

**PUBLIC INVOLVEMENT IN USDA FOREST SERVICE POLICYMAKING:  
A LITERATURE REVIEW**

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## **ABSTRACT**

This article provides a brief history of public participation in the Forest Service from 1960 to present, and reviews 25 of the most significant empirical studies on the topic. Twenty one broadly defined keys to success are identified in the literature, and then organized in terms of process design traits, participant traits, and contextual traits. The most frequently cited factors in each category are, respectively, effective facilitation, active participation by agency staff, and support from agency-wide policies and administrators. Summarized findings suggest several attributes the agency can look for when selecting individuals to facilitate collaborative planning processes involving multiple stakeholders.

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For four decades, the USDA Forest Service has experimented with multiple forms of public participation in agency planning, policymaking, and project implementation. These efforts have received much scrutiny from researchers in universities, the General Accounting Office, and the Forest Service itself. Approximately 100 journal articles, reports, and book chapters have been published on the topic. However, no recent attempt has been made to systematically review and summarize this body of literature. The most notable efforts to date include a publication by the Office of Technology Assessment (OTA 1992) and a chapter from the Sierra Nevada Ecosystem Project (Kusel et al. 1996). The goal of the literature review that follows is to review a sample of the most ambitious empirical studies published since 1990, and to summarize their conclusions regarding conditions for success, best practices, key challenges, and methods to overcome them.

## **A BRIEF HISTORY OF PUBLIC PARTICIPATION IN THE FOREST SERVICE**

Perhaps more than any other federal agency, the Forest Service has had a long and tumultuous history of involving the public in policymaking (Lawrence, Daniels, and Stankey 1997). The modern era of public participation in the Forest Service began with the Multiple-Use Sustained-Yield Act of 1960 (MUSYA), which compelled the agency to openly balance the conflicting interests of various recreational and commercial user groups (Ruth 1996, 148). Because MUSYA instructed the Forest Service to use the ‘needs of the American people’ to guide its management decisions, the law initiated a trend toward holding public agencies accountable to the interests of stakeholders, not just to the norms of the forestry profession (OTA 1992). By 1971 the Forest Service had launched an inventory of roadless areas known as RARE I, incorporating what at the time was the most extensive public involvement program in American history (Dana and Fairfax 1980). But not until Congress enacted the National Forest Management Act of 1976 (NFMA) did the agency have clear direction about what it should actually *do* to involve the public. NFMA required the Forest Service to “hold public meetings or comparable processes... that foster public participation” in the “development, review, and revision” of forest plans (OTA 1992). Reflecting upon MUSYA, NFMA, and the handful of government-wide statutes that affect public participation in the Forest Service (e.g. the National Environmental Policy Act of 1969), Daniels and Walker (1997) conclude “No American agency appears to have a more explicit public involvement mandate.”

In interpreting this mandate, the Forest Service has experimented with many varying approaches to public involvement, beginning with a literal interpretation of NFMA’s

“development, review, and revision” language. In the 1970’s public participation in the Forest Service was nearly synonymous with a linear process of issuing a draft plan, asking the public to comment, and then making a final decision (Yaffee 1994, 267). Unfortunately, the public was disenchanted with this limited role. Sensitive to charges that the agency’s propaganda and technical expertise inhibited public comment, the Forest Service “adopted a defensive ‘listening session’ format in which agency personnel were merely to listen to the public while not speaking, explaining the issues, or discussing the options” (Dana and Fairfax 1980).

By the early 1980’s, this defensive model was proving ineffective, and the agency reached back to its multiple-use MUSYA roots, and sought to remake itself as an “unbiased arbiter of conflicting interests: the Forest Service as societal balance point” (Yaffee 1994, 267). According to this view, the agency’s success in finding the right balance could be measured by whether the final decision left all sides dissatisfied (Yaffee 1994, 268). More often than not, the agency succeeded, and eventually “every major Forest Service decision was appealed by environmental and/or timber harvesting groups” (Sabatier, Weible, and Ficker 2004). To compound the public’s dissatisfaction further, an exhaustive study of the 227 public meetings that constituted the 1977 RARE II process was unable to detect any evidence that public comments actually factored into the agency’s final decisions (Mohai 1987). The public’s disenchantment continued to grow throughout the decade until the agency that had once epitomized proud professionalism (Clarke and McCool 1985), was deeply distrusted by all quarters (USGAO 1997).

A transformation of the Forest Service’s relationship with the public began in the mid-1980’s. The first incremental step came in 1987 with the National Recreation Strategy (USDA Forest Service 1988), a conceptual framework that urged Forest Service managers to form partnerships with private parties and local governments in recreation projects and planning (Selin and Chavez 1993, 2). But the greatest change came when, exhausted by an onslaught of litigation and forest plan appeals, the agency set its sights on another new benchmark: conflict resolution. The Forest Service began exploring the use of more interactive, collaborative, non-linear, approaches to public involvement, such as interest-based negotiation (Fisher and Ury 1981) and Alternative Dispute Resolution or ADR (Manring 1998). ADR processes typically employ the use of a professional, neutral facilitator to guide the parties through brainstorming and joint fact-finding exercises with the goal of inventing mutually satisfactory policy proposals.

The early 1990’s also saw ecosystem management and adaptive management become the dominant principles guiding Forest Service planning. Ecosystem management “emphasizes collaborative decision making to deal with a landscape owned by many individuals and organizations with different values, interests and capabilities” (EMI 2004; Yaffee et al. 1996). Adaptive management rejects the linear planning model in favor of a circular one in which policies are treated as experiments to be tested in the field, and then redesigned accordingly (Shindler, Cheek, and Stankey 1999).

Watershed councils were another advent of this period that the Forest Service embraced willingly (Doppelt, Shinn, and John 2002). Watershed councils are an egalitarian model of public involvement in which federal agencies, to varying degrees, relinquish their privileged role as the ultimate guardian of the public interest on federal lands, and assume a seat at the table as an equal partner with local community groups, and state and local governments (Leach, Pelkey, and Sabatier 2002).

In 1997, Forest Service Chief Michael Dombeck advocated “Collaborative Stewardship” as the agency’s unofficial motto (Wondolleck 1997), and pledged to change employee performance

standards to include a demonstrated commitment to collaborative, community-based stewardship (USDA Forest Service 1997).

Although it is too early to reflect upon the “history” of public participation in the current decade, several recent initiatives of the Bush Administration suggest that another sea change is underway. For example, in August 2004, President Bush (2004) issued an executive order instructing the major federal natural resource agencies to promote “cooperative conservation,” which among other things, “properly accommodates local participation in Federal decisionmaking.” Farming and ranching organizations have applauded the order (Stallman 2004; NCBA 2004), but its emphasis on property rights and “public health and safety” worries many environmentalists (The Associated Press 2004). The order has also raised objections from some professional mediators, noting that participants in a new White House Conference on Cooperative Conservation would be prohibited from striving for “collective judgment or consensus advice or deliberation.”

The greatest regulatory change under the current administration has been the December 2004 release of new regulations governing forest planning under NFMA. Since 1979, agency regulations required an environmental impact statement (EIS) under NEPA whenever forest plans were developed or revised. Accordingly, NEPA’s provisions on public involvement in EIS preparation governed the nature and scope of public involvement in forest planning. Under the new rule, an EIS will not be prepared for each forest plan. Forest plans “will describe the desired social, economic, and ecological conditions” for each administrative unit, but will not outline specific projects (USDA Forest Service 2004, 35). Because the plans will be “merely strategic rather than prescriptive,” the agency reasons, forest plans “typically will not have environmental effects” and therefore an EIS is not required. The new rule still calls for public participation during plan development, but the local forest supervisor has “discretion to determine the methods and timing of public involvement opportunities” (USDA Forest Service 2004, 144)

Initial reaction to the new rule has been mixed, with most environmental groups expressing concern about the loss of uniform national standards for public involvement under NEPA, replaced with control by local forest managers (McClure and Pope 2004). On the other hand, the Forest Service is portraying the new rule as a boon to genuine public involvement. In the words of Rocky Mountain Regional Forester Rick Cables, “I believe the public is going to be far more engaged in this planning process than they have historically, and we’re going to condense the amount of time it takes to produce a forest plan from somewhere in the neighborhood of 5 to 7 years down to 2 years. So, regular citizens are going to have the opportunity to stay with us from start to finish on a planning process and see their influence and their comments. This new planning rule is going to enable better public participation in my view” (Chadwick 2004).

## **METHODS**

Of the 100 recent publications (journal articles, reports, and book chapters) on the topic of public participation in the Forest Service, this review covers 25 of the most significant empirical studies that reached conclusions regarding keys to success. The review includes only empirical literature, meaning studies that derive conclusions from original field research. The review is also limited to those studies that identify keys to success, and excludes studies focusing on other topics such as the costs and benefits of public participation, the history of public participation, or the legal underpinnings of public participation. The approach taken in this review is modeled after a review of *[self-citation omitted from anonymous manuscript]*.

In selecting a manageable number of studies to review, studies published after 1990 were favored over earlier literature; multi-case studies were favored over single cases; studies that

involved extensive data collection efforts were favored over more modest studies; and studies using systematic data analysis methods were favored over purely interpretive studies.

For each study, the primary conclusions about the factors that govern success in public participation processes were recorded. Although identifying the main conclusions for each publication was somewhat subjective, most studies stated their conclusions plainly, often enumerating them in bullet form. The procedure was to read each article and to paraphrase the main conclusions while remaining faithful to the original language and meaning. When subsequent studies reached the same conclusion, this was noted in a table (available from the author upon request), with one axis being a list of conclusions, and the other axis being the list of studies. Ones and zeros in each cell of the table indicated which studies had reached which conclusions. In all, the 25 studies identified 351 conclusions (an average of 14 per study, with a range of 1 to 60 per study). After adjusting this figure for identical conclusions reached by two or more studies, there are a total of 185 distinct conclusions about what makes public participation succeed and fail. To simplify the presentation, similar conclusions were subjectively grouped together, resulting in 21 groups or “themes.” Although grouping the conclusions into themes was also a subjective process, the resulting histogram (Figure 1) provides a reasonable portrait of the current understanding of public participation involving the Forest Service, as revealed by the existing body of empirical research.

Collecting and tabulating binary data for each study incurs two risks. One risk is conveying an undue sense of precision. As discussed in greater detail below, the numerical tabulations should be viewed as only rough approximations of the relative importance of the various themes in the literature, as the histogram was generated through an admittedly subjective coding of each publication, and no attempt has been made to insure inter-coder reliability, and the results of each study are entirely subject to the author’s choice of research methods, which in all cases strays far from the idealized controlled experiment. The histogram and the underlying table are employed here simply to help manage and summarize the huge amounts of information contained in the 25 studies. Second, by paraphrasing and then categorizing the 185 keys to success, much of the nuance and insight contained in the original manuscripts has been lost. What remains is a catalog of the *most unequivocal* and *most contested* conclusions from the literature. Figure 1 shows the number of studies that reached each conclusion. In four cases, a given conclusion was supported by some studies and contradicted by others. These studies are represented on the same bar of the histogram for comparison.

– *Insert Figure 1* –

## **TOUCHPOINTS: THE PROCESS, THE PARTICIPANTS, AND THE CONTEXT**

Figure 1 organizes the 21 themes into three broad categories: (1) process design traits, (2) participant traits, and (3) contextual traits. Process design refers to those traits that a convener or facilitator can directly influence or control. Participant traits refer to the key attitudes, behaviors, and relationships that participants bring to the process. Conveners and facilitators may be able to influence these traits indirectly by selecting participants who display the traits, or by helping participants learn and practice them. Contextual traits are those factors beyond the control of the people at the table. Before investing time and energy in a public participation processes, stakeholders may wish to assess whether each of these contextual conditions is satisfied.

As is evident in Figure 1, more than half of all the conclusions from the studies pertain to process design. It is tempting to conclude, therefore, that process design traits are the most important traits to consider. More likely, however, is that empirical studies have tended to focus

on design traits simply because (a) these are the most easily observable traits of a public participation process, and (b) interviews with facilitators and conveners are one of the primary data sources that inform the studies, and facilitators and conveners focus on design traits precisely because these are the factors they control.

Participant traits are the next most frequently cited keys to success, accounting for one in three conclusions. Again, this may indicate the importance of these traits, or may simply reflect that researchers rely heavily on interviews and surveys of participants, who tend to focus on the traits that they directly experience or control.

Contextual factors account for about 1 in 9 conclusions. In all likelihood, this low frequency does not mean that context is unimportant. Rather, context is often invisible to the participants and beyond their control, and is frequently difficult for the researcher to measure.

## **PROCESS DESIGN TRAITS**

The presence of an *effective facilitator and/or coordinator* is one of the most frequently cited keys to success. Three studies conclude that the facilitator ought to be a disinterested third-party who is independent & objective (Selin, Schuett, and Carr 1997; Daniels and Walker 1996; Carr, Selin, and Schuett 1998; Smith, McDonough, and Mang 1999). By contrast, in their study of five long-term planning processes in the Willamette National Forest, Shindler and Neburka (1997, 18) conclude that “in most successful cases, outside facilitators were quickly jettisoned and replaced by ‘regular, honest people with whom the group felt more comfortable.’” Doppelt, Shinn, and John (2002) suggest that successful facilitators can be either neutral outsiders or Forest Service employees, while Wondolleck and Ryan (1999) argue that if a Forest Service official occupies the role of neutral facilitator, then a separate Forest Service official should assume responsibility for advocating the agency’s positions and interests within the collaborative.

Another dominant set of conclusions relates to having a *focused scope and realistic objectives*. Representative recommendations include: having a clear purpose, goals, and objectives (Schuett, Selin, and Carr 2001), focusing on measurable, quantifiable, or tangible goals (Doppelt, Shinn, and John 2002), focusing on action and not just talk (USDA Forest Service 2000), focusing on a manageable number and complexity of projects (Daniels and Walker 1996), having a well-defined geographic scope and making sure that the focus is sufficiently compelling to sustain the participant’s motivation (Wondolleck and Yaffee 1997). Another set of related conclusions refers to the tractability of the disputes. For example, Carr, Selin, and Schuett (1998) urge careful selection of issues that are appropriate for collaborative planning, and Walters et al. (2003) cautions that the disputes must be negotiable, and not driven exclusively by value conflicts. Early in a process, Wondolleck and Yaffee (1997) recommend focusing on a few easily attainable goals to build momentum, confidence, and reputation. The National Collaborative Stewardship Team (USDA Forest Service 2000) recommends setting both short term and long term goals, and celebrating any milestones achieved along the way.

Another of the most frequent conclusions from the studies concerns the relative advantages of *comprehensive and sustained* public involvement. Shindler and Neburka (1997, 18) call for “full group interaction,” noting one participant’s dissatisfaction when “the Forest Service talked to us, we talked to them, but we citizen members never talked to each other.” One of the most compelling empirical arguments for highly deliberative processes is Gericke and Sullivan’s (1994) finding that public participation in small-groups with two-way communication is more effective at heading off forest plan appeals relative to one-way processes in which the Forest Service simply seeks to educate the public and/or receive the public’s comments. Germain,

Floyd, and Stehman (2001) find that participants are more satisfied when they are involved in pre-decisional scoping activities, rather than simply commenting on fully formed policy proposals. Similarly, Manring (1998, 287) suggests using conflict management process as early in the planning process as possible. Yaffee, Wondolleck, and Lippman (1997) suggest that the process should include several phases including problem-setting, direction-setting, and implementation. Selin and Chavez (1994, 58) find that periodically setting new goals helps maintain the momentum of a partnership. The NCS Team (2000) highlights the importance of paying attention to the "big picture" and not focusing solely on project implementation. Schuett, Selin, and Carr (2001) argue for frequent meetings and frequent communication outside of meetings. The NCS Team also argues that the facilitator needs sufficient time to help participants identify their underlying interests and avoid focusing solely on stated policy positions. Several studies, reached the general conclusion that successful public participation takes time. Accordingly, Doppelt, Shinn, and John (2002) assert the importance of abstaining from judging collaborative processes prematurely.

*Funding* could arguably be listed under process design traits, participant traits, or contextual traits. Convening agencies can improve the likelihood of success by ensuring adequate funding is available for various startup costs such as retaining skilled facilitators or conducting situation assessments or public outreach (Wondolleck and Yaffee 1994). On the individual participant level, success requires that agencies and organizations and agencies earmark funding to support consistent staff attendance and participation (Frentz et al. 2000). Similarly, in the case of a sustained multi-party collaborative, participants are usually called upon to contribute staff and financial resources for project implementation (USDA Forest Service 2000). For Forest Service staff and line officers, funding is a contextual factor in that Congress and the agency's political appointees influence the amount of money that can be appropriated for collaborative planning (Wondolleck and Yaffee 1994).

*Broad and inclusive participation* is desirable according to several studies. Some studies suggest that anyone who wishes to participate ought to be permitted to do so (CBI 2003). Other studies suggest that participation should be open to all parties potentially affected by the outcomes of the policy process (USDA Forest Service 2000), or by all parties with the ability to undercut or challenge the resulting decisions (Schuett, Selin, and Carr 2001). Selin and Chavez (1994) emphasize the importance of having the right *mix* of participants to ensure compatible personalities and a diversity of skills and resources. Some studies urge that meetings be held at a convenient time and place to encourage involvement by local citizens or small landowners (Tuler and Webler 1999; Smith, McDonough, and Mang 1999). Others stress that the process should not overemphasize local concerns to the exclusion of national interests (USDA Forest Service 2000).

Notably, six studies qualified the above conclusions by suggesting that participation be restricted for one reason or another. For the NCS Team (USDA Forest Service 2000) and Wondolleck and Yaffee (1997), the main concern is finding a manageable number of individuals, interests, beliefs, or policy topics. For Selin and Myers (1995) and Yaffee, Wondolleck, and Lippman (1997), the concern is that participants be decisionmakers within their organizations, or at a minimum, should be able to accurately represent the views of their organization. Floyd et al. (1996) report an inverse correlation between the number of parties and the perceived efficiency and equity of the outcomes. Shindler and Neburka (1997) find value in ground rules that restrict participation to individuals who have a solid understand of the issues and who can commit to a year's worth of meetings. Their research also supports the practice of excluding new members

from joining established planning groups (to create stability and to avoid spending time bringing new members up to speed). Shindler and Neburka (1997) recommend that local collaborative planning efforts avoid drawing attention from national interest groups, which often stake out their positions early and publicly, and may try to wrest control of the local group's agenda. Striking a similar note, Wondolleck and Yaffee (1994) suggest avoiding involvement by journalists and elected officials during the early stages of collaboration.

*Adequate scientific and technical information* is critical to success, according to nine studies (e.g. Walters et al. 2003). To the extent that the available body of such information is beyond the control of the participants, this factor is contextual. However, several process design choices will influence how well any public participation process avails itself of available information. For example, Tuler and Webler (1999) assert that conveners should solicit both expert knowledge and local knowledge, the latter being frequently overlooked and undervalued. Shindler and Neburka (1997, 18) recommend handpicking participants who are knowledgeable about the issues. Wondolleck and Yaffee (1994) recommend open sharing of information among participants, which can be facilitated through "joint fact-finding exercises" or related techniques. For example, Daniels and Walker (1996) provide empirical support for the efficacy of using a systems-approach to help participants' collaboratively assess the extent and underlying causes of the focal problem. Yaffee, Wondolleck, and Lippman (1997) emphasize the utility of supplying the public participation process with appropriate technology for communications and decision support—from Internet access to Geographic Information Systems.

*Collaboration skills training* is another frequent theme in the literature. Convening Forest Service staff and other stakeholders are urged to seek out (and Forest Service line officers are urged to provide) training for participants in communication, outreach, leadership, & collaborative problem solving skills (Yaffee, Wondolleck, and Lippman 1997; Carr, Selin, and Schuett 1998; Frenz et al. 2000). Selin and Chavez (1993) report that the Forest Service needs better mechanisms for sharing success stories and training tips.

*Well-defined decision rules and process rules* are cited as key traits in seven studies. Representative suggestions include: rights and responsibilities of all participants clearly articulated from the beginning (Schuett, Selin, and Carr 2001); effective process rules, communication rules, or bylaws (Selin, Schuett, and Carr 1997; Wondolleck and Yaffee 1994); a predictable schedule of meetings (Wondolleck and Yaffee 1997); and clear duration of the process (USDA Forest Service 2000).

By contrast, two studies suggest that flexible or informal process rules can work well. Selin and Chavez (1994, 58) describe the benefits of informal protocols and a "homey atmosphere" for group meetings. Selin and Myers (1995, 43-44) found a negative correlation between participant's assessment of the group's effectiveness and the adequacy of its structure and organization.

Four studies call for an *equitable distribution of power and influence* (USDA Forest Service 2000; Selin, Schuett, and Carr 2000), or assurances of respect for each participants' concerns (CBI 2003), or cultivation of a sense of fairness, equity, and burden sharing (Yaffee, Wondolleck, and Lippman 1997).

Four studies cite the importance of monitoring or evaluating the public participation process. Schuett, Selin, and Carr (2001) and the NCS Team (USDA Forest Service 2000) discuss the use of progress reports and other evaluation tools to ensure the accountability of the process. Selin and Chavez (1993, 7) describe the benefits in terms of "quality control over

partnership outcomes.” Doppelt, Shinn, and John (2002) suggest that collaborative planning processes should be treated as experiments and learning opportunities.

The merits of *consensus-based decision making* is a topic on which there is little consensus in the literature, with one study supporting consensus (Schuett, Selin, and Carr 2001), one urging caution (Tuler and Webler 1999), and two studies presenting evidence both pro and con (USDA Forest Service 2000; Wondolleck and Yaffee 1994).

## **PARTICIPANT TRAITS**

*Active support and participation by Forest Service staff* is the dominant recommendation pertaining to participants. Several studies suggest this support should come from the highest possible levels of the agency (e.g. Yaffee, Wondolleck, and Lippman 1997; Carr, Selin, and Schuett 1998; Frentz et al. 2000). Shindler and Neburka (1997) report that regular attendance by the forest supervisor or district ranger helps legitimize the group and indicates to participants that their contributions will be taken seriously. Manring (1998) suggests that collaborative planning should be incorporated into normal decisionmaking, and not merely applied to the most complex or intractable disputes. Some studies suggest the Forest Service must be willing to give up authority to the public participation process itself (Wondolleck and Yaffee 1994; Smith, McDonough, and Mang 1999). Others assert that the Forest Service must be willing to implement negotiated agreements (Schuett, Selin, and Carr 2001), and must avoid backpedaling from specific partnerships or the collaborative spirit in general (Wondolleck and Yaffee 1997). Selin and Chavez (1994, 55-56) note that effective collaboration often requires Forest Service staff to bend the rules or take other types of professional risks. Two studies urged active Forest Service participation in the roles of leader, partner, and stakeholder, but not necessarily facilitator (Daniels and Walker 1996; Wondolleck and Ryan 1999).

Another frequent theme is the value of having *cooperative, enthusiastic, and committed participants*. Personal qualities that are especially valued in collaborative settings include honesty and humility, perseverance, a community spirit, a willingness to take risks, to compromise, to listen and learn from others, to keep an open mind, to take criticism gracefully, to respect those with differing opinions, and to avoid attacking others personally. Steelman and Maguire (1999) emphasize the importance of articulating desired future conditions and the need to propose positive solutions rather than simply airing grievances. The NCS Team highlights participants' willingness to focus on potential future outcomes rather than assigning blame for past losses (USDA Forest Service 2000). Participants must also be committed to the process (Yaffee, Wondolleck, and Lippman 1997), especially if it is long and drawn-out (USDA Forest Service 2000; Shindler and Neburka 1997; Selin and Chavez 1994), and participants should avoid cutting side deals outside the collaborative process (Schuett, Selin, and Carr 2001).

The importance of *trust and social capital* is supported by twelve studies. According to stakeholders surveyed in one study, the keys to successful public participation include helping participants “gain insight about others' views and values” and “improving communication among participants.” Schuett, Selin, and Carr (2001) suggest creating opportunities for social interaction among participants outside regular meetings. Selin and Myers (1995) emphasize the importance of cultivating a sense of belonging to the group. Wondolleck and Yaffee (1994) argue that having a limited and well-defined geographic scope helps foster a sense of community and social norms. Tuler and Webler (1999) highlight the importance of participants' trust in the process itself, as well as trust in each other. Smith, McDonough, and Mang (1999) emphasize that private sector participants must trust their government partners.

Seven studies mention the importance of *continuity in participants* over time. This issue is particularly salient for the Forest Service (Selin, Schuett, and Carr 2000; Selin and Chavez 1994), which has a longstanding policy of rotating personnel between forests to guard against cooption of rangers by local business interests (Clarke and McCool 1985). In cases where personnel changes are unavoidable, the success of an ongoing collaboration hinges upon the new personnel emulating or exceeding their predecessors' commitment to the process (Wondolleck and Yaffee 1997; Tuler and Webler 1999).

Seven studies highlight the value of having *strong leadership* above and beyond that displayed by individuals in formal leadership positions (e.g. facilitator, mediator, coordinator).

Four studies conclude that it is easier to sustain a successful public participation process when the participants share a strong *sense of place*—a heartfelt affection for and commitment to a geographic location such as a watershed or town.

Similarly, four studies conclude that the participants must have a *strong motivation to resolve the conflict*. This motivation can stem from a significant resource problem or crisis, or from a shared recognition that the participants' interests are interdependent (Yaffee, Wondolleck, and Lippman 1997; Selin and Myers 1995). Motivation is also heightened when participants perceive a political stalemate in which they each lack viable alternatives to the collaborative process (USDA Forest Service 2000). Daniels and Walker (1997) caution that the Forest Service must be truly interested in resolving the issues, and must refuse to simply settle for a compromise policy that splits the difference between two opposite or extreme positions.

## **CONTEXTUAL TRAITS**

*Support from line officers and agency-wide Forest Service policy* is the dominant contextual factor in the reviewed studies (Manring 1998b; Doppelt, Shinn, and John 2002; Yaffee, Wondolleck, and Lippman 1997; Selin, Schuett, and Carr 1997; Selin and Chavez 1994). Several studies conclude that agency culture, performance review protocols, and other incentives must change to value collaboration skills and outputs on par with technical skills related to timber harvest or technical resource management. Similarly staff workloads must be adjusted to accommodate the time demands of collaborative planning processes, and staff should not be penalized for being risk-takers. Frenz et al. (2000) suggest a need to clarify the Forest Service's legal authority (or seek additional authority) to engage in collaborative planning. Selin and Chavez (1993, 7) conclude the Forest Service must streamline its rules and regulations, especially those pertaining to purchasing, personnel, and multi-party agreements.

*Community resources* of various kinds influence the likelihood of success, according to six studies. Doppelt, Shinn, and John (2002) identify community-wide social capital, competence, and civic engagement as conducive to success. External support from the community (Schuett, Selin, and Carr 2001) as well as public interest and pressure (Yaffee, Wondolleck, and Lippman 1997) can also be valuable. The presence of local models of successful collaboration can promote the diffusion of collaborative approaches (USDA Forest Service 2000). Given the importance of community resources, Frenz et al. (2000) recommend that the Forest Service promote relevant collaborative capacity and leadership in communities bordering national forests.

Five studies find that success is more likely for disputes characterized by *low or medium levels of initial conflict* (USDA Forest Service 2000), or by participants who share common goals, values, or ideology (Selin and Myers 1995; Wondolleck and Yaffee 1994; Selin and Chavez 1994). Floyd, Germain, and ter Horst (1996, 30-32) develop a metric for the "resource

conflict continuum” and show that it correlates inversely with six measures of the effectiveness and efficiency of the process and outcomes.

## **CONCLUSIONS**

Among the 25 empirical studies reviewed here, the single most frequently cited factor conducive to successful collaborative planning is active support and participation by Forest Service staff—supported by 15 studies. The studies disagree on the extent to which the Forest Service must be willing to give up authority to the collaborative planning group, but generally agree on the importance of abiding by all negotiated agreements to which the agency has signed on. The studies also generally agree that the agency must support the collaborative process in terms of technical and financial resources, staff time, and to the extent feasible, direct participation by the forest supervisor or district ranger.

Nine of the 15 studies that directly address collaborative roles for Forest Service staff also reach conclusions about the importance of agency-wide policy and leadership. These studies recommend changes in agency culture, staff workloads, performance review standards, rotation protocols, and risk tolerance. They envision the Forest Service continuing to evolve until collaborative strategies become a normalized decisionmaking tool within the agency, and until collaboration skills become valued on par with technical skills for resource management.

The second most frequently cited factor in the literature is effective facilitation to guide the collaborative process—supported by 14 studies. As a whole, the studies suggest several attributes the Forest Service can look for when selecting a team or individual to facilitate a collaborative planning process involving multiple stakeholders. First, the balance of evidence suggests that, depending on the circumstances, both neutral third-parties and/or Forest Service employees can serve effectively in the roll of facilitator. In the case of highly localized planning processes, where the participating stakeholders are familiar with one another and the local Forest Service employees, such employees with a reputation for fairness and objectivity may be able to gain the confidence of the group faster than could a professional neutral brought in from outside. In such cases, it may be helpful for the Forest Service to appoint a second agency representative to advocate the agency’s interests while the first employee remains in the neutral facilitation role. The services of a professional, third-party facilitator may be necessary for collaborative planning processes that are larger (geographically or in number of participants), more complex (e.g. multiple disputes, longer planning horizons, or marked by scientific uncertainty), highly visible (e.g. likely to draw media attention statewide or nationally), or more contentious (e.g. a participating stakeholder has questioned the agency’s credibility or motives).

Regardless of whether the facilitator is in-house or an outside consultant, the literature suggests that this individual or team should be conversant in the “process design traits” identified in Figure 1, and specifically should be able to:

- Design a collaborative process with suitably focused scope and tangible objectives, yet comprehensive and flexible enough to ensure that root causes of the manifest conflict will be addressed to the maximum extent feasible.
- Assemble a representative and knowledgeable roster of participating stakeholders.
- Accurately estimate funding needs for facilitation and administration of the collaborative process.
- Help the stakeholders define a clear set of decision rules and other procedural rules as needed, without overly structuring the process and smothering creative energy that often flourishes in an atmosphere of informality.

- Train stakeholders in collaboration skills or communication skills, as necessary.
- Demonstrate sufficient knowledge of (and willingness to work within) the legislative, scientific, and political constraints of the Forest Service, including, for example, the provisions of state and federal open meeting laws, such as the Federal Advisory Committee Act.
- Demonstrate sufficient technical savvy to help the participants achieve common understanding in areas of scientific uncertainty, and to help them design suitable protocols for monitoring and evaluating the outcomes of the process.

Relative to the other federal resource management agencies or regulatory agencies, the USDA Forest Service appears to be particularly well-positioned to take advantage of the latest findings from research on collaborative planning. Two of the agency's most valuable assets in this regard are its forty years of experience and experimentation with various public involvement paradigms, and its equally long history of operating under the multiple-use doctrine, which has forced agency staff to try to accommodate competing interests. Ironically the agency's multiple and often conflicting legislative mandates may generate such ambiguity that the agency ultimately has more discretion (what professional mediators call "decision space"), and can use that discretion to its advantage by employing collaborative planning strategies to enable its constituents to invent creative policy solutions that satisfy the fundamental interests of all parties.

#### LITERATURE CITED

- Bush, George W. 2004. Executive Order: Facilitation of Cooperative Conservation, August 26, 2004.
- Carr, Deborah S., Steven W. Selin, and Michael A. Schuett. 1998. Managing public forests: Understanding the role of collaborative planning. *Environmental Management* 22 (5):767-776.
- CBI. 2003. Community-based Collaboration on Federal Lands and Resources. Western Consensus Council and Consensus Building Institute.
- Chadwick, Alex. 2004. U.S. Forest Rules Revised. *National Public Radio*, December 23, 2004. <http://www.npr.org/templates/story/story.php?storyId=4242680>.
- Clarke, Jeanne Nienaber, and Daniel McCool. 1985. *Staking out the terrain: Power differentials among natural resource management agencies*. Albany: State University of New York.
- Dana, Samuel Trask, and Sally K. Fairfax. 1980. *Forest and range policy: Its development in the United States*. second edition ed. New York: McGraw-Hill.
- Daniels, Steven E., and Gregg B. Walker. 1996. Collaborative learning: Improving public deliberation in ecosystem-based management. *Environmental Impact Assessment Review* 16 (2):71-102.
- . 1997. Rethinking public participation in natural resource management: Concepts from pluralism and five emerging approaches. Paper prepared for the FAO Working Group on Pluralism and Sustainable Forestry and Rural Development Rome, 9-12 December 1997. [fao.org/montes/for/forc/plural/1/danwal.htm](http://www.fao.org/montes/for/forc/plural/1/danwal.htm).
- Doppelt, Bob, Craig Shinn, and DeWitt John. 2002. Review of USDA Forest Service community-based watershed restoration partnerships. Center for Watershed and Community Health, Mark O. Hatfield School of Government, Portland State University. <http://www.fs.fed.us/largewatershedprojects/DoppeltReport/index.html>.
- EMI. 2004. *What is an Ecosystem Management Approach?* Ecosystem Management Initiative, School of Natural Resources and Environment, University of Michigan, Ann Arbor 2004

- [cited March 10 2004]. Available from <http://www.snre.umich.edu/emi/emapproach/whatisem.htm>.
- Fisher, Roger, and William Ury. 1981. *Getting to yes: Negotiating Agreement without Giving in*. Markham, Ontario: Penguin Books.
- Floyd, Donald W., Rene H. Germain, and Kate ter Horst. 1996. A model for assessing negotiations and mediation in forest resource conflicts. *Journal of Forestry* 94 (5 (May)):29-.
- Frentz, Irene C., Donald E. Voth, Sam Burns, and Charles W. Sperry. 2000. Forest Service–Community Relationship Building: Recommendations. *Society & Natural Resources* 13:549-566.
- Gericke, K. L., and J. Sullivan. 1994. Public-participation and appeals of Forest Service plans - An empirical-examination. *Society & Natural Resources* 7 (2):125-135.
- Germain, Rene H., Donald W. Floyd, and Stephen V. Stehman. 2001. Public perceptions of the USDA Forest Service public participation process. *Forest Policy and Economics* 3:113-124.
- Kusel, J., S.C. Doak, S. Carpenter, and V.E. Sturtevant. 1996. The role of the public in adaptive ecosystem management. In *Sierra Nevada Ecosystem Project: Final report to Congress, vol. II, Assessments and scientific basis for management options*. Davis: University of California, Centers for Water and Wildland Resources.
- Lawrence, Rick L., Steven E. Daniels, and George H. Stankey. 1997. Procedural justice and public involvement in natural resource decisionmaking. *Society and Natural Resources* 10:577-589.
- Leach, William D., Neil W. Pelkey, and Paul A. Sabatier. 2002. Stakeholder partnerships as collaborative policymaking: Evaluation criteria applied to watershed management in California and Washington. *Journal of Policy Analysis and Management* 21 (4):645-670.
- Manring, Nancy J. 1998. Alternative dispute resolution and organizational incentives in the U.S. Forest Service. *Society and Natural Resources* 11:67-80.
- . 1998. Collaborative resource management: Organizational benefits and individual costs. *Administration & Society* 30 (3, July):274-290.
- McClure, Robert, and Charles Pope. 2004. Bush relaxes forest wildlife protection: New rules immediately come under attack by environmentalists. *Seattle Post-Intelligencer*, December 23, 2004.[http://seattlepi.nwsourc.com/local/204976\\_forests23.html](http://seattlepi.nwsourc.com/local/204976_forests23.html).
- Mohai, Paul. 1987. Public participation in natural resource decision-making. *Natural Resources Journal* 27 (1):123-155.
- NCBA, The National Cattlemen’s Beef Association. 2004. Working Together: Cooperative Conservation is Key, August 31, 2004.[http://www.beefusa.org/dsp/dsp\\_content.cfm?locationId=1762&contentType=2&contentId=2780](http://www.beefusa.org/dsp/dsp_content.cfm?locationId=1762&contentType=2&contentId=2780).
- OTA. 1992. Public Involvement in Forest Planning. In *Forest Service Planning: Accommodating Uses, Producing Outputs, and Sustaining Ecosystems*. Washington, DC: U.S. Congress, Office of Technology Assessment.
- Ruth, Larry. 1996. Conservation and Controversy: National Forest Management, 1960-95. In *Sierra Nevada Ecosystem Project: Final report to Congress, vol. II, Assessments and scientific basis for management options*. Davis: University of California, Centers for Water and Wildland Resources.

- Sabatier, Paul A., Chris M. Weible, and Jared A. Ficker. 2004. History of water management in the U.S.: Implications for collaborative watershed approaches. In *Swimming Upstream: Collaborative Approaches to Watershed Management*, edited by P. Sabatier, W. Focht, M. Lubell, Z. Trachtenberg, A. Vedlitz and M. Matlock. Cambridge: MIT Press.
- Schuett, Michael A., Steve W. Selin, and Debbie Carr. 2001. Making it work: Keys to successful collaboration in natural resource management. *Environmental Management* 27 (4):587-593.
- Selin, Steve, and Nancy Myers. 1995. Correlates of Partnership Effectiveness: The Coalition for Unified Recreation in Eastern Sierra. *Journal of Park & Recreation Administration* 13 (4):37-46.
- Selin, Steve W., Michael A. Schuett, and Debbie Carr. 1997. Has Collaborative Planning Taken Root in the National Forests? *Journal of Forestry* (May):25-28.
- . 2000. Modeling Stakeholder Perceptions of Collaborative Initiative Effectiveness. *Society and Natural Resources* 13:735-745.
- Selin, Steven, and Debbie Chavez. 1993. Recreation Partnerships and the USDA Forest Service: Managers' Perceptions of the Impact of the National Recreation Strategy. *Journal of Park & Recreation Administration* 11 (1):1-8.
- . 1994. Characteristics of Successful Tourism Partnerships: A Multiple Case Study Design. (Characteristics of Successful Tourism Partnerships). *Journal of Park & Recreation Administration* 12 (2):51-62.
- Shindler, Bruce, Kristin Aldred Cheek, and George H. Stankey. 1999. Monitoring and evaluating citizen-agency interactions: A framework developed for adaptive management. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. Portland, OR.[http://www.fs.fed.us/pnw/pubs/gtr\\_452.pdf](http://www.fs.fed.us/pnw/pubs/gtr_452.pdf).
- Shindler, Bruce, and Julie Neburka. 1997. Public participation in forest planning: 8 attributes of success. *Journal of Forestry* 95 (1):17-19.
- Smith, P.D., M.H. McDonough, and M.T. Mang. 1999. Ecosystem management and public participation: Lessons from the field. *Journal of Forestry* 97 (10):32-38.
- Stallman, Bob. 2004. Statement by Bob Stallman, President, American Farm Bureau Federation, Regarding Cooperative Conservation, August 27, 2004.<http://www.fb.org/news/nr/nr2004/nr0827b.html>.
- Steelman, Toddi A., and Lynn A. Maguire. 1999. Understanding participant perspectives: Q-methodology in national forest management. *Journal of Policy Analysis & Management* 18 (3 (Summer)):361-388.
- The Associated Press. 2004. Bush environment order riles activists. 'Cooperative conservation' seeks more local, less federal input. *MSNBC News*, August 27, 2004.<http://msnbc.msn.com/id/5838908/>.
- Tuler, Seth, and Thomas Webler. 1999. Voices from the Forest: What Participants Expect of a Public Participation Process. *Society and Natural Resources* 12 (5 (July/Aug)):437-453.
- USDA Forest Service. 1988. America's Great Outdoors (PA 1403). Washington, DC, April.
- . 1997. New Forest Service Chief Outlines Plan To Move Agency Into 21st Century, edited by F. S. P. A. Office.
- . 2000. Collaborative Stewardship within the Forest Service: Findings and Recommendations from the National Collaborative Stewardship Team.[http://www.partnershipresourcecenter.org/resources/pubs/docs/Report\\_National\\_Collaborative\\_Stewardship\\_Team.doc](http://www.partnershipresourcecenter.org/resources/pubs/docs/Report_National_Collaborative_Stewardship_Team.doc).

- . 2004. Pre-publication version of the final National Forest System Land Management Planning Rule, [3410-11-P], 36 CFR Part 219, RIN 0596-AB86.<http://www.fs.fed.us/emc/nfma/index2.html>.
- USGAO. 1997. Forest Service Decision-Making: A Framework for Improving Performance. U.S. General Accounting Office, April 29, 1997.<http://www.gao.gov/archive/1997/rc97071.pdf>.
- Walters, Lawrence C., Peter J. Balint, Anand Desai, and Ronald E. Stewart. 2003. Risk and Uncertainty in Management of the Sierra Nevada National Forests. USDA Forest Service, Pacific Southwest Region.[http://gunston.doit.gmu.edu/snfpa\\_risk/](http://gunston.doit.gmu.edu/snfpa_risk/).
- Wondolleck, Julia M. 1997. The Collaborative Dimension of Ecosystem Management. Paper read at Ecosystem Management: For a world we can live in, September 25, 1997, at University of Michigan, School of Natural Resources and Environment. Ann Arbor, MI.
- Wondolleck, Julia M., and Clare M. Ryan. 1999. What hat do I wear now?: An examination of agency roles in collaborative processes. *Negotiation Journal-On the Process of Dispute Settlement* 15 (2):117-133.
- Wondolleck, Julia M., and Steven L. Yaffee. 1994. Building bridges across agency boundaries: In search of excellence in the United States Forest Service. USDA Forest Service PNW Research Station, July 15, 1994.
- . 1997. Sustaining the Success of Collaborative Partnerships: Revisiting the Building Bridges Cases. Ecosystem Management Initiative, University of Michigan. Ann Arbor.
- Yaffee, Steven L. 1994. *The wisdom of the spotted owl: Policy lessons for a new century*. Washington, D.C.: Island Press.
- Yaffee, Steven L., Ali F. Phillips, Irene. C. Frenz, Paul W. Hardy, Sussanne M. Maleki, and Barbara E. Thorpe. 1996. *Ecosystem management in the United States: An assessment of current experiences*. Washington, DC: Island Press.
- Yaffee, Steven L., Julia M. Wondolleck, and Steven Lippman. 1997. Factors that Promote and Constrain Bridging: A Summary and Analysis of the Literature. Ecosystem Management Initiative, University of Michigan. Ann Arbor.

**Figure 1.** Number of studies (n=25) supporting and contradicting the importance of various keys to success in USDA Forest Service public participation.

