

# Natural Resources and Environmental Issues

---

Volume 5 *Ecosystem Management of Natural Resources in the Intermountain West*

Article 21

---

1995

## Social and political mechanisms for establishing ecosystem management objectives

Robert D. Fitts

*Department of Forest Resources, Utah State University, Logan*

Howard P. Gross

*Watershed Science Unit, Utah State University, Logan*

Michael J. Jacobs

*Department of Rangeland Resources, Utah State University, Logan*

Brenda J. Tall

*Department of Forest Resources, Utah State University, Logan*

Jamie K. Thompson

*Department of Forest Resources, Utah State University, Logan*

Follow this and additional works at: <https://digitalcommons.usu.edu/nrei>

---

### Recommended Citation

Fitts, Robert D.; Gross, Howard P.; Jacobs, Michael J.; Tall, Brenda J.; and Thompson, Jamie K. (1995) "Social and political mechanisms for establishing ecosystem management objectives," *Natural Resources and Environmental Issues*: Vol. 5 , Article 21.

Available at: <https://digitalcommons.usu.edu/nrei/vol5/iss1/21>

This Article is brought to you for free and open access by the Journals at DigitalCommons@USU. It has been accepted for inclusion in Natural Resources and Environmental Issues by an authorized administrator of DigitalCommons@USU. For more information, please contact [digitalcommons@usu.edu](mailto:digitalcommons@usu.edu).



# Social and Political Mechanisms for Establishing Ecosystem Management Objectives

**Robert D. Fitts**

Department of Forest Resources

**Howard P. Gross**

Watershed Science Unit

**Michael J. Jacobs**

Department of Rangeland Resources

**Brenda J. Tall**

Department of Forest Resources

**Jamie K. Thompson**

Department of Forest Resources

## Abstract

*While social values guide the objectives of ecosystem management, successful execution requires a public well-informed on the consequences of alternative decision options. Daniels advocates a group-learning process entitled "collaborative learning" to achieve this understanding. Agency personnel should assume the roles of educators, facilitators, and managers. The agencies must also open up, mediate, and share decision-making power with the public while avoiding advocacy of any particular interest-group's desires. Policy makers have a role in influencing social values by fostering a nonadversarial politics of cooperation and consensus building.*

## INTRODUCTION

According to Steve Daniels, the paradox of ecosystem management is involving the lay public in an extremely complex, scientific process. Society is made up of the public at large as well as the groups actively seeking change. Succeeding in ecosystem management depends on cooperation between agency employees and scientists working together to inform the nontechnical public, and between the interest groups working together in a spirit of compromise.

Necessary changes can be hampered by organizations interested in maintaining the status quo, erosion of community integrity, ecological illiteracy, the adversarial political system, and resistance to streamlining by agencies. Numerous speakers showed that these things can be overcome to achieve what Ken Cairn called ecosystem stewardship.

## SOCIETY

The social values of the general public should guide the objectives of ecosystem management. However, in order for this to occur, society must be well informed (Grumbine 1994)

so that it can evaluate the potential repercussions of its desired uses of an area, and in order that it can view itself as part of the decision-making system.

Daniels addressed this issue by recommending "collaborative learning" as a mechanism that brings people from a certain locale together to share and learn about the challenges facing them in managing their ecosystem. Understanding the various points of view that different members of society hold as well as the potential effects of each's uses of the ecosystem helps bring about a consensus, or at least an increased awareness of the pros and cons of specific management options.

The type of group learning proposed by Daniels, which should include local scientists and managers as well, helps to reshape and mold values which maximize both the health of the ecosystem and the benefits derived from its use. In his view, this is critical because technical information about the management of an area is often supplied indirectly to the public. In such cases, the technical information reaching them bears little resemblance to the actual conclusions drawn from a particular research project because the information is taken out of context or is simply misinterpreted. This breakdown of communication is a weak link that needs to be

strengthened if the public is expected to modify its values and make ecologically sound choices.

Increased awareness and improved discourse can bring persons with differing points of view together. Doc and Connie Hatfield did this with ranchers, the Isaac Walton League, and the U. S. Fish and Wildlife Service on the Trout Creek Mountain project in Oregon. Their project brought these groups together to save an endangered fish.

On a larger scale, KenCairn explained that in forming the Applegate Partnership in Oregon, all of the groups were concerned with forest health, even if they were adversaries. His group actively involved local communities and federal agencies in management of an ecosystem.

### SCIENTISTS

Winnie Kessler suggested that there are three things we must ask ourselves as we set ecosystem-management policy. Is the policy economically feasible, is it socially desirable, and is it ecologically sound? Naturally, it should be the scientists' role to decide what ecological soundness is. But they should not isolate themselves from the responsibility of working within the realms of economic feasibility and social desirability as well. It is their responsibility to provide information necessary for effective planning by agencies and policy makers, and for educating the public. David Roberts suggested that the role of scientists is to determine not what should be, but what can be managed.

Just as Kessler's three questions are related, so should natural-resources scientists, economists, and sociologists interact. This calls for the active participation of the scientific community in the ecosystem-management decision process. As the roles of natural-resource managers and other policy makers evolve, so should the scientists' roles change.

Grumbine (1994) suggests that there is a need to adopt "standard definitions, measures and procedures" for dealing with ecosystem management. Kessler called for new approaches for dealing with the complexity of ecosystems. According to her, these new approaches should include study of an ecosystem's range of variability and an attempt to learn to play by nature's rules. It has been said that "ecologists all too frequently forget about people" (Shannon 1991). Daniels recommended that there should be an increase in discourse between scientists and the public.

Kessler contended that science should educate the public, especially on the theme that natural events are natural. There is often a tendency among the lay public, when discussing preservation, to advocate the maintenance of particular sites in their present conditions. This implies a need to manipulate natural processes by keeping perturbations out of ecosystems.

Speaking on the question of what is ecologically sound, Chris Risbrudt mentioned that fire needs to be reintroduced into many ecosystems to maintain their health, but the public rarely sees this as a necessary natural process. They react negatively to the destruction of familiar and symbolic sites and question the wisdom of professionals who are supposed to protect the natural resources of the public domain. Feed-

back from monitoring can be used as a tool to help educate the public about the nature of ecosystems, as Kessler suggested. Salwasser proposed that science provides information about choices, and influences those choices.

Jack Stanford suggested that scientists keep the question of whether the public understands the research, and the consequences of their decisions, in mind when they are presenting scientific findings.

### AGENCIES

If ecosystem management is to become a reality, government agencies must fulfill three roles: educators, facilitators, and managers. To educate successfully the agencies must first understand the ecosystem functions, processes, and thresholds necessary for maintaining ecological integrity and diversity. As educators, the agencies must provide the latest, most accurate technical information to the public. Some training may need to be provided to the public in order to ensure a common basic level of understanding. This is necessary so that the politics of both inclusion and expertise, discussed by Daniels, may be blended to resolve the inherent conflict. If ecosystem management is to truly shift goals from sustained yields to sustained systems, as stated by Kessler, then the thresholds of the system must clearly be explained to all involved parties.

As facilitators of ecosystem management, the agencies must open up, mediate, and share the power of decision making with the public. While they must avoid advocacy of any particular group's interests, they cannot abandon responsibility for the goal of sustaining ecological integrity. Public expectations of immediately resolving natural-resource conflicts through ecosystem management should be tempered. Daniels integrated these and other objectives in what he described as "collaborative learning." While a local, on-the-ground focus involving affected and concerned interests is necessary for ecosystem management to succeed, the agencies must also fulfill their responsibilities under federal environmental legislation and ensure that adequate attention is paid to regional and national concerns about public lands.

While the agencies focus energy on their changing responsibilities as educators and facilitators, their role as managers will also change under ecosystem management. Kessler described the process the agencies need to follow as "adaptive management." This process emphasizes that implementation of ecosystem management is experimental, and requires monitoring, assessment, and modification of objectives if necessary. Because of the complexity and uncertainty of ecosystem management, Kessler also said it should be a learning as well as a planning process.

Agency culture must change in order for ecosystem management to succeed. Direction within the agencies from the top down must stress interagency efforts. Doc Hatfield commented that the duration of job assignment for on-the-ground personnel must be long enough to allow them to truly understand the ecosystem, its management needs, and the concerns of local people. This will allow the local emphasis on ecosystem management to be more effective.

## POLICY MAKERS

Those who legislate and execute policy, whether at the community, state, national, or global level, exist in an interdependent relationship with the society in which they govern. Thus, they influence the direction of social attitudes while reacting to their constituents' current social values and expectations. A conflict between the perceived well being of one group with the perceived well being of another requires that policy makers play the role of mediator in conflict resolution. The populace generally accepts the loss of personal liberties if they understand that policies are based on the principles of equity and justice (Adler 1981). During the Ecosystem Management Symposium two approaches to conflict resolution by policy makers were discussed.

The first approach focused on the ability of policy makers to influence social values. Several speakers, including George Coggins and Jack Ward Thomas, called for strengthening old conservation laws. Coggins proposed creating new laws which would provide a clearer mandate for ecosystem management. He also emphasized the importance of congressionally mandated, jurisdictional authority of ecosystem boundaries in landscapes which exhibit multiple ownership. Thomas and Mike Dombeck identified the need for streamlining the bureaucratic process, and changing the laws to fit the new management scheme.

Coggins argued that it would not be sufficient simply to write new conservation laws, but those laws must also be enforced even if enforcement entails costly litigation. Louisa Wilcox discussed the litigation approach, giving examples of litigation over Yellowstone wildlife and geothermal resources that cross park boundaries.

The second approach emphasized the importance of a participatory public in directing policy makers in ecosystem management. This group, which included Steve Daniels and Doc and Connie Hatfield, called for a radical change from the present adversarial system of competition, polarization, and antagonism toward the non-adversarial politics of cooperation and consensus building referred to by Shannon (1991). She argued that such a "bottom up" approach is highly sustainable because it enjoys a high degree of public legitimacy and would save the resources currently expended on litigation and appeals.

Ted Stewart stressed the importance of state involvement. He pointed out that states have broad powers over wildlife, water, and land use. States also can have cooperative agreements to share information and wildlife habitat management. Stewart emphasized that ecosystem management cannot succeed with only federal power, that states must take

the lead, and that landowners must not be repressed. The landowner issue was restated by Thomas.

Somewhat in opposition was Coggins' view that states had a poor record in cooperation and action on environmental issues.

Finally, long-term and large-scale conservation goals will be difficult to attain in a global environment of increasing population pressures, increased resource use, and high inequality between the social, ethnic, and gender classes (Meffe et al. 1993, Sieving et al. 1994).

## CONCLUSION

In conclusion, from a policy perspective, ecosystem management is a viable proposal; however, its implementation will be difficult due to the required social and legislative changes. It is also apparent that sustainable ecosystem management is intimately linked to an ecologically literate and participatory public. However, during the process of creating participation, it may be prudent to establish stronger conservation laws and utilize the adversarial system to keep the agencies accountable for their actions.

We feel that scientists and agency personnel must take the time to be good educators and develop communication skills if ecosystem management, as expressed in the symposium, is to be successfully carried out.

## REFERENCES

- Adler, M. J. 1981. *Six Great Ideas*. Macmillan, New York. 243 pp.
- Grumbine, R. Edward. 1994. What is ecosystem management? *Conservation Biology* 8:27-38.
- Meffe, G. K., A. H. Ehrlich, and D. Ehrenfeld. 1993. Human population control: The missing agenda. *Conservation Biology* 7:1-3.
- Sieving, K. and BIO SCI 296A, S. Bechta, D. Burmester, M. Casazza, M. Finan, J. Hunting, S. Martinez, J. Merz, K. Norton, B. Rosco, T. Sasaki, R. Stafford, B. Stedman, M. Wenzel, and B. Williams. 1994. The population crisis demands a focused agenda. *Conservation Biology*. 8:305-307.
- Shannon, M. A. 1991. Ecosystem Management in a Dynamic Society. In LeMaster, D. C., and G. R. Parker, eds. *Proceedings of a conference in West Lafayette, Indiana, November 19-21, Department of Forestry and Natural Resources, Purdue University, West Lafayette, IN: iv+165 pp.*