

Social Science and the Bitterroot National Forest: A Synthesis

Stephen F. McCool
James Burchfield
Wayne Freimund

Abstract—The objective of this research was to synthesize a number of studies focusing on human dimensions of public land management in the Bitterroot National Forest. While 35-40 such studies have been conducted, their cumulative knowledge is limited by use of a variety of approaches, scales and frameworks. Four themes emerged from the synthesis: public attitudes toward management of national forest lands; the relationship between the Forest Service and local residents; recreation and wilderness use; and the linkages between the Bitterroot National Forest and local economic development.

The Bitterroot National Forest has been at the center of resource management conflicts for over a quarter century. Timber harvesting, aesthetic resource management, wilderness fire management, and endangered species restoration have all seemed to find their way to the Forest. A rapidly growing, and socially polarized, setting has often served as the context for this continuing series of conflicts, which do not occur in isolation of other issues confronting the local population.

While a number of researchers have sought to understand various dimensions of this context, as well as the social and political basis for them, that research has never been synthesized. The research has encompassed a variety of project types and methodologies, including recreation and aesthetic preferences of wilderness visitors, attitudes toward resource management activities and tourism, dimensions of public participation in resource decisions, and economic development strategies.

This project had three major objectives:

1. Find meaning, in terms of general conclusions, not restate data, in the results of this research;
2. Provide an interpretive assessment, stated in terms of general propositions useful for ecosystem-based management, of social science research in, about and for the Bitterroot National Forest; and
3. Identify gaps in knowledge and potential research questions that could guide future social science research so

that it is not only more useful, but better integrates with other sciences.

A final report (McCool and others 1999) has been produced.

The Social Context for Research in the Bitterroot National Forest

Several major contextualizing factors influence how the research was conducted and its meaning within the context of ecosystem-based management processes on the Bitterroot National Forest (Bitterroot Forest). These factors include:

- The geographic context for the Bitterroot Forest places it within a region of concentrated amenities juxtaposed to significant commodity resources.
- The mountains surrounding the valley serve as an attractant to new residents because of their scenic beauty and proximity for outdoor recreational experiences.
- Dramatic increases in human population place strains on the urban-wildland interface.
- The natural resources management policy environment is characterized by lack of agreement over goals and methods.
- Federal funding for management of the Bitterroot Forest has declined significantly in the last decade, forcing administrative reorganization, reduction in personnel, and shifting priorities.
- Accompanying reductions in funding for management have been changes in the mix of goods and services the public demands from the Forest.
- Changes in federal land management policies over the years have created uncertainty about the direction that agency leaders may take.

The above seven contextualizing factors serve to make the environment for research and management complex (messy as we argue in the report), pointing out deep deficiencies in social science research and its relevancy to management.

Social Science Research Themes

We note that social science research concerning the Bitterroot National Forest is not extensive, and many of the findings are several years old. This conclusion is not to fault any one; given the extremely limited funding for this type of research and the general low priority that it is given in most management situations, we were not surprised.

In: Smith, Helen Y., ed. 2000. The Bitterroot Ecosystem Management Research Project: What we have learned—symposium proceedings; 1999 May 18-20; Missoula, MT. Proceedings RMRS-P-17. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Stephen F. McCool is a Professor, School of Forestry, University of Montana, Missoula, MT 59812. James Burchfield is an Associate Research Professor and Director of the Bolle Center for People and Forests, School of Forestry, University of Montana, Missoula, MT 59812. Wayne Freimund is an Associate Professor and the Director of the Wilderness Institute, School of Forestry, University of Montana, Missoula, MT 59812.

Our review of research identified four major themes, each with its own set of findings.

First, one primary area of research has dealt with public attitudes toward the Bitterroot National Forest and its management of the landscape. In general, attitudes tend to be bi-modal, with the majority of the public satisfied, but a substantial minority dissatisfied. Yet this research demonstrates that the dissatisfaction with management that has typified the agency over the last three decades continues to this day.

A second primary area concerns the relationships the Bitterroot Forest has with its publics. This research has focused on measures of successful public participation, views of consensus processes, evaluations of the use of sophisticated technology and computer models in public meetings, and suggestions for new methods of public participation. This research generally acknowledges the good faith attempts of the Bitterroot National Forest to improve its relationships, but also suggests, not surprisingly given the history of the Forest, that there is a ways to go.

A third area deals with investigations of recreation and wilderness users. This area of research points to two major findings: (1) the Selway-Bitterroot Wilderness has been used in several studies, but more because of its convenience to conduct research on specific wilderness user issues than to create understanding for management, and (2) visitors are generally satisfied with the level of facility development and recreation services available in recreation settings outside the wilderness.

The final area of research deals with the role of the Bitterroot National Forest in local economic development, particularly tourism. This area has not been well developed, but shows some disagreement about the acceptability of tourism development with valley residents.

Some General Conclusions About Social Science Research and the Bitterroot National Forest

We reviewed a number of social science research studies, yet we could not help but be struck by several characteristics of those studies. First, there have been between 35 and 40 such studies, a large number for many national forests. Those studies have led to lots of data for managers and planners to consider. Yet, because the studies were largely ad hoc in character and conducted at a variety of scales with few explicit connections among them, we have little formal knowledge of how the system works, nor do we understand the linkages among the various scales that influence management of Bitterroot National Forest resources.

We are impressed with the attempts by each of the scientists to conduct the individual studies in a credible, defensible manner. The studies were informed almost solely by the salient scientific disciplines, yet ecosystem-based management is organized around social values and goals, which are not discipline-based, but socially derived. This leads to a functional mismatch between the goals of ecosystem-based management and the orientation of social science research. We suspect that other research disciplines are confronted with similar questions.

While there are lots of studies in the file drawer concerning the Bitterroot National Forest and those studies have produced lots of data, we are troubled about the lack of knowledge these unconnected studies bring. Perhaps it is not so much the lack of knowledge as much as the illusion of knowledge that may occur when one views the stack of social science research. This illusion can be as much a barrier to understanding how the system works as the lack of knowledge.

Research Needs

Given the paucity of research, a more comprehensive and systematic social science research program oriented around the following themes would be useful in developing a better understanding of the interactions people have with natural resources in the Bitterroot National Forest:

First, the high rates of migration into the valley and the pace of social change suggest continuing conflict and controversy. Better understanding of the role of aesthetics and other amenities would help identify differences in attitudes toward the environment between newcomers and "old timers" and suggest possible ethical bases for conflict.

Second, in a county that is growing rapidly and has had difficulty developing a vision of its future where the Forest Service manages nearly three-quarters of the land, transboundary questions are important. Such issues include collaborative relationships, intergovernmental agreements, the significance of the three wilderness areas to the public, and how boundaries are perceived.

Third, much of the population growth is occurring near the national forest boundary, in the urban-wildland interface. Such population growth raises a number of significant questions with respect to fire suppression, use of fire as a management tool, habitat fragmentation, and access to the forest.

A fourth area concerns the planning and policy mechanisms to deal with contentious issues. How do people cope with policy change? What institutional arrangements are available to enhance learning and establish venues for safe and secure discussion of land management? Is the forest planning process appropriate to the type of messy situation the Bitterroot Forest finds itself enmeshed in?

Finally, the recreational and wilderness resources on the forest are substantial, yet the knowledge base with respect to management of visitors is minimal. Research on visitors would help identify acceptability of management actions, motives and benefits from participation, and perceptions of popular use-limit techniques.

Conclusions

While we have proposed a comprehensive social science research agenda that addresses socially important questions, we are still concerned that this agenda is not linked to the other disciplines (such as hydrology, wildlife biology and landscape ecology) conducting research in the Bitterroot Forest. The issues confronting management of the forest are complex and cut across disciplines, yet are addressed, as in

many other settings, with a disciplinary focus and emphasis. These problems are complex, they are contentious, and they are messy. Integrated research may provide the scientific basis for resolving many of them, but our current direction in research is to collect data first and ask questions (about its usefulness) later.

Integrated research (science involving a variety of disciplines simultaneously) is built upon understanding of the values in question, agreement about the problem, and stipulations about what disciplines can provide what type of information in what form and at what scale to whom. For example, focusing on defining successful public participation without understanding the knowledge basis of how ecosystems work and how that knowledge can be incorporated into a public involvement process has little long term application.

Since the questions the public asks are integrative in character, successful synthesis begins at the beginning. We are deeply concerned that without such a beginning, we will not achieve an acceptable level of understanding of the connections among the various parts to the system.

Reference

McCool, S.F.; Burchfield, J.; Freimund, W. 1999. Social Science Research And the Bitterroot National Forest: An Assessment and Synthesis. Missoula, MT: The University of Montana, School of Forestry. Technical Completion Report. RMRS-98504-RJVA. 48 p.