



Climate Change and Sustainable Forest Management in Canada

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The Canadian Forest Service (CFS)

- a science-based policy organization -

The Canadian Forest Service mission:

To promote the sustainability of forests and a competitive forest sector to improve the quality of life of Canadians.

- A champion of sustainable development
- A leader in policy, science and innovation
- A world-class centre of knowledge



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Natural Resources Canada
 Ressources naturelles Canada
 Canadian Forest Service
 Service canadien des forêts

FOREST REGIONS of CANADA

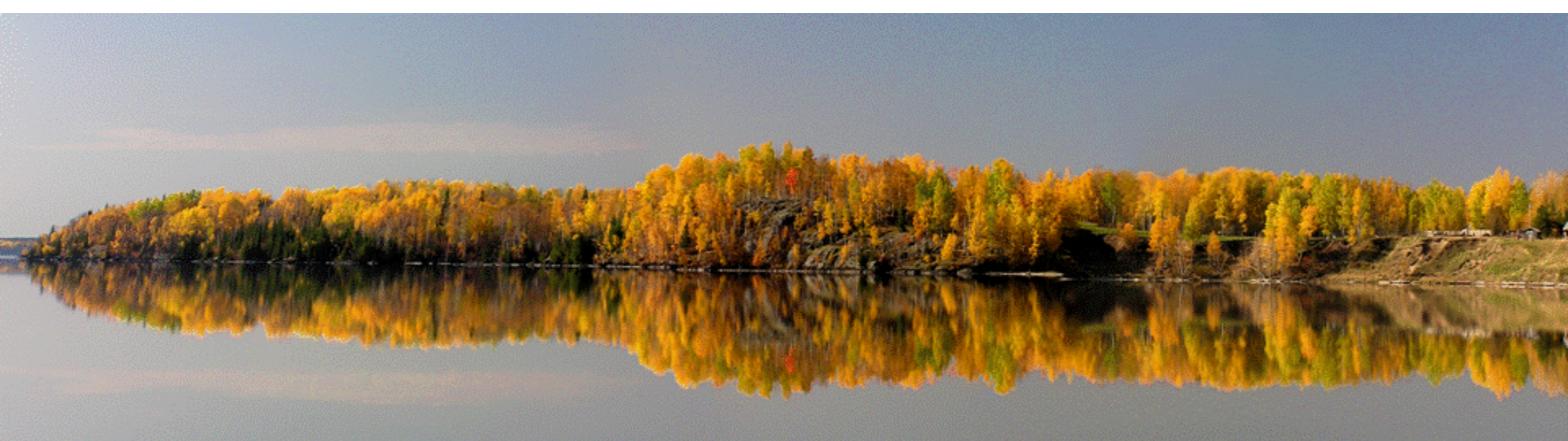


FOREST REGIONS

PRINCIPAL TREE SPECIES

- BOREAL – PREDOMINANTLY FOREST ■ White spruce, black spruce, balsam fir, jack pine, white birch, trembling aspen
- BOREAL – FOREST AND BARREN ■ White spruce, black spruce, tamarack
- BOREAL – FOREST AND GRASS ■ Trembling aspen, willow
- SUBALPINE ■ Engelmann spruce, alpine fir, lodgepole pine
- MONTANE ■ Douglas-fir, lodgepole pine, ponderosa pine, trembling aspen
- COAST ■ Western red cedar, western hemlock, Sitka spruce, Douglas-fir
- COLUMBIAN ■ Western red cedar, western hemlock, Douglas-fir
- DECIDUOUS ■ Beech, maple, black walnut, hickory, oak
- GREAT LAKES – ST. LAWRENCE ■ Red pine, eastern white pine, eastern hemlock, yellow birch, maple, oak
- ACADIAN ■ Red spruce, balsam fir, maple, yellow birch
- GRASSLANDS ■ Trembling aspen, willow, bur oak
- TUNDRA ■





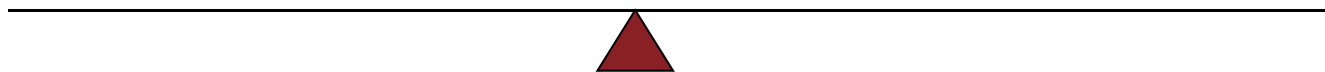
Sustainable Forest Management

Forestry in Canada is about sustainable management of a renewable resource where multiple values and interests are represented to ensure the long-term health and well-being of both Canadians and our forests.

Economy

Society

Environment



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Sustainable Forest Management Criteria and Indicators

- 1. Biological Diversity**
- 2. Ecosystem Condition and Productivity**
- 3. Soil and Water**
- 4. Role in Global Ecological Cycles**
- 5. Economic and Social Benefits**
- 6. Societies Responsibilities**



CFS Climate Change Research

- **studying the influence of Canada's forests on the global carbon balance**
eg. The Carbon Budget Model.
- **assessing the past, present and future impacts of climate change on Canada's forests.**
eg. Climate Envelope Modelling, Climate Scenarios
- **identifying options for using Canada's forests to mitigate climate change.**
eg. Alternative harvesting strategies
- ★ **identifying options for helping Canada's forest sector adapt to climate change**
eg. Practical tools to aid adaptation strategies



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Canadian Council of Forest Ministers (CCFM) Roles and Responsibilities

- Provides a forum for the federal, provincial and territorial departments responsible for forests to work cooperatively to address major areas of common interest.
- Offers leadership on national and international issues and sets direction for the stewardship and sustainable management of Canada's forests through National Forest Strategies and Visions.



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<http://www.ccfm.org>

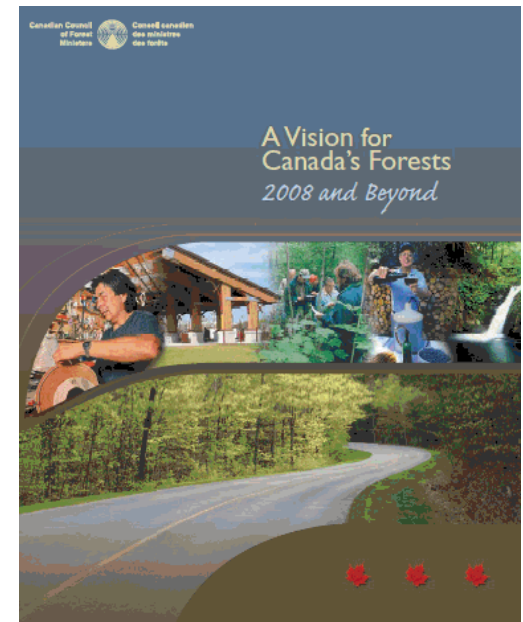
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A Vision for Canada's Forests: 2008 and Beyond

Vision: *Canada will be the best in the world in sustainable forest management and a global leader in forest sector innovation*

The vision focuses on two priorities:

- 1) transforming the forest sector and
- 2) ensuring climate change is considered in all aspects of SFM

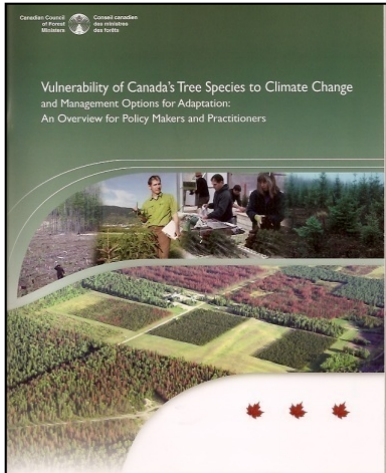


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Phase 1 (2009-10)

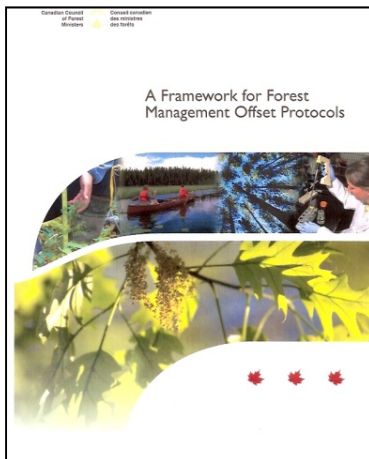


1. Vulnerability of Canada's Tree Species to Climate Change and Management Options for Adaptation

Report provides a systematic national assessment of:

- Tree species vulnerability
- Management options for adaptation
- Key knowledge gaps

Knowledge exchange events (e.g. presentations, workshops, and webinars)



2. A Framework for Forest Management Offset Protocols (Carbon)

Report identifies and analyzes key issues on forest management protocol and options for addressing these issues



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Phase 2: 2010-2012

CC Adaptation and Sustainable Forest Management

“Consideration of climate change and future climate variability is needed in all aspects of sustainable forest management.”

Canadian Council of Forest Ministers (CCFM):
A Vision for Canada's Forests: 2008 and Beyond

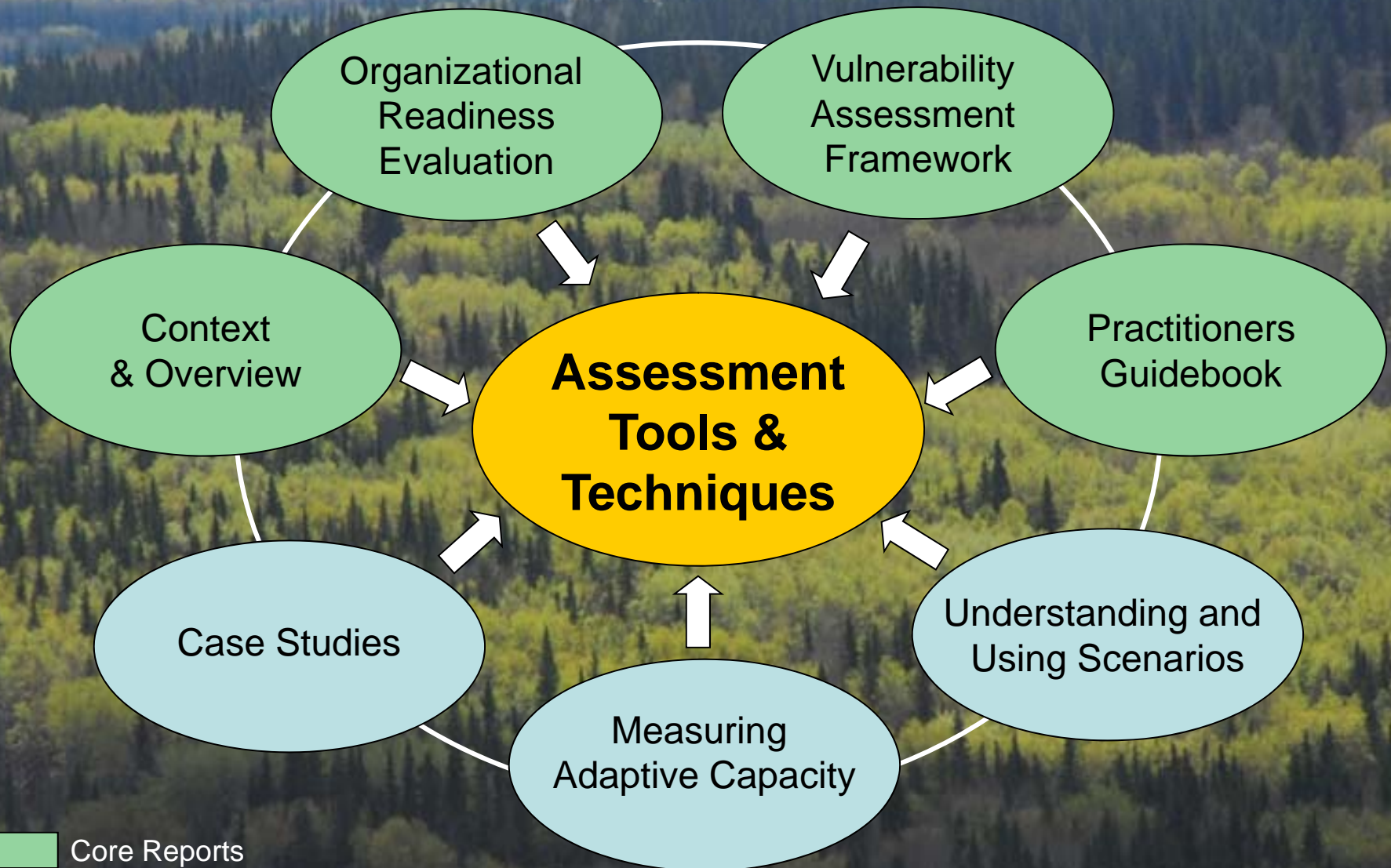
Phase 2: Objectives


1. Develop novel and innovative assessment tools and techniques that forest managers can use to evaluate and manage climate change-related risks and opportunities to the forest sector.
2. Provide knowledge syntheses/discussion papers to help inform jurisdictions and other organizations (e.g., certification bodies, industry associations) in the development of policies and practices.
3. Undertake knowledge exchange activities so that adaptation information, knowledge, and best practices can be shared among policy-makers, researchers, forest managers, and other members of the forest sector.


POLICY RELEVANT NOT POLICY PRESCRIPTIVE

1. Tools and Techniques

(supporting forest managers)



 Core Reports

 Technical Summaries

2. Knowledge Syntheses/Discussion Papers

(supporting policy makers)

Assisted Migration
(State-of-Knowledge/
Debate)

**Indicators
of SFM
under CC**

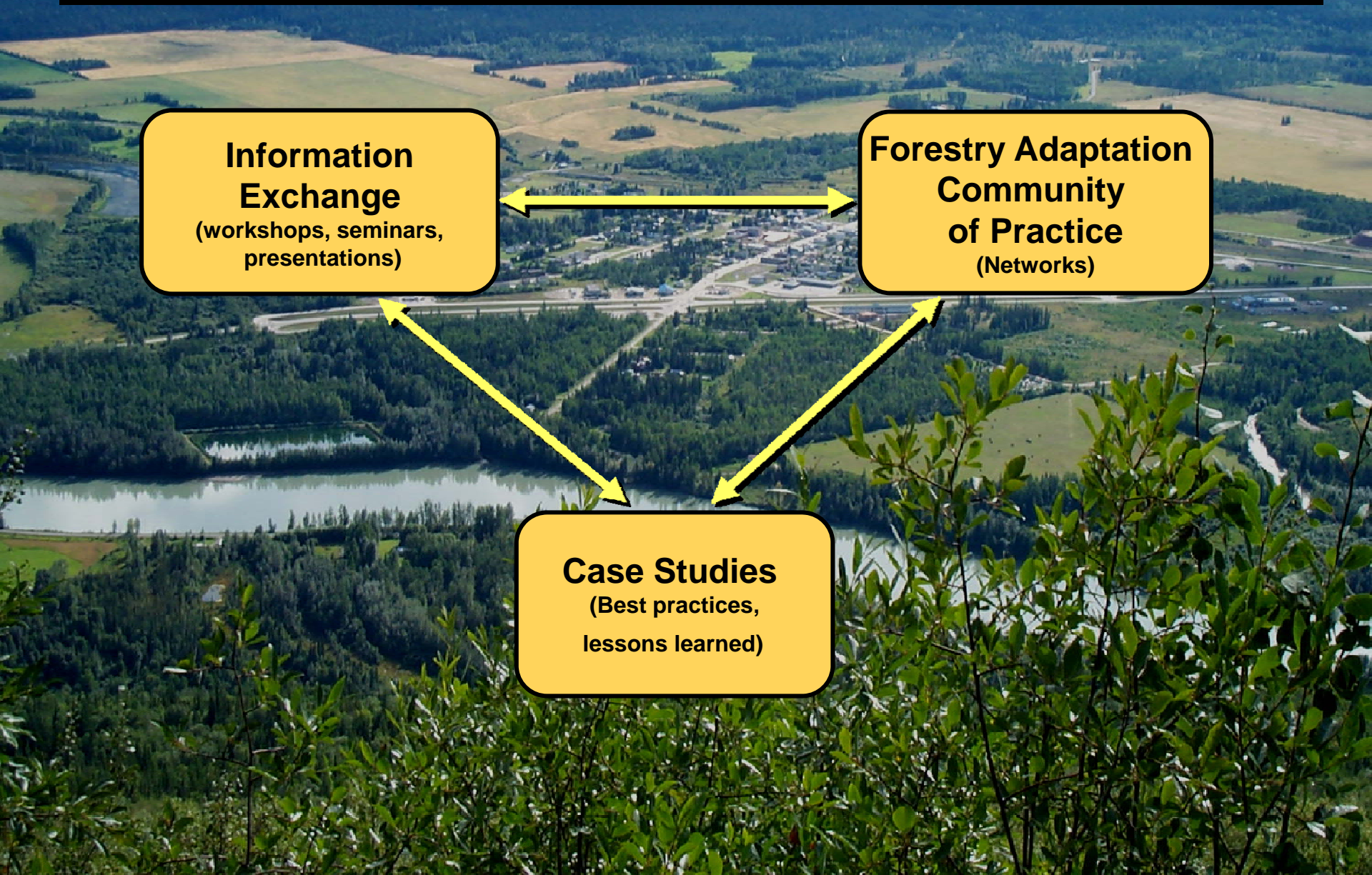
3. Knowledge Exchange

(supporting early adapters)

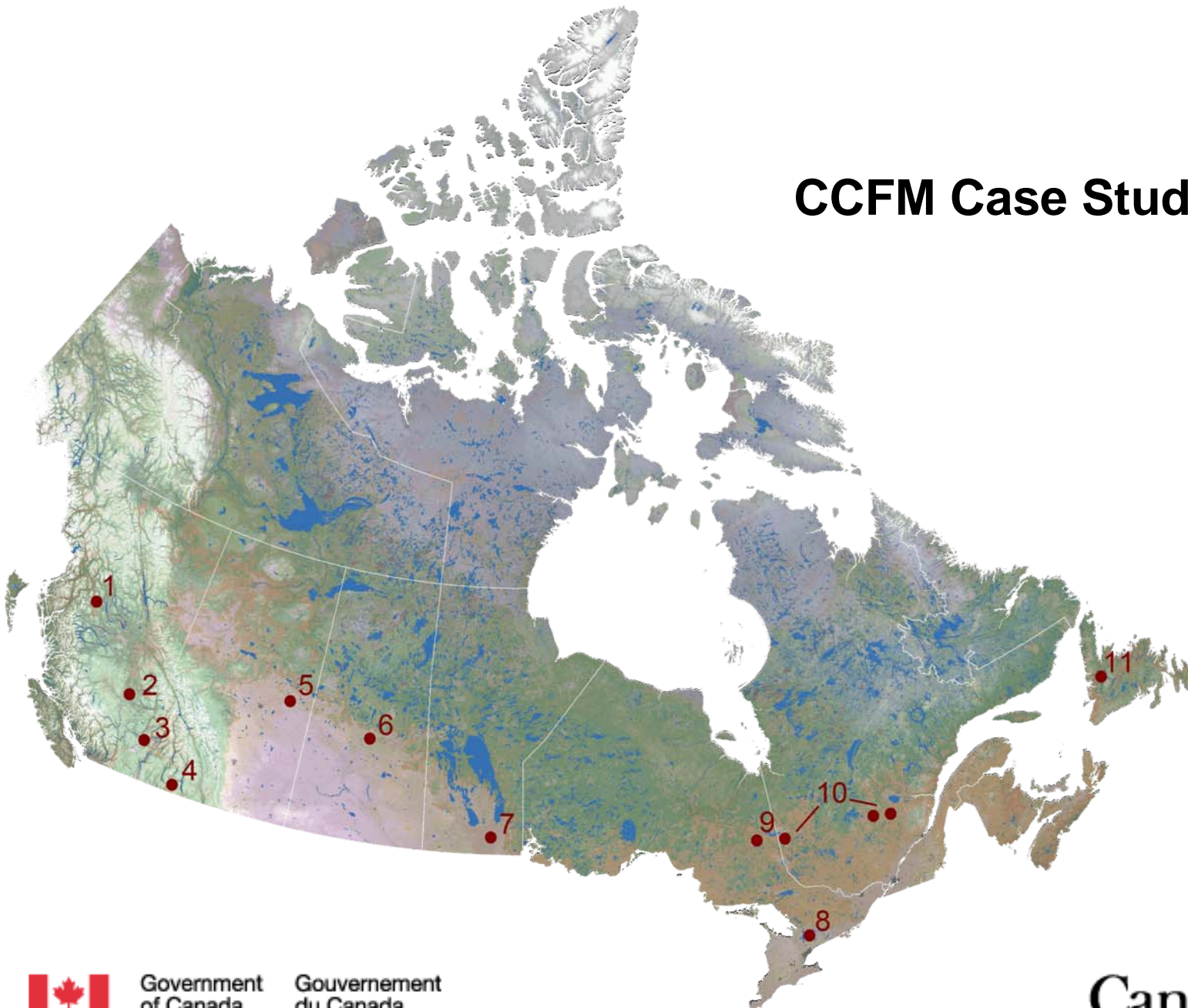
Information Exchange
(workshops, seminars, presentations)

Forestry Adaptation Community of Practice
(Networks)

Case Studies
(Best practices, lessons learned)



CCFM Case Studies



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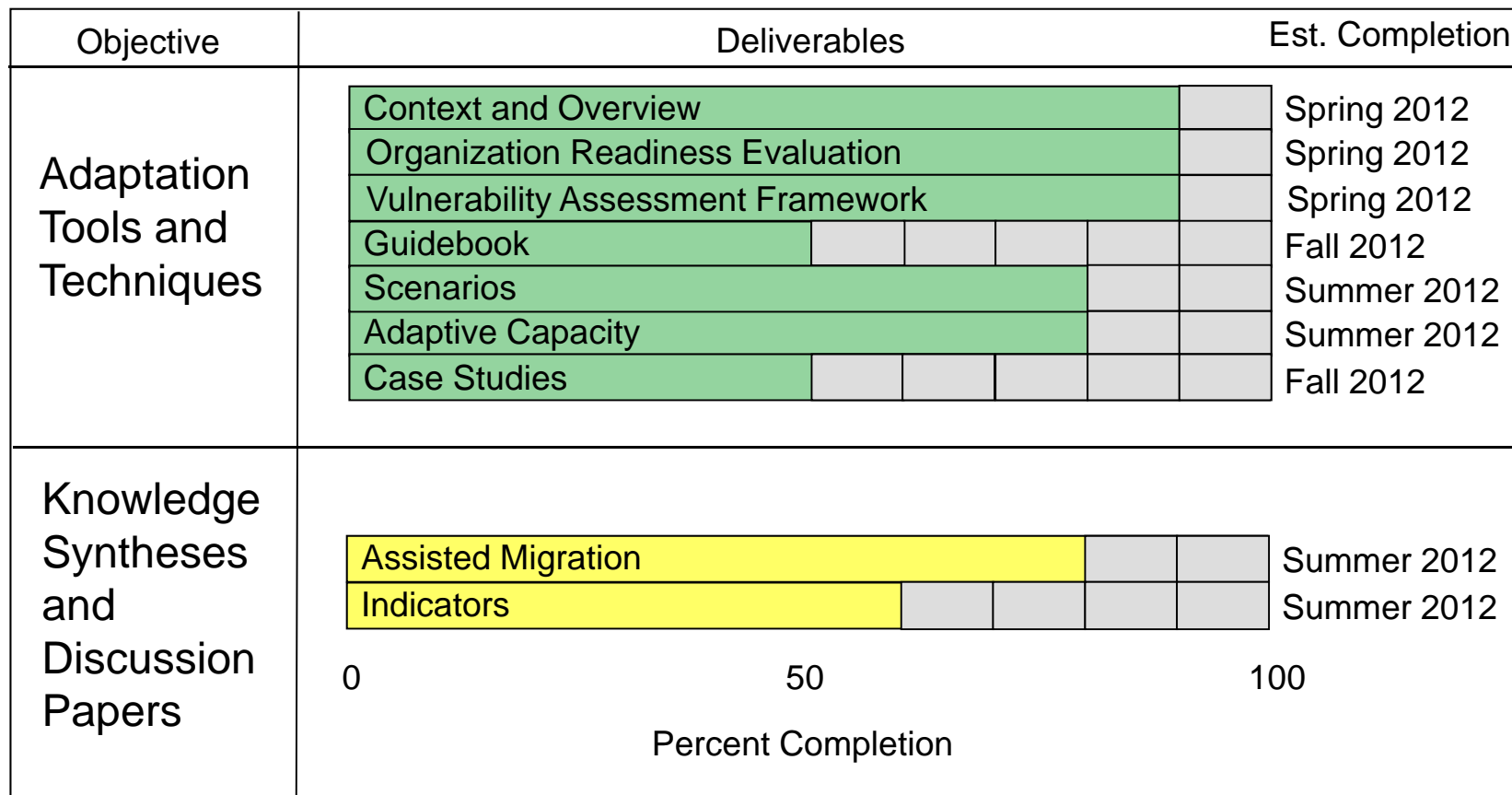
Phase 2 – What has been a key ingredient for success?

Multi-jurisdictional, interdisciplinary “Core” Team



*Technical Analysis Group Members and CCTf Secretariat
Marie-Eve Bonneau, Michel Campagna, Jason Edwards,
Paul Gray, Kendra Isaac, Kelvin Hirsch, Mark Johnston,
Aynsle Ogden, Kumiko Onoda, David Price, Catherine Ste-
Marie, Tim Williamson, Jeff Young*

Phase 2 – When will it be done?



 Technical Reports

 Discussion Papers



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