

A History of Criteria and Indicators Development

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Origin of C&I

The idea of sustainable development gained international attention in 1987 with the release of the Brundtland Report. In 1992, sustainable forest management became an international objective at the Earth Summit in Rio de Janeiro. The resulting Statement of Forest Principles included conventions on biodiversity, climate change, and desertification, as well as a plan of action - Agenda 21.

To implement these conventions, non-European temperate and boreal countries united to develop and apply criteria and indicators for sustainable forest management.

In 1993, Montréal hosted a conference on the Sustainable Development of Boreal and Temperate Forests. Here, criteria and indicators were identified as the best system to help define and measure progress towards forest sustainability. Participants became known as the Montréal Process Working Group.

By 1995, participating nations agreed to a comprehensive set of six criteria and 67 indicators for forest conservation and sustainable management, known as the Santiago Declaration.

International Brundtland Report Earth Summit Boreal/ Temperate Region

Int'l conference on C&I in Montreal

Montreal Process (MP) C&I begin

Santiago Declaration (MP C&I established)

First Approximation Report

MP Year 2000 Progress Report

MP National Reporting

1987

1992

1993

1995

1997

2000

2001

2002

2003

Canada

CCFM begins developing C&I

Modified CCFM C&I established

Assess capacity to report

CCFM reports on indicators

Public focus groups review CCFM C&I

Technical working groups review CCFM C&I

CCFM C&I revised, NAFA withdraws as CCFM signatory

Local Level Indicators

Once CCFM C&I were established, the question remained: what does sustainable forest management look like on the ground? The task of finding answers was assigned to Model Forests.

The Canadian Model Forest Network is made up of eleven Model Forests across the country. Each of these Model Forests uses different methods to define local level indicators. In 1997, the Model Forests began the Local Level Indicator (LLI) Initiative to identify, measure, and use indicators at the local or forest management unit scale. Each Model Forest took a slightly different approach. Some collaborated with provincial governments and many aligned themselves with certification schemes. In 2000, their collective experiences were compiled and synthesized in *A User's Guide to Local Level Indicators of Sustainable Forest Management*.

Local Level Indicators (LLI)

Model Forest LLI Initiative begins

Reporting to national level

Ongoing testing of LLI and extension activities

Determining Critical Local Values

In their C&I development efforts, many Model Forests have focused on biological criteria. Model Forests investigating social aspects often utilized the expertise of forest management professionals and had difficulty engaging and eliciting information from local people. For example, the Criterion 5 (Multiple benefits to society) Task Force of the Fundy Model Forest felt their assessment using census data was incomplete without conducting a household survey.

Though their evaluation efforts, the Canadian Model Forest Network identified key lessons:

- Participants must be meaningfully involved at the outset of the process, and sufficient time and effort must be allocated for effective learning and communication.
- The outcomes of the process must be clearly defined. Indicators can be used for forest management planning, modeling, monitoring, reporting and/or third-party certification.
- The ability to adapt the process to suit a partnership is important. Initially, CCFM C&I were adopted; however, many groups chose to add other indicator sets or to develop their own framework.
- Good indicators are relevant, reliable, responsive, sensitive to change, and predictable. Indicators are not valid unless they are measurable, practical, understandable, and cost-effective. Commitment and capacity to measure, monitor and report the indicator is needed.
- LLI must be refined and prioritized to be practical
- For selecting LLI, consider data availability and compatibility over space, time, and scale.

C&I in Canada

In 1995, the Montreal Process generated a National Level C&I framework. Participating countries were required to further develop the framework within the context of their own nations. In response, the federal, provincial, and territorial ministers responsible for forest management in Canada collectively created the Canadian Council of Forest Ministers (CCFM). This council initiated a C&I Task Force in 1995 to adapt Montreal Process C&I.

CCFM criteria include:

1. Conservation of Biological Diversity;
2. Maintenance and Enhancement of Forest Ecosystem Condition and Productivity;
3. Conservation of Soil and Water Resources;
4. Forest Ecosystem Contributions to Global Ecological Cycles;
5. Multiple Benefits of Forests to Society; and
6. Accepting Society's Responsibility for Sustainable Development.

Each criterion contains several elements. Each element consists of indicators for evaluation of the overarching criteria. Approximately 80% of the CCFM C&I correspond to the MP framework. Canada uses this set to report on the state its forests at the international level. In 2003, the CCFM undertook a review of their C&I to simplify and improve the framework. A set of **public and technical working groups** refined indicators to ensure they were relevant, measurable, understandable, could be forecast, and had reference values.

CCFM C&I are being implemented in a variety of settings across Canada. Quebec and Ontario are adapting CCFM C&I to the provincial scale, and integrating them into legislation. Newfoundland and Labrador and New Brunswick are using C&I in forest management planning processes. Model forests are implementing C&I for case study evaluation purposes. As well, the Canadian Standards Association (CSA) now uses CCFM's framework for their forest management certification program.

The National Aboriginal Forestry Association (NAFA) represents Aboriginal interests on the C&I Steering Committee. This steering committee developed a seventh criterion entitled *Respect and Provision for Aboriginal and Treaty Rights*. When this criterion was removed from the version adopted by the CCFM, NAFA withdrew its support for CCFM C&I.

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