

Up FRONT

Overview of CANADA'S FORESTS and FOREST SECTOR

Why report on the state of our forests?

Forests and forest resources are integral to Canadian life. They form an important part of our economy, history, culture, tradition and lifestyle.

Canadians want to know about the state of their forests, how the forest and forest resources are being managed and the factors influencing their future.

The Minister of Natural Resources is mandated, under the *Department of Natural Resources Act*, to report annually on the state of Canada's forests and their contribution to the economy, environment and social well-being of Canadians.

The facts, figures, articles and viewpoints in this report are designed to give readers a better understanding of Canada's forests, help address concerns in the United States, Europe and other markets about Canada's forestry practices, and provide Canadians with the information they want about their forests and forest resources.

CANADA'S FORESTS ACCOUNT FOR

- up to 10% of the world's forest cover
- about 30% of the world's boreal forest
- more than 25% of the world's temperate rainforest
- 25% of the world's wetlands
- 20% of the world's freshwater

This annual report brings together the most comprehensive and up-to-date national information on Canada's forests and forest sector. It is available online at www.nrcan.gc.ca/cfs-scf/sof.

How much forest does Canada have?

Canada covers 882.1 million hectares of land and another 88.3 million hectares of water and 8.7 million hectares of unspecified land, for a total area of 979.1 million hectares. Forests (310.1 million hectares) and other wooded land (92 million hectares) make up about 46 percent of Canada's land mass. About 294.8 million hectares of Canada's forest are not reserved and could therefore be available for commercial harvesting. Just under half (143.7 million hectares) of these potentially harvestable hectares is subject to forest management and, of that half, 0.9 million hectares is harvested annually.

CANADA'S LAND CLASSIFICATION

(Million hectares)

<u>Forest land</u>	<u>310.1</u>
<u>Other wooded land</u>	<u>92.0</u>
<u>Subtotal</u>	<u>402.1</u>
<u>Other lands</u>	<u>480.0</u>
<u>TOTAL LAND</u>	<u>882.1</u>
<u>Unspecified land class</u>	<u>8.7</u>
<u>Water</u>	<u>88.3</u>
<u>TOTAL AREA</u>	<u>979.1</u>

CANADA'S FOREST TYPES













Source: Natural Resources Canada, *The Forests of Canada*, 2003

What types of forests are found in Canada?

Of the three main forest biomes in the world, two—boreal and temperate—are found in Canada. (The third biome, tropical forest, does not occur in Canada.) The boreal forest constitutes 77 percent of Canada's forest land. It starts in the Yukon and northeastern British Columbia and stretches across the northern parts of the Prairie provinces, Ontario and Quebec to Newfoundland and Labrador. Boreal forest summers are short, moist and moderately warm; winters are long, cold and dry. Temperate forests grow in eastern Canada where there are well-defined seasons and a moderate climate. Temperate rainforest occurs along much of Canada's west coast.

Canada's forests can be categorized into eight types according to location and combinations of dominant tree species (see map above). Canada's urban forests may be considered a separate forest type. For many Canadians, their day-to-day relationship with trees takes place in the urban forest.

-  SUBALPINE FOREST
-  COLUMBIA FOREST
-  MONTANE FOREST
-  COASTAL FOREST
-  BOREAL FOREST
-  GREAT LAKES-ST. LAWRENCE FOREST
-  ACADIAN FOREST
-  CAROLINIAN FOREST
- NON-FOREST**
-  TUNDRA
-  GRASSLANDS

PUBLIC RESOURCE

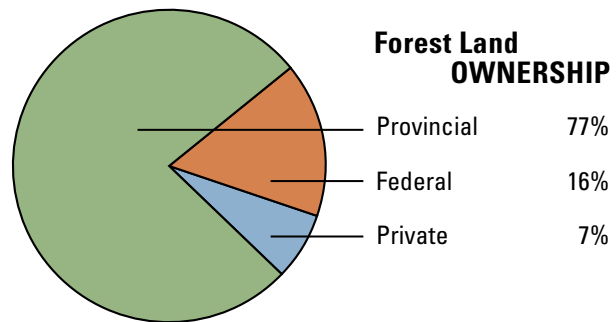
Most of Canada's forest (93 percent) is publicly owned—77 percent under provincial or territorial jurisdiction and 16 percent under federal purview. Under Canada's Constitution, the federal, provincial and territorial governments have specific roles in the care and governance of public forests. They also share responsibility for such matters as environmental regulation and science and technology.

The 10 provinces and three territories have legislative authority over the conservation and management of forest resources. They develop and enforce policies, legislation and regulations, allocate timber licences, collect forest management fees and gather data. The federal government is responsible for matters related to the national economy, trade and international investments, federal lands and parks, and Aboriginal peoples. About 80 percent of the harvesting that takes place in Canada occurs on public land, predominantly on provincial/territorial lands.

The federal/provincial/territorial forestry relationship is one of coordination, cooperation and partnership. The Canadian Council of Forest Ministers (CCFM) serves as an important coordinating instrument. The CCFM led the development of the first three national forest strategies, beginning in 1992. It continues to be the driving force behind important initiatives such as the National Forest Information System, National Forest Inventory, Canadian Wildland Fire Strategy, and Criteria and Indicators of Sustainable Forest Management.

Forest companies share in the responsibility for managing public forests. Companies with long-term forest

licences pay harvesting fees to provincial or territorial governments, and produce plans to carry out sustainable management in return for their access to timber resources. These management plans must be submitted to the government for approval before harvesting can take place. The plans detail how forest values will be conserved, and identify on a map the areas to be harvested. The plans are updated regularly.



Aboriginal peoples' involvement in sustainable forest management is increasing, shaped by a combination of self-government agreements, land claim treaties, court rulings and government policies and practices. These processes and agreements recognize the historical and fundamental connection of Aboriginal peoples to forest ecosystems.

More than 70% of Canada's forests and other wooded land has never been harvested and 40% has been deemed non-commercial or wilderness.

FOREST HEALTH

A healthy forest is generally considered one that has the capacity to maintain its ecological functions while meeting the needs of society. These ecological functions include moderating climate, filtering air and water, enriching the soil and preventing soil erosion, providing a home for wildlife and regulating water flow. The needs are the values, products and services that society seeks from its forests.

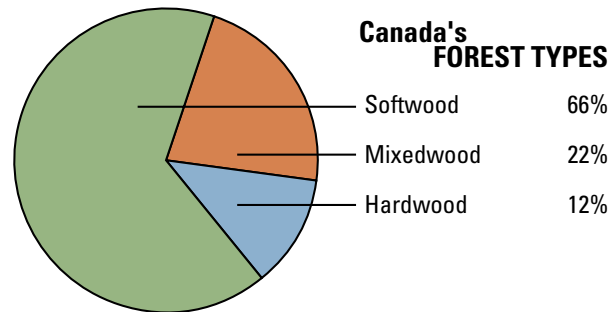
Several factors, both natural and human, affect forest health. Natural factors include fire, insects and disease; human factors include tree harvesting, mining and other economic pursuits, and atmospheric changes such as climate change and acid rain. Both natural and human factors can affect the forest in positive and negative ways.

A key measure of forest health is biodiversity. Other measures include the resilience (or self-maintenance) of the forest, its capacity to provide habitat for indigenous wildlife, its aesthetic appeal and the sustainability of its resources, including trees and non-timber forest products.

Biodiversity

About two-thirds of Canada's estimated 140 000 species of plants, animals and micro-organisms live in the forest. This includes some 180 species of trees. The major tree species are coniferous/softwood (for instance, spruce, pine, fir) and deciduous/hardwood (for example, poplar, birch, maple).

As a signatory to the United Nations Convention on Biological Diversity, Canada has developed a national strategy and action plan to conserve and sustainably use its biological diversity. The Canadian Biodiversity Strategy has been ratified by all territorial and provincial governments. It stresses the need to understand the current status and any changes to species and their populations, in order to develop an approach to conserve and sustain them. Partners under Canada's National Forest Strategy—industry, environmental organizations, Aboriginal peoples, hunters, governments and others—are also committed to maintaining and restoring forest biodiversity.



The Committee on the Status of Endangered Wildlife in Canada (COSEWIC), an independent committee of wildlife experts and scientists, uses a scientific process to assess the risk of extinction for wildlife species. It meets annually to review status reports on species suspected of being at risk and provides assessments to government and the public. Of the 467 species designated by COSEWIC, 305 (65 percent) are forest-associated and 219 of these are protected under the national *Species at Risk Act* (January 2005).

Protected areas

Federal, provincial and territorial governments set aside protected areas to help conserve biodiversity. A growing network of national and provincial parks, and other protected areas and special management areas, can be found in Canada's forests. About eight percent of Canada's forest is legally protected from resource development. Much more forest land—about 40 percent of the total forest land base—is subject to varying degrees of protection through processes such as integrated land-use planning or defined management areas such as certified forests.

Disturbance agents

Natural disturbances such as fire, wind, snow, insects and fungi are an important and necessary part of forest health. They remove old or otherwise susceptible trees, recycle nutrients and provide habitat and food for wildlife. They can, however, have serious economic repercussions if they become severe. For example, by 2005, the mountain pine beetle infestation in British Columbia had affected 8.7 million hectares in that province. Beetle outbreaks are also increasingly frequent in Alberta's pine forests. Altogether, on a national scale, the forest area defoliated by insects and beetle-killed trees totalled 13.1 million hectares in 2004. In 2005, some 7438 fires burned 1.7 million hectares of forest.

Tree harvesting

Tree harvesting is strictly controlled by provincial and territorial regulations, and all harvested areas must be reforested. Each province and territory sets an annual allowable cut based on the sustainable growth rate of the particular forest area, with the goal of maintaining biological diversity while considering economic and social factors. About one third of one percent of Canada's commercial forest is harvested (0.9 million hectares). This compares with an average 2.4 million hectares damaged per year by fire, insects and disease over the past 10 years. Of the 0.9 million hectares of forest harvested each year, 53 percent is regenerated naturally, 43 percent is replanted and four percent is direct-seeded.

Forest certification

Third-party certification is a market-based instrument aimed at promoting sustainable forest management that takes into account environmental, economic and social matters. Canada has the world's largest area of

certified forest and produces more fibre originating from certified woodlands than any other country. As of June 2006, some 120 million hectares of forest were certified under one or more of the three forest-specific certification systems available in Canada—Canadian Standards Association, Forest Stewardship Council and Sustainable Forestry Initiative. To put this into perspective, the amount of forest land certified as being sustainably managed equals an area twice the size of France. All standards used in Canada engage Aboriginal peoples and local communities and, for greater transparency, require annual audits and public disclosure of assessment reports.

FOREST SECTOR—ENVIRONMENTAL TRACK RECORD

- New operational harvesting techniques have reduced industry's ecological footprint in the forest
- Pulp and paper mills have greatly reduced their greenhouse gas emissions—30% below 1990 levels
- Industry has virtually eliminated chlorinated dioxins
- Since 1989, industry has spent \$2.6 billion on recycling
- Canadian mills recycled almost 5 million tonnes of paper into new products in 2005
- Canada provides 25% of fibre supply for new paper derived from recycled material and 56% from chips and sawmill residues
- Today, 58% of the pulp and paper sector's energy consumption comes from biomass, a renewable resource

FOREST INDUSTRY

The products and economic benefits that flow from the forest industry are an integral part of our daily lives and the national economy.

Economic benefits

In 2005, the forest industry contributed 2.9 percent to Canada's gross domestic product. It is especially important in the more than 300 rural and remote communities that depend on the forest industry for at least 50 percent of their income. In 2005, the forest industry was worth \$80.3 billion (estimated shipments) and contributed \$31.9 billion to Canada's trade balance. It employs 864 000 people—339 900 in direct jobs (2.1 percent of Canada's total employment) and 524 100 in indirect and induced jobs. The direct jobs are spread across the country but are located primarily in Quebec (112 900), British Columbia (79 700) and Ontario (84 500).

Forest products

The forest industry produces a range of products such as dimensional lumber, wood pulp, paper and value-added products, and helps to support a variety of service-based industries. Canada is the world's largest exporter of forest products, accounting for 17.3 percent of the world trade. The major contributors are softwood lumber, newsprint and wood pulp. In 2005, the total value of Canadian forest-product exports was \$41.9 billion. British Columbia accounted for \$13.7 billion (33 percent); Quebec, \$11.6 billion

(28 percent); Ontario, \$8.4 billion (20 percent); and other provinces, \$8.2 billion (20 percent). The United States is by far Canada's biggest market for forest products. In 2005, it accounted for \$33.8 billion of Canada's forest exports, followed by the European Union (\$2.3 billion), Japan (\$1.9 billion) and China (\$1.0 billion). The forest also provides non-timber forest products such as maple sap, wild berries and medicines. Non-timber products and value-added products make up an increasing share of Canada's forest exports and are a growing part of the forest sector's economic future.

CANADA'S RANKING AS A FOREST PRODUCTS NATION

COMMODITIES	WORLD PRODUCTION*	EXPORTS 2004 (Billion dollars)
Total forest products	—	44.6 (100%)
Softwood lumber	Second (19.0%)	11.0 (24.7%)
Newsprint	First (21.5%)	5.3 (11.9%)
Wood pulp	Second (15.2%)	7.1 (16.0%)
Other	—	21.1 (47.4%)

*Food and Agriculture Organization of the United Nations ranking for 2004.

OUR PAST, PRESENT AND FUTURE

The contribution of Canada's forests to the country's economy, environment and social well-being is significant. Our forests form an important part of our roots as a nation and a big part of our future. Taking care of them, and ensuring their ongoing health, is a key priority. More details on the economic aspects of the forest industry are presented in "Forestry Statistics and Trends".

Year in REVIEW

The year 2005-2006 saw important advances in forest management as governments pursued a balance between the forest's environmental, economic and social benefits. The quest for information such as national inventories and the reporting of information gained momentum, as did steps to reduce the risks of natural disturbances, particularly insect pests. Several new protected areas were established to help conserve forest biodiversity. Partnerships and collaboration continued to be key in garnering knowledge, managing activities and sharing information. Economic matters were paramount as governments took steps to help the industry adjust to changes such as the strengthened Canadian dollar, rising costs and increased competition. The International Model Forest Network expanded and an international dialogue took place in Vancouver.

FOREST MANAGEMENT

During 2005–2006, provinces directed their efforts toward forest management to foster the social, environmental and economic well-being of Canadians.

On June 1, 2005, the government of **Prince Edward Island** tabled the Public Forest Council's report entitled *Woodlands Hold Our Island Together*. The policy document will help the government determine its role in the management and conservation of the province's public and private forests.

Prince Edward Island and **New Brunswick** developed policies and procedures for harvesting ground hemlock (*Taxus canadensis*) from Crown land. In New Brunswick alone, an estimated one million pounds of sustainable biomass will be available from Crown lands each year. The first allocations are expected to be made early in 2006 and harvest licences will be issued shortly after. The evergreen shrub is used to produce paclitaxel, a powerful anti-cancer drug.

In June 2005, the **New Brunswick** government announced its response to the 25 recommendations of the Legislature's Select Committee on Wood Supply. The government's action plan includes maintaining the current wood supply in the short term and increasing it in the long term; establishing a public participation process by 2009; establishing a provincial advisory committee; creating a task force to develop strategies for future management regimes for the Crown forest; securing funding for silviculture on public land; and reducing clearcuts on Crown lands.

In 2005, the **Quebec** government began implementing recommendations of the Commission for the Study of Public Forest Management in Quebec (Coulombe Commission). Some \$205 million over three years was allocated to improve forest management and integrated forest resource management; facilitate consolidation of the forest sector and minimize the impacts of the lower wood allocations on mills; and to provide tax credits to expand the secondary wood processing industry. Bill 94 was adopted on June 15, 2005, creating the position of chief forester, and Pierre Levac was appointed to the role in December. The government also invested in forestry job creation, silviculture and the modernization of forest management. In January 2006, Quebec established a 17-member council to advise the Minister of Natural Resources and Wildlife on the implementation status of the Coulombe report recommendations.

Quebec implemented 26 special management plans on approximately 355 000 hectares, including lands used mainly by Aboriginal communities, to salvage wood burned in the forest fires of 2005. Contract recipients harvested some 5.7 million cubic metres in 2005–2006 in the regions affected by the forest fires. Similar action was taken in the **Yukon**. Following the 2004 record-breaking year for forest fires in the territory, the government awarded a permit to a Watson Lake company to harvest 340 000 cubic metres of fire-salvaged timber over the next 10 years in the Barney Lake and False Canyon Creek areas.

In 2005, in response to management challenges in Alberta's boreal forest, five **Alberta** government

departments cooperated in the preparation of a Province of Alberta Boreal Forest Framework. The framework consists of guiding principles developed to help meet today's boreal forest challenges. Alberta also initiated development of a land-use framework for the effective management of competing land uses.

British Columbia announced land-use decisions for the 6.4 million hectares of the combined Central Coast and North Coast Land and Resource Management Plan areas—a piece of land more than twice the size of Belgium. Key elements include 1.8 million hectares of protected areas (which will raise the provincial total to 13.8 percent and protect habitat for the rare Kermode bear), adoption of ecosystem-based management (EBM) and a new level of government-to-government cooperation between the province and First Nations. EBM is expected to be fully implemented in these areas by 2009.

The **Canadian Wildland Fire Strategy Declaration** was officially launched by the Canadian Council of Forest Ministers in October 2005. The Declaration presents a shared vision and common principles that emphasize the use of risk management and hazard mitigation, enhanced public safety, forest protection and the effective use of funds in managing fires. It also emphasizes a stronger fire suppression organization, as well as prevention, preparedness and recovery activities, and recognizes the role of fire in rejuvenating forests.



FOREST INFORMATION

Governments were busy implementing initiatives and communicating information to help achieve sustainable forest management.

New Brunswick's first *State of the Forest* report was tabled in the Legislature on December 21, 2005. The report provides information about the province's forests, forest industry, natural disturbances, protected areas and other aspects of the forest.

In June 2005, **Manitoba** released the *2005 Provincial Sustainability Report for Manitoba*, the first to be issued under *The Sustainable Development Act*. The report presents indicators divided into 19 categories in the areas of natural environment, economy and social well-being. The two indicators pertaining to forests—forest type and age class, and forest renewal—are shown as “stable”.

Saskatchewan released its *2005 State of the Environment Report* in April 2005. The report takes a new approach, using environmental indicators to measure the health and state of the environment. The indicators fall into three categories—stress indicators, condition indicators and response indicators.

The government of the **Northwest Territories** completed a pilot project to assess the value of 1:40 000 kinematic photography to create base maps and forest vegetation inventory maps. The new type of map was found to be considerably less expensive than the more conventional 1:20 000-scale photographs. In a separate initiative, the Northwest Territories, Natural Resources Canada and the Canadian Space Agency, through the Earth Observation for Sustainable Development of Forests project,

completed about 2000 satellite land-cover maps of the territory. The territorial government and Natural Resources Canada also partnered to assess the potential for using 2.5m resolution multispectral satellite imagery as a sampling tool to obtain stand structure estimates of height, crown closure, volume and biomass that could be scaled to Landsat Thematic Mapper images.

The **National Round Table on the Environment and the Economy** released *Boreal Futures: Governance, Conservation and Development in Canada's Boreal* in October 2005. The report is based on the work and research of federal and provincial governments, major resource industry sectors, Aboriginal peoples, non-governmental organizations and academia. It includes an assessment of the state of the boreal

region and proposes recommendations for achieving the region's sustainability.

PARTNERSHIPS AND COLLABORATION

Stakeholder relationships were important in harnessing the collective capabilities and expertise of Canada's forest sector.

A Memorandum of Understanding between **Manitoba** and **Ducks Unlimited Canada** took effect on December 14, 2005. The agreement will guide their collaborative efforts to conserve, protect and promote habitat stewardship for the conservation of biodiversity.

The Alberta-Forintek Alliance, a five-year partnership between **Alberta**, **Forintek Canada Corp.** and **Western Economic Diversification Canada**, was established in 2005 to identify and undertake initiatives to increase the value of the province's forest products.

The **Yukon** joined the membership of Forintek Canada Corp. The four-year partnership agreement allows the territory to participate in the planning and revision of Forintek's National Research Program and share in the research results.

Forest Research Opportunity B.C.—a partnership between the federal and British Columbia governments, as well as the forest industry and universities in that province—began operations on June 1, 2005. The partnership was established to enhance innovation in the forest sector and build relationships among governments, industry and universities.

A second research partnership, formed in January 2005, is **science enterprise Algoma (seA)**. Headquartered in Sault Ste. Marie, Ontario, seA focuses on science-based economic development and commercialization. It is involved in bioproducts and bioenergy commercialization activities through its membership in the Northern Ontario Commercialization Initiative. It is also developing proposals for

an Alien Invasive Species Management Centre and a Centre for Excellence in Forest Innovation. These initiatives are currently at the early concept stage; when they are more fully developed, they will be presented to various levels of government for consideration.

In April 2005, to promote closer links between Canada and Russia in general and on forest issues in particular, the Canadian Forest Service of Natural Resources Canada and the Russian Federal Forest Agency signed a three-year **Statement of Cooperation**. Under the agreement, the two forest services will collaborate in a number of technical and policy areas, including forest fire management, forest certification and the boreal forest.



NATURAL DISTURBANCES

Governments pursued their commitment to develop prevention, detection, response and management systems to address natural disturbances.

Nova Scotia and the Canadian Forest Service of **Natural Resources Canada** conducted an experimental spray trial to address the concentrations of

blackheaded budworm in the Cape Breton Highlands. Up to 5000 hectares in 20 areas in the Highlands were identified for the spray trial to determine the effectiveness of a biological control product on the blackheaded budworm. They have also signed an agreement to undertake a research program to better understand the insect and potential avenues of control.

In **Manitoba**, the eastern spruce budworm infested about 65 550 hectares in 2005. Aerial application of Mimic (tebufenozide) was conducted on 21 756 hectares in northwestern Manitoba. Mimic is a control agent which disrupts the molting process in spruce budworm and related caterpillars. When the caterpillar eats the material, it stops feeding, undergoes an incomplete molt and dies as a

partially molted larva. The aerial application proved effective in suppressing the budworm population and protecting foliage. Jack pine budworm populations in the province remained low.

Manitoba experienced several severe wind events in 2005 resulting in large areas of forest being blown down. The pine forest surrounding the community of Sandilands was one of the hardest hit with more than 800 hectares being damaged. Local community leaders, timber operators and Manitoba Conservation worked together to quickly develop a plan that not only resulted in much of the damaged timber being utilized but also protected the community from a potentially dangerous fire hazard.

British Columbia continued to battle the mountain pine beetle epidemic and develop strategies to mitigate its impact. In September 2005, the province released its Mountain Pine Beetle Emergency Response: Canada-B.C. Implementation Strategy, a three-year business plan for the \$100 million contributed by the federal government to mitigate the effects of the infestation. In addition to its Mountain Pine Beetle Action Plan, the province will invest in developing new uses and new markets for the affected wood; increase the annual cut in the south-central area; award licences to companies in local communities; and assist communities in the north-central interior in reducing the economic impacts of the epidemic.

In October 2005, **British Columbia** launched the Invasive Alien Plants Program, a web-based tool to help battle invasive alien plants. The application enables users to produce maps showing the location of species of invasive plants in British Columbia.



CONSERVATION AND PROTECTION

Provinces made advances in conserving and protecting natural areas to help maintain biodiversity.

The results of the **Nova Scotia** 2005 Sanctuary and Wildlife Management Area public review were released in February 2006. The report revealed that the province's residents are concerned about their 26 sanctuaries and want more wildlife areas. In response, the government started work on developing regulations to establish new areas and reviewing the existing regulations for improved habitat protection. The government will also continue working toward completing its comprehensive system of protected areas.

The government of **Nova Scotia** and Nova Scotia Nature Trust signed the Lands and Legacies Conservation Partnership in 2005. The agreement enables the province to give Nature Trust \$300,000 over a three-year period; in return, the Trust will transfer to the province lands with an appraised market value of no less than \$300,000. The transferred lands will be private lands located within areas designated, or proposed to be designated, under the *Wilderness Areas Protection Act* and the *Special Places Protection Act* or similar conservation legislation. The Trust will also buy land or work with private landowners to secure donations of land and conservation easements. As part of the agreement, the organization will provide land management and education programs to private landowners.

In 2005, **New Brunswick** set up local, provincial and scientific advisory committees for its 10 large and 20 small protected areas, which cover more than 150 000 hectares of land. The committees provide advice, help develop management plans for the protected areas, and help to ensure that biodiversity is preserved and that conflicts among users are minimized. Discussions began with several individuals and conservation groups that own land regarding the possible inclusion of their lands under the *Protected Natural Areas Act*.

In 2005, the **Quebec** government added 22 new areas to its protected areas network and classified 41 new sectors as exceptional forest ecosystems. The new protected areas are spread over approximately 700 000 hectares of the boreal forest and bring the province's protected areas network to 5.8 per cent (its target is eight per cent by 2008). The new exceptional forest ecosystems cover 11 300 hectares and include 20 old-growth forests, 10 rare forests and 11 shelter forests for threatened or vulnerable species. The province now has a total of 104 exceptional forest ecosystems covering 19 400 hectares classified under its *Forest Act*.

In June 2005, **Ontario** released *Protecting What Sustains Us: Ontario's Biodiversity Strategy 2005*, the province's plan to conserve its plants, animals and ecosystems. Implementation of the plan will be coordinated by a 21-member biodiversity council. Contributing to the strategy is *The Great Lakes Conservation Blueprint for Biodiversity*, released in November 2005. The blueprint documents the results of a computer-based analysis of specific areas in Ontario's Great Lakes region that, if conserved, could sustain essential elements of the region's biodiversity.

Ontario protected three more plant species under the *Endangered Species Act* and expanded the protected area of a fourth. The three new regulated plants are the Bird's-foot Violet, Red Mulberry and Spoon-leaved Moss, and the Cucumber Tree is now protected throughout the province as opposed to the previous eight areas. There are now 43 plant and animal species regulated under Ontario's *Endangered Species Act*.

Ontario also prohibited the hunting of white-coloured moose in Wildlife Management Units near Timmins. White-coloured moose are naturally produced in wild moose populations, apparently due to

a recessive gene, and are not a separate species. The regulation under the *Fish and Wildlife Conservation Act* recognizes the cultural and spiritual significance of white moose to First Nations, and promotes local eco-tourism.

Ontario added 45 parks and conservation reserves to its protected areas system. The new areas encompass 500 000 hectares.

Manitoba announced three new ecological reserves in 2005—Brokenhead Wetland (563 hectares), Armit Meadows (263 hectares) and Birch River (183 hectares). Ecological reserves carry the highest level of protection in the province.



Photo: Weyerhaeuser

ABORIGINAL INVOLVEMENT

Initiatives were put in place to improve the economic and social well-being of Aboriginal peoples.

Ontario provided a one-time \$2 million grant to the Forestry Futures Trust to help eligible First Nations in the far north carry out land-use planning and identify forestry-based economic opportunities.

Swampy Cree Tribal Council

(SCTC) and **Manitoba** signed a Memorandum of Understanding on August 3, 2005, agreeing that, for the next five years, Manitoba will grant long-term hardwood tenure in northwest Manitoba only to SCTC or to a company with which SCTC has a long-term partnership.

The **British Columbia** Ministry of Forests and Range signed additional forestry agreements with First Nations providing them with access to timber and a share of forestry revenues. Since 2002, the government has signed agreements with 110 First Nations, providing access to about 18.4 million cubic metres of timber and sharing more than \$131 million in forestry revenue.

ECONOMIC ISSUES

Some provinces established mechanisms to encourage sustainable economic development opportunities in the forest industry.

In 2005, the government of **Newfoundland and Labrador** received the final report on the potential for secondary manufacturing and value-added wood products development in Labrador. The study provides valuable information on resource availability and quality, mill operations, financing, product markets, disposition of mill residues, local social and economic issues, and development of local expertise.

Also in **Newfoundland and Labrador**, the 2006 Island Wood Supply Analysis was completed. The analysis was used to establish the annual allowable cut for the island portion of the province for the period 2006 to 2010.

Like the industry across much of Canada, **Nova Scotia**'s forest industry continued to experience financial stress, largely due to external factors such as changes in the exchange rate of the Canadian dollar, energy costs, market prices and excess industry capacity. Shut-downs in adjoining provinces greatly disrupted regional markets for timber, especially hardwood and pulpwood. The timber harvest for calendar year 2005 declined by nine percent from the prior year.

On December 23, 2005, **New Brunswick**'s Premier announced a \$250-million action plan to assist the province's forest industry. The five-year plan addresses wood supply objectives; pulpwood stumpage rates; increased funding for silviculture; a biomass strategy; partnerships with industry to compete in the global marketplace; transportation; taxation; and human resource development.

In 2006, **Quebec** introduced measures and an allocation of \$17 million over three years to assist the forest industry. The measures focus on assistance for

specialized studies; financial assistance for the development of technologies and products; diagnostics for hardwood sawmills and furniture plants; and creation of a network of regional technology transfer agents.

Quebec's forest industry lost 3329 jobs—1565 of which were temporary—due to factors such as the stronger Canadian dollar; rising energy costs; reduced demand, particularly for paper products and furniture panels; and competition from overseas markets. Included in this tally are 564 job losses in the province's mills resulting from reduced allocations in the province's public forests (this includes 350 positions temporarily eliminated). Employment in the wood products, pulp, paper and furniture sectors was 104 400.

Following the release of the final report of the Council on Forest Sector Competitiveness, the

Ontario government announced several initiatives to strengthen the province's forest industry. Among the measures are \$900 million over four years to enhance the industry's competitiveness and to encourage re-investment and new investment. The government also announced additional funding to enhance the Ontario forest resource inventory and establish the Ontario Wood Promotion program;

invest in job creation in northern Ontario; create a process to maximize wood use and reduce costs; streamline approvals for forest activities and combine forest management units; and establish a panel of council members to assist in monitoring the actions.

The Atlantic Master Logger Certification Program is a new program that provides third-party verification of the sustainable harvesting practices of contractors in **Atlantic Canada**. Of the 19 logging companies that took part in the program's pilot phase, 13 were successful in attaining certification. One major paper buyer has announced it endorses the program, which means that wood harvested by Atlantic Master Loggers will contribute to targets for certified wood.



In August 2005, a NAFTA Extraordinary Challenge Committee (ECC) rejected U.S. arguments that the original NAFTA Panel in the **softwood lumber** injury case had overstepped its authority and that one of the panellists was in conflict of interest. The original panel had ruled that the U.S. International Trade Commission had no basis for determining that softwood lumber from Canada posed a threat of material injury to the U.S. industry, which is a legal requirement to impose countervailing or antidumping duties against imports. While Canada's view was that the United States was now obligated to revoke the duty orders and return all deposits collected to date (approximately US\$5 billion), the U.S. argued that it still had the authority to continue duty collection. In September 2005, Canada launched a challenge against the U.S. failure to abide by the ECC ruling before the U.S. Court of International Trade, seeking revocation of the duties and a full refund of deposits with interest.

In December 2005, the U.S. Department of Commerce published the final results of its second administrative review of the anti-dumping and countervailing duty orders, which covered the year 2003–2004. The results determined a new countervailing duty rate of 8.7 percent (down from the first administrative review rate of 16.37 percent) and a new “all others” antidumping duty rate of 2.11 percent (down from the current 3.78 percent). This reduced the combined duties for Canadian softwood lumber exports to the U.S. for that period from 20.15 percent to 10.81 percent, in part due to successful legal challenges to U.S. subsidy and dumping calculations.

In February 2006, Canada filed a complaint under NAFTA concerning the final results of the U.S. first administrative review of the countervailing duty order, which imposed a tariff of 16.37 percent on

softwood lumber imports from Canada. The first review addressed the year 2002–2003.

On April 27, 2006, Canada and the U.S. reached a framework agreement outlining the broad terms of a negotiated settlement to the softwood lumber dispute. The framework calls for the U.S. to revoke the countervailing and antidumping duty orders and to return 80 percent of duties paid to date to Canadian lumber companies, in exchange for Canada imposing an export tax and volume restraints on certain softwood lumber shipments to the U.S. On July 1, the Prime Minister announced that Canada and the U.S. had finalized the terms of the agreement and that the government would be presenting enabling legislation to the House of Commons at the fall session of Parliament.



Photo: Paprican

INNOVATION

There was a continued effort to focus on innovation and technology development to remain competitive and to meet the evolving expectations of forest stewardship.

The 80-year-old **Ontario** Tree Seed plant was upgraded in 2005 with a single, more efficient facility—one of the first government buildings in

Ontario built to stringent energy and ecological standards—replacing three aging administration buildings. The plant collects and stores seeds that contain the genetic diversity found in Ontario's forests. The government expects to save about 60 percent in energy costs due to the conservation measures.

The **Carbon Budget Model** was made available to the public in 2005 via the Internet. The computer model helps forest managers to estimate the amount of carbon stored in forests and assess the impact of forest operations on forest carbon stocks. The tool was developed by the Canadian Forest Service of Natural Resources Canada in collaboration with the Canadian Model Forest Network. It is expected to

increase the potential for forests and forest management activities to contribute to a strategy for reducing greenhouse gas emissions.

ENVIRONMENT

The important role of forests in maintaining a healthy environment was again recognized.

In 2005, **Prince Edward Island's** Department of Environment, Energy and Forestry conducted two climate change projects. The first project was a survey to determine which non-native trees and shrubs have been successfully planted in the province. The information will be used to determine if climate change may make Prince Edward Island hospitable for more southerly species. The second project looked at tree rooting depth to determine how far down the roots of Acadian forest species can reach in order to access water. The study found that on two Island soil types, maples, birches and white spruce were able to access deep water sources, which means these species may be able to withstand periods of drought better than previously thought.



In **Nunavut**, the *Wildlife Act* came into force on July 9, 2005. The Act follows three years of public consultation and reflects Inuit rights. Under the new legislation, all trees and plants are wildlife and, as such, their management, harvest and protection are regulated by the *Wildlife Act*.

The government of the **Northwest Territories** began a multi-year program to develop a consistent ecosystem-based regional and landscape-level classification to meet its planning and management needs in the areas of wildlife, forestry, environmental assessment and protected areas. In 2005, the Taiga Plains Ecozone, the ecological zone representing the sedimentary plains of the Mackenzie Valley, was

mapped. Similar ecosystem classification work will be completed for the eastern (Precambrian Shield) portion of the Northwest Territories in 2007 and for the mountain areas in the west by 2009.

In December 2005, the **Forest Products Association of Canada** and **The Climate Group** signed a Memorandum of Understanding to mitigate climate change and promote sustainable development. The two organizations will cooperate on opportunities to mitigate greenhouse gas emissions and improve industry competitiveness. The Climate Group is an independent, non-profit organization dedicated to advancing business and government leadership on climate change.

INTERNATIONAL ACTIVITIES

Canada continued its involvement at the international level to enhance cooperation and coordination on forest issues and to increase market access.

Four new model forests joined the **International Model Forest Network** in 2005—Brazil's Mata Atlantica Model Forest and Pan-deiros Model Forest; Bolivia's Chiquitano Model Forest; and India's Kodagu Model Forest. The network now has 38 model forests around the world.

More than 700 delegates from 25 countries attended Global Forest and Paper Industry Summit 2005, the first meeting of its kind organized by the **Forest Products Association of Canada**, in Vancouver.