

USDA Forest Service Sponsored:

Outlook Forest Research Dialog

“Meeting the Information Needs of the Changing Forest Sector”

Workshop Summary Report

September 17-18, 2008 – Mohonk Mountain House, NY

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This project is conducted for the USDA Forest Service, Research and Development by the National Council for Science and the Environment (NCSE) a non-profit, non-advocacy organization with the mission of linking science to the priority needs of decision makers.

I. Summary

The workshop, “*Meeting the Information Needs of the Changing Forest Sector*” was held September 17-18, 2008 at the Mohonk Mountain House in NY. This event culminated the second stage of the 2008 USDA Forest Service (USFS) Outlook Research Dialog and was aimed at better understanding the research and information needs of stakeholders involved with emerging areas of the forest sector.

A diverse group of 23 stakeholders attended. Over half of these participants also took part in the survey process, which was the first stage of this year’s dialog. The starting point for the meeting was the survey report, which summarized participants’ opinions and concerns about major challenges facing the forest community and the information needed to address these challenges.

Sessions at the workshop focused on issue areas such as ecosystem services & markets, social & institutional barriers, forest management, keeping forests as forests, and communications. Small interactive groups allowed participants to vet, as well as refine, the information gathered, especially in terms of challenges to the forest sector and stakeholder engagement. Perhaps most importantly, the workshop attendees focused on delineating the real, imperative research and information priorities needed to address the pressing challenges faced by stakeholders.

The report below begins with the most pressing needs identified by stakeholders, and is followed by the full list of research, science and information needs discussed by the group. A summary of discussions on challenges to stakeholder engagement and climate change is also included.

II. Prioritized Research and Information Needs Agenda

Workshop deliberations focused on issue areas identified in the survey process and led to agreement upon the most pressing research and information needs within these categories. In most cases, participants suggested processes or major players to help accomplish these goals.

Ecosystem Services and Markets

1. Create standardized accounting for ecosystem services and markets
Suggested Process/Participants: USFS participation in the Ecosystem Markets Commons and Natural Capital Project
2. Identify scale-relevant standards and accounting protocols for ecosystem services. Create a user-friendly tool to calculate ecosystem values. Provide targeted, broad distribution, training and support for this tool
Suggested Process/Participants: USFS and partners?
3. Ensure information going into models (i.e. growth and yield tables) is up to date and is tailored to the intended use – This is important for quantifying ways forests can help reduce greenhouse gas emissions, and to provide quality information on leakage and substitution benefits
Suggested Process/Participation: SAF or universities could update growth and yield tables and supplement information on non-tree carbon pools for particular forest types and management regimes

Social and Institutional Barriers

1. Focus on creating more “Participatory Research” opportunities and institutionalize incentives
Suggested Process/Participants: USFS develops criteria and/or a clause in Cooperative Agreements requiring scientists to communicate with stakeholders throughout the research process

Forest Management

1. Produce data and information about urban forests that is useful for decision makers and clearly shows benefits
2. Provide models, research, information and appropriate communication designed for the new generation of private forest landowners
Suggested Process/Participants: Inclusion of, and focus on, social sciences in forestry schools/programs would help
3. Research on current utilization of forests, creation of coarse filter map of capacity, availability and market analysis for biomass production on public/private lands, community-scale models and tools to analyze optimal biofuel production for local use, and systems models that predict effects of increased biomass use on quantity and quality of other ecosystem services
Suggested Process/Participants: USFS has the capability to do this and will coordinate with others (i.e. links to CROP data)

Keeping Forests as Forests

1. Evaluate tools and policy instruments for effectiveness (certification, policy mixes and models that support policy making)
Suggested Process/Participants: Review state/local programs designed to reduce forest conversion/fragmentation to assess effectiveness and social impacts of alternative program designs (e.g. current use property tax programs, development impact fees, cluster development incentives or transfer of development rights). USFS could coordinate a national review, with forestry schools providing local expertise
2. Need better understanding of the social and economic mechanisms leading to conversion of forested land and identification of leverage points that effective policies can target to slow conversion
Suggested Process/Participants: USFS could aid in creating information that is usable at coarse/fine scales and appropriate for decision makers at multiple levels

Communication

1. Enhance technology transfer through synthesis for users, obtaining and using feedback, creating performance measures, etc
Suggested Process/Participants: USFS could create profiles for different users or “the common user” and provide rewards for distributing targeted information in effective way
2. Enhance existing participatory research programs to improve two way communication and allow stakeholders at all levels to assist in defining research questions and designing/conducting research. This increases the likelihood that research will be applied to decisions on-the-ground.
Suggested Process/Participants: SARE grants used in the northeast might be an interesting model to base such efforts – these grants allow academics and farmers to collaborate on numerous research projects

III. Research, Science and Information Needs: Full List

The following full list summarizes the ideas generated by meeting participants in two breakout sessions at the workshop and does not imply a priority order.

1. **Ecosystem Services**
 - a. Analysis and synthesis of trade-offs

- analysis and synthesis of ecosystem services based on literature review
 - use social science research to understand social preferences
- b. USFS needs to participate in the Ecosystem Services Commons - an initiative at Oregon State University's Institute for Natural Resources - focused on the development of a standardized accounting system and a business plan model for ecosystem services.
 - c. Identify scale-relevant standards and accounting protocols for ecosystem services. Take this the next step by creating a user-friendly tool to calculate ecosystem values. Provide targeted, broad distribution of this tool and the appropriate training and support for stakeholders to use it.
 - d. Create spatial descriptions/maps of ecosystem services at the proper scale for managers to use – coarse- vs. fine-scale data – Natural Capital Project (The Woods Institute for the Environment, The Nature Conservancy and World Wildlife Fund).
 - e. Figure out real ways to use forests regionally to reduce greenhouse gases in the atmosphere and provide information on leakage and substitution benefits – this requires updated information in various models, especially growth and yield tables.
 - f. Create decision support tools and models using participatory research to identify, build and validate ecosystem services markets.
 - g. Take quantitative research to the next step through translation work to answer the “so what?” question for ecosystem services and human dimensions.

2. Social and Institutional Barriers

- a. Research the relationships of land use planning, zoning and enforcement with regard to social vulnerability/equity issues and climate change.
- b. Analyze legal and institutional framework currently in place to understand its effectiveness in terms of cross boundary (jurisdictional and ownership) issues related to management and climate change – assess possible implementation mechanisms where current structure is inadequate.
- c. Develop tools and case studies relevant to local needs because most other activities are at a higher scale than can be used by local governments.
- d. Institutionalize “participatory research” practices within USFS R&D to facilitate cooperative problem solving throughout the process on all issues. Provide incentives to encourage these practices for USFS scientists. Develop criteria/clause in Cooperative Agreements that requires university scientists to engage/communicate with stakeholders throughout the research process to aid in the relevancy of their results.
- e. Create deliberate institutional framework for integrating social scientists into research traditionally done solely by natural scientists within the USFS and forest research community (look outside the traditional forestry schools and land grant institutions).
- f. Make Adaptive Management effective, through experimentation, addressing NEPA and other barriers. Must assess the organizational learning.

3. Forest Management

- a. Provide mechanism for, and instruction in, continuing education designed to address complex issues like climate change and ecosystem services tailored to forestry professionals/loggers on a state by state basis.

- b. Conduct new research to produce data and information on urban forests at a level that is useful for decision makers and shows the benefits provided.
- c. Provide new models, research and information relevant to the new generation of private forest landowners and their attitudes toward stewardship and aspirations for the land.
- d. Research the current utilization of forests on a regional to sub-regional scale and determine the capacity vs. availability of woody biomass. Then provide information at multiple scales regarding the feasibility of “going local” for energy using biomass and overlay with a market analysis.
- e. Create models and tools for communities to assess their ecological and economic capacity for biofuel production on a local scale – this is different from the assessment needed for biomass because prices differ depending on use – it was suggested that Sue Levan at USFS could do this analysis.
- f. Perform an analysis on the various possible uses and benefits of urban forests (i.e. woody biomass vs. benefits of trees to cool micro-climate) and include social science information of societal beliefs with regard to preservation and use of public resources.
- g. Research, tools, early warnings, and strategies to deal with the intersection of forest pathogens/invasive species and climate change.
- h. Update the definition of forest productivity to include non-timber objectives.
- i. Compare managed and unmanaged forests to see if there is a difference in terms of ecosystem services benefits (include “traditional” uses as well).

4. Keeping Forests as Forests

- a. Evaluate tools and policy instruments for effectiveness.
- b. Analyze the social and economic mechanisms leading to conversion of forested land – provide this information to decision makers.

5. Communication

- a. Enhance technology transfer including synthesis for users, feedback, performance measures and effective communicators.
- b. Define measures for information to be appropriate for “the common user” or various profiles of users.
- c. Determine ways to overhaul Extension Agencies to increase relevancy to the needs of new users and landowners.

IV. Engaging Stakeholders

The most commonly suggested means of identifying new stakeholders were: valuing less “traditional” forest uses, citizen science, participatory research, and building off of existing networks. To engage these constituencies, clear expectations detailing how input will be used proved essential to gaining their support and participation. Workshop attendees suggested “thinking outside the box” and targeting a wider range of stakeholders for the Outlook Dialog such as: non-land grant or non-forestry colleges & universities; other federal agencies (DOD, DOE, DOT); tribal resource agencies; insurance companies (health and home); investment business partners (biofuels); and alliances of different ethnic groups. However, it would be important to identify core values to unite various interests with a shared goal.

V. Climate Change: Challenges and Opportunities

Participants described a broad array of climate related challenges facing the forest sector. Many concerns were related to the limits of current policies, the lack of tools to enable forests to play a significant role in carbon markets, and differences in efficiency among cap & trade markets, regulatory approaches and/or possible tax structures. From a sequestration standpoint, the main challenge described was meeting the competing needs of forest carbon storage, energy, timber production, and the suite of non-timber forest uses with the existing resource. Other major concerns were leakage and near-term accounting. When referring to adaptation, challenges for both ecological processes and social equity in rural communities were frequently cited.

Each of these challenges also posed an opportunity for action. Participants suggested capitalizing on climate policy comparisons as test cases to prove the importance and skill of researchers focused on human dimensions of forest systems (i.e. social scientists). These professionals are uniquely positioned to study and predict the social and economic impacts of various climate policies and the ways on the ground climate impacts can affect vulnerable forest based communities. From an equity standpoint, these communities need to be asked about their needs as they will shoulder most of the burden from climate change and related policies. Opportunities to expand the use of certification systems to the wood for energy movement were also presented.

On a larger scale, energy was described as the issue to re-caste perceptions, hopefully adding support for forest issues. Along these lines, many participants saw the push for carbon sequestration and markets as an opportunity to bring along other types of ecosystem services provided by forests, such as water. Climate change was also seen as a reason to emphasize the importance of NTFP's which can provide food, medicine, income and firewood for cooking/heat.

The discussion brought up a myriad of interesting points to be scrutinized and moved forward.

VI. Conclusion and Next Steps

This year's Outlook Dialog, "*Meeting the Information Needs of the Changing Forest Sector*," proved that directly communicating with stakeholders is a productive way to gain new ideas, insight and understanding about the broad US Forest Service constituency and their needs. The meeting was a dialog for two way communication among the users and providers of US Forest Service research. In addition to the essential information exchange that took place, the meeting location and interactive sessions facilitated networking among user groups often separated by disciplines or geography. It also reaffirmed a number of lessons to engaging stakeholders such as the need to clearly define the objectives and outcomes of participatory meetings.

Meeting attendees encouraged the US Forest Service to engage new stakeholders generally, to improve relations with current research users, and to be more strategic in the use of information from and in the next iteration of the Outlook Dialog. These suggestions were tempered by the notion that emerging areas of research should not supplant the Strategic Program Areas already in place. Rather they should add to this existing foundation and inform Growth Platforms or other similar efforts.

Possible next steps:

- Host an Outlook Meeting for funders and deans of research schools to be strategic about accomplishing goals and increasing meaningful partnerships
- Ensure that the information from these type of meetings is clearly brought up to the executive level of the US Forest Service and integrated back to relevant program areas and departments
- Institute regionally based meetings, webinars or conference calls of stakeholders with specific themes and use the information gathered to inform the annual Outlook Dialog
- Publish a newsletter or Annual Report detailing program areas, funds spent and include research highlights or stories
- Increase the transparency of USFS R&D decision making and allotment of funds; invite diverse stakeholders to participate in peer reviews of Strategic Program Areas
- Ensure there is an increased focus on Participatory Research

- Create a blog on the USFS website to serve as a forum for questions and information sharing
- Track users of research on the USFS website and contact these stakeholders to understand if the information is meeting their needs
- Integrate and summarize the three Outlook workshops

Workshop Participant List

1. **Ann Bartuska** – USDA Forest Service, Research and Development
2. **Chris Bernabo** – National Council for Science and the Environment
3. **Nadine Block** – American Forest and Paper Association
4. **Johann Bruhn** – University of Missouri
5. **David Cleaves** – USDA Forest Service, Research and Development
6. **Cecilia Danks** – University of Vermont
7. **Gary Dodge** – Forest Stewardship Council
8. **Marla Emery** – USDA Forest Service, Northern Research Station
9. **Ann England** – National Council for Science and the Environment
10. **Alice Ewen-Walker** – Alliance for Community Trees
11. **Alec Giffen** – Maine Forest Service
12. **Nick Goulette** – Watershed Research and Training Center
13. **Morgan Grove** – USDA Forest Service, Northern Research Station
14. **John Hagan** – Manomet Center for Conservation Science
15. **Linda Heath** – USDA Forest Service, Northern Research Station
16. **Cheryl Horton** – National Council for Science and the Environment
17. **Ann Ingerson** – The Wilderness Society
18. **Elizabeth Larry** – USDA Forest Service, National Headquarters
19. **Donna Lewis** – Mercer County Planning Division, NUCFAC member
20. **Timothy Maker** – Biomass Energy Resource Center, BEREC
21. **Catherine Mater** – Mater Engineering Ltd.
22. **Cassandra Moseley** – Ecosystem Workforce Program, University of Oregon
23. **Carlton Owen** – US Endowment for Forestry and Communities Inc.
24. **Al Sample** – Pinchot Institute for Conservation Sciences
25. **Sara Vickerman** – Defenders of Wildlife
26. **Ben Wigley** – National Council for Air and Stream Improvement, NCASI