industry has a long history of using mill residues for internal heat or energy, but now mill residues and residues from the forest are becoming feedstocks for sophisticated steam and electricity cogeneration facilities, lumber drying kilns, and new bio-energy products such as wood pellets, syngas and bio-oil. New technology developments are leading the way toward an ever increasing array of bio-based chemicals that can replace petro-chemical incumbents. For example in: personal care, cosmetics, health, adhesives, plastics, paints, and so much more.

EXPECT US IN THE UNEXPECTED
CANADA'S FOREST PRODUCTS INDUSTRY

The infographic features a central tree-like structure with various products represented by green circles of different sizes, each containing an icon and a label. The products include:

- TEXTILES (t-shirt icon)
- BIO-ENERGY (sun and leaf icon)
- BIO-FUELS (fuel pump icon)
- FOOD ADDITIVES (fork and knife icon)
- BIO-CHEMICALS (flask icon)
- BIO-PRODUCTS (leaf icon)
- PULP + PAPER (stack of paper icon)
- SOLID WOOD (lumber icon)
- BIO-PLASTICS (plastic bottles icon)

At the bottom of the infographic, the following information is provided:

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Sample Forest Products Procurement/ Financing Policy

This section contains an example of a sustainable forest products procurement/financing policy for you to consider for your own organization. A background discussion on each of the issues addressed in the policy is provided throughout the Buyers' Guide. The policy is included for illustration, companies may wish to edit it based on the needs of their stakeholders.

1.0 General Principles

_____ recognizes that leadership carries a responsibility to the environment and in particular to conserving the world's natural resources. As an industry leader, _____ is positioned to contribute to the development and implementation of environmental solutions in the forest products sector. We are committed to a course of action that reduces risk for society and the environment. As we learn about the impacts of our actions, we take responsible steps to reduce those that are negative. These actions are thoughtfully viewed through a life cycle filter, as opposed to a single criterion approach.

As a buyer/financer of forest products, we are committed to:

- Building a business that is socially, environmentally and economically sustainable on a long-term basis
- Sourcing/financing forest products that are derived from forests that are managed to promote sustainable forest management and/or from recycled sources
- Encouraging recovery of recycled papers and thereby facilitating higher levels of recycled content paper
- Sourcing/financing our products from suppliers that are working towards continual improvement of their forest management and production processes
- Sourcing/financing our products based on a life cycle approach
- Working with our stakeholders to ensure our procurement/financing strategy is socially and environmentally responsible, and economically viable

2.0 Responsible Fibre Sourcing / Financing

_____ cares about our forests and the products made from forests. It is our commitment and our challenge to know the sources of our supply and to work with our suppliers/clients to meet and/or exceed regulatory requirements for sustainable forest management.

By [date] we will require all suppliers to provide chain of custody or traceability of their fibre back to the forest area of origin.

2.1 Sustainable Forest Management (SFM) 3rd-Party Certification

_____ will give preference to suppliers/borrowers who meet and go beyond legal requirements for forest management by seeking independent third-party certification to recognized and credible SFM standards. We also support an inclusive approach to certification and recognize the following standards:

- Canadian Standards Association (CSA)
- Forest Stewardship Council (FSC)
- Sustainable Forestry Initiative® (SFI)

There may be other SFM certification standards developed in the future that we may add to the above list. We support mutual recognition efforts through independent assessments that include comprehensive review of the rigorous and critical elements of the entire certification program, such as the Programme for the Endorsement of Forest Certification schemes (PEFC).

2.2 Forest & Biodiversity Conservation

_____ values forest products suppliers/borrowers that seek to conserve the ecological and cultural values of forests and the biological diversity they contain; maintain the habitat of forest-dependent species; support the conservation of biodiversity; and collaborate with conservation organizations, government and others to ensure the long-term sustainability of the resource.

2.3 Illegal Logging/Legally Sourced

_____ will not knowingly purchase/finance forest products that are illegally harvested or that contribute to deforestation.

3.0 Environmental Performance

3.1 Air & Water Quality

_____ is committed to source/finance its products from suppliers who can demonstrate that they meet and go beyond the requirements of air and water quality regulations and collaborate with conservation organizations, governments, research organizations and others to protect and improve long-term air and water quality.

3.2 Climate & Energy

_____ values forest products suppliers/borrowers that are fuel switching or have already switched to less greenhouse gas-intensive energy sources such as carbon-neutral biomass and who are committed to further emission intensity reductions and/or energy efficiency.

3.3 Efficient Use of Resources

_____ values forest products suppliers/borrowers that promote the efficient use of natural resources in their operations, such as fibre use optimization; reuse and recycling, and decreasing water use in operations.

3.4 Recovery & Recycling

_____ is committed to encouraging recycling of paper and wood; implementation of paper collection programs in our corporate offices; and recognizing that recycled content will ultimately be driven by a variety of factors including consumer requirements that include strength, brightness, stiffness; availability of supply; as well as the environmental cost/benefit of transporting recovered paper to achieve recycled content objectives.

4.0 Social Responsibility

_____ values forest products suppliers/borrowers that promote a diverse workforce; implement programs to help ensure the health and safety of their employees, contractors and their communities, support and improve community development, and collaborate with Aboriginal peoples.

5.0 Research & Education

_____ will educate our staff, suppliers, shareholders and customers about our commitment to continually improving environmental performance and will promote awareness and accountability on related issues. We support those organizations that contribute to research on sustainable forest management, conservation of biological diversity and the development of new technologies that will improve resource utilization and efficiency, while minimizing environmental impacts.

6.0 Monitoring & Reporting

_____ encourages all suppliers/borrowers to monitor and regularly report on their sustainability performance. We will produce an annual report on our sustainable procurement/financing commitments and progress in achieving our sustainability objectives.

7.0 Continual Improvement

_____ will continue to look for opportunities to improve our procurement/financing policy and associated partnerships and initiatives, as we learn through experience, new research and collaboration with our stakeholders.

_____ will fully review this policy in three years.

About FPAC

The forest industry has long been an important part of the fabric of Canada and the Forest Products Association of Canada (FPAC) has been there to actively advocate on the sector's behalf in areas such as transportation, trade and taxes. FPAC is also working to realize the ambitious goals of Vision2020 to help the industry transform with innovative new products, diversified markets, enhanced environmental credentials and a skilled workforce. FPAC is proud to represent Canada's largest producers of forest products.

All FPAC members are signatories of the historic Canadian Boreal Forest Agreement (CBFA). Our members are responsible for 66% of certified forest lands in Canada. Third-party certification of member companies' forest practices is a condition of membership in the Association – a world first.

Contact us or invite us to brief you:

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About PwC

PwC helps organisations and individuals create the value they're looking for. We're a network of firms in 157 countries with more than 195,000 people who are committed to delivering quality in assurance, tax and advisory services. Find out more and tell us what matters to you by visiting us at www.pwc.com/ca.

Industry specialists in our Global Forest, Paper & Packaging practice offer a broad range of innovative, cost-effective solutions that respond to both local and global business issues. PwC assists clients in the forest products sector to manage performance improvement, sustainability, operational risk, mergers and acquisitions, corporate finance, tax, and audit issues.

Our industry knowledge and commitment to the forest, paper and packaging sector is demonstrated by our extensive program of industry publications and the annual PwC Global Forest and Paper Industry Conference.

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FPAC Member Companies

Alberta-Pacific
Forest Industries Inc.
www.alpac.ca

AV Group
www.av-group.ca

Canfor Corporation
www.canfor.com

Canfor Pulp Limited Partnership
www.canforpulp.com

Conifex Timber Inc.
www.conifex.com

Daishowa Marubeni International Ltd.
www.dmi.ca

Fortress Paper
www.fortresspaper.com

Howe Sound Pulp and
Paper Corporation
www.hspp.ca

Louisiana-Pacific Canada Ltd.
www.lpcorp.com

Mercer International
www.mercerint.com

Millar Western Forest Products Inc.
www.millarwestern.com

Resolute Forest Products
www.resolutefp.com

Tembec
www.tembec.com

Tolko Industries Ltd.
www.tolko.com

West Fraser Timber Co. Ltd.
www.westfraser.com

Weyerhaeuser Company Limited
www.weyerhaeuser.com

the greenestworkforce.ca
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Glossary

Biodiversity or biological diversity

The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. [Source: Convention on Biological Diversity, Article 2, Use of Terms, 2015.]

Chain of Custody (CoC)

The systematic tracking of wood-based products from their origin in the forest to their end use.

Carbon Sequestration

The different processes through which carbon is removed from the atmosphere and stored in soil, biomass, geological formations and oceans.

Deforestation

The permanent clearing of forest for other uses such as agriculture and urban development.

Environmental Management System (EMS)

A set of processes and practices that enables an organization to reduce its environmental impacts and increase operational efficiency. [Source: US Environmental Protection Agency, 2013.]

High Conservation Value Forest (HCVF)¹⁵

HCVFs are those that possess one or more of the following attributes: a) forest areas containing globally, regionally or nationally significant concentrations of biodiversity values and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most (if not all) naturally occurring species exist in natural patterns of distribution and abundance; b) forest areas that are in or contain rare, threatened or endangered ecosystems; c) forest areas that provide basic services of nature in critical situations; d) forest areas fundamental to meeting basic needs of local communities and/or critical to local communities' traditional cultural identity.

Illegal Logging

Logging in violation of an established legal framework.

Life Cycle Analysis (LCA)

A formalized methodology for the study of environmental aspects and potential environmental impacts throughout a product's life from raw material acquisition to manufacturing, use, recycling and disposal. [Source: FAO website <http://www.fao.org/3/a-y3609e/y3609e06.htm>, accessed March 12, 2015].

The ISO/EN 14040 Standard defines LCA as a technique for assessing the environmental aspects and potential impacts associated with a product by:

- compiling an inventory of relevant inputs and outputs of a system;
- evaluating potential environmental impacts associated with those inputs and outputs; and
- interpreting the results of the inventory analysis and impact assessment in relation to the objectives of the study.

Protected Areas

A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values.

(Source: World Conservation Union (IUCN), 2008.)

The Recordable incident rate

The number of recordable incidents x 200,000 hours divided by the number of hours worked. Recordable incidents include all fatalities, lost-time injuries/illnesses with or without restricted work (except hernia cases), restricted work only injuries/illnesses and medical aid injuries/illnesses causing temporary or permanent, partial or total disability.

Special Places

Used generically to mean areas in the forest landscape that have unique qualities and need special attention and treatment, including sensitive ecosystems.

Supply Chain

The different steps (from tree harvesting to product distribution) that wood and paper-based products go through, from harvest to end product.

Threatened Species

A group of three categories: critically endangered species, endangered species, and vulnerable species. Endangered species are considered to be facing a very high risk of extinction in the wild while vulnerable species are considered to be facing a high risk of extinction in the wild. (Source: World Conservation Union (IUCN), Red List Categories and Criteria v3.1, 2012.)

Traceability

The ability to track wood between two subsequent points of the supply chain.



Useful Links, Reference Guides and Standards

Some useful references have been provided below. More detailed reference material and additional resources from the WBCSD/WRI Sustainable Procurement “Guide to the Guides,” can be found online at www.sustainableforestprods.org

Forest Certification and Environmental Management System Standards

Certification Canada

<http://www.certificationcanada.org>

CSA

<http://www.csasfmforests.ca>

FSC

<https://ca.fsc.org/>

ISO 14001

<http://www.iso.org/iso/iso14000>

PEFC

www.pefc.org

SFI

www.sfiprogram.org

Chain of Custody

FSC

<https://ca.fsc.org/chain-of-custody.197.htm>

SFI

<http://www.sfiprogram.org/sfi-standard/guide-to-2015-2019-standards/>

PEFC

<http://www.pefc.org/certification-services/supply-chain>

Sustainable Procurement

WBCSD

<http://wbcsd.org/home.aspx>

Sustainable Procurement of Wood and Paper-based Products: An Introduction

http://sustainableforestproducts.org/files/forestguide/Forest%20Procurement-Summary_2014_En.pdf

WRI

www.wri.org

Green Building

Athena Institute

www.athenasmi.ca

Canadian Wood Council

www.cwc.ca

Wood WORKS!

<http://wood-works.ca>

Tall Wood Buildings

The Case for Tall Wood Buildings: How Mass Timber Offers a Safe, Economical and Environmentally Friendly Alternative for Tall Building Structures

<http://www.woodworks.org/publications-media/research-papers/>

Canadian Forests

Canadian Forest Service (CFS)

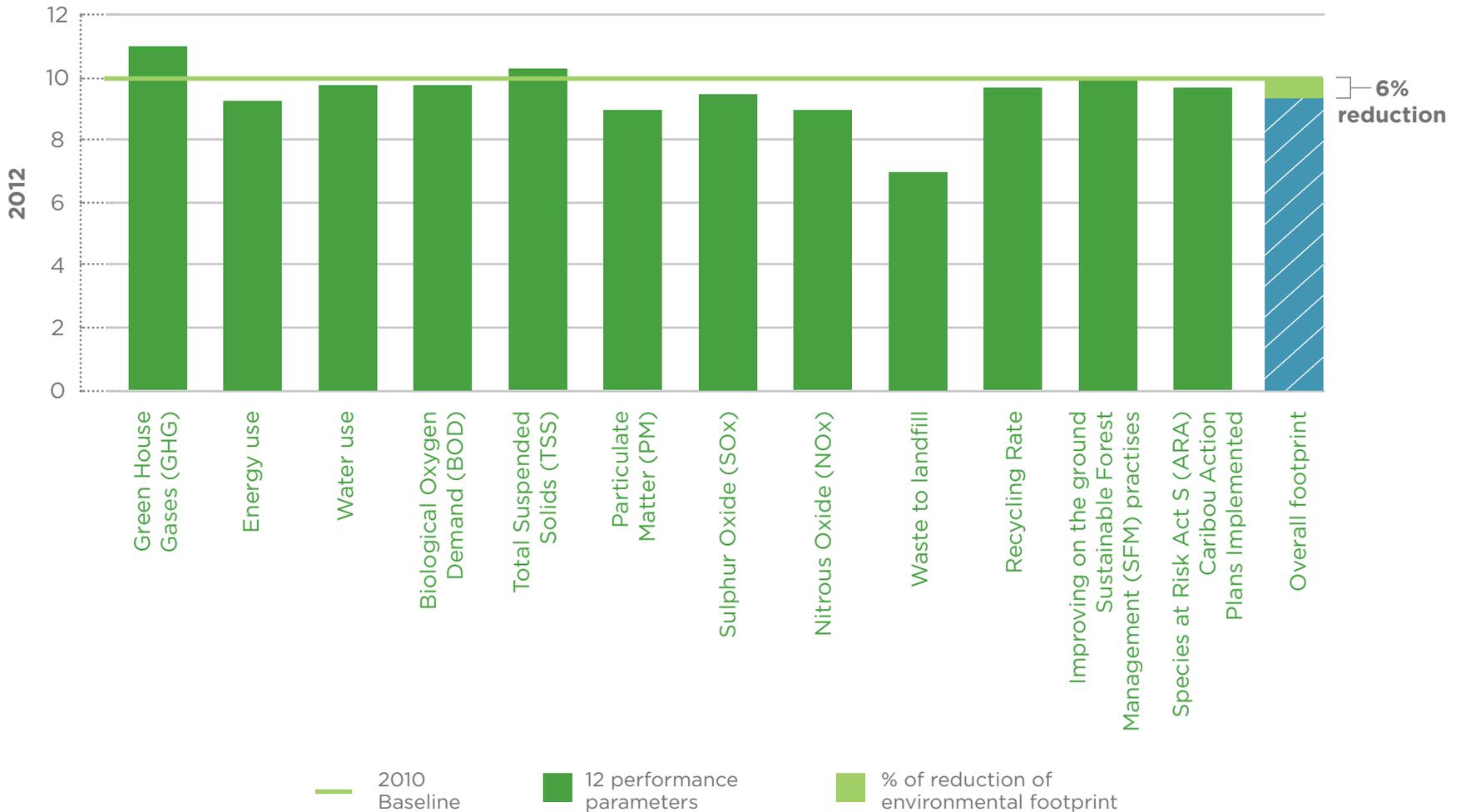
<http://www.nrcan.gc.ca/forests>

Canadian Council of Forest Ministers (CCFM)

www.ccmf.org

Vision2020 Performance Goals¹⁶ – Progress to Date

Vision2020 uses an index of 12 environmental performance indicators to measure the sector’s environmental footprint. Here are the performance results between 2010 and 2012. Our efforts began to bear fruit. Early successes are important. They should be celebrated and further progress must be encouraged. Out of 12 parameters, we made progress on 9, stable on 1, and unfortunately, fell back on 2. For more details see the FPAC Vision2020 Report Card at: http://www.fpac.ca/images/uploads/Vision2020_ReportCard_2014.pdf



Endnotes

- 1. WBCSD and WRI Sustainable Procurement of Wood and Paper-based Products web address:**
<http://www.wri.org/publication/sustainable-procurement-wood-and-paper-based-products>
- 2. Certification Canada web address:**
<http://www.certificationcanada.org>
- 3. Vision2020 web address:**
<http://www.fpac.ca/index.php/en/page/vision2020>
- 4. CSA forest certification web address:**
<http://www.csasfmforests.ca>
- 5. FSC forest certification web address:**
<http://www.fsccanada.org>
- 6. SFI forest certification web address:**
<http://www.sfiprogram.org>
- 7. PEFC web address:**
<http://www.pefc.org>
- 8. Natural Resources Canada Canadian Deforestation web address:**
<http://www.nrcan.gc.ca/forests/inventory/13419>
- 9. Leadership statement on sustainability signed on June 8 2006 during second meeting of the International Council of Forest and Paper Associations (ICFPA) Global CEO Roundtable**
http://www.icfpa.org/uploads/_Documents/Leadership_Statement_-_English_June28_2007.pdf
- 10. UN REDD web address:**
<http://www.un-redd.org/aboutredd/tabid/102614/default.aspx>
- 11. Natural Resources Canada. Key forestry facts web address:**
<http://www.nrcan.gc.ca/forests/canada/13169>
- 12. ICFPA Sustainability Report 2013 web address:**
<http://www.cepi.org/system/files/public/documents/publications/sustainability/2013/icfpa-2013-progress.pdf>
- 13. FPAC Health and Safety Survey – unpublished**
- 14. Many of the glossary terms and definitions have been extracted directly from the WBCSD/WRI document “Sustainable Procurement of Wood and Paper-based Products,” to ensure consistency with the referenced sources.**
- 15. FSC Canada National Boreal Standard web address:**
<https://ca.fsc.org/boreal-standard.203.htm>
- 16. Each performance goal is measured against a 2010 baseline. Reporting is then based on the relative change in the underlying data for that goal compared with the 2010 baseline set at 10. The overall footprint is the addition of each of the 12 goals compared to the overall 2010 baseline of 120. For most of the measures a reduction of the underlying data compared to the baseline represents an improvement in the footprint e.g. a fall in energy use would be positive. However, for 3 goals (recycling rate, improvement in SFM practices and Caribou action plans implemented) an increase compared to the underlying data would be considered to be an improvement. Therefore, the data comparison is reversed so that an increased recycling rate will show as an improvement on the graph and, correspondingly, a decrease in the overall footprint.**

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