Canada’s Adaptation Platform: innovative collaboration to support national and regional adaptation action

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Canada’s Climate is Changing

Canada’s climate is changing, with impacts evident in all regions.

- **Canada has become warmer**
  - 1.5°C between 1950 and 2010
  - Annual number of extreme warm days has increased, while extreme cold days have declined

- **The cryosphere is responding**
  - Dramatic decline in sea ice
  - Less snowfall and snow cover
  - Glaciers are shrinking

- **Canada has become wetter**
  - Much regional variation
Adaptation: Reducing risks

- coastal erosion
- sea level rise
- forests
- flooding
- Energy
- transportation systems

Great Lakes low water levels could cost $19B by 2050

Unclear if water level rebound since 2013 is start of a trend, new report by Mowat Centre says

The Canadian Press - Friday, Jun 26, 2015 11:44 AM ET
Last Updated: Friday, Jun 26, 2015 10:49 PM ET
Adaptation: Seizing opportunities

- Forests - Agriculture
- Tourism
- New shipping routes
- Hydro-potential

**Bloomberg Businessweek Videos**

Arctic Climate Change Creates New Shipping Routes

May 8 (Bloomberg) — The Arctic Circle Co-Founder Alice Rogoff discusses climate change and Arctic shipping routes with Marc Creighton on an Bloomberg Television's "Bottom Line." (Source: Bloomberg)

*Canada*
 Evolution of adaptation programming

Science, Impacts and Adaptation program (1998-2001)

Climate Change Adaptation and Impacts Research Network and Research Program (2001 - 2007)

Regional Adaptation Collaborative and Tools program (2007-2013)

Enhancing Competitiveness in a Changing Climate (2013 – 2016)
Current Canadian policy context:

- Federal role defined in the 2010 *Federal Adaptation Policy Framework* – helping Canadians adapt by:
  1. Generating and sharing knowledge needed for decision-making
  2. Building capacity to help partners use that knowledge to adapt
  3. Integrating adaptation into federal decision-making

- Current program: $148.8 million from 2011 to 2016 across eleven federal departments
  - $35M to Natural Resources Canada (NRCan) Programming: *Enhancing Competitiveness in a Changing Climate*

- Recognize key role of regional organizations and communities in translating adaptation knowledge into action
Why is intergovernmental/interagency cooperation required?

- Climate change impacts cut across geographic and sectoral boundaries - addressing risks requires cooperation across regions, disciplines and organizations.
- Decisions driven by local or industry needs are affected by policies, programs, regulations and legislation from all levels of government.
- Solutions require the involvement of a variety of interests to ensure technical, economic and environmental soundness and sustainability.
- Requires collaborative “investment” of time and resources, but yields dividends over time:
  - efficient use of resources
  - sharing of data, expertise, experience
  - building new understanding and synergies.
The Adaptation Platform: enhancing collaboration

- Mechanism to bring together knowledge, capacity & resources
- Focus on generating specific, decision-useful information and tools that regions and key industries need to understand and adapt to a changing climate
- Expanding the tent
  - + industry, financial sectors
  - + federal departments
- Each participating organization brings its own resources, priorities and mandate

Key role for governments: *convenors*
How does the Adaptation Platform work?

Identifies opportunities for action in priority areas

Adaptation Platform Plenary

Senior-level representatives:
- Provincial/Territorial governments
- federal departments
- professional organizations
- industry associations

Adaptation Platform Working Groups

- Mining
- Energy
- Coastal management
- Forestry
- Economics
- Measuring progress
- Science assessment
- Northern
- Infrastructure
- Water and climate information

Diverse experts and end-users collaborating on new products, approaches and tools to support decision-making
Facilitating Regional Action: Regional Adaptation Collaboratives (RACs)

- 5 regional knowledge hubs created to enable regions to tackle self-identified adaptation priorities

- Dual role:
  - disseminating regional adaptation knowledge
  - Refining information and tools for regional users

- Strong connection between RACs and the Adaptation Platform ensure that pockets of adaptation knowledge and innovative practices are transferred across Canada and reach local users
RAC activities

- Engage key players in regionally significant sectors to:
  - Raise awareness and build capacity
  - Disseminate relevant information and knowledge
  - Advance adaptation through facilitated learning, policy analysis, sharing lessons learned and best practices

- Activities include:
  - Development and maintenance of online knowledge sharing tools (e.g., Climate Change Adaptation Community of Practice)
  - Development and dissemination of regionally tailored products
  - Workshops
  - Participation in events
Assessment activities

Generate clear, concise, evidence-based and decision-relevant information

- *From Impacts to Adaptation: Canada in a Changing Climate* (2008): Canadian benchmark informing program and policy directions in governments and industry

- Current initiatives
  - Benchmark report update with focus on sectors (2014)
  - Coast Assessment
  - Transportation (co-led with Transport Canada)
  - Mining (led by Mining Working Group)
Examples of projects

• Rethinking our waterways: A Guide To Water And Watershed Planning - *Fraser Basin Council*

• Interim Flood Construction Levels: development of interim flood construction levels - *City of Vancouver*

• Insurance Issues in Atlantic Canada - *Institute for Catastrophic Loss*

• Applications of PIEVC: Vulnerability of Coquihalla Highway - *BC Ministry of Transportation*

• Using ADAPTool to Assess What Makes Policies Adaptable under Climate Change – *Adaptive Resource Management*

• Preparing for Climate Change: An Implementation Guide for Local Governments in British Columbia - *BC Ministry of Community, Sport and Cultural Development*

• Delta-RAC Sea Level Rise Adaptation Visioning Studies – *Municipality of Delta*
Examples of projects (2)

- Energy: Assessment of the vulnerability to climate change of Toronto Hydro’s electrical distribution system that represents $2.8B in assets and serves approximately 700,000 customers, including some of Canada’s most significant industrial and commercial electricity users.

- Forestry research integrating climate change impacts to predict timber supply risks and opportunities. It is now possible to produce national maps projecting vulnerable forests, communities. Will soon be able to extend this estimating potential changes in GDP and job losses.
Examples of projects (3)

- Coastal: Mapping future storm surge flooding to inform development limits that enhance climate resilience of the **rail/road trade corridor** linking Nova Scotia and New Brunswick that annually moves $43B worth of trade goods.

- Coastal: **Sea dike guidelines** addressing sea level rise in British Columbia and providing cost estimates to implement the guidelines (approximately $9B protecting $33.5B in assets in Vancouver alone). The City of Vancouver has formally adopted the 1-metre rise guideline.
Dissemination is key

Adaptation Guides

Climate change adaptation guides developed with the support of the Climate Change Impacts and Adaptation Division (CCIAD), Natural Resources Canada. The guides are presented in the language of the author, and do not constitute an endorsement of content or recommendations.

You may also find adaptation reports, case studies, tools and posters of interest.

Adaptation Guidelines: B.C. Sea Dikes and Coastal Flood Hazard Land Use

http://www.adaptation.nrcan.gc.ca

(2011) (PDF, 4.15 MB, 59 pages)

This document provides guidelines for the design of sea dikes to protect low lying lands that are exposed to coastal flood hazards arising from their exposure to the sea, and to expected sea level rise due to climate change. It is written for diking authorities and design professionals. Please also note the
Developing knowledge and tools to reduce risks and maximize opportunities arising from climate change.

Get Started

Find community-related adaptation tools and resources developed through Natural Resources Canada's Regional Adaptation Collaborative and Tools for Adaptation Programs.
Search by Region

Select a Region

Choose a geographic region to narrow down the list of products available. This filter can be skipped or removed later.

British Columbia  
Prairies  
Ontario  
Québec  
Atlantic  
Northern
International cooperation

- Active participation in international fora: UNFCCC, IPCC, OECD, UNISDR (Hyogo), other?
- Looking to increase Canada-US collaboration
  - Federal – federal
  - Region – region
  - Municipal
  - Cross-border issues
- Areas of interest: energy, infrastructure, coastal zone management, flood management
Thank-you

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