



# Roundtable on Sustainable Forests

*A Partnership for the Future*

## **ROUNDTABLE ON SUSTAINABLE FORESTS NATIONAL WORKSHOP**

**Denver, Colorado | May 11–13, 2005**

### **WORKSHOP SUMMARY**

The Roundtable on Sustainable Forests met on May 11–13, 2005, in Denver, Colorado, to discuss proposed changes to the Montreal Process Criteria & Indicators (C&I); activities related to sustainable forests; and ideas for future Roundtable activities. The meeting agenda, participant list, and presentations are available in the Meeting and Workshop Summary section of the Roundtable's Web site, [www.sustainableforests.net/summaries.php](http://www.sustainableforests.net/summaries.php).

#### **REPORT FROM THE NATIONAL ASSOCIATION OF STATE FORESTERS SUSTAINABLE FORESTRY IMPLEMENTATION COMMITTEE (SFIC)**

Members of the National Association of State Foresters (NASF) Sustainable Forestry Implementation Committee (SFIC) reported on their recent activities. NASF sustainable forestry representative Michael Buck explained that NASF participates in the international dialogue on sustainable forest management (SFM) as part of the U.S. government delegation. He said they are interested in how to make SFM real to people on the ground, and noted that progress has been made through numerous state and regional initiatives.

SFIC Committee Chair Austin Short of the Delaware Forest Service explained that SFIC is one of many NASF committees. He said many states are doing work related to the C&I in their everyday activities. In the next month, NASF will roll out its *Principles and Guidelines for a Well-Managed Forest*, accompanied by a landowner handbook that landowners can put in their pockets and use in the field.

#### **REPORTS FROM STATE FORESTERS**

Mr. Short provided a report on Delaware and the Northeastern Area, encompassing twenty states and Washington, DC They have identified eighteen core indicators out of the sixty-seven Montreal Process indicators, including at least one from each of the seven criteria. They are trying to provide a broad brush picture of what the region's forests look like. Mr. Short said Delaware is going to use those eighteen indicators to develop a statewide forest assessment.

Reporting on behalf of James DiMaio of the Massachusetts Division of State Parks and Recreation, Mr. Short said Massachusetts is developing a commonwealth forest reserve system, which will encompass twenty percent of state lands, for late serial stages. The division has state funding to pay for landowner stewardship plans, with a goal of having new plans for 45,000 acres over three years. They are developing eco-resource management plans to get all state properties Forest Stewardship Council (FSC) certification by the end of the year.

Bernie Hubbard of the Forest, Mineral and Fire Management Division of the Michigan Department of Natural Resources reported on developments in the Midwest and his state. He said Michigan is getting 3.9 million acres certified. Governor Jennifer Granholm has signed a law that requires the state forests to be

dual certified under both the Sustainable Forests Initiative (SFI) and FSC, which will be completed by the end of this calendar year.

Mr. Hubbard said the effort involves the whole department, taking up twenty-five percent of staff time. He expects that it will require ten percent of their time to remain certified. “Eco-teams” are developing C&I for their eco-regions, starting with the Montreal Process C&I and modifying them for local use. Finally, Minnesota, and Wisconsin (along with Maine) are working on creating a master logger certification. Michigan also is working on tree farm certification, with 50,000 acres certified so far and a goal of completing 200,000 acres by end of year.

Pat McElroy of the Washington State Department of Natural Resources (DNR) reported on the effort to promote sustainability across the agency. He said that within the DNR, the forestry sector is the most mature in terms of understanding the pathway to sustainability, and is working to lessen the physical, fiscal, energy, and environmental footprints of its operations. A new initiative is helping to unify his agency’s various missions and functions more broadly.

In his report, Bill Crapser of the Wyoming State Forestry Division noted that his state is working a great deal with the federal government on forestry plan revisions to bring the high-level USDA Forest Service ethic of sustainability down to management unit. He added that the state never had a management plan on state trust land but is working on one right now and trying to embed some C&I in it.

Ray Sowers of the South Dakota Resource Conservation & Forestry Department said his agency is a service agency with no lands to manage, but it provides management assistance to some agencies that do own land. Mr. Sowers added that in the Custer state park—the state’s largest—his department does forestry, recreation, and raises buffalo. The buffalo produced the most cash until the market bottomed, and since most timber has been destroyed in fire the state is looking at recreation for revenue. He said the forests are recovering and they probably will have no problems being certified.

According to Mr. Sowers, the department’s main emphasis has been on working with federal lands and their policies. The state officials sit right at the table with managers of the national forests when they develop their management plans. The state also has a best management practices (BMP) process for silviculture, and just finished the second revision. The state monitors activities on federal, state, and private forestland. The voluntary BMP is working well for the state, and so there is little pressure to go further. They also have a logger education program, initiated by industry, for which they staff much of the instruction.

Jim Sledge of the Mississippi Forestry Commission reported on activities in the Southern region and his state. He said the USDA Forest Service and Southern Group of State Foresters spent about two years conducting a Southern regional forest assessment. It was not intended to be a condemnation or a game plan, but rather an assessment of where they are. Mr. Sledge said 18 months ago the region arrived at a protocol for BMPs that is consistent across all 13 southern states. The BMP assessments and monitoring will be consistent, which is important to understanding conditions across the region.

Mr. Sledge said in Mississippi the biggest controversy is in the Tennessee River Valley. The Tennessee Valley Authority (TVA) had done a lot of work attracting chip plants, making chips, and shipping them on barges in the name of economic development. This generated a firestorm over what is happening to our forests in northeastern Mississippi. Some people said the forests were rapidly disappearing, while others said the impact was not a big deal. The state used remote sensing to see what was going on, typing the forests in thirteen northeastern counties. They discovered that the state was not losing any forest land; in fact, less than one percent (i.e., 0.2 percent) of the clear cut area went to another use and most remained

in forest. They also found that the percent of pine type did not increase, contrary to some claims that hardwoods were being replaced with pine plantations.

Mr. Sledge said since that assessment the state has focused on mapping the whole state and tracking changes, in a way that differs from the Forest Inventory and Analysis—which shows that changes are taking place but not what they are and where they occur. The state tracking system identifies the condition classes and also determines what is happening and where it occurs.

Highlights of the discussion following the committee reports included the following.

- Several states are looking at subsets of the C&I or developing their own. A criticism of *2003 National Report* was that it didn't "drill down" enough. A participant said that's good, and asked if NASF is thinking of developing C&I across all states. Mr. Short said he was not sure we can say all states will want the same set of core indicators, but we can stay after the USDA Forest Service to support and use C&I. Mr. McElroy said there has been discussion of a process for western Oregon, Washington, northwestern California, and southern British Columbia, seeking an ecologically meaningful way to look at sustainability. Mr. Short added that the Northeastern Area is the most advanced on a regional basis; most data is out there, but we are not getting new data.
- NASF has a new policy around water and watersheds and Maryland's report is based on watersheds. Are other states reporting on a watershed basis? Mr. McElroy said no, and Mr. Buck said the policy presents a good opportunity for future work. Mr. Crapser said in the intermountain West a big concern is that the forest impact on water is a federal issue.
- When asked if the state foresters who are implementing C&I use the Forest Inventory and Analysis (FIA) as a tool, and to what degree it is meeting their needs, Mr. Short said FIA provides some information and is moving in that direction, but it does not provide the entire answer. Mr. Buck said federal inventory programs need to be coordinated and under a single umbrella.
- A participant from the West said his state has no forest industry to speak of since the state does not make money from forests, everything is a cost. At least one-third of the state is forested, but troubled by fire risk and excessive density—two to three million acres need to be thinned. State agencies are suffering from budget cuts and are therefore reacting, because they lack the resources to be proactive.

#### **REPORT ON THE SUSTAINABLE FORESTRY PARTNERSHIP EXPANSION CONFERENCE**

Roundtable Co-Chair Richard Brinker provided background information on the Sustainable Forestry Partnership (SFP) and turned the session over to Co-Chair James Finley. Dr. Finley said the conference focused on how to engage more universities. Participants from fourteen academic institutions agreed that research and education help to define a scope of work and that it is also necessary to look at both ecological and human communities..

Dr. Finley said the participants defined themselves as a set of partners, and affiliates want to help form a process and contribute to some discussions. They feel that they have some responsibility to do some work just because it needs to be done. The question is how to bring faculty together to share ideas and teach innovative classes without having to charge tuition to do it.

SFP has drafted a document that puts forward an initial proposal for how its partners are going to work together. It will be made available for review. The by-laws and MOUs, and guiding principles aim to discourage people from coming to the partnership for visibility and a name; they want folks who will contribute.

When asked if the SFP is thinking about international dimensions and adding those to its curricula, Mr. Finley replied that they are thinking about that, but want to demonstrate achievements at home before getting involved in international exchanges. That said, the curriculum does cover many international issues.

#### **PROGRESS REPORT ON THE MULTIPLE PERSPECTIVES PROJECT**

Jay West of the Meridian Institute described the purposes of the multiple perspectives project:

- Identify key findings that flow from the data in the *2003 National Report*;
- Propose potential refinements to the Montreal Process C&I;
- Identify data gaps that impede understanding of the C&I; and
- Learn about the theories, concepts, and experiences that stakeholders with various perspectives use as a basis for their understanding of the C&I

Mr. West anticipated a multiple perspectives workshop in November, with the publication process expected to begin later that month.

#### **PROGRESS REPORT ON THE KEY NATIONAL INDICATORS, CEQ, AND INTEGRATION AND SYNTHESIS GROUP'S (ISG) EFFORTS**

Ted Heintz of the White House Council on Environmental Quality (CEQ) and Dave Radloff of the USDA Forest Service described federal interagency efforts to develop a national system of indicators for natural and environmental resources. A common catalog will draw on the C&I from the roundtables, U.S. Environmental Protection Agency, and Heinz Center, filling gaps from other sources. Ultimately, the indicators from separate projects will be combined in a comprehensive and integrated national system, using common frameworks to group together similar indicators from different projects. The frameworks group indicators into environmental subsystems and human subsystems and analyze the interactions between the two.

The discussion following Mr. Heintz' and Mr. Radloff's presentations include the following points.

- When asked how this work fits into the President's management agenda and how it would roll into performance criteria and reporting elements for federal agencies. Mr. Heintz said that if the system were up and operating now, it could be used for more consistent strategic planning and program evaluation by federal agencies.
- When asked if the ISG would be interested in a formal modeling methodology in which data could be entered to evaluate a conceptual framework, Mr. Heintz said yes, eventually, but he was not sure we have the data needed to do that. Another participant asked why most of the arrows in the presenters' diagram were leading from the environment to humans. Mr. Heintz replied that they represent the movement of ecosystem goods and services, and the size of the arrows did not mean anything.

#### **STATUS OF THE BUREAU OF LAND MANAGEMENT'S MONITORING AND ASSESSMENT STRATEGY**

Kenny McDaniel and Kit Muller of the U.S. Department of Interior Bureau of Land Management (BLM) described BLM's process to build a national monitoring strategy, how indicators fit in the process, and where there are potential linkages with the Montreal Process C&I.

Mr. Muller said BLM is participating in the forestry, range, minerals, and water roundtables, and also is involved in helping DOI determine how this work relates to performance management. He said we spend \$100 million to \$175 million a year collecting information about resource conditions on public lands—most of it driven by local use authorizations and land use plans. Given the timing and location, the resulting information cannot be integrated to say anything about conditions at a regional or national scale.

Mr. Muller noted four projects:

- Survey of resource data collection in field offices, plus site visits to determine how, what, quality assurance/quality control, storage, etc.
- Determining what kind of monitoring is being done or could be done in the Owyhee uplands of Idaho, Oregon, and Nevada, to focus on the condition and trends with regard to sagebrush ecosystems, with hopes of extending to the rest of the great basin over time.
- Synthesis of commitments made to monitor field development in the energy basins in the lower forty-eight states, and determining whether BLM should use some prototype monitoring programs on air, water, disturbance, and fragmentation.
- Summary of national reporting requirements with regard to condition, describing what BLM is doing to address and identify deficiencies. This project will look at alternate means, such as a minimal set of indicators for reporting on a sample of sites.

Mr. Muller said as BLM shares the project results in the next fiscal year, it will help the bureau think through what types of information might—or cannot be expected to—“roll up or down.” He said they do not intend to do this on their own, but instead draw on the Heinz Center and the roundtables as much as they can.

Highlights of the discussion that followed included the following.

- The philosophy of rolling up to the top brings up the scale issue; rolling up does not necessarily lead to outcomes when all of that local data comes up. When asked how the bureau would get the data that might not be at the bottom, Mr. Muller said they are not assuming they will be rolling up, and probably would not rely on local offices to do this. If they needed to do a national assessment, they probably would need to do it separately from the local offices’ efforts and then see if the results matched up.
- There is a question about addressing all lands versus the lands BLM manages. Mr. Muller said BLM will exclude Alaska and Eastern lands, trying to focus on areas where it has significant ownership. They will build on the sample built for NRI and FIA so that they contribute to the overall comprehensive look.

When asked about BLM’s partners—such as the roundtables, states, or other federal agencies—Mr. Muller said the type of coordination will depend on the question being addressed. In response to a question about the fourth project, Mr. Muller said that BLM will develop a preliminary set of indicators and talk about it with potential collaborators.

## **REPORT ON THE PROPOSALS FOR ACTION**

Al Sample of the Pinchot Institute described the outcomes of the April workshop on proposals for action. He explained that in 1997, the United Nations Intergovernmental Panel on Forests (IPF) issued 150 proposals for action to promote progress toward sustainable forest management. Two years later, the U.N. Intergovernmental Forum on Forests (IFF) issued 120 additional proposals for action to promote policy

dialogue on unresolved issues. From 2000 to 2005, the U.N Forum on Forests (UNFF) has been overseeing implementation of the proposals.

The U.S. country report to the UNFF provided responses to proposals for action from federal, state, and tribal governments; private forest landowners; the forestry industry; and conservation nongovernmental organizations. Key concerns were the loss of forest cover and shifts in forest land use; conservation of biological diversity; alien invasive species displacing native species; large-scale insect and disease outbreaks; catastrophic wildfire; displacement of natural forests by forest plantations; and climate change effects on forest ecosystems.

Mr. Sample discussed numerous policy change and implementation tools, and said an ongoing national dialogue on SFM is needed that broadens the range and diversity of stakeholders with an opportunity to participate; facilitates coordination among institutions on policy development and information system improvements; and is action oriented to address unsatisfactory forest conditions and trends in advance of the next national report. He posed the question: is the Roundtable capable of, and suitable for, promoting improvements in SFM in addition to assessing it?

Mr. Sample said the country reports facilitate each country's own internal assessments of forest conditions and trends as a basis for evaluation and potential further actions to promote SFM. They indicate what people find acceptable or unacceptable, and which conditions are of the highest priority.

The discussion following Mr. Sample's presentation raised the following points.

- We have to develop a strategic plan, and need to base that on the implications of the assessment. The dialogue in agencies is another component—beyond the public dialogue—to determining what the implications of assessments might be.
- Because of new accountability standards for the Forest Service, the Resource Planning Act will be rolled into the agency's strategic objectives. Action now is couched as a strategic plan, and as Kit Muller said, there is a new type of accountability.
- A participant said that he never wants to see technicians drifting off into policy conversations, and reminded people that in a federal system, policies not delegated to federal government are reserved by the states. There is no national forest policy in the United States; the states make policy in the forest arena.
- Most U.S. forest companies now are investing in Latin America and Asia. When asked for his take on the international component, Mr. Sample replied that we need to look at the implications of investment patterns: what factors are attracting investments out of the United States to other areas? He said we need to understand those factors. A participant noted that globalization is and will continue to be a major emerging issue.
- The Pinchot report asked what is the proper institutional framework for dealing with the SFM issue. We do not question our institutional actions and capacity very often, and the international process was designed to help us do that. Then the question is: Is the Roundtable the right institution to handle some question? Mr. Sample said forest policy for the next ten years will be largely related to energy—such as renewable energy and public utilities.

## **REPORT ON ROUNDTABLE EFFORTS TO INFORM THE U.S. POSITION ON THE REFINEMENT OF THE MONTREAL PROCESS C&I**

### *Online Consultation*

Jay West of Meridian Institute then described the online consultation on C&I refinement that took place from January 20 through February 28, 2005. The consultation was based on twenty-two questions pertaining to the criteria generally and each of the individual criteria and sub-criteria. Invitations were sent to about 2,400 persons, of whom ninety-five responded, representing federal agencies (twenty-three percent), colleges and universities (twenty-two percent), state agencies (eighteen percent), nonprofit environmental or conservation groups (eight percent), and other or unspecified sectors (eight percent).

The feedback highlights included the following comments:

- Criterion 1, Forest Biodiversity: The language should emphasize native biodiversity; the human element is missing; genetic diversity is expensive to measure and difficult to understand; and “forest type” and “forest-dependent species” are vague and broad terms that need to be defined more precisely.
- Criterion 2, Forest Productivity: The criterion is too focused on timber production; and the term “determined to be sustainable” should clarify how and by whom, and by which benchmark.
- Criterion 3, Forest Health: The indicators are too vague (or detailed) to be meaningful; and an explicit explanation of “range of historic variation” is needed.
- Criterion 4, Soil and Water: The indicators require a baseline to be meaningful; and methods for measuring these indicators and interpreting the data need improvement.
- Criterion 5, Global Carbon Cycles: This topic is important and requires that we be better equipped to report on these indicators; and many technical issues related to carbon accounting need to be addressed.
- Criterion 6, Socioeconomic Benefits: The indicators are too vague; the indicators are too narrowly economic and quantitative to capture many benefits; methods used for measuring recreation are outdated; and more emphasis is needed on social, cultural, and spiritual values; non-timber forest products; and indigenous peoples.
- Criterion 7, Legal and Institutional Framework: More information on actual public participation is needed; something is needed to speak to stewardship incentives and the existence of a forest ethic; there is a question about the ability to evaluate these indicators, through assessment protocols, in a way that is meaningful over time; market forces are critical when discussing issues such as investment and management plans; and qualitative methods could help flesh out these indicators.

### *C&I Refinement Technical Workshops*

Rob Hendricks of USDA Forest Service provided an overview of the Montreal Process, describing its origins at the 1992 World Summit in Rio de Janeiro and the collaboration among twelve countries to develop national measures for reporting on SFM. Mr. West noted the Montreal Process accomplishments to date, including the completed reports of all twelve countries and use of the indicators by more than twenty U.S. states. Mr. West said now we are trying to enhance the clarity and usefulness of the indicators; renew and grow the constituency for using the Montreal Process C&I; and renew the leadership commitment to using the C&I as a framework to align forest-sector inventory, data management, assessment, and program work.

Mr. Hendricks said all participants agree that the Montreal Process indicators can be improved. However, because organizations and countries are sensitive about changes, the United States may be able to win support for only a limited number of suggestions. For that reason, the Roundtable needs to identify the most important changes. The C&I technical refinements workshop continued that process. Mr. Hendricks gave an overview of the workshop results, reviewing the modified language for each indicator and summarizing the broad issues.

In the discussion following the presentations by Mr. West and Mr. Hendricks, participants made the following points.

- In his Multiple Perspectives paper, Tom Bancroft asks if the four threats identified by the USDA Forest Service chief (fire and fuels, invasive species, loss of open space, and unmanaged recreation) were addressed in the indicators. When asked if they need more refinement, Mr. Hendricks said each country can figure out how to measure a major issue, such as fragmentation. For fire, he said an indicator refers to “unusual process,” and there is a lot of room to address the fire issue in forest health indicators. He said he assumes that recreation occurs to such an extent that it would show up in national statistics, but he suggested that recreation is a local issue. If it is showing change in the national statistics, then it is there. For invasive species, he said there is an indicator specifically pointing at that issue.
- Under Criterion 6, there seemed to be many changes from quantitative to qualitative values. Was the challenge of measuring was discussed and how that would be addressed? A participant who was at that workshop suggested that there are good clues in the binder documents about the rationale and suggestions on measurement.
- The indicators under Criterion 7 are always problematic; was any thought given to a formal process to be able to measure them? Mr. Hendricks replied said some people have suggested that Criterion 7 is not a credible criterion, but others see it as the most important. Institutions are needed to make sure there is follow through on all of the other issues. The United States has proposed to the Europeans that we have a workshop to talk about these things, and so in October we are going to meet with European and ITTO countries to outline a process for harmonizing some of these concepts.

Peter O’Donohue of the U.S. State Department offered a few words about why it is in U.S. interests to participate in and support the Montreal Process on Criteria and Indicators. He noted two reasons.

First, the decisions other countries make about their forests affects the United States. After Canada, the United States is the world's largest exporter of forest products. Right now, the U.S. forest products industry is being underpriced on the world market by illegally and unsustainably harvested timber products. The United States also is the world's largest importer of forest products. We want to be sure those products continue to be available to us, and that means other countries need to manage their forests sustainably.

Second, Mr. O’Donohue said forest policy issues are high on the international agenda. The UN Forum on Forests (UNFF), International Tropical Timber Organization (ITTO), Climate Change Convention, Convention on Biological Diversity, World Bank, and many other organizations and treaties are all discussing forests. Mr. O’Donohue said the job of the State Department is to ensure that U.S. government positions going into forest negotiations in the United Nations and elsewhere are consistent and reflect U.S. interests.

Mr. O’Donohue noted that the 12 countries of the Montreal Process represent ninety percent of the world's non-tropical forests, fifty percent of all forests, and forty percent of the world trade in forest products. It is viewed as one of the most effective C&I processes, in no small part due to U.S. domestic

use of the Montreal Process C&I. Within the Montreal Process, he noted that other countries tend to follow successful U.S. examples of applications—including the use of C&I by the states. Therefore, we need to know U.S. stakeholder views on what are reasonable and meaningful C&I.

Mr. O’Donohue said the job of this workshop was to obtain the participants’ analysis of the results of the three national workshops and a cogent summary of which indicators work and should remain unchanged, which need refinement and how, and which should be deleted or added and why. He said that was what the other eleven Montreal Process countries were doing right now, and the United States wants to be prepared to engage effectively in a dialogue with them and persuade others to our views as needed.

In closing, Mr. O’Donohue shared a couple of upcoming international milestones that are important for C&I. First, the 5th session of the UNFF, a major meeting that would decide how global forest policy issues would be addressed in the future, was beginning next week in New York. The Montreal Process would be represented and host a side event to inform participating countries and organizations of U.S. progress in reviewing the indicators. According to Mr. O’Donohue, last May at UNFF4, countries agreed to recognize seven thematic elements of sustainable forest management, which track very closely with the Montreal Process criteria.

Following UNFF-5, in February 2006, Japan will host the 17th Meeting of the Montreal Process Working Group on C&I. Mr. O’Donohue said this meeting is important in deciding how to revise the Montreal Process indicators based on recommendations of the Montreal Process Technical Advisory Committee, which will be hosted by Russia in October.

When asked how the delegations to the international meetings work, Mr. O’Donohue replied that UNFF-5, for example, worked closely with the USDA Forest Service on identifying stakeholders that would give a rounded, thorough set of perspectives. A participant added that through her work with the Commission for Sustainable Development, she has realized that those who are involved in SFM work do not always appreciate that other sectors want to do indicator work and see the forest community as an example. When asked how these processes are affecting the global earth observation process involving sixty60 countries, and whether there was a linkage between them, Mr. O’Donohue said that he had no specific information about the global earth observation process but they are supportive of it.

#### **PANEL DISCUSSION – ECOSYSTEM/ENVIRONMENTAL SERVICES FROM FORESTS**

A panel of private and public sector representatives explained both the conceptual and practical aspects of ecosystem/environmental services and current actions that are being taken to further develop and advance implementation of the concept. After a question and answer period, participants had “table top discussions” focused on the following questions:

- How does the interest group you represent understand or relate to the concept of eco-system /environmental services?
- Are you participating in the development of this concept? Are you receptive to its further development?
- Should ecosystem/environmental services be a focus of the Roundtable?
- Do you see a link to the Montreal C&I? If so, what link?
- Even if there is not an explicit link to C&I, should the Roundtable continue to focus on this topic and, if so, toward what end?

*Laura Meyerson*

Dr. Laura Meyerson, a Staff Scientist at The Heinz Center for Science, Economics and Environment, provided an overview of ecosystem services, defined as benefits that people receive from well-functioning ecosystems, such as food, flood control, climate, regulation, and recreation. Dr. Meyerson said indicator development is needed for the following ecosystem services:

- Provisioning services—products obtained from ecosystems, such as food, fresh water, fuel wood, fiber, biogeochemicals, and genetic resources
- Regulating services—benefits from the regulation of ecosystem processes, such as climate regulation, disease regulation, and water purification
- Cultural services—nonmaterial benefits obtained from ecosystems, such a spiritual and religious, recreation and ecotourism, aesthetic, inspirational, educational, sense of place, and cultural heritage benefits
- Supporting services—services necessary for the production of all other ecosystem services, such as soil formation, nutrient cycling, and primary production

Two outstanding questions are how the loss of biodiversity will affect ecosystem services, and if it is possible to find and deploy technological substitutes for these services.

*Larry Payne*

Larry Payne of the USDA Forest Service described Forest Service and other federal agency activities on ecosystem services. Mr. Payne said that one of the main issues discussed at the Forest Service centennial was the loss of ecosystem services from America's forests and the market-based incentives the Forest Service might utilize to promote their conservation. Externally, the Forest Services is doing a lot with partners and cooperators and has invested in external discussions and forums to learn about the concerns and ideas of others.

Mr. Payne said that the Forest Service is in an exploratory stage, determining what might be its direction, what its opportunities are, and how the agency can add value. The agency is developing a two-year work plan to examine the issue of ecosystem services. In the near-term, specific activities would include a workshop on the "New Currency for Conservation", to improve federal conservation initiatives through future farm bill incentives, especially for southern forests. Other projects underway involve organizations such as CEQ, Yale University, the Land Trust Alliance, Forest Trends, and the Texas State Forest Service.

Other agencies and partners include the Interagency Working Group. Many agencies are coming together to share research, identify opportunities, and organize a symposium on key issues for Spring or Summer 2006. In addition, the Forest Service works with the EPA Science Advisory Board's subcommittee on Valuing the Protection of Ecological Systems and Services. Some agencies involved in credit banking and trading (for wetlands) include Natural Resource Conservation Service (NRCS), EPA, National Oceanic and Atmospheric Administration (NOAA), Fish and Wildlife Service (FWS), and Department of Defense (DOD).

In closing, Mr. Payne said for this arena in American forests, time is not on our side. Markets and payments do not have all of the answers, but many answers do reside there. Because services are free, they are undervalued, which puts America's private forests at risk. He said it is coming and will be in front of all of us, and he encouraged the Roundtable to engage in the discussion.

*James Hull*

James Hull, State Forester and Director of the Texas Forest Service, offered a state perspective on ecosystem/environmental services. Mr. Hull said that forestry is changing across this nation, but for the most part, foresters have not had to deal with the changes; they plant trees and manage them. However, there is a global repositioning of the forest industry, especially in the South.

Mr. Hull said Texas has lost one-third of its forest industry over the last few years, and half of industry lands have been sold. There are new kinds of landowners (e.g., more family forest owners, TIMOs, and REETS) along with huge population growth. He said there not be a single tree harvested in Texas for traditional use in 20 years and that Texas is trying to find new markets for environmental services.

Mr. Hull said that the advantage he sees, for the first time in his career, is the common link/thread/bond connecting society, foresters, and environmentalists all together in the free enterprise system. There is enough common ground to work together and that his agency is attempting to understand what all of this means.

The discussion following the panel presentations raised the following points.

- Why is monetization is not the answer? If it is not, how can the value of ecosystem services be an explicit part of the decision making process? Ms. Meyerson replied that there are many services for which we do not have a conceptual basis for measurement. How can we quantify them? How do they interact with other processes? She said once you put a dollar value on something, it is very difficult to go back from that. The point is not that we should never monetize, but there must be clear and precise steps so that we can alter the method as needed. Mr. Hull said there are two perspectives, one of them economic, and the other based on the need to sustain the forests and prevent conversion.
- One participant expressed discomfort with our current ability to monitor the system when she thinks about monetizing. Easements now are under attack. Do we know if society is getting the value it thought it would from easements? Have the panelists considered the need for a monitoring system? Mr. Payne said federal agencies do not do a good job of monitoring the societal value of easements, but they realize that it is an issue. Ms. Meyerson said we do not have most of the data we need, and there is a great deal of support from agencies for looking at data gaps.
- A participant stated that a significant part of this meeting had talked about a framework and buy-in, using the Montreal C&I to stop us from “flying blind” and that the panel never mentioned the ecosystem concept with criteria and indicators. The participant asked if we are just going from one “flavor” to the next and what does the panel think about the integration of these sustainability tools? Mr. Payne said that he believes that the USDA Forest Service and others responsible for the forestry arena need to embed the Montreal C&I in their institutions’ everyday work. Mr. Hull said people know he was not too high on the Montreal C&I and certification until he saw a real practical reason on the ground for it. He said the market is driving things like certification, and he can see a reason for the market driving ecosystem services as well. Mr. Payne said he would throw the issue back to the Roundtable; it’s one reason to help sort those things out, and help describe the connection.
- Forest policy is the responsibility of individual states. A presupposition of the comments all of the panelists made was a desired condition in which we want to keep our forests that acts as a guiding star on the journey to sustainable development. If the market cannot compete with housing development, etc., what do the panelists feel would be the role of zoning for individual states to

develop land use plans that reflect environmental services? Mr. Hull replied that Texas is a private property rights state and he has seen zoning tied to economics (e.g., for planned communities). Dr. Meyerson added that if ecosystem services become associated with takings, then we are all in big trouble.

- A participant stated that the market demand for an ever-expanding “forest understory” of secondary homes has much higher economic potential than we can hope to raise with ecosystem services and asked if the panelists see a landowner incentive or ethic emerging that will help preserve forests. Mr. Hull said he is seeing long-term forest landowners who value their heritage, and economics are their last concern. That type of landowner would like to commit that land to a long-term, sustaining contract rather than give it to their children, who would most likely develop it. Mr. Payne added that we cannot fight the market and that we want to create a bit of a more level playing field.
- The Montreal C&I are relevant and asked how can we establish a level playing field across countries because, until we have that, it will be hard to level out the effects of globalization. Dr. Meyerson acknowledged the concern and said that she thinks everything Mr. Hull said about the importance of value for landowners who are preserving ecosystem services is correct. Many environmental problems result from bad market choices we have made. The question is how we can go beyond markets and create a stewardship effort that is not about being paid.
- Mr. Hull noted success in other parts of nation, and said one possibility arises when a group of landowners sees a need to protect a quality of life issue critical to their community (e.g., the Applegate Partnership and Quincy Library). A participant said that for those who work in indicators, there is hope that they can affect how people behave. He added that contrary to Ms. Meyerson’s comment, you get what you pay for and that markets do not have to pay for things such as clean air and water.
- Markets need information at the micro level at which transactions occur. That will drive the ways of measuring what is transacted at transaction level. It also drives standardization (or the market is limited spatially). Markets are big users of aggregate statistics (labor statistics on stock markets). There is a huge need for information for developing aggregate measures. However, if in the beginning there are a few that get paid for, but others that don’t, forests will be managed to maximize returns on one and not others. It matters where in the ecological processes and conditions you actually make the measurements that trigger transactions and pay for conditions or flows—whether they are for primary productivity, or closer to the point where benefits are provided to people. These are issues that this Roundtable could discuss.
- Oregon has used forest practices acts to deal with ecosystem services so that those who do not do the right thing do not get an advantage in marketplace. In the past thirty-five years, landowners have accepted more regulations because it maintains what they want, but now the effects of globalization are pushing in.
- We need to separate goods from services. Nothing in the C&I talks about the push and pull of marketplace that links to measuring changes on the ground. The Roundtable should talk about creative ways to create value for managing forests because it is becoming more difficult to get a reasonable return on net assets on forests.

## **REPORTS ON ONGOING REGIONAL AND TRIBAL ACTIVITIES**

### *Western Region*

Scott Bell of the USDA Forest Service described the Yakama Tribe project. Tribal foresters are using both scientific knowledge and the traditional knowledge accumulated over generations. The USDA Forest Service provided grants to the Yakama Tribe to monitor culturally important sites on the Yakama Reservation, incorporating both scientific and cultural work. He said the Forest Service will be doing

monitoring in conjunction with Tribal elders to determine how well management practices are preserving those sites. There will also be protocol development to be shared with other tribes and with federal agencies and the results will be available this Winter.

Jan Hackett of Colorado State University and the Western Forestry Leadership Coalition (WFLC) described the April 2005 [Western White Water to Blue Water Sustainability Workshop](http://www.wflccenter.org/news_pdf/93_pdf.pdf) ([http://www.wflccenter.org/news\\_pdf/93\\_pdf.pdf](http://www.wflccenter.org/news_pdf/93_pdf.pdf)) in Golden, Colorado. She said the initiative was launched at the 2002 World Summit on Sustainable Development to link oceans to upstream sources of water pollution. WFLC and National Association of State Foresters (NASF) made the connection between healthy forests and clean and abundant water, and NASF published a paper on the subject.

Ms. Hackett said the workshop looked at where the effort would go, asking: What is this thing? Are they doing things that are already aligned? What programs might they create in the Missouri, Red, White, and Arkansas river basins? Ms. Hackett added that the effort is not a program, but a partnership and way to deliver on the WFLC and NASF strategic priority for water. She said they need to get involved with other groups, such as water professionals and state water agencies, and to explore public responsibility. Ms. Hackett said a suite of recommendations would be presented to the Council of Western State Foresters the following week to see how they might proceed. Further information is available at the WFLC web site at [www.wflccenter.org](http://www.wflccenter.org).

#### *Southern Region*

Susan Fox of the USDA Forest Service said that the Southern Roundtable on Sustainable Forests (SRSF) will spend the last \$25,000 of its 2003 funding this Fall. In November 2003, they held their first workshop and North Carolina State University developed a crosswalk between the Southern Forest Resource Assessment and the Montreal C&I. The SRSF also issued an RFP to engage partners by sharing resources at the sub-regional level, based on issues. The grants supported the work of the Southern Appalachian Man and the Biosphere Program, Southern Appalachian Forest Coalition, and the Land of Sky Regional Council on Southern Appalachian sustainability; the work of the Southern Group of State Foresters, Southern Environmental Law Center, and Environmental Defense on incentives for conservation of private lands; and the work of the Eastern Band of Cherokee, using Bureau of Indian Affairs funding, to develop a natural resource management plan, with special focus on sustainability issues.

#### *Northeastern Region*

Connie Carpenter of the USDA Forest Service summarized the activities of the Upper Mississippi River Forest Partnership, noting their work with Tribal Nations and development of a Northeastern Area indicator clearinghouse. She said they want to be a clearinghouse, and take a sample of information and engage communications and public affairs people to get messages out to public. She said they are trying to figure out how to encourage dialogue, carry information to the public, and spur change.

#### *Indian Country*

Don Motanic of the Intertribal Timber Council (ITC) noted that tribes have been harvesting timber since 1920 (and possibly since 1910) at a rate of 700 million board feet a year without major management issues, law suits, or people problems. He explained that the USDA Forest Service Office of Tribal Relations had provided funds to assist the ITC and the Bureau of Indian Affairs in evaluating the possibility of adapting the Montreal Process C&I to tribal forests and forestry. The project will be completed by December 2005. Mr. Motanic said a variety of tribal forest-related efforts have progressed to a point where the ITC thinks there is a unique opportunity to publish their findings in Evergreen

Magazine, which they have determined to be the best way to reach interested and affected audiences across the United States to further the understanding of forest sustainability in Indian Country.

Mr. Motanic said the Indian Forest Resources Management Act identified eight mandated tasks that are similar to criteria. A common thread was taking care of people and values. Six of them did this, in a way that is almost opposite of what the Montreal C&I does. This may be why tribes are having difficulty connecting to the Montreal C&I.

#### **OPEN SHARING SESSION—ROUND ONE**

The open sharing sessions provided opportunities to hear the thoughts of Roundtable participants on future Roundtable direction, activities, and interests. The following summarizes their comments:

- There are challenges, opportunities, and complementary aspects of the Roundtable on Sustainable Forests and the Sustainable Forestry Partnership. There is the question of how to promote environmental services through incentives and train the public, the next generation of foresters, and national resource professionals. These people may need professional education to get familiar with many modern, current, and future-oriented issues, and we need to bring the concept of C&I and environmental services to students.
- We should explore more systematically the implications of going down in scale with no preconceived notions, including information that rolls up and information that does not roll up. We need to work with landowners to help them understand how what they know is important. This should be done systematically without creating confusion.
- Is the Roundtable about just C&I or more than C&I? The C&I work is very important, and it is not done. There is still much work to be done; there is not a lot of data on these indicators. The C&I has meaning not just to policy wonks, but to others as well. The focus needs to be on which data are missing and what is being reported on.
- We need a clear process for how things are done, by focusing on a deliverable and bringing people together for working to a specific end. We need some sort of process that brings people into the things that are of interest of them (e.g., environmental services, C&I refinement, etc.).
- The C&I alone will not hold the Roundtable together. The Roundtable is not just about the USDA Forest Service and no single agency should dominate the Roundtable. The problem can be solved when we get people who are leadership representatives and are communicating to them. Do we have put together a data platform or achieved interagency collaboration? Not yet—and that was the first focus. There needs to be some expectation that something is going to happen, to be accomplished. The people who signed the MOU are consistently not here.
- When the original Roundtable invitation letter went out, there was a lot of high-level buy in. The Roundtable should report back in the first year to primary enablers, and convene that group and talk about what is being done in the context of the administration's priorities. The C&I speak to those things. We should give them progress reports and each Roundtable partner needs to achieve something. We should encourage and fan the flames to get the federal community to collaborate and work together and the Roundtable can make that happen. He said we should always begin with the end in mind. We get caught up with the C&I work and trying demonstrate projects. The compelling need is that we work in an administratively fragmented environment; a common language is the foundation for our future.
- We need to look at the Roundtable purpose in terms of desired future forest conditions, ensure that the three dimensions of sustainability remain even on the Roundtable agenda, ensure representation of all sectors of the forest community, and give people tools to act on their values. We need more natural resource professionals who understand sustainability. Thus, we need to get sustainability concepts into curricula and continuing education. The Roundtable should review its

goals and objectives to see if they remain relevant and compelling, and look at the “journey to sustainability” part of the *2003 National Report* to inform that discussion. The Roundtable is informed by the global discussion and informs the global discussion. The Roundtable also needs actions to assist with options for getting information to the landowner level.

- The Roundtable should look at ways to work with states to avoid the appearance that it is a top-down approach. The terminology we use is important. There needs to be interconnectedness; not picking apart one piece and another. We need agreement for data collection, and to tell stories at an appropriate scale.
- The Roundtable needs to continue to evolve the indicators and provide a forum for indicator-based discussion of various management practices meant to promote sustainability. The Roundtable also should provide input to and review a national indicator effort.
- We should look at history to see what it reveals about the goal of sustainability, and address the big questions about sustainability — the range of conditions and how they would be defined.
- The Roundtable should focus on C&I and the importance of quality data. The participant also expressed concern about actions and policies and how close the Roundtable should get to issues and decision-making and the state foresters concurred with this comment.

#### **HIGHLIGHTS FROM BREAKOUT SESSIONS AND DISCUSSION OF NEXT STEPS ON C&I REFINEMENT PROCESS**

During the meeting’s breakout session, the participants separated into four groups to discuss the cross-cutting and indicator-specific issues involving indicator refinement. To prepare the groups, Rob Hendricks provided consolidated suggestions for refinements of the Montreal Process C&I that were identified at three workshops in the Spring (for summaries, see the Roundtable Web site at [www.sustainableforests.net/summaries.php](http://www.sustainableforests.net/summaries.php)). He also made the following observations.

- The Dialogue-by-Design consultation affirmed the breath of indicators.
- The practitioner workshops affirmed both the technical basis and breadth of the indicators.
- The workshops identified the following cross-cutting issues:
  - a few terms appearing in many indicators should be modified;
  - many indicators should drop examples and rely on rationale statements; and
  - some are disturbed by criterion titles that appear biased because they believe they influence the selection of indicators.
- The vast majority of the workshop input resulted in clarification of the indicators.
- In some cases, such as for Criterion 3, indicators were “deepened.”
- In some cases, concepts, such as recreation and tourism, were modified.
- The institutional indicators were combined, combining laws and practice.
- There is a suggested reduction in the number of indicators under the social and economic criteria.
- A few biological indicators were added.

Mr. Hendricks specifically identified the following cross-cutting terms:

- Reference Condition — the range of spatial, structural, compositional, and temporal variation of ecosystem elements (e.g., plants, soils, animals) specified to represent reference or “baseline” conditions (e.g., historic period).
- Significant — change of sufficient magnitude to affect ecological processes or the flow of goods and services.
- Forested Ecosystem Type — a category of forests that is a dynamic complex of living organisms (plant, animal, fungal, and micro-organism communities) and the associated non-living environment, including disturbance regimes, with which they interact.

The results of the four breakout groups were presented (see Attachment A). Highlights of the discussion about the common themes that emerged from the breakout groups include the following.

- Most of the meeting participants were scientists. We need to keep the examples in the main structure of the indicators and keep the rationales to put the meat on them. Those who make decision are going to scan the indicators, and they can see examples quickly, seeing the things that are threats or concerns.
- One day the C&I will be viewed as a fundamental meddling in property rights by those self-appointed guardians of the forest that are far more influential on Capitol Hill, especially in the federal appropriations process, than anyone in this room.
- They felt they had to guess a bit as to what the group at the C&I Refinement Workshops really tried to do, and they thought the workshop participants wanted to make the indicators real in terms of community livability and resiliency. However, their changes are not improvements in terms of measurability.
- The changes proposed were not a consensus from those groups.
- Something was lost in not matching the people at this meeting with what happened at the refinement workshops.
- On Criterion 1, there was a lot of wrangling. If the word “native” is removed, we still will have the issue of forest-occurring.
- Criterion 6, Indicator 43 contains a lot of really good ideas, but the problem is that so many things get dumped into single indicators. Maybe it should be elevated to a sub-criterion with information in it to help communicate conceptually what is in there.
- At the refinement workshop for Criteria 6 and 7, it was accepted that the existing language was not what we need and maybe what emerged from the workshop still is not it. It was suggested that the USDA Forest Service’s or the Roundtable’s next plan of work should be to try to revise the language again. The concepts may be abstract, but that does not make them non-quantifiable.
- We should not discount the value of the work done on Criterion 6. The people who looked at the changes at this workshop come from different experiences and world views than those that spent two days working on them at the refinements workshop. Participants said that Criterion 6 is important, but that the recommended changes are not improvements. Those are powerful messages. We should not spend participants’ time, energy, and political capital on changes that are not seen as improvements.
- Regarding Criterion 6, many aspects of community resiliency have nothing to do with forests. Whether a community has high-speed Internet may be more important than whether it is making money by logging national forestlands. Forestry by itself does not contribute to everything, and factors such as transportation or proximity to airports may not be influenced by the forest sector. The forest sector connects to all of the other sectors.
- Under Criterion 4, we cannot discount the impact that trees have on water quality. We do not have good ways to nationally or regionally measure water quality. We should take one step forward and ask how we affect water quality through agroforestry, stewardship contracts, etc. It was suggested that the technical group talk about a way to measure this.
- A participant in the refinement workshop for Criterion 6B said when the C&I were first drafted, social sustainability as a discipline was in its infancy. In the years since, the field has matured rapidly and significantly, and has been deeply informed by social sciences in general. This group has legitimate concerns, which indicates that the group at the refinement workshop was not successful in communicating what they wanted to say. Many measures have been developed for those concepts, but the group was told not to address that in the process. Many of the paradigms here were trying to grapple with finding a common language.

- When my group looked at the background in document, they liked it, but they found the language for the criterion hard to accept. Someone said he liked to hear that this group said Criteria 6 and 7 need more work. The issue is how to measure the indicators; do you measure the Northern Forest Wealth Index? Based on data available nationwide.
- We have had this discussion for some time in the Roundtable and others as well; all of them are struggling. They had a discussion a few years ago about working on this across roundtables. As we recommit to looking at community resiliency, we should work across the sectors; this isn't about just forests, but also things there that we need to own. We need to understand that better.

Mr. Hendricks offered the following summary of what he heard at the refinement workshops.

- Regarding cross-cutting issues, although there is disagreement on particulars, refinement of key words is probably a good idea.
- Keep range of historic variation in reference condition.
- The use of the word “protected” in “protected areas” is causing too much confusion and we need to fix it.
- There is concern about language that includes land that could be forest versus land that is currently covered with forest.
- The many changes in Criteria 1 through 5 are mostly enhancements, but there are some problems with words as well (e.g., “potential productive capacity”)
- Criterion 6 and 7 are problematic, and we are very sensitive to the need to change this.

Mr. Hendricks said he would go back to his boss, the Sustainable Development Issue Team, and the leadership of the Roundtable, and attempt to get people together to look at this again over the summer before the international process starts. He said we need a product that speaks for itself; it should be concise, easy to understand and a compelling piece of information.

The discussion continued with the following additional points.

- None of the four breakout group presentations made any recommendations on the sub-criterion language. Did anyone talk about that? Mr. Hendricks asked if no one said anything, are proposed changes through informed consent would be considered acceptable?
- There are measures for the notion of institutional capacity or public administration. We need to look at local government services that add to community well being. Baltimore County and the sustainable community center at the National Association of Counties are potential resources for learning how to develop indicators on such services. It is also important when talking about institutions to reach out to non-federal organizations.
- The report's recommendations are as follows.
  - use a bottom-up and sustained outreach effort to nonfederal entities that uses the language of local government
  - extend outreach and invitations to elected officials, many of whom have no staff to help deal with these issues
  - help strengthen local institutional capacity
  - ensure that outreach is a dedicated part of programmin, and dedicate funding to it.
- Indicators 61 and 62 should add something about spatial and temporal precision in geographic information systems.
- A participant said she liked the changes to Criterion 6, and heard her governor talk about community resiliency, vibrancy, and growth.

## **FUTURE WORK OF THE ROUNDTABLE**

Roundtable Co-Chair Jim Finley opened the final discussion of potential activities and issues for the Roundtable with a brief review of the Roundtable's role, purpose, and overarching philosophy (better data leads to better dialogue, which leads to better decisions.) He noted that the objectives for the closing discussion of the workshop were to develop a preliminary list of activities, projects, and deliverables. The goal was to go beyond generalities to describe how the activity, project, or deliverable would be made operational, take advantage of the Roundtable's unique attributes, and make a valuable contribution to the goal of SFM. In addition, he said the discussion would identify self-selected champions to further develop and refine ideas and recruit participants. He proposed the following process steps to follow the workshop:

- Self-determine champions to further develop ideas in writing (June 1)
- Create a drafting group to bring ideas together in a cohesive draft work plan (June 15)
- Share the draft work plan with the Roundtable contact list to obtain feedback, reactions, and additional champions (July 1)
- Hold a meeting of the Roundtable core group to discuss the work plan and the feedback (July 31)
- Have the co-Chairs finalize the Roundtable work plan based on feedback from Roundtable participants and the outcome of the core group meeting (September 30)

The final discussion included the following comments.

- Should the proposal assume the Roundtable has a staff with money or point to groups through which something should be done? And should the proposal relate to the things the Roundtable has done in the past and build on them? Mr. Finley said it should.
- The process seemed like good launching point, but a participant was not sure the group was on the same page of goals for moving forward. She said they could have proposals from all over the place.
- There are lessons from the Roundtable's history. It is important to remember that the Roundtable owes its existence to non-federal partners who got the process started again after First Approximation Report. It takes a very long lead time to get new information and do new reporting. We can work on something other than C&I, but should give adequate lead time (i.e., more than two years). Specifically, it is crucial to create a process of how we get together, work to get resources to do it, broaden the support (both in-kind and financial), have an MOU that has expired, and get non-federal organizations to help the federal agencies move forward.
- We need to focus on working with communities on development and especially implementation. The C&I are tools and we need a mechanism to carry this message forward to communities. We need a mechanism, such as guidance documents, approaches, and workshops.
- We should present the indicators as crayons, defining the number and color of crayons in the book. A crayon is a tool and we can write text, draw graphs, make past, present and future maps. The Roundtable at some point should define which crayons we need, see what the results are, and maintain a constant iterative process of improvement. It should empower local people, taking issues and information at the national level and putting them in a format that can be used and integrated at a place that has similar issues. The Roundtable has a role at the top, but also a role for people on the ground to help define issues.
- In New York State, there is no commitment to doing any kind of implementation of sustainable forestry using the C&I. A participant said he would commit to urging the State Forester to pay attention to C&I. If we want the Audubon Society to recommit and sign onto something, he could

talk to them at the national level and get them to recommit, and also could work with the Northern Forest Alliance to start explaining to them what C&I mean in terms of their goals.

- We need to see the footprint of the United States on world forests; just measuring what happens here does not give an idea of what the United States is doing about forest sustainability.
- Ms. Morre said she is trying to coordinate a project on an interagency monitoring protocol, in which federal and state governments, private landowners, and NGOs would use ecosystem management decision support software that can help in using the C&I at different scales to communicate to people easily and help prioritize data needs. The Roundtable is important to that effort to provide a communication network, and provide support for development, obtain feedback, and offer a forum to communicate progress.
- A participant asked if the Roundtable chartering an effort to revisit Criteria 6 and 7 with a set of specialists who can look help reframe them and then take them back to the Roundtable to test them again.
- Regardless of what happens with the next round of Montreal C&I, each country will still need to talk about what they report. A multi-stakeholder, broad world view assembly would help us get to specifications that could have a wide audience.
- We should find ways to expand the dialogue. It would advance mutual learning if we did more, going beyond the November workshop on multiple perspectives to have conversations about what this means to the Roundtable.
- The Roundtable is continuing to articulate the language of sustainability. The C&I processes and certification processes and environmental services processes are on convergent paths, and the language of those things influence each other.
- The conceptual models are fine but are not sufficient. They are imprecise in many ways because they lack a degree of formalism. Through the Integration and Synthesis Group (ISG), we should go to the next step with modern technology and look at more formalized representation. No model will ever make everyone happy, but this would allow us to have an intelligent discussion about the pieces and their relationship, making it easier to identify where people agree and disagree.
- Once short-term, high-priority work is done on Criteria 6 and 7, we need to engage a community dialogue with the ISG and other roundtable processes. There is a striking continuing bifurcation of measuring or using the indicators that needs to be considered.
- As we roll out the NASF guide. we have an opportunity to engage with private landowners, and have SFP and NASF share it but understand and learn from how private landowners use it.
- The Roundtable, particularly the federal community, should encourage the application of indicators that are agreed on at regional level. All federal agencies have to have monitoring under Government Performance Results Act (GPRA) with performance measures. They could focus on one broad goal and show how indicators inform it. They also could broaden the financial support base for the Roundtable (and related efforts) if they were successful.
- The Roundtable should identify strategic objectives and have the agencies incorporate them into their environmental management system /GPRA processes.
- This group was supposed to be the means to coordinate in Washington, DC, in a way that nothing else is designed to do. The Roundtable provides a way to help advocate for changes in dysfunctional institutions. On the data platform issue, it means coordinated natural resource information collection by federal agencies.
- Much of the discussion is asking, “Is the Roundtable sustainable?” It is not unusual to go through asymptotic growth phase and then even out. Financial energy gets partially converted to intellectual energy in these meetings; public agencies and academics are here but private landowners are not.

- There were many comments about who is here and who is not. Participants should think about the Roundtable as a broader universe of people working on SFM, not just the participants in this room.
- The Roundtable should hear how stakeholders use the indicators and data and find opportunities at Roundtable meetings to hear from other stakeholders.
- Although this is about more than federal governments, the Roundtable should recognize the key federal role in data development and reporting. The Roundtable influence may take the form of a sign-on letter and possibly a recommitment to the MOU or something similar.
- Obtain funding for the Roundtable and specific activities. Many nonfederal organizations can try to lobby Congress to support data collection for the C&I.
- Use successful processes. Short-term, ad hoc groups to deal with specific questions is what has worked recently.

Elizabeth Estill said we are all involved in the language of sustainability. Here, it is mostly about indicators, but certification and services also are contributing. She said certification is recognized as a common language internationally, but the USDA Forest Service is missing from that language, particularly FSC and SFI. She was engaged in the crosswalk with the Pinchot Institute and looked at six national forests and the rack up requirements of both FSC and SFI. Her office is doing a gap analysis based on meet, exceed, and do not meet, and essentially got meet or exceed on virtually all requirements of both. She is engaging with Pinchot again to get audits done on the six test sites—three in the East, three in the West—to get ground estimates for both sites, which may take a few years.

Regarding environmental services, Ms. Estill said the national forests are testing some of these concepts. She thinks there is much to learn from those exploratory moves; they are doing wetland mitigation work, credit trading, etc. She said as we develop a common language for sustainability, we are trying to interpret it and protect regional variations in it.

Ms. Estill said we need to talk about sustainability in terms of which people are interested in it. She said this group can help us find those crayons, but we need to understand the primary colors and buy them on an annual basis. There is a political push for consistent language; getting down to primary colors. She said she would bring the discussion from this workshop to the USDA Forest Service executive team.

A participant said that he is willing to attempt to build on the work of the Roundtable in his monitoring project, and if they cannot he will give the Roundtable an explanation as to why not. He said there are many initiatives with public lands agencies in which people should be asking if the roundtables have done work that could be useful and he does not think that has been asked. He asked if we can develop some sort of presumption that when someone brings up data inventory and analysis, they build in some concepts from the Roundtable. He also said it would be easier for the Roundtable to do that if there was something managers could understand, something a bit more synthetic.

#### **CLOSING COMMENTS AND WRAP-UP**

Mr. Finley closed the meeting saying the Roundtable would try to move the meeting's dialogue forward with the people who have stepped forward. He noted that he had heard a lot of positive things that people want to do. They want participants from organizations other than USDA Forest Service and SFP people, who are already involved in the process. When a drafting group is formed, information will be sent to the Roundtable participants.

Mr. Finley said we need to bring more people to the table and challenged all of the participants to bring other people. He asked what they were going to do to share the information they had learned with

someone else and how they were going to engage people on these topics. He said showing up is not enough; we need to take it back to our everyday professional life. Finally, he said we must continue to think about trying on and dealing with the tool box.

## **Attachment A: Summaries of Breakout Group Discussions**

### **GROUP 1: KEITH REYNOLDS**

In discussing cross-cutting issues, Group 1 found that refinement is needed for the definitions of reference condition and forested ecosystem type across the indicators, and also for the examples in the indicators. They said individual indicator refinement review is needed for Criterion 1, protected areas; Criterion 2, Indicators 12 and 13; and Criterion 6, Indicator 47.

According to Group 1, refinement priorities are Indicators 16 and 17; Criterion 2, productive capacity; and bringing Criterion 6B up to date on current environmental and economic knowledge. Another priority for Group 1 is including social scientists in international meetings.

Regarding the refinement process, Group 1 said the process and ways to contribute to it were unclear. They also were not aware of the appropriate level of indicator refinements and said they could not discuss or change measures during refinement workshops.

### **GROUP 2: SCOTT BELL**

Group 2 had the following comments on the cross-cutting terms.

- Reference Condition: Introducing the concept of reference conditions is a useful change that allows us to define a starting point and allows flexibility in selecting that point.
- Significant: Defining significant is a useful change. It could be termed statistically significant if that is the intent and if not, it could be termed important. Values and perceptions of the “significant” vary. The group suggested it could just be left vague, allowing each country to make its own determination.
- Forested Ecosystem Type: The group generally liked the use of this term as long as it encompasses the whole continuum (from forests to agricultural and urban lands) and includes land that could have forests in addition to land that already has forests. They said they needed to have clarity on those questions, or we could choose to be “elegantly vague.”

Group 2 said the refinement of Criterion 6 is not a priority for the U.S. delegation. They said qualitative measures are more difficult than quantitative measures, and the new indicators were not objective because they point to a desired outcome. The group said indices could be useful in helping decision-makers understand how to interpret data from these indicators.

The group also said the refinement of Criterion 7 is not a priority for the U.S. delegation, and lumping together information was unwieldy and does not equate to improving clarity or understanding. They said the suggested new indicators insert value judgments of conservation and SFM. However, the addition of the phrase “extent to which” could help clarify intent and does require comparison.

In discussing Criterion 1, Indicator 6, Group 2 disagreed with the use of the word “native,” saying it is imprecise and means different things to different people. They said terms such as “endemic” and “indigenous” are more precise and useful. “Native” reads as trees only; “dependent” is more inclusive.

### **GROUP 3: PAT MCELROY AND STEVE AMBROSE**

In discussing cross-cutting terms, Group 3 offered the following comments.

### Reference Condition

- Some participants felt that making a change from the phrase “range of historical variation” to “reference condition” lost what they thought was the original intent of the indicator (a characterization of forest health and ecosystem resilience in temporal terms.)
- Many participants felt using the phrase reference condition was more value-laden and less specific (i.e., allowed more than a temporal reference). Picking a certain condition or baseline creates a static picture that could be interpreted as a value judgment. Alternatively, the change in terminology provides some interpretive latitude and allows the characterization of forest health in temporal as well as spatial terms.
- It is less critical whether the phrase used is reference condition, historic range of variation, natural range of variability, or some other phrase because ecosystem integrity is the critical concern.
- Either phrase has limitations when applied to sustainability because sustainability itself is a value judgment. Neither of the phrases is scientifically supportable. It might be more appropriate to have the flexibility to use the phrase that applies to individual circumstances.

### Forest Ecosystem Type

- This change may be good but it has limited application at this time because there is no tractable reference classification for ecosystem types.
- It is important to bring this suggestion forward because it offers a more explicit definition of forest types.
- The real question is the scale of concern.
- Making the shift to this term is good because we already are making this transition in several arenas (e.g., TNC, NatureServe, etc.) This change can be applied across all scales.
- Making this change is of concern because we would be shifting from a known system of classification and an existing database on forest type to one that at this point is uncertain and ambiguous.

**Significant:** The desire to clarify the meaning of the term “significant” is not new and the meaning of this term often is considered to be ambiguous. The group did not feel the need to prioritize a discussion on the term, and suggested using the term in its statistical context.

**Protected Area:** The group thought the phrase “protected area” is limited in its application. To many people, protected areas are more than those areas set aside for limited use within a geographical area protected by law. The definition of the term should more broadly encompass all forms of protection (e.g., administrative, policy, BMPs, practice, etc.)

Group 3 also provided the following comments on indicator-specific changes.

- **Criterion 3, Indicator 15:** The modified language is unclear; as it reads now; the language implies a sole focus on forestland. They asked if the intent was to measure only changes in effect on forestland or if changes in the vectors themselves should be measured.
- **Criterion 3, Indicator 16:** The modified language is unclear. It is unclear what is beyond the range of reference: area of percent of land or the “physical agents.” They said we should be looking at both area of percent of land and the physical agents (air as well as others), which are the drivers and the changes in the forest. As written, this indicator does not get across all of the negative effects on the forests.
- **Criterion 3, Indicator 1:** Indicators 15 and 16 should become part of this indicator.
- **Criterion 4, Indicator 19:** Again, the meaning of “protected areas” needs to be expanded; the key is to clarify what we are protecting and what we are protecting it from (e.g., land conversion).

- Criterion 6, Indicators 36 and 37: The group agreed with the combination and renaming of indicators 36 and 37.
- Criterion 6, Indicator 42: Modifications to this indicator were ambiguous. “How many or what percentage of people are ‘satisfied’” was suggested as clearer terminology.
- Criterion 6, Indicator 43: The deletion and integration into Indicators 30, 35, and 42 was not an improvement. Subsuming these indicators into one buries or diminishes other important resources including soil, water, and ecological services. Ecological services are not adequately covered in this criterion or other criteria.
- Criterion 6, Indicator 46: There were numerous views on modifications to this indicator.
  - The simplified indicator language is lacking. More definition of what is meant by “community livability” and “welfare” would be helpful; the way it currently reads sounds like a desired condition, as opposed to a measurement.
  - This indicator should measure the potential for employment as well.
  - The modified language is adequate and is more comprehensible than the original language. The specifics about how the indicator is measured should be left up to individual nations.
  - The shift in focus to community livability and welfare and its ability to adjust over time is a good one. At the same time, it is also important to be able to link the community indicators to other scales (e.g., linkage to global markets).

Group 3 summarized by saying the changes proposed for Criteria 6 and 7 reflect some maturity in the thinking on socio-economic and institutional indicators. At the same time, it is unclear whether we are making progress on the measurement of social indicators. Also, the strategy used by technical specialists in the C&I refinement workshops of simplifying indicator language and shifting additional explanation to the methodology and/or rationale should be explained up front. Absent this explanation, some of the simplified language is too general and unclear. Finally, they said the concept of ecosystem services is not well or comprehensively addressed in this set of indicators.

#### **GROUP 4: SUSAN MORRE**

In discussing cross-cutting issues, Group 4 thought the recommendations were quite reasonable and generally accepted the changes.

Regarding changes to Criterion 5, the group thought the two new indicators proposed are both important and should be taken forward as priorities. The proposed changes to Indicators 26, 27, and 28 were valuable and should be taken forward as well. They also proposed new language for Indicator XX: “Level of participation and activity (number of participants, amounts of carbon credits traded annually) in forest ecosystem carbon management.”

In discussing Criterion 6, most of the group did not agree to the suggested changes, with the exception of Indicator 43. In most cases, the group thought the proposed language does not offer enough of an improvement from the original to justify the change. The group suggested keeping the original indicators for all indicators, except Indicator 43, which should be removed, as proposed. However, they thought there would be a need to refine several of these indicators (particularly Indicators 46 and 47) at some time.