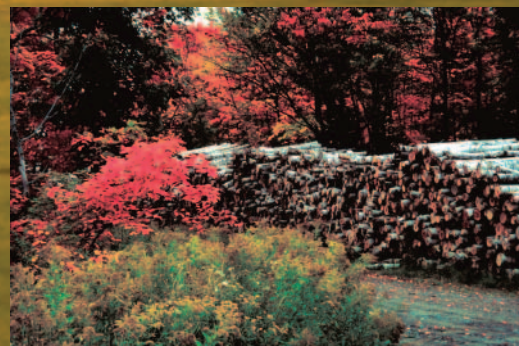


# USDA FOREST SERVICE SOCIAL SCIENCE RESEARCH AGENDA



February 2004



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## Purpose of the Research Agenda

Fragmented forests, invasive species, hazardous fuel buildups, and declining water tables — these are all signs of the remarkable changes underway in our environment. Human attitudes, behavior, traditions, economic choices, and institutions are major driving forces behind these environmental changes. Social science research offers a clearer understanding of human forces, the values behind them, and their interactive effects on natural resources.

Everyday, public and private land managers face tradeoffs that center around one question: How can they satisfy human needs and desires for products and services the land provides and still maintain ecological health? To answer this question, land managers depend on knowledge from the social sciences to help them incorporate human needs and impacts into natural resource plans and management actions. Furthermore, social scientists provide information about human perceptions, values, and beliefs, enabling managers to understand what Americans want to sustain over the long-term, and how to make informed, effective decisions about our precious natural resources.

Recognizing the growing need for increased understanding about relationships between people and natural resources, Forest Service research social scientists met in Albuquerque, New Mexico on June 19-20, 2001. They examined our Program's capabilities, anticipated research issues, and described current and future roles. Our Research Agenda's foundation emerged from their discussion. The Agenda contains internal guidance for further development of our Social Science Research Program, along with opportunities for expanding relationships with our users, research collaborators, and other interested people.



Photo courtesy of Bitterroot National Forest.

Horse logging



Photo by Milo Burcham.

Elk



Photo by T. Nicholls.

Pileated woodpeckers



Photo by Anne Baldwin.

Dyed wool

*The Nation's forests and grasslands provide diverse benefits, such as timber, wildlife, and wool, to the American public.*

## Overview of Forest Service Social Science Research

Forest Service research social scientists assess how values, human behavior, social institutions, economic activities, and demographic trends impact availability, demand for, and use of natural resources. In addition, social scientists explain how natural resource policies and land management decisions affect communities and private landowners near public lands, under-served populations, and the general public. Our social scientists come from many disciplines and specialties, including anthropology, archeology, economics, geography, landscape architecture, political science, psychology, and sociology.

They study a broad range of topics, such as:

- Rural economic development and tourism
- Special forest products use
- Forest products markets
- Outdoor recreation supply and demand
- Monetary and non-monetary resource valuation
- Human perceptions of natural resources and natural resource management
- Wilderness experience
- Past and current human influences on development of North America's landscape
- Sustainability of communities, institutions, and opportunities related to natural resources
- Impacts of changing demographics on natural resources and their management



Photo by Joe Tainter.

*Human activities have affected the North American landscape for thousands of years. Hovenweep Castle at Hovenweep National Monument, National Park Service, Utah.*



Photo courtesy of Wilderness Information Network.

*Americans value wilderness for protecting unique natural resources, and providing primitive recreation opportunities.*



Photo courtesy of USDA Forest Service.

*The forest products industry contributes to the economy in many communities across the United States.*

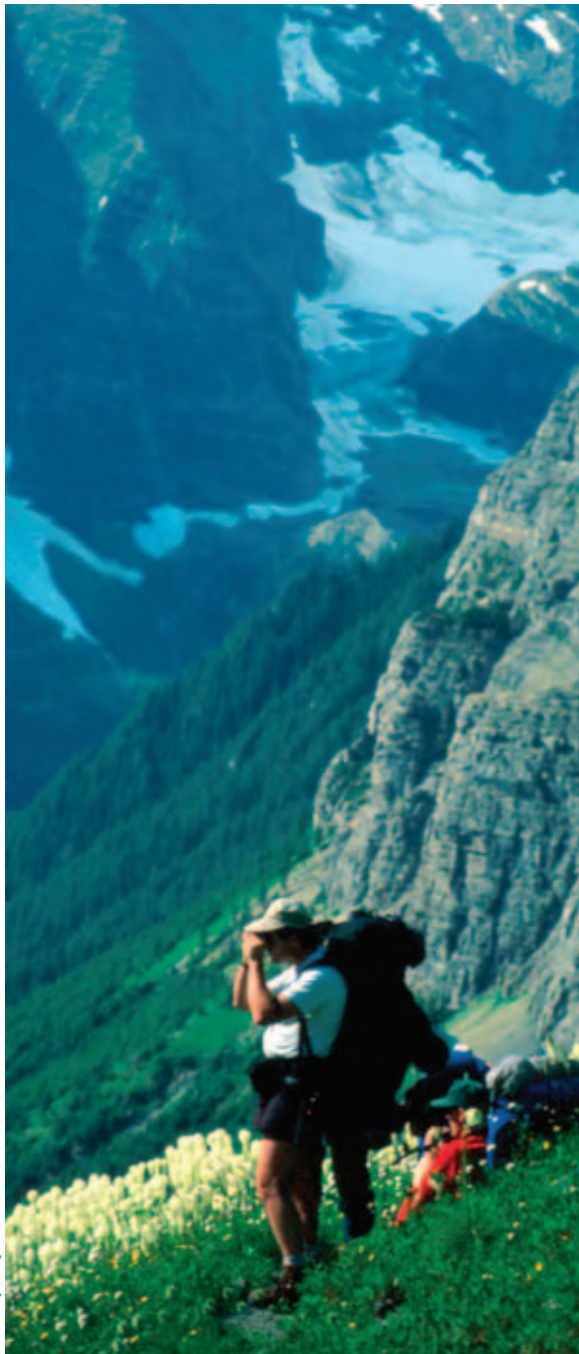


Photo by Stephen Peel.

Hiking

The Resource Valuation and Use Staff, USDA Forest Service Research and Development, Washington D.C., coordinate national needs for social science research. Across the United States and its territories, there are 18 research work units located in six Research Stations and the Forest Products Laboratory conducting social science research. Forest Service research social scientists offer products and services to a diverse international audience, including public and private land managers, scientists, landowners, policymakers, universities, and interested citizens. Our scientists provide tools such as social science surveys, models, and social assessments, as well as technical assistance in project design and evaluation. Our work enhances knowledge about human use of, and interaction with, natural resources through provision of basic research findings.



Photo courtesy of USDA Forest Service.

Family gathering

*The American public enjoys a wide variety of recreational activities on the Nation's forests and grasslands.*



Photo by Lawrence Hartmann.

Grand Canyon mule riding



Photo by Mike Vasievich.

National Forest campground

## Vision

Forest Service Social Science Research facilitates sustainable use and protection of natural resources by producing knowledge and tools that increase understanding of the relationships between people and their environment.

## Mission

We contribute to sustainable use and protection of natural resources by

- applying our research findings to management and policy issues,
- providing expertise in multiple social science disciplines, and
- synthesizing and interpreting social science knowledge to solve natural resource problems.

## Goals and Objectives

Five Goals and Objectives will guide our work over the next 10 years. These emerged from priority research themes identified during the June 2001 meeting in Albuquerque. We will attain our program goals in cooperation with our university, local, state, and federal partners as we continue delivering knowledge and applications to our customers. Where appropriate, we will conduct interdisciplinary research, both across the social sciences and with biological and physical scientists.



Photo courtesy of USDA Forest Service.

Wyoming river rafting



Photo by Mike Vasievich.

Michigan camp store



Photo courtesy of USDA Forest Service.

Alaska anglers

*Opportunities for recreation can stimulate economic activity in local communities.*

## Goal 1

Expand understanding of the human uses and values of natural resources, and their implication for management.

Natural resources furnish a variety of uses and values to people, ranging from forest products and their accompanying economic benefits, to observation of magnificent scenic vistas, and the sense of appreciation we feel for them. How do we choose which uses and values to satisfy at any given time? Although many factors influence such decisions, people's deeply held values and beliefs underlie their choices about resource management. As with any decision, management choices produce consequences or outcomes, such as impacts on endangered species, or increased fire risk. Forest Service social science research helps assess how human values and land use choices link to natural resource outcomes, knowledge critical for forest and grassland planning and management.

### Our priority research objectives include:

- Design and test methods for increasing responsiveness to critical issues such as fire and endangered species protection.
- Assess conflicts and tradeoffs between uses and values.
- Measure and track market and amenity/non-market values.
- Evaluate the relationship among values, uses, and attachment to place.
- Analyze trends in the supply of, and demand for, natural resources.



Photo by S. Stewart.

*Developing methods to measure the relative importance to the public of threatened and endangered species like dwarf lake iris or wolves helps land managers compare management options.*



Photo by Bill Munoz.



Photo by Erika Mark.

*People gather special forest products, such as morels, for recreational, subsistence, and commercial purposes. Understanding different types of uses is important in developing management guidelines for these species.*

## Goal 2

Develop and deliver information on the relationships among social, economic, and ecological sustainability.

Goal 2 addresses an important issue in forest and grassland management today: How do we protect our ecosystems over the long-term, while still using products and services derived from them to meet changing human needs? This goal requires the biological, physical, and social sciences to conduct integrated research. Social science contributes knowledge about how people interact with ecosystems, and how these interactions influence social and economic sustainability.

### Our priority research objectives include:

- Examine how multi-scale social, economic, and ecological trends and events affect community sustainability.
- Increase understanding of interactions and tradeoffs associated with achieving social, economic, and ecological sustainability.
- Develop new knowledge about the concepts of adaptability and resilience, as they apply to sustainability.
- Understand the effects of globalization on social processes that influence resource management.
- Assess the adequacy of forest and grassland resources in meeting human needs over the long-term.



Photo courtesy of Huron-Manistee National Forest.

*Sustaining recreation use requires balancing public demands and maintaining resource conditions.*



Photo courtesy of Dennis Becker.

*Researchers track economic and social changes associated with regional shifts in timber production, and effects of globalization on the competitiveness of the U.S. timber industry.*

Photo courtesy of Susan Alexander.

Photo by Mike Vasievich.



*Increasing demands for special forest products, such as morels and fiddlehead ferns, have led researchers to study the sustainability of current harvest practices.*



## Goal 3

### Develop knowledge about the role of community-based collaboration in public land management.

Citizens of a democracy have the responsibility to be involved in their government, and governments must provide opportunities and access for public involvement. In recent years, public land managers have found that working collaboratively with citizens over time, especially at the local level, can improve public land management. Experimentation with community-based collaboration has resulted in changes both inside and outside land management agencies. Social science research enhances understanding of social relationships, including the nature of collaborative behavior and its role in forest management.

#### Our priority research objectives include:

- Assess the effectiveness of different approaches to collaboration.
- Identify characteristics that foster collaboration between communities and public land managers.
- Understand the nature of mutual learning during collaborative stewardship processes.



Photo by Greg Jones.

*Management actions are more likely to have community support when local interests are involved throughout the planning process.*



Both photos in this group are by Deb Robison and Patti Maguire.



*Community members in Summit, CO spend a day removing fuels to decrease the threat of wildland fire. Researchers seek to understand the key factors contributing to successful community collaboration.*

*The Navajo Nation and federal agencies are working in partnership with a non-profit organization, Indigenous Community Enterprise, to provide affordable housing to tribal members, using small diameter ponderosa pine from local national forests (right).*



Photo courtesy of Indigenous Community Enterprise.

## Goal 4

Expand understanding of the human role in, and response to, environmental change.

Our natural environment changes over time in response to a variety of forces. In the past, humans impacted the world around them through activities associated with their needs and available technologies, then adapted to change as required. Today, because of increasing populations and technological advances, people are a major driving force behind environmental change. Social science research examines the contributions of human behavior and social practices to environmental change, and how people adapt to these changes.

### Our priority research objectives include:

- Evaluate the impact of expanding human populations along the wildland/urban interface on forest and grassland management.
- Assess humans' role in landscape change and impacts on natural resources.
- Project human adaptation to global climate change and impacts on forest and grassland management.



Photo by Joe Tainter.

*How past human societies adapted to change has implications for present-day sustainability. Palataki Cultural Site, Coconino National Forest, Arizona.*



Photo by Jeff Kline.

*Population growth can bring new development in or near forests and other wild lands.*



Photo by Jeff Kline.



Photo courtesy of USDA Forest Service.

*Increasing proximity of houses to forests raises concerns about the potential impact of development on continued commercial timber production, access to recreation opportunities, wildlife habitat, and wildfire threat to homes.*

## Goal 5

Expand understanding of the links between human diversity and natural resource use and management.

The United States' population has changed substantially over the last 30 years. These trends have resulted in new and different publics interacting with forests and grasslands. Social science research helps forest and grassland managers understand the potentially different perceptions, attitudes, and expectations regarding resource uses and values held by different cultural and ethnic groups.

### Our priority research objectives include:

- Assess the equity of impacts resulting from natural resource processes and provision of natural resource services/products.
- Expand knowledge about cultural uses of, and impacts on, natural resources over time.
- Evaluate and compare legal requirements regarding ownership, access, and resource use by specific cultures.



Photo by Anne Baldwin.

*Conflicts over management decisions can be reduced if we understand the relationship between diverse cultures and traditional land use patterns.*

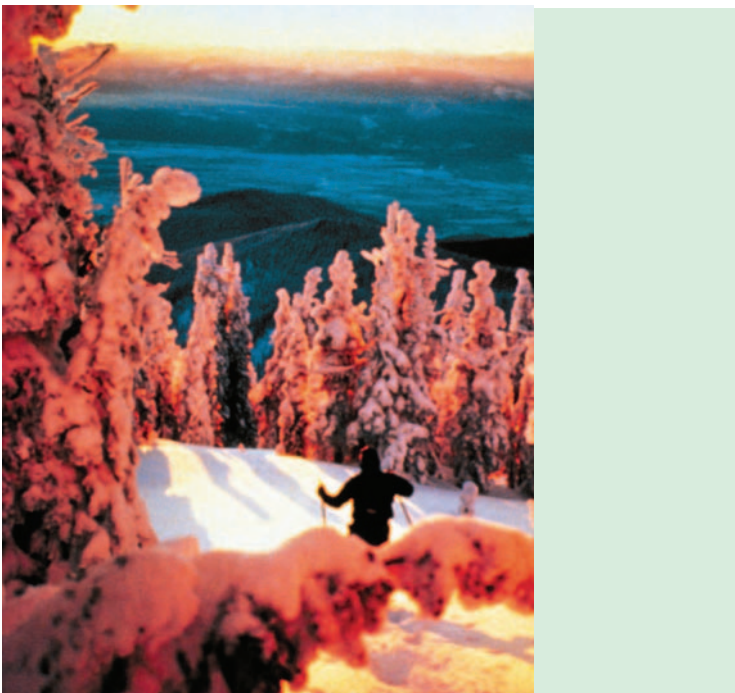


Photo courtesy of Wilderness Information Network.

Skiing



Photo courtesy of USDA Forest Service.

Picnicing

Photo courtesy of Wilderness Information Network.



Motor biking

*Understanding recreational preferences of different ethnic and racial groups in natural environments is essential to meeting the needs of a rapidly changing population.*

## Broad-Based Actions Necessary to Implement the Research Agenda

We need broad-based actions to implement the Forest Service Social Science Research Agenda. These broad, program-building measures will strengthen our capacity to conduct quality studies and effectively meet customers' needs. We need actions in the areas of communication, outreach, research capacity, and data collection and management.

- **Communication:** Expand our ability to communicate with others about our research products. We need to increase our efforts to synthesize existing knowledge and deliver information to a broad array of potential users. We also require a wide range of communication tools, such as workshops, web-based tools and publications, newsletters, and working papers.
- **Outreach:** Enhance our social science research capability by developing new relationships with non-traditional partners (i.e., tribes, urban populations, and others), reaching out to minority social scientists to obtain their participation in cooperative research, diversifying our research workforce, and involving diverse populations in setting research priorities.
- **Research Capacity:** Work to increase investment in social science research and applications to improve our ability to deliver knowledge for natural resource management and policy-making. We need to explore creative opportunities, such as cooperating with other federal research organizations and leveraging funds across Forest Service Research Stations.



Photo by Joe Tainter.

*Forest Service archaeologist explains methods used to document patterns of historic human occupation to a group of Agency research leaders.*



Photo courtesy of USDA Forest Service.

*Urban treehouses are designed to provide opportunities for urban youth to learn about natural resources.*

- **Data Collection and Management:** Improve our ability to collect and manage social science data. Federally-funded primary data collection on people generally requires clearance of survey instruments to comply with the Paperwork Reduction Act of 1994. Consequently, social scientists must engage in a complex administrative process before data collection can begin. We need actions to clarify and streamline processes to enhance efficiency and timeliness of our data collection. In addition, to better address the complex natural resource questions we face now and in the future, we require new options for conducting longitudinal surveys, and expanded use of mixed methodologies across disciplines.

Photo by Brooke Thompson.



*Knowledge and decisions about natural resources improve when we all work together. University, private industrial, and Forest Service researchers cooperate to share information with each other, private/government resource managers, and the public (top and bottom).*

Photo courtesy of Richard Haynes.



## Conclusion

We believe our Social Science Research and Development Program will greatly enhance understanding of the human role in sustaining natural resources over time. We will expand knowledge and develop useful methods and tools based on the goals, objectives, and broad-based actions outlined in this Agenda. Our work will provide scientific data that links past, current, and future human activity to environmental change, helping land managers make responsible and defensible management decisions. Equipped with integrated knowledge about the human, biological, and physical dimensions of ecological systems, we will all be in a better position to sustain people and the bounty of our natural resources far into the future.



Photo by Joe Trainor.

*Current environmental conditions result in part from past land use practices. Social scientists continue to study human activities to better understand how we can achieve sustainability. Tsiping Great Kiva, Santa Fe National Forest, New Mexico.*

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**United States Department of  
Agriculture**



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[http://www.fs.fed.us/research/  
social\\_science\\_research.htm](http://www.fs.fed.us/research/social_science_research.htm)

**February 2004**

*Cover: Photo by Milo Burcham*

*Inset photos:*

*Left photo by Joe Tainter*

*Middle photo by Mike Vasievich*

*Right photo courtesy of Huron-Manistee National Forest*

