Canadian Council of Forest Ministers

Conseil canadien des ministres des forêts

A Vision for Canada's Forests

2008 and Beyond

A Vision for Canada's Forests

2008 and Beyond

© Her Majesty the Queen in Right of Canada, 2008
ISBN 978-0-662-05847-2
Cat. no. Fo4-23/2008

Copies of this publication may be obtained free of charge from
Natural Resources Canada
Communications Branch
580 Booth Street, 12th Floor
Ottawa, ON K1A 0E4
Phone: 1-800-387-2000
Fax: 613-740-3114

A pdf version of this publication is available through the Canadian
Forest Service's Bookstore: http://bookstore.cfs.nrcan.gc.ca

Editing: Paula Irving
Design and layout: Sandra Bernier and Julie Piché

Library and Archives Canada Cataloguing in Publication

Canadian Council of Forest Ministers
A vision for Canada's forests: 2008 and beyond.

Text in English and French on inverted pages.

Title on added t.p.: Une vision pour les forêts du Canada : 2008 et au-delà.
Available also on the Internet.

Includes bibliographical references.

ISBN 978-0-662-05847-2
Cat. no. Fo4-23/2008

1. Sustainable forestry—Canada. 2. Forest conservation—Canada. 3. Forest management—Canada. 4. Forest policy—Canada.
5. Forests and forestry—Canada. I. Title. II. Title: Une vision pour les forêts du Canada : 2008 et au-delà.

SD387.S87 C36 2008 333.750971 C2008-980239-XE

Printed on recycled paper

PRINTED IN CANADA
IMPRIMÉ AU CANADA

Printed on alkaline permanent paper

Contents

Executive Summary

Forests are embedded in Canada's social fabric, culture, and economy. Canadians and governments recognize their importance and the significant wealth and well-being that people derive from them. Canada's diversity of landscapes and circumstances provides the anchor for this collective wealth, and it needs to be respected, encouraged, and promoted. For many decades, Canada has been a leader in sustainable forest management, continuously adapting and learning over time in response to changes in ecological, economic, and social drivers.

A Vision for Canada's Forests: 2008 and Beyond comes during a time of major challenges for the sector. It is a time of change, but it is also an opportune time in that forest sector members are starting to bring their energy and resources together to meet these challenges. Federal, provincial, and territorial governments believe that through harnessing the talents of their citizens over the next ten years, the sector will deliver the new approaches necessary to be the best in the world in sustainable forest management and a global leader in forest sector innovation.

This aspirational Vision reaffirms the country's continuing commitment to sustainable forest management. It is intentionally non-prescriptive and aims to increase awareness of forest issues. It also promotes engagement and inspires creative efforts from partners. The Canadian Council of Forest Ministers (CCFM)—a forum composed of the 14 federal, provincial, and territorial governments—is the sponsor and champion of the Vision.

The Vision also highlights two current priorities of national importance, both of which require innovative policies and actions: forest sector transformation and climate change. Forest sector transformation is needed to maintain a prosperous and sustainable future for Canada's entire forest sector. Climate change adaptation and mitigation strategies will reduce the effects of climate change on forests and communities. Goals have been articulated for each of these priorities that identify the outcomes that the forest sector needs to work toward over the next few years. To ensure its relevance, the Vision will be updated every three years until 2018.

This Vision recognizes that implementation depends on the collective, voluntary, and synergistic actions of many organizations, individuals, and governments. To realize the Vision, extensive support from and cooperation within the forest sector is needed. The forest sector of the future is defined inclusively to encompass governments, conservation and environmental groups, woodlot owners, Aboriginals, urban forestry interests, lumber and pulp and paper producers and value-added industries, forest-reliant communities, the recreation and tourism industries, and other sectors of the economy (including the energy, chemical, and pharmaceutical industries) that derive wealth and well-being from Canada's forest resources.

Developing this Vision is one part of a broad process of forest-related public engagement and dialogue among Canadians. This document attempts to capture the essence of some of these recent conversations and to stimulate creativity and innovative efforts to take advantage of opportunities created by the challenges that await.

Introduction

Canada is blessed with an immense forest endowment. This sustainably managed, healthy, and resilient forest resource supports prosperous economies and vibrant, durable communities while producing invaluable environmental benefits, such as clean air, pure water, biodiversity, and wildlife habitat. Over many decades, Canada's forest sector—the people and organizations that derive value and create wealth and well-being from the forest and its related resources—has achieved a remarkable record of global leadership in sustainably managing its forest resources.

However, the world is increasingly complex. The effects of a changing climate are becoming apparent and are rapidly affecting some of Canada's forests. Simultaneously, the entire forest sector faces an unprecedented transition as a result of the convergence of environmental changes, globalizing markets, and emerging technologies. In addition, everyone—at home and abroad—expects management of forest resources to meet the highest standards of social, environmental, and corporate responsibility.

The challenges are significant, but they also create new and interesting opportunities. This *Vision for Canada's Forests: 2008 and Beyond* points the way for the entire forest sector to take advantage of those opportunities.

The Canadian Council of Forest Ministers (CCFM) is the champion of Canada's forest Vision. For more than 20 years, it has sponsored and supported the development of past strategies and the current Vision on behalf of all federal, provincial, and territorial governments and Canadians.

A Vision for Canada's Forests: 2008 and Beyond builds on the accomplishments and challenges of previous strategies. Over time, the approaches, issues, and emphases have changed to reflect the evolving values and institutions that characterize Canada's broad forest sector of the future. The latter comprises governments, conservation and environmental groups, woodlot owners, Aboriginals, urban forestry interests, lumber and pulp and paper producers and value-added industries, forest-reliant communities, the recreation and tourism industries, and other sectors of the economy (including the energy, chemical, and pharmaceutical industries) that derive wealth and well-being from Canada's forest resources.

CCFM's Roles and Responsibilities

The CCFM comprises all federal, provincial, and territorial ministers responsible for forests. Established in 1985, it provides a forum where governments work cooperatively to address areas of common interest and to exchange information.

Milestones for Sustainable Forest Management in Canada

- **1986: National Forest Congress. Sustainable forest management is at the heart of discussions.**
- **1988: *A National Forest Sector Strategy for Canada* is published (CCFM 1988).**
- **1992: *Sustainable Forests: A Canadian Commitment* is published (CCFM 1992). An accord was also signed by governments, industry, non-governmental organizations, Aboriginals, and communities. The 1992 national forest strategy was a commitment by federal, provincial, and territorial governments and by some forest sector members to sustainable forest management. In addition, it responded to international initiatives and commitments, including the Brundtland Commission report *Our Common Future* (UNWCED 1987) and the 1992 UN Conference on Environment and Development in Rio de Janeiro, with voluntary endorsement of Agenda 21 including the Forest Principles.**
- **Since 1998, two other national forest strategies have been released. The first one was launched in 1998 for a five-year term (CCFM 1998), and the second one in 2003 (NFSC 2003) for another five-year period.**

Vision

To be the best in the world in sustainable forest management and a global leader in forest sector innovation

A Vision for Canada's Forests: 2008 and Beyond takes a broader and more aspirational approach than previous national forest strategies. It is intentionally non-prescriptive and aims to increase awareness of forest issues at home and abroad. It encourages domestic and international engagement, promotes partnerships among traditional and non-traditional forest interests, and inspires creative responses from all current and future partners. In short, it reflects the collective ambitions of Canadians for their forests and communities and opens up an opportunity for all to share and draw on one another's strengths and expertise. Ultimately, the entire forest sector believes that it is important to mobilize the talents of all Canadians in the search for creative solutions.

Commitment to Sustainable Forest Management

Sustainable forest management is the overarching basis for realizing the Vision. Over many years, Canada's entire forest sector, especially federal, provincial, and territorial governments, has demonstrated unfailing commitment to the sustainable management of forests. Canadians believe that it is only by continuing to implement the principles of sustainability that the forest sector will overcome current challenges and take advantage of emerging opportunities. Success lies in the sector's resolve to continuously embrace the principles of stewardship, innovation, partnership, transparency, and accessibility.

Although ecosystem-based and integrated landscape management will continue to be key, achieving the Vision also requires recognizing the evolving nature of sustainability. For example, increasing consideration needs to be given to the effects of climate change, the provision of environmental goods and services, and the importance of urban forestry to inhabitants of towns and cities.

Collectively, the sector must strive to continually improve its environmental record, while giving due consideration to the social implications of sustainable forest management practices, and maintaining and expanding the contribution of forest resources to wealth and prosperity. By considering the emerging issues outlined previously and encouraging innovative approaches from all forest sector partners, on both public and private land, Canada will demonstrate leadership in the sustainable management of its forest resources.

Governments and their partners are committed to evolving and adapting to address and promote both well-established and newly developing environmental objectives. Maintaining the variety, quality, and extent of forest types; conserving biological diversity and soil and water resources; and enhancing the resilience of forests by managing carbon balances and adopting innovative

forest protection strategies are all important objectives to be pursued.

Economic objectives are equally important. Forest industries provide almost 5 percent of all Canadian jobs. Although traditional forest industries will also continue to have an important role in the country's economy, innovation needs to be promoted to facilitate the establishment of partnerships among the various forest sector members. These partnerships are required to maintain and expand the contribution of renewable forest resources, of the bioeconomy, and of new market mechanisms for environmental goods and services to Canada's economy.

Public participation and social values are playing an increasingly important role in forest management. For example, many communities depend on forest resources for their well-being and livelihood, notably through both the traditional uses of forest products and revenues from non-timber forest products. Canada recognizes that these communities have an important role in helping to decide how forest resources are managed.

Aboriginals have a role to play in the development and implementation of sustainable forest management in Canada. Until now, Aboriginal involvement in forest products industries has revolved mainly around the provision of labor and harvested wood. In view of recent transformations occurring in the forest sector, Aboriginals are beginning to diversify their approaches to forest-based development, including the development of non-timber forest products and Aboriginal tourism initiatives.

Urban populations also have a significant influence on the management of Canada's forests. Most Canadians live in urban and suburban settings and they value what forests provide, especially urban forests where many people have learned to appreciate nature and all it has to offer. These forests and trees also contribute significantly to their collective well-being by reducing the negative effects of air pollution, conserving energy, reducing soil erosion, and providing wildlife habitat and a place for recreation and spiritual renewal. For all these reasons, healthy urban forests are an essential component of sustainable forest management.

In summary, advancing sustainable forest management will require participation and synergies among healthy forests, vibrant communities, and profitable forest-based businesses.

Priorities of National Importance

Forest Sector Transformation and Climate Change

Within the context of sustainable forest management, there is an emerging consensus that two issues require immediate attention. The forest sector needs to further transform, and the impacts of a changing climate have to be considered in every aspect of managing Canada's forests.

Climate change and forest sector transformation are closely intertwined. Climate change is an important driver of forest sector transformation, yet transformation can also help Canada better adapt to and mitigate the impacts of a changing climate. Given their mutual linkages, these issues cannot be addressed in isolation.

Both issues will challenge the sector and its use of forest resources but will also provide abundant opportunities for action. They will require the use of multidisciplinary approaches to overcome the many insulated policy silos that separate forestry, education, labor, and energy and other resource industries. This will be essential for solving complex challenges that cut across our economy, cultures, and ecosystems.

To face these challenges and take advantage of the opportunities presented by these changes, promoting innovation will be essential for creating new ideas, products, markets, and processes. In addition, it will be critical to strengthen the relationships among the groups that make up the forest sector, including both new participants and long-time partners.

FOREST SECTOR TRANSFORMATION

For many centuries, timber from Canada's forests has been used to produce wood and paper products. Wood has numerous positive qualities: it is renewable, durable, easily recyclable, and when manufactured, it has a smaller environmental footprint than many other materials. Building on these attributes, Canada is promoting the use of wood products and strengthening its competitiveness through research and innovation to expand the vast array of forest products. New building materials, as well as impregnated cleaning and bioactive papers, are just some examples of innovative products being explored.

While forest commodity producers will continue to significantly contribute to the country's economic well-being, other forest sector members will use forest resources to different ends. For example, forests are a source of many current and potential non-timber forest products and services, such as resins, oils, mushrooms, berries, fish and game, tourism, and recreational pursuits, and bioproducts, such as antibiotics, bioplastics, adhesives, biopesticides, plant-derived pharmaceuticals, biochemicals, and industrial enzymes.

The development of a renewable bioeconomy, including bioplastics and biochemicals, presents interesting opportunities and benefits in terms of both sector transformation and climate change. Some of these products come not only from the forest itself but from the use of residues from wood processing and harvesting. These residues can be converted into value-added products, such as ethanol, artificial flavorings, and fertilizers, and renewable fuels, such as solid biofuels. These biofuels have the potential to contribute to the rural economy, to positively affect the environment by reducing greenhouse gas emissions, and to improve Canada's energy security.

Creative changes in public policies and the institutions that manage resource allocation, including access to timber resources and other forest resources, need to be considered. New markets can be developed to capture the value of environmental goods and services like wildlife habitat, biodiversity, and air and water

quality. The forest sector needs to explore these opportunities to ensure that the full range of goods and services of the forest are considered.

Another important component of a successful transition will be improving access to education and technical training, including for Aboriginals, to help ensure adequate recruitment and retention of forest sector workers with appropriate skills. By taking advantage of all these opportunities, Canada will maintain a prosperous and sustainable future for its entire forest sector.

CLIMATE CHANGE

Forest resources assist Canada in mitigating a changing climate and are also on the frontlines of climate change adaptation. Forests capture and remove carbon from the atmosphere, trapping it in their wood, bark, leaves, and soil. In addition, wood can be used to generate energy, replacing fossil fuels and hence reducing greenhouse gas emissions. Forest products, because they are made from a renewable resource and can store carbon for long periods of time, can also reduce greenhouse gases by meeting some of the needs of society that would otherwise have to be met through other, more energy- and fossil fuel-intensive products, such as steel, aluminum, plastics, and concrete.

Canada has the highest per capita forest area in the world. These forests can contribute to a climate mitigation strategy in several ways. For example, reducing conversion of forested lands to other uses, expanding carbon sinks through planting trees on previously non-forested lands, and changing forest management practices and policies can lead to increased net carbon stored over time. According to the Intergovernmental Panel on Climate Change (IPCC) experts,[1] sustainable forest management strategies that maintain or increase carbon stocks while providing society with a sustainable supply of timber, fiber, and energy hold the largest sustained mitigation potential.

Reports from the IPCC and the Canadian research community have also clearly documented the potential effects of a warming climate on Canada's forests and forest-reliant communities. For example, large-scale fires in western and northern forests are likely to increase and forest insect populations, including the mountain pine beetle, that were limited in their distribution by cold winter temperatures now seem more likely to spread.

Many forest-reliant communities, including Aboriginal ones, are seeing the need to adapt to the effects of climate change, which include pest outbreaks and forest fires. These communities, in conjunction with governments and industry, are taking steps to adapt their cultures and economies, and to reduce greenhouse gas emissions. While these mitigation and adaptation efforts are being implemented, additional action will be required, including developing and deploying adaptation and mitigation strategies that reduce the vulnerability of communities and take advantage of new opportunities. To be successful, scientific information, Aboriginal knowledge, and opportunities to share best practices will be critical. They will contribute to strengthening cooperation and coordination among local and regional groups and institutions.

Consideration of climate change and future climatic variability is needed in all aspects of sustainable forest management. Cooperation and collaboration are needed to make Canada a world leader in innovative policies and actions required for adaptation to the effects of climate change.

The collective efforts of the sector to realize the Vision will contribute to the achievement of the goals and outcomes related to the transformation of the forest sector and climate change.

[1] The IPCC was established in 1988 by the United Nations Environment Programme and the World Meteorological Organization. It comprises hundreds of scientists from around the world. The mandate of the IPCC is to assess the knowledge gaps in climate change and to provide an objective source of information about the environmental and socioeconomic impacts of climate change. The IPCC also formulates response strategies regularly.

Goals

- Ensure a prosperous and sustainable future for Canada's entire forest sector;
- Become a world leader in innovative policies and actions to mitigate and adapt to the effects of climate change on our forests and forest communities.

Desired Outcomes Related to

FOREST SECTOR TRANSFORMATION

- New ideas, technologies, processes, and markets are developed through the systematic engagement of science and technology organizations in collaborative research and public–private partnerships;
- Economic value from forest resources is maximized including through the diversification of uses;
- Products from Canada's forests are recognized as an environmentally and socially responsible choice for consumers around the world;
- The provision of environmental goods and services is taken into account in the sustainable management of Canada's forest resources, including through the development of new markets;
- Aboriginals participate meaningfully in an innovative forest sector, including use of their insights and expertise;
- Highly skilled workers contribute to the expansion of knowledge-based forest industries through education and training;
- Creative public policies are in place that facilitate forest sector transformation.

CLIMATE CHANGE

- Climate change considerations are included in all aspects of the sustainable management of Canada's forests;
- The economic value of carbon in trees, forests, and wood products is recognized, harnessed, and managed;
- Knowledge gaps in the impacts of climate change on forests, industries, and communities are identified and addressed;
- Policies and institutions provide means for forests, industries, rural and urban communities, and private woodlot owners to adapt to changing conditions and mitigate the effects of climate change;
- Innovative adaptation and mitigation practices, including those that integrate Aboriginal knowledge, are developed, shared, and implemented;
- Many forest-reliant communities, including Aboriginal ones, are involved in the development, sharing, and implementation of forest mitigation and adaptation strategies, including those that integrate Aboriginal knowledge;
- Institutions and creative policies enable innovators and entrepreneurs to take advantage of transformative and sustainable bioenergy opportunities that contribute to broad climate change objectives.

Realizing the Vision through Partnerships

To be effective, the Vision needs to be embraced by Canada's entire forest sector including the future players. Governments, forest products companies, Aboriginals, private woodlot owners, forest communities, professional associations, governments, researchers and educators, the environmental community, non-traditional partners (including energy, chemical, and pharmaceutical industries), and the public all have unique and critical roles to play in advancing the sustainable management of forests. Partnerships will be key as innovations and change lead to new players in the sector. Although contributions to the goals of the Vision are voluntary, the Vision provides a focal point for moving forward to share and draw on one another's strengths and expertise.

CANADIAN COUNCIL OF FOREST MINISTERS

The CCFM, together and through its member governments, will assume the following responsibilities:

Primarily, it will champion the Vision to generate greater public awareness of forest issues, and communicate the Vision's goals and outcomes. The CCFM will convey progress on the Vision, including advancement of sustainable forest management in Canada and progress on priority issues. It will also facilitate the consolidation of progress reports from forest sector partners and will ensure coordination with national initiatives and activities of other ministerial councils, and with its own initiatives and strategies.

The CCFM will also support selected events, including conferences and workshops that advance the Vision. Besides promoting continuous improvement in sustainable forest management, these events will aim to share information, build synergies, and establish and facilitate partnerships on priority issues.

Every three years, in conjunction with the review of the Vision, the CCFM plans to host a national workshop to showcase initiatives that advance the Vision and to help inform the review process.

FEDERAL, PROVINCIAL, AND TERRITORIAL GOVERNMENTS

Federal, provincial, and territorial governments—as holders of more than 90 percent of Canada's forests on behalf of the people—will also act individually (within the context of their own circumstances and mandates) to promote sustainable forest management and bring focus to the priority issues.

Governments' Roles and Responsibilities

The provinces own and regulate the natural resources within their boundaries, with powers to legislate for the enhancement, conservation, and management of forest resources. Following the negotiation of devolution agreements with the Government of Canada, the Yukon Government has responsibility for lands and natural resources, including forest management, while to date, devolution agreements with the Governments of the Northwest Territories and of Nunavut are limited to forest management.

The federal government is responsible for foreign policy, international trade, and federal lands and parks. It also has a lead responsibility for Indians and lands reserved for Indians, as stipulated in the *Constitution Act, 1867*.

Responsibility for environmental affairs, economic development, and science and technology is shared by governments according to their respective jurisdictions.

Federal, provincial, and territorial governments will continue to use a variety of arrangements to consult and involve forest sector members and the general public. Examples include advisory committees, land-use planning processes, and task forces on special issues that involve various groups in sustainable forest management and use of forest resources.

PRIVATE OWNERS AND FOREST COMPANIES

Approximately 6 percent of Canada's forests are privately owned by forest businesses, municipalities, Aboriginals, and more than 425 000 woodlot owners.

Private woodlot owners, forest industries, communities, and Aboriginals manage forests that they own through their respective stewardship, working within a framework of norms, regulations, and incentives defined by governments.

In addition to their private lands, forest companies are awarded the right to harvest wood from public lands in return for paying a fee (royalties) for harvested wood and providing economic development in nearby communities. The companies (or their contractors) carry out much of the management of these lands with oversight from public agencies. However, some jurisdictions are implementing new approaches that give regional authorities or communities more responsibilities for managing the public forest. Innovation within these institutional arrangements is an important component of sustainable forest management to enable adaptation to the current and future challenges and changes needed.

ABORIGINALS

In the past, Aboriginals have maintained a relationship with forests. These forests continue to represent a source of food, medicine, and economic activity and they provide opportunities for recreation, social interactions, and spiritual growth.

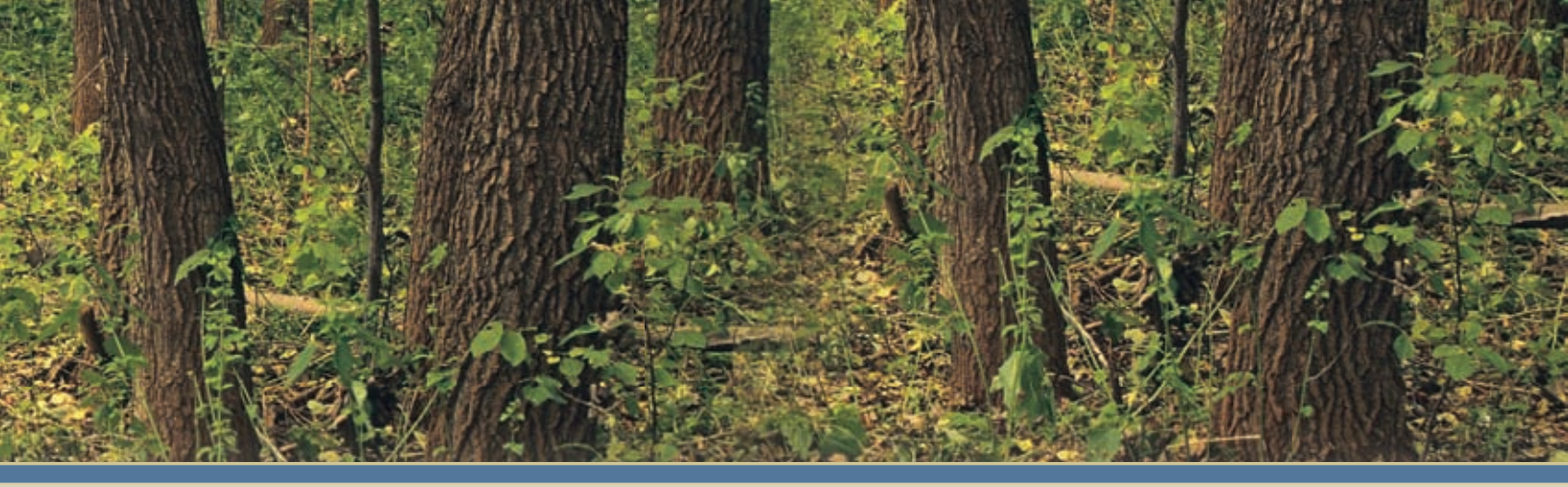
Aboriginals and their businesses have a role to play in the forest economy. They are involved in the development of sustainable forest management practices, notably through the application of their knowledge and practices. As the dialogue between Aboriginals and governments, industry, and other forest sector members continues to evolve, it will create further opportunities that will benefit all and further sustainable forest management.

OTHER FOREST SECTOR MEMBERS

Consultants, land-use planning experts, environmental and conservation groups, communities, academics, professional associations, and many other organizations play an important role in helping to develop and deliver effective sustainable forest management policies and practices. They all play an important role in representing the interests of the public, providing public fora for citizens to effect change, and advancing the necessary knowledge to ensure sound management of Canada's forest resources.

INTERNATIONAL PARTNERSHIPS

Canada is committed to taking action on sustainable forest management at home and abroad, including collaborating on science and technology issues and sharing expertise and resources to advance global forest development. Forests in Canada represent about 10 percent of the earth's forests, and more than 30 percent of all boreal forests. Canada is also one of the world's largest exporters of forest products. Given the global importance of its forests, international forest policy remains a high priority for Canadians.



Canada has been an active participant in multilateral and bilateral international forestry initiatives for many years and affirmed its commitment to sustainable forest management in 1992 at the United Nations Conference on Environment and Development with the adoption of the Forest Principles. Canada is also a signatory to the Convention on Biological Diversity, the Convention on International Trade in Endangered Species, and the United Nations Framework Convention on Climate Change. Canada will remain engaged in international dialogues and dedicated to international cooperation to further the sustainable management and development of forest resources.

Assessing and Communicating Progress

Communicating progress on the Vision requires coordinating reporting activities and sharing information. Several mechanisms are appropriate for assessing and communicating progress to both national and international audiences. For example, the CCFM's Criteria and Indicators Framework may be used as an evaluation tool to gauge improvements in the sustainable management of Canada's forests, although refinement of indicators may be required to consider emerging issues such as climate change. Federal and provincial State of the Forest reports will be used in addition to collaborative tools available on the Internet, for example, the CCFM Web site (http://www.ccfm.org/), to share information and showcase progress. The CCFM, federal, provincial, and territorial governments, and all forest sector partners will be able to use these tools to share and report information that accurately reflects progress toward the Vision.

Other venues may also be used to create awareness of the Vision and to communicate progress. They may include features in local, national, and specialized media, and events and conferences organized by forest sector members.

Conclusion

This is a time of change for Canada's forests and forest sector, changes that hold unprecedented challenges but that create the possibilities for opportunities as a result of innovations. Canada's forest sector holds potential solutions to the challenges of securing renewable energy resources, adapting to and mitigating the effects of climate change, sustaining traditional forest enterprises, maintaining vibrant Aboriginal and rural communities, and contributing to other sectors of the economy.

Realizing the Vision depends on the collaborative actions of all the people and organizations that create value and seek wealth and well-being from forests. Federal, provincial, and territorial governments will continue to collaborate with the entire forest sector to share ideas, values, and actions to achieve the opportunities that lie within their grasp.

Glossary

Bioeconomy: An economy based on the manufacturing and trade of commodities and services derived from renewable biological resources as well as on the trade of non-timber forest products (NRCan 2008).

Climate change adaptation: An adjustment in natural or human systems in response to actual or expected climatic stimuli.

Climate change mitigation: Human intervention to reduce the effects of climate change.

Ecosystem-based management: Management systems that attempt to simulate ecological processes with the goal of maintaining a satisfactory level of diversity in natural landscapes and their pattern of distribution in order to ensure the sustainability of forest ecosystem processes (CCFM 2006).

Environmental goods and services: Benefits humans get directly or indirectly from ecosystem functions. Ecosystem functions are the "…habitat, biological or system properties or processes of ecosystems" (Costanza et al. 1997). They include clean air and water, soil retention, and wildlife habitat (CCFM 2006), to name a few.

Forest: An ecosystem characterized by a more or less dense and extensive tree cover, often consisting of stands varying in characteristics such as species composition, structure, age class, and associated processes, and commonly including meadows, streams, fish, and wildlife (Helms 1998).

Forest sector: The forest sector includes governments, conservation and environmental groups, woodlot owners, Aboriginals, urban forestry interests, lumber and pulp and paper producers and value-added industries, forest-reliant communities, the recreation and tourism industries, and other sectors of the economy (including the energy, chemical, and pharmaceutical industries) that derive wealth and well-being from Canada's forest resources.

Integrated landscape management: The integrated planning and assessment of land uses and human activities over whole landscapes to ensure the long-term economic, social, and environmental sustainability of ecosystems and their resources. It is applied at appropriate temporal and spatial scales necessary to achieve multiple management objectives (NRCan 2007).

Non-timber forest products: All forest products except timber, including resins, oils, leaves, bark, plants other than trees, fungi, and animals or animal products (Helms 1998).

Sustainability: The capacity of forests, ranging from stands to ecoregions, to maintain their health, productivity, diversity, and overall integrity, in the long run, in the context of human activity and use (Helms 1998).

Sustainable forest management: Management that maintains and enhances the long-term health of forest ecosystems for the benefit of all living things while providing environmental, economic, social, and cultural opportunities for present and future generations (NRCan 2007).

Urban forest: The trees, forests, and associated organisms that grow near buildings and in gardens, green spaces, parks, and golf courses located in village, town, suburban, and urban areas (Aird 1994, see *forest: urban forest*).

References

Aird, P.L. Compiler. 1994. Conservation for the sustainable development of forests worldwide: A compendium of concepts and terms. For. Chron. 70:666–674.

(CCFM) Canadian Council of Forest Ministers. 1988. A national forest sector strategy for Canada. Ottawa, ON. 22 p.

(CCFM) Canadian Council of Forest Ministers. 1992. Sustainable forests: A Canadian commitment. Hull, QC. 51 p.

(CCFM) Canadian Council of Forest Ministers. 1998. National forest strategy (1998–2003)—Sustainable forests: A Canadian commitment. Ottawa, ON. 47 p.

(CCFM) Canadian Council of Forest Ministers. 2006. Criteria and indicators of sustainable forest management in Canada: National status 2005. Natural Resources Canada, Canadian Forest Service, Ottawa. 154 p.

Costanza, R.; d'Arge, R.; de Groot, R.; Farber, S.; Grasso, M.; Hannon, B.; Limburg, K.; Naeem, S.; O'Neill, R.V.; Paruelo, J.; Raskin, R.G.; Sutton, P.; van den Belt, M. 1997. The value of the world's ecosystem services and natural capital. Nature 387:253–260.

Helms, J.A. Editor. 1998. The dictionary of forestry. Society of American Foresters, Bethesda, MD, and CABI Publishing, Wallingford, Oxon, UK. 210 p.

(NFSC) National Forest Strategy Coalition. 2003. National forest strategy (2003–2008)—A sustainable forest: The Canadian commitment. Ottawa, ON. 26 p.

(NRCan) Natural Resources Canada. 2007. Canada's forests: Glossary [online]. http://canadaforests.nrcan.gc.ca/glossary [Accessed May 2008.]

(NRCan) Natural Resources Canada, Canadian Forest Service. 2008. Glossary terms [online]. http://cfs.nrcan.gc.ca/glossary [Accessed June 2008.]

(UNWCED) United Nations World Commission on Environment and Development. 1987. Our common future [print and online]. Oxford University Press, Oxford. http://www.worldinbalance.net/agreements/1987-brundtland.html [Accessed May 2008.]

Photograph Credits

Cover: *Top*, 1, 4, 5 *from left*, *The Forests of Canada* collection, Natural Resources Canada (NRCan), Canadian Forest Service (CFS), 2003; 2 *from left*, FPInnovations; 3 *from left*, Petawawa Research Forest collection; *bottom*, Julie Piché, NRCan, CFS. Page 3, *The Forests of Canada* collection (NRCan, CFS, 2003). Page 4, FPInnovations; background, Julie Piché, NRCan, CFS. Page 5, *The Forests of Canada* collection (NRCan, CFS, 2003). Page 6, *left and right*, *The Forests of Canada* collection (NRCan, CFS, 2003); *center*, NRCan collection. Pages 7 and 8, *The Forests of Canada* collection (NRCan, CFS, 2003). Page 8, background, Julie Piché, NRCan, CFS. Page 9, *left and right*, NRCan collection; *center*, Ed Czerwinski, Ontario Ministry of Natural Resources; background, Julie Piché, NRCan, CFS. Page10, *The Forests of Canada* collection (NRCan, CFS, 2003). Page 11, *left*, Petawawa Research Forest collection; *right*, *The Forests of Canada* collection (NRCan, CFS, 2003). Pages 12 and 13, *The Forests of Canada* collection (NRCan, CFS, 2003). Pages 14 and 15, background, Julie Piché, NRCan, CFS.