Forest Change: An Initiative of the Canadian Forest Service of Natural Resources Canada for Enhancing Forest Sector Competitiveness in a Changing Climate

Natural Resources Canada, Canadian Forest Service

Canada is a forest country with 10% of the world's forest cover and 30% of its boreal forest (Natural Resources Canada 2011). Forest land covers 348 million ha or 40% of Canada's land area (Natural Resources Canada 2011). Our forest resources support a multi-billion dollar forest industry, thousands of jobs, and hundreds of communities. Our forests also provide an array of environmental and social benefits such as biodiversity, clean air and water, carbon storage, outdoor recreation, cultural services, and non-timber goods and services. Forests are climate sensitive and are, therefore, particularly vulnerable to changes in climate. There are important implications of climate change for forest ecosystems and consequently for the competitiveness of our forest industry and our forest-based communities. Adaptation can help the forest sector reduce the negative impacts of climate change and also take advantage of new opportunities. Adaptation is the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities (Intergovernmental Panel on Climate Change 2007).

Photo from the Forests of Canada collection, NRCan/CFS, 2003, and the British Columbia Government. Photo design by Julie Piché.

Recognizing the nation-wide importance of adaptation, in 2011 the Government of Canada announced funding for nine federal departments and agencies to support adaptation. Under this funding, the Canadian Forest Service (CFS) of Natural Resources Canada has and will receive $1 million a year for five years to support adaptation in Canada's forest sector, thereby maximizing opportunities and minimizing risks associated with climate change. The CFS developed the Forest Change Initiative to achieve this goal.

The Canadian forest sector has made an enduring commitment to sustainable forest management, but climate change is an unprecedented issue for Canadian forest manage-

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ment that poses significant challenges. Adaptation requires that sound science be incorporated into a range of decisions, from on-the-ground operational practices to long-term policy directions. Information on the observed and projected impacts of climate change on forests is being generated at an accelerating pace, and the challenge is to translate this growing body of information into action. Climate change knowledge needs to be readily applicable to current challenges, resulting in global calls for "useful" (Meyer 2012:133) and "actionable" science (Kerr 2011:1052). Minimizing the delay between information generation and its use requires ongoing collaboration and dialogue between those who generate and those who use the information. Knowledge about impacts and adaptation options resides in all forestry stakeholders, and better integration and exchange of information about climate change impacts across Canada will accelerate adaptation in Canada's forest sector.

The Forest Change Initiative has three main deliverables:

- a **tracking and reporting system** that will identify indicators of climate change and document trends and patterns of forest change across Canadian forest landscapes over time;
- an **adaptation toolkit** that will provide useful and actionable scientific information for the forest sector, including assessment tools, databases, and projections of future impacts; and
- an **integrated assessment** of the implications of climate change for Canada's forests and forest sector.

Through this new initiative, the CFS is committed to supporting the forest sector's growing efforts to adapt to a changing climate. Engagement of end users to better understand their needs and to make them aware of the new tools, knowledge, and information that will be generated through Forest Change is an integral part of the initiative. Be on the lookout for announcements and updates on Forest Change!

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