

# NATURAL VALUES: *Linking the Environment to the Economy*

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## FORESTRY AND THE ENVIRONMENT

*Natural Values: Linking the Environment to the Economy* was developed by Ducks Unlimited Canada (DUC) to improve the environmental and economic understanding of natural systems. In Canada, policy, legislation and regulation efforts must accelerate to protect our important resources. To view other instalments in this series, visit [www.ducks.ca/consERVE/wetland\\_values/consERVE.html](http://www.ducks.ca/consERVE/wetland_values/consERVE.html)



**THE ECONOMIC BENEFITS THAT FLOW FROM FORESTRY** are essential to our national economy. Canada is the world's largest exporter of forest products with exports totalling over \$40 billion annually and the forest industry contributes three per cent to Canada's gross domestic product.<sup>1</sup> There are also an estimated 300 remote and rural Canadian communities that depend on forestry for at least 50 per cent of their income.<sup>2</sup>

However, what is becoming increasingly clear is that forests that are managed in a sustainable manner are able to produce both high quality wood products and other ecological goods and services such as water purification, wildlife habitat and carbon sequestration. Today much of the Canadian forest industry has embraced the principles of sustainable development and is implementing a business model that provides economic viability, environmental responsibility and social benefits. Forest management practices that protect aquatic systems, minimize soil disturbance and erosion and promote rapid forest regeneration are all components of sustainable forestry.

Forest certification standards are one mechanism of demonstrating and measuring sustainable forest management. There are three internationally recognized forest certification standards in Canada: Canadian Standards Association (CSA), Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI). Canada is a leader in forest certification and is ranked first in the world in total acres certified by third party audits and fifth in total percentage of forestland under certification.<sup>3</sup>

The 2003-2008 National Forest Strategy identified the development of guidelines for integrating watershed-based management as an action item.

### Environmental Values

#### *Sustainably managed forests:*

- Use carbon dioxide in the air to produce oxygen and store carbon thereby reducing greenhouse gases in the atmosphere.
- Play an important role in our water cycle by pumping water from the soil back into the atmosphere through transpiration. This process also helps to cool the surrounding environment.
- Stabilize soil and reduce erosion and sedimentation into aquatic systems thereby helping maintain water quality.
- Remove airborne particles and ozone from our air and improve air quality.
- Provide habitat for two thirds of Canada's species of plants, animals and microorganisms, including approximately 65 per cent of Canada's species at risk designated by the Committee on the Status of Endangered Wildlife in Canada.<sup>2</sup>



## Economic Values

Forests have natural economic values that are often overlooked by society. When forests are degraded there is a financial cost incurred by society to replace the lost ecological goods and services through:

- 1 Increased water treatment costs
- 2 Increased illness and health care costs due to decreased water and air quality
- 3 Decreased property value due to degraded aesthetic qualities
- 4 Decreased revenues from tourism and other non-timber commercial activities associated with healthy ecosystems

*“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.”*

– Natural Resources Canada, 2006 <sup>2</sup>

## DUC Recommends That:

- **Canadians** educate themselves on the economic and environmental importance of healthy forests and sustainable forest management practices.
- **Industry** continues to advance sustainable forest management and adopt watershed-based approaches to forestry to help ensure the health of associated aquatic ecosystems.
- **Educators** incorporate the value of sustainable forest management into science, social studies, geography and economics courses.
- **Non-governmental organizations** recognize the benefits of and support sustainable forest management.
- **Governments** fund research to increase the understanding of the environmental and natural economic value of healthy forest ecosystems and use the results to implement science-based policies and legislation that enhances sustainable forest management.

## Important Links

- [www.ducks.ca/conserv/wetland\\_values/conserv.html](http://www.ducks.ca/conserv/wetland_values/conserv.html)
- [www.ducks.ca/aboutduc/news/archives/2004/041115.html](http://www.ducks.ca/aboutduc/news/archives/2004/041115.html)
- [www.foreststrategy.ca/index\\_e.htm](http://www.foreststrategy.ca/index_e.htm)
- [www.modelforest.net](http://www.modelforest.net)
- [www.sfmnetwork.ca](http://www.sfmnetwork.ca)
- [www.borealcanada.ca](http://www.borealcanada.ca)
- [www.fpac.ca](http://www.fpac.ca)

## Endnotes

- 1 Forest Products Association of Canada. 2007. Who We Are – Overview. Accessed January 2007 at [http://www.fpac.ca/en/who\\_we\\_are/index.php](http://www.fpac.ca/en/who_we_are/index.php).
- 2 Natural Resources Canada. 2006. *The State of Canada’s Forests 2005-2006*. Accessed January 2007 at: [http://www.nrcan-mcan.gc.ca/cfs-scf/national/what-quoi/sof/latest\\_e.html](http://www.nrcan-mcan.gc.ca/cfs-scf/national/what-quoi/sof/latest_e.html).
- 3 B.C. Market Outreach Network and Forest Products Association of Canada. 2004. How Canada Compares – International Review of Forest Policy and Regulation. Accessed January 2007: at [http://www.fpac.ca/en/pdfs/how\\_canada\\_compares\\_E.pdf](http://www.fpac.ca/en/pdfs/how_canada_compares_E.pdf).
- 4 Natural Resources Canada. 2005. Industry Initiatives. Accessed January 2007 at: [http://www.nrcan-mcan.gc.ca/cfs-scf/national/who-qui/role-ii\\_e.html](http://www.nrcan-mcan.gc.ca/cfs-scf/national/who-qui/role-ii_e.html).
- 5 Anielski, M. and S. Wilson. 2005. *Counting Canada’s Natural Capital: Assessing the Real Value of Canada’s Boreal Ecosystems*. Published by the Canadian Boreal Initiative and The Pembina Institute. 78 pp.
- 6 Natural Resources Canada. 2005. *The State of Canada’s Forests 2004-2005*. Accessed January 2007 at: [http://www.nrcan-mcan.gc.ca/cfs-scf/national/what-quoi/sof/sof05/pdf/State-of-Forests\\_E.pdf](http://www.nrcan-mcan.gc.ca/cfs-scf/national/what-quoi/sof/sof05/pdf/State-of-Forests_E.pdf).
- 7 Environment Canada. 2005. *Clean Air Online*. Accessed January 2006 at: [http://www.ec.gc.ca/cleanair-airpur/Home-WS8C3F7D55-1\\_En.htm](http://www.ec.gc.ca/cleanair-airpur/Home-WS8C3F7D55-1_En.htm)

## The Value of Healthy Forests in Canada

In 2004, the forest industry contributed \$36.8 billion to the Canadian gross domestic product and new capital investments in the industry amounted to almost \$3.1 billion. <sup>4</sup>

The value of the carbon stored by Canada’s boreal forest has been estimated at \$849.2 billion. <sup>5</sup>

In 2004, non-timber forest products including mushrooms, berries, honey, tree saps (e.g. maple syrup), understory plants and wild rice contributed over \$725 million to the Canadian economy. <sup>6</sup>

The watershed services provided by Canada’s boreal forest have been valued at \$18 million. <sup>5</sup>

Acid rain has reduced levels of soil nutrients and tree growth in Atlantic Canada’s forests, resulting in the loss of over half a million cubic metres of wood. The value of this lost wood is in the hundreds of millions of dollars. <sup>7</sup>

## What’s Next? Fact Sheet 13: Urban Natural Capital