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Exploring the Concept of "Ownership" in Natural Resource Planning

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Literature associated with natural resource planning reveals that in situations characterized as wicked (i.e., those to which there is great uncertainty about cause–effect relationships and where values and goals are conflicting or competing), traditional planning processes that emphasize technical analysis and limit citizen involvement often create tensions between citizens and agencies in the form of inaction, distrust, litigation, and occasionally even threats and violence. A new concept is emerging that describes the potential for individuals to address wicked situations. The term is "ownership" and has been defined as responsibility, obligation, and caring imbued by individuals in problem situations. We expand this definition to include three characteristics: ownership in process (whose voice is heard), ownership in outcome (whose voice is codified), and the ownership distribution (who is affected by the action). Ownership involves the association of citizens and agencies to collectively define, share, and address problem situations with implicit reexamination of the distribution of power.

Keywords collaboration, democracy, governance, natural resource planning, ownership, public involvement

If anything typifies the state of natural resource planning and management in the United States, it is the "analysis paralysis" so succinctly summarized by Forest Service Chief Dale Bosworth (Bosworth 2001). If planning can be defined as a process of identifying a desired future and selecting appropriate actions to achieve it, or, as Friedmann (1987) describes, a process of linking knowledge to action, we have learned that there are considerable public disagreements on what that desired future should be. There are also questions about the appropriateness of management actions to achieve that desired future, particularly in the face of "wicked" problems and messy situations.

Contemporary natural resource issues are, by their very definition, wicked in nature. Wicked problems involve multiple and competing values and goals, little scientific agreement on cause–effect relationships, limited time and resources, incomplete information, and structural inequities in access to information and the distribution of political power (McCool and Guthrie 2001; Rittell and Webber 1973). Traditional public involvement processes used in natural resource planning (with an emphasis on procedure, timetables, and testimony) are ill-suited to deal with

wicked problems and often create tensions between citizens and agencies in the form of inaction, distrust, litigation, and occasionally even threats and violence.

An objective of many natural resource planning processes is to create "ownership" in processes and decisions resulting from them (Cesteros 1999; McCool and Guthrie 2001; Wondolleck and Yaffee 2000; Van Riper 2003). Ownership as a shared definition of a problem has also been described as integral to addressing problems and seeking solutions (Gusfield 1989; Hajer 1995; Loseke 1999). Many of these authors note that when both citizens and agencies are intimately engaged in planning processes, a sense of ownership in the plan is created, leading to greater chances for political support and implementation. Yet with only a paucity of literature describing the term, questions remain: Can ownership be clearly defined? How does the concept of ownership translate to "on-the-ground" changes in natural resources and human relationships? How can existing institutions and related institutional frameworks be redesigned or reformed? To what degree do existing rules and regulations help or hinder the notion of ownership? While ownership is often proposed as an objective of natural resource planning, there has been little discussion of its meaning in this context and the necessary conditions for its attainment.

This article explores the emerging use of the term ownership in natural resource planning, reviews its conceptualization and application, and identifies questions and issues concerning the design of process. Our objective is to offer both a detailed examination and stimulate discourse about this emerging concept. We argue that a better understanding of ownership can lead to improved community–agency interactions and more widely accepted natural resource plans, while better addressing wicked natural resource problems.

On Why Ownership is Lacking

Contemporary natural resource planning processes in the United States continue to be based on methods developed out of Progressive Era policies of "technocentric utilitarianism" (Klyza 1996, 15). This approach to planning, often termed synoptic or rational-comprehensive, conforms to expert-based processes and scientific analyses stressing reliance on scientists and technicians to reveal the public interest (Poisner 1996). Science is of course essential in natural resource planning, providing information and analysis on indicators and the attainment of standards. Yet science alone does not address the desirability of the conditions, since these are normative decisions based on value judgments (Burchfield 2001). For example, the conflict over management of snowmobiles in Yellowstone National Park is often defined in the technical terms of air pollution and impacts on wildlife. Yet fundamental to the conflict are significant differences in values and beliefs about the purposes of national parks.

While state and federal land managing agencies increasingly promote public involvement processes since the enactment of legal mandates such as the National Environmental Policy Act (NEPA), the agencies have also maintained a technocratic orientation to such involvement, often viewing public input as little more than another source of data. The mechanization of an inherently dynamic and potentially creative process inevitably leads to formalized meetings, one-way dissemination of information, and the disjointed execution of mandated planning phases, doing little to create a sense of ownership for the problem and its resolution.

Toward an Understanding of the Emerging Concept of Ownership

The meaning of ownership is evolving from legal and jurisdictional issues of title over land and related resources to a more conceptual notion that the public has interest in and a sense of responsibility for stewardship of public resources. This emerging use of the term ownership is described by Wondolleck and Yaffee (2000) as the responsibility, obligation, and caring imbued by citizens and agencies for both the problem and the process of public resource planning and management. Hajer (1995, 42) identifies problem ownership in terms of the policymaking process and related social constructions that seek to define "how certain actors have successfully imposed their definitions of a problem on others." Van Riper (2003), Cesteros (1999), and McCool and Guthrie (2001) also use the term to describe a sense of responsibility and influence over particular natural resource planning situations.

Yet in each of these descriptions, the term is only summarily defined and described. We expand and clarify the definition of ownership to include three distinct characteristics. First, ownership involves the processes by which voices are heard and considered legitimate or valid. Problems can be defined or "framed" so as to either benefit or harm individuals in terms of claims, meanings and viability. The framing of problems drives underlying assumptions, guides strategies taken, and ultimately influences the quality and acceptability of a plan (Gray 2003; Bardwell 1991). The privileging of particular ideas, forms of knowledge, and definitions of problems influences interactions between individuals and the choices they make to address a situation. Citizens and agencies that share problem definitions consequently share ownership in problem-solving approaches and thus work together to achieve mutual goals. As Gusfield (1989) and Loseke (1999) note, ownership in problems is dependent on how situations are defined and understood by different individuals. Ownership is attained when individuals achieve "the right to have their interpretation accepted as correct and authoritative" (Jenkins 1995, 108). Consequently, ownership challenges conventional notions of the "culture of technical control" (Yankelovich 1991, 9) and redesigns conventional citizen–expert interactions (Williams and Matheny 1995). The ownership in process allows citizens and agencies to negotiate ideas and reconsider how problems are defined. Ownership imposes a process that prioritizes deliberation and attempts to build mutual understanding of interests, agreement on data, and shared definitions of problems.

Second, ownership challenges conventional notions of power and control over the outcome. Ownership involves not only the definition of the problem, but a voice in the outcome. In this sense, ownership reallocates influence or direct authority over decision making and the execution of actions. Reworking traditional concepts of power and negotiating a redistribution of power is complex, particularly within the current legal institutional structures guiding natural resource planning. As Forester (1999) notes, power in planning situations is often not randomly distributed, but is held in differing amounts by different interests, often with structural inequities in its distribution. The redistribution of power over the outcome, however little is conceded or allocated to citizens, will always remain a political task fraught with obstacles and complexity. Yet as Barber (1984, 272) notes, "People refuse to participate only where politics does not count—or counts less than rival forms of private activity. They are apathetic because they are powerless, not powerless because they are apathetic."

The third characteristic of ownership concerns its distribution across diverse social, political and ecological scales. This last characteristic involves who is affected by the action and how plans and decisions are distributed, accepted, and "owned" spatially. This sense of ownership involves both horizontal and vertical notions. Horizontal ownership is the interaction of interested citizens and agencies in the physical place that is the subject of the plan; vertical ownership involves scales linking local, regional, national and even international interests. We note that the distribution of ownership is often limited to the interaction of a small group of special interests, for example, scientists, agency personnel or environmentalists. Yet when ownership is widely shared across a complex cultural and ecological landscape, the likelihood of broad social acceptability and political implementation increases.

As seemingly difficult as it may be to construct ownership, successful examples abound, notably in the Western United States involving issues of forest or watershed management (Cesteros 1999; Snow 2001; Wondolleck and Yaffee 2000). The Upper Clark Fork Steering Committee in Western Montana exemplifies ownership of process and outcome and its extensive distribution. The committee was formed in 1991 with a legislative mandate to produce a water management plan for the Clark Fork River (Olson 2002). The group was allowed to both define the problem and design solutions while knowing their plan, if legal and applicable, would eventually be implemented by the Montana legislature. Although members of the committee included citizens and agency staff with divergent interests, backgrounds, and knowledge bases, the management plan they crafted became a bill that passed the legislature nearly unanimously.

A second example of ownership involves the management direction developed for the Bob Marshall Wilderness Complex among a diverse group of citizens and agency staff using a collaborative planning approach (McCool and Ashor 1984). Participants were able to agree to a management plan, knowing the agency would accept the plan if all parties were able to resolve their differences at the table. Twenty years later, participants continue to meet to periodically update the plan. Other examples of ownership over process, outcome, and its distribution include the Applegate Partnership (Rolle 2002), the conflict between off-road vehicle use and endangered species on Cape Cod National Seashore (Barry 1998), and the Inimin Forest Management Plan in California (Duane 1997). In these processes, a sense of ownership enabled creative solutions that most likely would not have been considered using a synoptic approach. These processes were also likely less costly in the long term by avoiding litigation and enhancing chances for future interaction and experimentation. Ultimately, ownership of these processes led to broad social and political acceptability.

Many of these examples illustrate the capacity of citizens and agencies to jointly "own" a process and outcome. Ownership often results in improved relations between citizens and agencies with success measured as much by ecological, on-the-ground changes as by social and political acceptability. As others have noted, successful planning is more than simply producing a product (i.e., the final planning document) but rather involves other significant dimensions related to learning, relationship building, interest representation, and social and political acceptability (Conley and Moote 2003; McCool and Guthrie 2001).

We recognize that creating a sense of ownership may not address all wicked problems, nor will it ensure that all voices are accommodated. Ownership does, however, acknowledge alternate forms of knowledge and allows for more inclusive

distribution of power over outcomes. Agencies can do much more than simply provide formal forums such as public hearings with likely grandstanding and political posturing common. Managers, planners, and policy architects can act as "deliberative practitioners" to provide for active dialogue, learning, and negotiation in the design of the future (Forester 1999). Agencies can begin to address ownership in a number of ways: by sharing in discussions about the nature and need for policy changes before crises emerge; by providing more frequent and open forums for learning, deliberating, understanding, and expressing diverse opinions; by addressing issues of spatial and temporal scale cooperatively with other agencies and institutions; by asserting adaptive planning and management and actively taking risk and learning from experiences; by resolutely monitoring projects and evaluating results with the use of citizen groups; by incorporating both scientific and experiential knowledge and providing forums for the active interchange of the ideas generated; and by encouraging deliberate and creative interaction with constituencies in the definition of problems and the design of strategies through on-site field trips, group-oriented *charrettes*, and other hands-on opportunities for learning.

Public venues can become places of "ownership" where interpretations of problems and the strategies taken to address them are explained, defined, understood and accommodated. Ultimately, agencies must recognize that ownership implies a shift in power, whether direct decision-making authority or more tacit forms of control over problem definition and strategy execution; yet we note such shifts in the distribution of power are not attained through typical public engagement processes. A redistribution of ownership can begin to imbue citizens with a sense of genuine input over process and outcome.

Conclusions: Implications for Future Analyses and Application

The emerging notion of ownership of natural resource planning situations seems to encapsulate a number of existing suppositions and is wedded to many bodies of literature, themselves emergent with new notions of public engagement and democratic governance. This concept of ownership refers to a shared sense of problem and process necessary to address the precarious world of wicked situations. It requires ownership in the process (whose voice is heard), ownership in the outcome (whose voice is codified), and the ownership distribution (who is affected by the action). Ownership involves the association of citizens and agencies to collectively define, share, and address problem situations with an implicit redistribution of power.

As this article illustrates, ownership may exist as a fulcrum in determining successful natural resource management in the future. This emerging notion of ownership raises fundamental questions and issues itself. First, to what extent are natural resource agencies prepared to promote engagement and share responsibility for creation of plans and management of areas under their jurisdiction, including the design of planning processes? Do these institutions have the capacity to address issues of power and implement planning processes that enhance a sense of ownership? Natural resource agencies seem under attack from all sectors for a variety of reasons. Can they effectively engage the public in such a contentious environment and assist in constructing a sense of ownership? What social and political conditions would be needed to more effectively engage the public and create this sense of ownership? Second, the quantity and quality of public engagement required to create a sense of ownership assumes an active and participatory citizenry characterized by

interpersonal trust, cooperative relationships, and other elements of social capital. What responsibility do agencies have to enhance this capacity? Achieving a sense of ownership requires more than simply mandating public meetings or establishing citizen monitoring groups. It means that ownership becomes a fundamental objective of public engagement processes; where the public becomes integral in the design and implementation of these processes. Third, how can emerging notions of ownership be evaluated? An understanding is needed regarding how successful processes of ownership are created. Who benefits from collaborative processes that result from an increased sense of responsibility and stewardship? Who pays the costs? To what extent does ownership threaten or strengthen access to information and decision makers?

Social scientists play important roles in addressing these issues. They would help create evaluative mechanisms and approaches, develop public engagement strategies to test propositions about ownership and its prerequisites, and interpret research findings. A more descriptive conceptualization of ownership has yet to emerge, so additional deliberation would be useful.

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