

# Results-Based Forest and Range Practices Regime: Companion Document 6

## Sustainable Forest Practices – Criteria and Indicators

*This document looks at how the results-based code will measure and report on criteria and indicators for sustainable forest management.*

### Introduction

The sustainability of forest practices is a growing international concern. Reporting out effectively on sustainable forest management (SFM) can be important to securing or maintaining market access, and also in improving communication with the many interest groups and individuals that have an interest in forest practices.

The Montreal Process includes Criteria and Indicators (C&I) for conservation and sustainable management of temperate and boreal forests. Virtually all nations with these forest types, including Canada and the United States, were involved in developing the C&I, and have approved the approach.

The Canadian Council of Forest Ministers (CCFM) has developed national C&I that are similar to, or augment, those in the Montreal Process. These are used in national reporting on SFM, and by the Canadian Standards Association in its forest certification system.

Under Canada's National Forest Strategy, several provinces have adopted provincial sets of C&I, and many are preparing to incorporate them into their forest management planning. In addition, some provinces have taken steps to integrate C&I into their forest legislation, while others are considering that possibility.

It is important the B.C.'s results-based code and related legislation (such as Forest Act and Ministry of Forests Act) and information sources

be designed, co-ordinated and implemented so that the province can effectively report on SFM. This will help to:

- promote awareness and delivery of SFM;
- meet national and international commitments to report progress on SFM;
- support industry efforts to seek forest certification;
- communicate to markets and the public efforts toward SFM; and,
- support Defined Forest Area Management by providing a framework of provincial-level indicators that may be used as Local Level Indicators in support of Sustainable Forest Management Plans.

This will require a partnership effort involving:

- the Ministry of Forests given its involvement in developing and maintaining the results-based code,
- the Ministry of Sustainable Resource Management with corporate data warehouse responsibilities,
- the Ministry of Water, Land and Air Protection given its key environmental role,
- the forest industry given a Defined Forest Area Management model;
- First Nations given their knowledge regarding traditional use and cultural heritage values; and,
- other stakeholders, academia and the public where they can provide information.

Without careful linkages and partnerships, it may be difficult to explain how or if the results-based code will contribute to SFM. It is important to note that C&Is can rely on both legal (e.g. the code) and non-legal (e.g. best management practice documents) frameworks for forest stewardship that collectively contribute toward SFM.

The Ministry of Forests Act requires that the province undertake a resource analysis every 10 years with next one due in 2004. More frequent State of the Forests reporting that is linked to internationally accepted C&I may need to be considered.

SFM Criteria and Indicators can be reported out:

- nationally (e.g. CCFM does so as part of Canada's State of the Forests reporting);
- provincially (e.g. WLAP's State of Environment report addresses in part; MOF's intended State of Forests report will address); and
- locally for Defined Forest Areas (as part of Sustainable Forest Management Plan using Local Level Indicators , which may be used also to support forest certification).

To promote further discussion, potential linkages between the results-based code and some example indicators are attached using the following seven SFM criteria in the Montreal Process:

1. conservation of biological diversity;
2. maintenance of productive capacity of forest ecosystems;
3. maintenance of forest ecosystem health and vitality;
4. conservation and maintenance of soil and water resources;
5. maintenance of forest contribution to global carbon cycles;
6. maintenance and enhancement of long-term multiple benefits to meet the needs of societies; and,
7. legal, institutional and economic framework for forest conservation and sustainable management.

Further discussion with resource agencies, forest industry, environmental community, academia, other key stakeholders, the public and First Nations are needed to develop and refine linkages between the proposed code and SFM C&I. For example, what are the specific reporting measurements that best capture the indicator? How and by whom should the data be collected? How frequently should it be reported?

## Potential Linkages between Results-Based Code and C&I

using some example indicators

### Criterion 1: Conservation of biological diversity

Indicator	Code linkages	Possible reporting measurement
Extent of area by forest type relative to total forest area.	Silvicultural result that harvested areas be reforested. Silvicultural result to maintain forest types at landscape level.	Area by forest type (by both subzone/variant and leading species) relative to total forest area and total area.
Fragmentation of forest types.	Harvesting test that allows cut-blocks to contribute towards a diversity of patch sizes.	Area of patch size relative to “target” range by natural disturbance type.
The status of forest species at risk of not maintaining viable breeding populations.	Result that practices will maintain ecosystem attributes necessary for the survival of Identified Wildlife.	Number of wildlife habitat areas.

### Criterion 2: Maintenance of productive capacity of forest ecosystems

Area of forest land and net area of forest land available for timber production.	Riparian Reserve Zones and Wildlife Tree Patches represent “netdowns” to Timber Harvesting Land Base (THLB).	THLB area relative to total forest area by forest type (subzone/variant and leading species).
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### Criterion 3: Maintenance of forest ecosystem health and vitality

Area and percent of forest affected by processes or agents.	Harvest practices must contain or reduce spread of epidemic forest health factors (FHF's).	Area of forest disturbed by insects (e.g. bark beetles).
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### Criterion 4: Conservation and maintenance of soil and water resources

Area and percent of forest land with significant soil erosion.	Rule that soil disturbance cannot exceed certain limits. Result that practices not cause landslides where events cause significant damage.	Area and percent of forest land that has been impacted by landslides, gullies or major erosion.
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### Criterion 5: Maintenance of forest contribution to global carbon cycles

Total forest ecosystem biomass and carbon pool, and if appropriate, by forest type, age class and successional stages.	Requirements to reforest and sustain or enhance forest productivity (i.e. capability of forests to store carbon not diminished).	Total biomass by forest type and age class.
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**Criterion 6: Maintenance and enhancement of long-term multiple benefits to meet the needs of societies**

Indicator	Code linkages	Possible reporting measurement
Area and percent of forest land managed for general recreation and tourism, in relation to the total area of forest land.	<p>Forest practices are to be compatible with strategic land use zones and objectives.</p> <p>Scenic areas are to be managed consistent with visual quality objectives or interim objectives.</p>	<p>Area in scenic areas by visual quality objective class.</p> <p>Area of land in various Recreation Opportunity Spectrum classes.</p>

**Criterion 7: Legal, institutional and economic framework for forest conservation and sustainable management**

Encourages best practices codes for forest management.	<p>Results-based code provides legal code framework.</p> <p>Best management practices (BMPs) provide non-legal advice.</p>	<p>Number and type of evaluations to determine effectiveness of code.</p> <p>Number and type of approved BMPs.</p>
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