

# Technical Workshop on the Refinement of the Montreal Process Criteria 1, 2 and 3 Indicators

April 20 – 21, 2005  
Doubletree Lloyd Center | Portland | Oregon

Sponsored by USDA Forest Service with the Roundtable on Sustainable Forests

## WORKSHOP SUMMARY

In April 2005, the USDA Forest Service, with the assistance of a planning group from the Roundtable on Sustainable Forests (Roundtable), coordinated three technical workshops on the refinement of the indicators in the Montreal Process Criteria & Indicators (C&I) (<http://www.sustainableforests.net/criteria-indicators.php>) to obtain high quality input from a diverse set of forest stakeholders. Members of the planning group are listed in Attachment A. The first workshop, which focused on the indicators in Criteria 4 and 5, took place on April 5 and 6, 2005 in Atlanta, Georgia. The second workshop addressed the indicators in Criteria 6 and 7 and was held in Bloomington, Minnesota on April 13 and 14. The third and final workshop on the indicators in Criteria 1, 2 and 3, took place in Portland, Oregon on April 20 and 21. The order of the workshops, initially designed to address the indicators in Criteria 1 through 7 in sequential order, was modified based on participant availability. All of the PowerPoint presentations made at each workshop and other supporting documentation are available at the Meeting and Workshop Summary portion of the Roundtable's website, <http://www.sustainableforests.net/>.

The objective of the workshops was to provide specific recommendations for improving national level indicators to inform the U.S. position on the refinement of the Montreal Process Indicators. The results of the workshops were then to be reviewed for input by Roundtable participants at their May 2005 Workshop in Denver, Colorado, on the priority of the recommended refinements to be represented by U.S. delegations attending the Montreal Process Technical Advisory Committee (TAC) meeting in October 2005 and the Montreal Process Working Group meeting in February 2006.

Prior to each workshop participants were provided the following key documents, which later served as the basis for the discussion on each set of indicators:

- Excerpts from *Science Biodiversity and Sustainable Forestry*
- Excerpts from the *National Report on Sustainable Forests–2003*
- Excerpts from the *Montreal Process Technical Notes*
- Summary of *Results from the On-line Survey Stakeholder Consultation on Potential Refinements to the Montreal Process Criteria and Indicators*
- *Refining and Improving the Montreal Process Criteria and Indicators: A Summary of Comments and Suggestions.*

At each workshop participants were divided into breakout groups of 5–12 people to discuss a selection of indicators, organized by Criterion or sub-criterion. In each breakout group, experts on the set of indicators provided opening presentations and served as resources on substance during the discussion. Volunteer facilitators from USDA Forest Service regional offices helped participants to clarify their ideas for refining the indicators, aiming for agreement on final recommendations to present to other workshop participants, the Roundtable, and ultimately to inform the U.S. delegation's contribution to international process of improving and revising the Montreal Process Indicators. Participants were directed to focus on developing recommendations for improving and refining indicator and rational language presented in the Montreal Process Technical Notes. They were asked to recommend refinements that would improve the utility of the indicators at national, regional and state scales, while at the same time remaining cognizant of how their suggestions would

be received in future international discussions. The recommendations developed by each breakout group were captured by the facilitator.

This summary presents the highlights of the opening plenary presentations and discussions on the refinement of the indicators in Criteria 1, 2 and 3 held on April 20 and 21, 2005 at the Doubletree Lloyd Center in Portland, Oregon. The opening plenary session included an overview of the Montreal C&I and the refinement process, the state of the science and information on the indicators, and an example of how the indicators were applied at a sub-national scale. The plenary session was followed by smaller group discussions to refine the indicators within each Criterion. All discussions were documented by USDA Forest Service staff attending the Technical Workshop. A participant list and agenda are available at <http://www.sustainableforests.net/summaries.php>.

## **WELCOME AND INTRODUCTIONS**

Lisa Norris, Natural Resources Staff Officer, USDA Forest Service, Mt. Hood National Forest welcomed participants to the workshop and introduced Marvin Brown, Oregon State Forester for opening remarks. Marvin Brown began by describing the importance of the Montreal Process C&I for achieving sustainability across all ownerships and landscapes. He said the C&I are a mechanism to communicate with people of differing views and values, using a common language that can help foster cooperation. He added that the C&I can be a tool for interagency monitoring. They also can be helpful in developing forest certification standards that help the U.S. to compete in the global market—especially with foreign countries that are not managing their forests sustainably. The C&I raise the bar globally to improve management on the ground.

## **OVERVIEW OF THE INDICATOR REVISION PROCESS AND THE ROLE OF THE REFINEMENT WORKSHOPS**

As the USDA Forest Service official responsible for coordinating stakeholder input for revising the Montreal Process indicators, Robert Hendricks provided the participants with an overview of the indicator revision process and the role of the workshops in advancing it. He noted that indicators for measuring the sustainable management of forests hold the promise of placing forest management issues into a framework that private and governmental economic leaders and the public will understand. As used in forest management, indicators provide a clue to something that might otherwise be undetectable. They quantify and simplify information, but also provide a communication tool whose meaning must be clear and compelling to a wide variety of readers.

Hendricks said that indicator lists, and especially single indicators, are not intended to provide a full picture of all relevant biological, social and economic trends. The indicators are intended to be used as a set, which will draw attention to phenomena or changes that may require further analyses and possible action. It is not feasible to have an indicator for every variable known to influence forest management. However, indicators will evolve as our knowledge about sustainable forests, access to and understanding of data improves.

Although many investments have been made based on the existing set of indicators, Hendricks said that everyone agrees they can be improved. He therefore directed participants to focus on what they viewed as the most important indicators for the U.S. to refine, drop, or add. He suggested that the participants look at the indicators as sets within each criterion or sub-criterion and then consider whether they are adequate and have the correct emphasis.

As a guideline, Hendricks suggested that “good” national indicators:

- Are relevant to key issues, policies, goals, or societal values.
- Provide a neutral description of what is—not what might be considered good or bad.
- Are easy to understand and meaningful to a variety of audiences.
- Are drawn from reliable data sources and founded in technical and scientific theory.
- Can be linked to economic models, forecasting, and information systems.

- Rely on data that are available from existing sources or possible to collect and are representative of environmental conditions, pressures on the environment, or society's responses.
- Have meaning at a national, state, or regional level; are national in scope and applicable to regional social, economic, and environmental issues.

Hendricks also suggested that participants consider the following criteria for evaluating indicators:

- Scientific: Extent to which the indicator is supported by science.
- Relevant/Meaningful: The degree to which the indicator responds to the stressor of concern; e.g., timber harvesting as opposed to air pollution.
- Practical: The feasibility, including cost, time, and skill required, of measuring the indicator.
- Usable: Ability of decision makers to make decisions with the indicators.

## **THE LATEST SCIENCE ON THE INDICATORS: THE STATE OF THE FIELD**

### ***Criterion 1—Conservation of Biological Diversity***

Curt Flather, USDA Forest Service, Research Wildlife Biologist, reviewed the state of science for Criterion 1—*Conservation of biological diversity*. He reviewed the Criterion, its relationships with other C&I, lessons learned from producing the *National Report on Sustainable Forests—2003*, and what he saw as potential indicator refinements. Flather explained that the Criterion is concerned with diversity within species, between species, and in entire ecosystems. The *2003 National Report* showed that compiling data is easy, but interpreting the data is hard. Challenges included integrating information across indicators; fully describing the important aspects of each indicator; addressing data gaps; and building consensus on the results.

Flather said indicator refinement will involve evaluating the indicators against the experience gained from the *2003 National Report* and against a set of criteria to judge their relevance to sustainability. He felt the goal of these discussions would be to refine and understand the indicator definitions and words.

### ***Criterion 2— Maintenance of productive capacity of forest ecosystems***

Brad Smith, Associate National Program Manager for Forest Inventory and Analysis (FIA), described the status of reporting on indicators under Criterion 2—*Maintenance of productive capacity of forest ecosystems*. FIA is the keystone of Criterion 2, but FIA data is insufficient for these indicators with the exception of Indicator 14—*Annual removal of non-timber forest products (e.g., fur bearers, berries, mushrooms, game), compared to the level determined to be sustainable*. Based on what was learned from producing the *2003 National Report*, we are removing 65% of what we grow and consuming more primary forest products than we produce.

Smith observed that there remain many unanswered questions, some of which are:

- Even when we are able to determine trends from the data, what will they mean?
- Is an indicator best measured in 'absolute' or 'relative' terms?
- How is tree biodiversity best measured, by volume or number of trees?
- Does land ownership matter? Land ownership, which affects sustainability, is the "hidden" indicator.

### ***Criterion 3— Maintenance of forest ecosystem health and vitality***

Ken Stolte, Research Ecologist for the Forest Health Monitoring Program, said the Criterion 3 indicators deal with energy flow in forest ecosystems and how stressors affect ecosystem functioning. Based on the experience in producing the *2003 National Report*, we have discovered that most of the available data covered about 60% of the U.S. The *2003 National Report* also revealed an inadequate understanding of the quantitative relationships between indicators and underlying fundamental ecological processes; a growing need to be able to

“scale up” from sites where processes are understood to larger landscape scales or ecological units; and inadequate information in some areas to make temporal projections.

## **OREGON’S USE OF THE MONTREAL PROCESS CRITERIA & INDICATORS**

David Morman, Forest Resource Planning Director for the Oregon Department of Forestry, described his state’s experience in bringing the C&I to state level, providing a foundation for common ground and framework for discussion.

The *2003 Forestry Program for Oregon* is the Oregon Board of Forestry’s strategic plan, setting forth a vision for the state’s forests that uses the concept of sustainable development and the C&I as framework. The Program modified some terminology to reflect Oregon’s experience, equating criteria with strategies, suggesting core indicators, and developing a list of indicators to measure.

Morman said the state’s indicators that are related to water quality are weak and will be strengthened. Temporal perspectives are important, and are emerging over time. He said a major obstacle is having federal agencies cooperate with this state effort by agreeing to the same indicators and monitoring them. The state is questioning the meaning of protection, asking if active management also can allow for the protection of a forest area, and if whether a forest in a wilderness area is actually protected if it is not protected from wildfires.

According to Morman, the C&I discussion needs to move to the regional and state levels, where it tells different stories. States need to make value-driven decisions about what to measure first and what they want to accomplish.

## **INDICATOR REFINEMENTS**

At the Portland workshop, participants were divided into three smaller groups to discuss the following sets of indicators:

- Criterion 1 - Indicators 1 – 9.
- Criterion 2 - Indicators 10 - 14.
- Criterion 3 – Indicators 15 – 17.

Participants and the facilitator and note taker for each group are listed in Attachment B.

The refinements developed by each group are available in tabulated form at <http://www.sustainableforests.net/summaries.php>. Each table includes the original language from the Montreal Process TAC notes; the proposed refined language from the workshop; and the explanation for the change.

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