

Social Acceptability in Forest and Range Management

Bruce Shindler, Professor
Department of Forest Resources
Oregon State University
Corvallis, OR 97331
(541) 737-3299
Bruce.Shindler@oregonstate.edu

Mark W. Brunson, Professor
Department of Forest Resources
Utah State University
Logan, UT 84322
(435) 797-2458
Mark.Brunson@usu.edu

Kristin Aldred Cheek, Research Assistant
Department of Forest Resources
Oregon State University
Corvallis, OR 97331

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SOCIAL ACCEPTABILITY IN FOREST AND RANGE MANAGEMENT

Social scientists as well as natural resource managers have long been interested in how people understand, evaluate, and respond to the management of nature. Public acceptance has become increasingly critical to the success of forest and rangeland management as debate intensifies worldwide over ecosystem protection and sustainable development. Indeed, management strategies that lack such acceptance are unlikely to be implemented. Yet the diverse factors that determine social acceptability of forest and range management are only now beginning to be understood and given credence by natural resource professionals. In this chapter we synthesize research on social acceptability to describe the disciplinary origins, conceptual framework, and management relevance of the acceptability concept. Our intent is to help organize the critical thinking and research from the past 15 years and provide a basis for continued research in this important area.

What is Social Acceptability?

The social acceptability concept in natural resource management can be traced to the work of rural sociologist Walter Firey (1960). Firey wanted to know why certain resource policies persisted in different societies while others did not. He concluded that the adoption and retention of any particular program or policy depends on the extent to which it satisfies three requisites: It must be 1) physically possible, consistent with ecological processes; 2) economically feasible, generating revenue in excess of costs; and 3) culturally adoptable, consistent with prevailing social customs and norms. Similarly, Clawson (1975) argued that successful forest policies must meet five conditions: 1) biological and physical feasibility, 2) economic efficiency, 3) economic welfare or equity, 4) social or cultural acceptability, and 5) operational or administrative practicality. Both frameworks acknowledge a fundamental notion: Policies and practices lacking societal acceptance and approval will ultimately fail, even if they are profitable and supported by sound science. Indeed, Stankey

(1996) noted that Firey's three criteria are mutually constraining; each is a necessary, but not sufficient for sustainable ecosystem-based forest and rangeland management.

One need only look at daily headlines to appreciate the extent to which adverse public judgments can prevent or modify implementation of any management strategy. Rather than accept unpopular decisions, citizens have access to a wide variety of options to influence policy decisions. They can, for example, invoke the courts, lobby federal legislators, attract media attention for their cause, or organize statewide ballot initiatives to change existing laws—all activities that serve to circumvent traditional agency authority (Shindler, List & Steel, 1993). There is abundant evidence from the last two decades that citizens are both willing and able to employ such measures.

Thus while the view persists among many natural resource decision makers that public opinion is a frustrating obstacle to the use of "sound science" or "good economics," the need to produce socially acceptable decisions is acknowledged in definitions of ecosystem management (Cortner, Shannon & Wallace, 1996), adaptive management (Shindler & Aldred Cheek, 1999), and sustainable development (World Commission on Environment and Development, 1987).

Accordingly, in recent years natural resource managers across the globe have sought to understand how citizens respond to proposed actions, and why. Social scientists increasingly are called upon to study factors that influence the acceptability of specific management actions or policies. Most of this work has been empirical and applied to specific management contexts, but gradually researchers are examining and reaching conclusions about the theoretical bases for public judgments about natural resource management.

The term *social acceptability* appears frequently in the natural resource literature, but has been used in subtly different ways. At various times it has been a synonym for actions that were described as "appropriate," "preferred," "desirable," "supported," "tolerated," "adequate," and so on. Moreover, it is not a concept with a long history of use in basic social science, where a rigorous definition might have emerged. Brunson (1996) defined *acceptability* as "a condition that results

from a judgmental process by which individuals 1) compare the perceived reality with its known alternatives; and 2) decide whether the real condition is superior, or sufficiently similar, to the most favorable alternative condition” (p. 9). Thus judgments about acceptability are made at the individual level, but they evolve in response to a host of external (typically but not always social) influences. Accordingly, Brunson (1996) reserved the term *social acceptability* to refer to aggregate forms of public consent whereby judgments are shared and articulated by an identifiable and politically relevant segment of the citizenry.

The distinction between acceptability and social acceptability is important because Western democracies tend to use sociopolitical processes rather than individual evaluations as a basis for decisions about what should occur for a larger community of interest (Cialdini, Reno & Kallgren, 1990; Ehrenhaldt, 1994). Sagoff (1988) reasoned that in the long-term society is better off focusing on shared norms and values rather than on individual preferences. He argued that values are organized beliefs held by a community about what is right to do, and preferences are simply the desires of individual members and, as such, may not serve the larger society very well. Thus natural resource managers seek consensus – i.e., shared, organized beliefs – to guide many decisions.

One of the first uses of the term “acceptability” in natural resource management was in the Limits of Acceptable Change (LAC) planning system (Stankey, Cole, Lucas, Petersen & Frissell, 1985), a participant-oriented model developed originally to help establish acceptable and appropriate conditions for United States Forest Service (USFS) wilderness areas. The authors did not explicitly define “acceptable” but used the word to describe both what is legally permissible under the Wilderness Act of 1964 and what wilderness users agree is desirable. Thus an “unacceptable” occurrence could imply circumstances of differing severity, depending on whether one referred to a violation of federal law or to a change in forest conditions beyond that preferred by users. In practice, it has been easier to achieve consensus about whether unacceptable conditions exist than about what constitutes acceptable conditions. Similarly, Brunson (1996) noted that acceptability is most often

observed by its absence, because unacceptable conditions are what spark political action to restore prior or preferred conditions.

In forest management and research, efforts to address acceptability have historically focused on scenic quality. The rise of citizen protests against such practices as clearcut logging can be traced to the impact of highly visible, rectangular harvests that affronted the aesthetic sensibilities of many who saw them. Bitter controversy over clearcutting led to passage of the National Forest Management Act of 1976 (NFMA), which required the USFS to complete comprehensive forest plans that take into account public concerns when choosing management actions. This early history fostered an assumption that scenic impacts were *the* primary public concern about forestry, and aesthetics have often been used as a surrogate for social acceptability. Research on forest scenic quality began in earnest in the late 1960s. An in-depth review by Ribe (1989) of the burgeoning literature on the topic included nearly 90 papers exploring the complex origins and implications of public preferences for landscapes. This research continues today with many studies focusing on citizen surveys of alternative silvicultural treatments (e.g. Ribe 1999; Shelby, Thompson, Brunson, & Johnson, 2003).

However, researchers have acknowledged problems with using scenic beauty as the indicator for social acceptability. Gobster (1996) observed that managing for scenic quality cannot adequately account for ecological disturbance processes such as wildfire, landslides, or floods. If the path of ecosystem management is to be followed, at times there will be unattractive forests and rangelands. Moreover, he points out that if citizens were to judge forests solely by scenic beauty, acceptance could be influenced by neither conscious thought about ecological processes nor by other senses such as the sound or smell of a healthy forest. Notwithstanding these concerns, research has shown that scenic judgments have both affective and cognitive components – i.e., ecological knowledge, social influences, and value orientations also affect scenic quality judgments (Brunson & Reiter, 1996; Zube, Sell & Taylor, 1982). In further investigation, Shindler and Collson (1998) found that

acceptability judgments about forest harvest treatments were linked to five criteria: 1) how sites will look once practices are implemented; 2) how natural characteristics of the forest will be affected; 3) level of trust in the information provided, 4) how the practice might benefit the local community, and 5) whether citizens had a meaningful role in the planning process. Nevertheless, visual images are what people remember most about the environment. Ecosystem management can produce disturbances that contribute to “messy, cluttered” forests, and changing the public’s mind about what they observe will be difficult.

Emergent Themes in Acceptability Research

This evolution of scientific understanding about scenic quality judgments, particularly results such as those reported by Shindler and Collson (1998), exemplifies a growing body of work that examines social acceptability in forest and range management. This section briefly summarizes five crosscutting themes that have emerged from recent research. (For a more thorough discussion see Shindler, Brunson & Stankey, 2002.)

Social Acceptability is a Dynamic Process

Social acceptability does not end with a particular outcome or result; rather it is an ongoing process. Many of the problems in natural resource management are “wicked” (Allen & Gould, 1986), not just because they are ecologically complex but because they include moral and social issues that are debated in the political arena. Biological conditions and technical solutions evolve and continue to be influenced by the social and economic interests of the day. As factors change over time, acceptability judgments can change as well. After action is taken, costs and consequences become apparent. What seemed eminently reasonable in the past may now be less so, as is the case in contemporary wildfire management (Shindler & Toman, 2003) where the large-scale fire events of 2002 and 2003 have piqued the public’s attention. And because nature itself is a dynamic system, comparative judgments of alternative conditions may change over time; for example, scenic quality

after timber harvest recovers at different rates depending on forest conditions and harvest treatments (Shelby, Thompson, Brunson & Johnson, 2003).

As conditions and information keep changing, management action is needed to maintain acceptability. In a sense, the pot is constantly boiling and the resulting stew must be monitored and fed frequently. In the past, public acceptance often has been viewed in a stimulus-response sense—managers act and people judge (Williams & Patterson, 1996). Now, part of the task of developing more durable, socially acceptable policies is to cultivate understanding. This involves creating, disseminating, and evaluating knowledge as well as methods for generating and implementing alternatives. The process is iterative; discussion of problems and options results in more stakeholders surfacing, who then enrich the problem definition (Westley, 1995).

Multiple Factors Play a Role

While there are countless examples of people responding negatively to a particular action taken by forest or rangeland managers, acceptability judgments generally are not the result of any single event. Instead they derive from complex circumstances within individuals and from the social context they experience. This array of factors includes issue salience, prior experiences, personal values, social norms, knowledge about the problem, the quality of information received, beliefs about the fairness of outcomes or decision processes, trust in decision-makers, and risk perceptions (e.g., Bright, Barro & Burtz, 2002; Winter, Vogt & Fried, 2002; Lauber & Knuth, 1997). Citizens can and do consider relatively subtle differences in management situations when judging acceptability. For example, Messmer, Brunson, Reiter, & Hewitt (1999) found that the acceptability of predator control as a tool for bird conservation varied with the immediacy of the threat and the predator species being controlled. Because there is a multiplicity of factors, managers can easily be blind-sided by events. It is unlikely that any single solution will address every factor of interest to stakeholders. However, history has shown that if agencies fail to pay attention to the potential for multiple influences on

citizen acceptance, they are condemned to continuously responding to the public's negative reactions.

Although resource managers may recognize this situation, many often believe that if they simply explain ecological processes to educate the public, they will gain support for management practices (Stankey & Shindler, 1997). But it is unlikely that people's judgments will change based solely on technical information. As managers focus on strategies and outcomes, the differences in how various stakeholders understand issues frequently are overlooked (Kearney, Bradley, Kaplan & Kaplan, 1998). Even when facts are agreed on, different conceptions of causation or ethics often lead to widely differing interpretations, with consequences for judgments of acceptability (Brunson, 1992). Further, the likelihood and intensity of citizens' response to unacceptable conditions depends in part on the strength and salience of attitudes toward the condition (Bright & Manfredi, 1995). Recognizing the variability and complexity of influences on acceptability judgments is an important part of an effective early warning system about potentially unacceptable conditions.

Context Influences Public Acceptance

Natural resource managers are trained to identify the best tools to apply to broad categories of problems. While this approach is efficient, it can also promote allegiance to one-size-fits-all solutions. This can be problematic when managers seek a formula for addressing public concerns about management practices, because public acceptance tends to be situation-specific. Practices and conditions acceptable in one situation are not necessarily acceptable in another – even when the problem being addressed is the same as that encountered elsewhere. Thus, it is important for managers to identify and consider contextual influences on acceptability (Shindler, 2000).

Acceptability judgments are affected by the unique combination of spatial, temporal, political, and social contexts within which a proposed action will occur. For example, Winter et al. (2002) reported that the location of a fuels-reduction project relative to human habitation affected citizens' support for the methods that are used. Acceptability also varies with the scale of analysis,

as residents of adjacent areas can interpret an action differently than those who live farther away and define the project area differently (Brandenburg & Carroll, 1995; Brunson & Steel, 1996). Shelby et al. (2003) noted that relative acceptability of timber harvest treatments can differ depending on the timeframe for which judgments are made. Brunson and Gilbert (2003) found that designation of a national monument in an area previously managed for multiple-use created a new constituency of recreation visitors who tended not to support livestock grazing on public lands, thereby reducing the overall acceptability of grazing management within the monument. Judgments are even affected by the setting in which they are expressed; for example, strident opinions voiced at loggers' meetings partly reflect the fact that a unifying theme of such groups is a negative evaluation of the Forest Service (Carroll, 1989).

The Decision-making Process may be just as Important as the Decision

Too often decision-makers focus on public acceptance of a decision (the outcome) without fully considering the process by which those decisions are made (Kakoyannis, Shindler & Stankey, 2001). A growing body of evaluative research throughout the last decade has shown that the public's idea of fairness and legitimacy involves the quality of the decision-making procedures. Of particular importance are opportunities for citizen participation (Lauber & Knuth, 1997; Tuler & Webler, 1999). When decision outcomes are emphasized at the expense of deliberative and inclusive processes, citizens often will seek alternative, and often less desirable, means to influence local policies.

Yet public participation processes do not generate acceptance merely because they exist. From a mechanistic standpoint, agency staff members have mastered the legal procedures by which the public can provide input on a plan or project. But these sessions frequently are sterile, rule-bound, one-way exchanges that do not resonate with citizens (Cortner et al. 1996). The manner in which people are incorporated into decisions—especially those that affect their livelihood and quality of life—is critical to their judgments. Shindler and Aldred Cheek (1999) conducted an extensive

examination of citizen-agency interactions and concluded that effective participation could be organized around six factors: 1) inclusiveness, 2) sincere leadership, 3) innovative and interactive methods, 4) early commitment and continuity, 5) sound planning skills that include well defined objectives, and 6) efforts that result in action.

Trust Can Override All other Factors

Every land management unit has a history linked to its own particular pattern of actions, to surrounding communities, and to a legacy of decisions (Shindler & Aldred Cheek, 1999). A particularly important aspect of that history is the ongoing relationship between land managers and affected publics. No matter how meritorious a plan might be, nothing is validated unless the people involved trust one another. Trust and credibility in resource agencies are associated with perceptions of knowledge and expertise, openness and honesty, and concern and care (Peters, Covello & McCallum, 1997). If social acceptability is to be enhanced through interaction with citizens, resource professionals must be able to engage citizens through means seen as genuine and trustworthy.

Because land management agencies are hierarchical, actions at one level affect trust at another. Recent research suggests that the public's negative feelings about forest and range management arise mainly from their general frustration with the federal bureaucracy, rather than with management personnel on the local level who themselves may be hindered from getting work done (e.g., Shindler & Toman 2003). Yet local managers often bear the brunt of this distrust. As effective treatments are implemented and public awareness of success grows, so too will belief that the agencies can be trusted to manage responsibly.

Agency relations with constituents, and thus the acceptability of resulting plans and actions, are shaped by the cumulative nature of multiple interactions over time (Shindler & Aldred Cheek, 1999). Building trust takes great patience, requires many opportunities for citizen-manager interaction, and is a product of numerous factors that contribute to the endurance of relations.

Achieving a balance point for acceptance among parties is a continual process of adjustment (Westley, 1995). In the long-term, building trust with stakeholders will come through the interaction process, particularly as people are able to see their ideas and concerns given consideration.

Why Social Acceptability Matters to Managers and Social Scientists

As we noted previously, the need for public acceptance of proposed actions may be seen as a nuisance by natural resource managers convinced of the ecological or economic validity of their actions. But there are good reasons for managers to pay heed to social acceptability. First, as a practical matter, few decisions in a democracy are simply a matter of objective science about a specific practice or condition. Technical information is critical in describing the alternatives, consequences, and implications of decisions, but such decisions ultimately express a prescriptive judgment reflecting the values of the decision maker. The extent to which these views reflect wider public sentiment is problematic (Brunson, 1992). Yet decisions that fail to adequately account for public values are unlikely to succeed, if they are ever implemented at all.

Second, accounting for social acceptability reflects a normative perspective. Simply put, the public has a right of access to decisions about resources of which they are the ultimate owners. Having made this argument, the fact remains that poor choices can be (and are) made by the public. The complexity of the issues demands that scientific rigor and objectivity be present to help define the alternatives, consequences, and rationale. However, managers often fail to present the technical information in a way that resonates with the value systems of the wider public (Brunson, 1992). To be most relevant, managers should provide situation-specific information about what changes in conditions will look like, how soon they could occur, how they will alter the character of the treated area, and how they might affect the surrounding community (Shindler, 2000).

The preceding points pose social acceptability as a constraint, focusing on how it can limit decisions and actions. However, it also can serve a positive function. Acceptability judgments are subject to change – in other words, learning is a key element of the acceptability process. Thus, as we

consider social acceptability and its relation to management and decision-making, it can be seen as an opportunity for discussion, debate, and learning about the complex dimensions of the issues at hand. A legitimate effort to engage the issue of social acceptability can provide an important opportunity for an informed discussion of issues, one based on mutual learning and mutual recognition of participant interests.

From a scientific point of view, the ongoing research on social acceptability is useful because it begins to tie an important natural resource management concern – how to ensure public support (or acquiescence) for ecologically sustainable and economically viable policies – with time-tested social science concepts. For example, because acceptability is judged by comparing both cognitive and affective components of alternative conditions, social acceptability research provides a conceptual link between belief-attitude-behavior studies that focus on cognition (e.g., Bright & Manfredi, 1995; Bright et al., 2002) and scenic quality studies that emphasize affective aspects of judgment (Ribe, 1989; Zube et al., 1982). Such thinking acknowledges these are complex, integrated problems that require resource professionals to account for a broad set of values.

Conclusion

Public acceptance of management policies is needed to secure the future of our public forests and rangelands. Without greater understanding of and attention to social acceptability, decisions will continue to be challenged, and our human and natural systems will continue to bear the brunt of our inability to reach agreement. Although each situation produces a unique set of circumstances that ultimately affect public judgments, it is possible to address social acceptability in a rigorous, formal, and systematic basis (see Shindler, Brunson, & Stankey 2002).

A central conclusion emerging from our analysis is that social acceptability judgments are provisional. Public judgments about the acceptability or unacceptability of management practices, policies, and conditions are never absolute or final; they depend on many influences including factors both internal and external to management agency control. As a result, it is unlikely that any simple

“index of acceptability” can be (or should be) created. However, it does not mean that managers are powerless in the search for more broadly accepted management policies. Regardless of the provisional, idiosyncratic nature of social acceptability judgments, they still are subject to structure and to critical thinking. Our analysis has revealed some of the consistent and predictable aspects of the concept. Most important may be that acceptability judgments reflect a political perspective – i.e., they are the product of the interactions between citizens and management organizations over time, reflecting trust levels and beliefs that citizens hold about those responsible for the stewardship of the nation’s resources. Continued research and management experimentation with public process will reveal additional features about the social acceptability concept.

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Author Biographies

Bruce Shindler is an associate professor in the Department of Forest Resources at Oregon State University. His research focuses on the human dimensions of forests and affected communities. Over the past decade his specific research has included the social acceptability of forest management practices and conditions, the interaction between forest agencies and citizens, and attempts at adaptive ecosystem management. Most notable has been his recent work on public acceptance of wildland fire management and agency programs for fuel reduction and restoration.

Mark Brunson is an associate professor in the Department of Environment & Society at Utah State University. His research focuses on the human dimensions of rangelands, especially social acceptability of range management practices or conditions; relationships between attitudes, knowledge, and behaviors; and factors influencing the adoption and successful adaptation of range management innovations intended to enhance economic or environmental sustainability.

Kristin Aldred Cheek is a research assistant in Oregon State University's College of Forestry, where she contributes to social science research. She has held several positions in consulting, community relations, and applied social science research in the environmental and natural resource fields. Her areas of expertise include public involvement, community assessment, and public environmental values.